

Education for Sustainable Development

Kindergarten to Grade 4
Poster Activities



EDUCATION FOR SUSTAINABLE
DEVELOPMENT

Kindergarten to Grade 4 Poster Activities

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Available in alternate formats upon request.

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EDUCATION FOR SUSTAINABLE
DEVELOPMENT: KINDERGARTEN
TO GRADE 4 POSTER ACTIVITIES

Introduction

EDUCATION FOR SUSTAINABLE DEVELOPMENT K-4 POSTER ACTIVITIES

A Declaration for Sustainable Living Poster, Kindergarten to Grade 4

This poster, which can be found (and ordered) at <www.edu.gov.mb.ca/k12/esd/poster.html>, was created to inspire and encourage teachers and students in Manitoba classrooms to learn about, and to take action related to, sustainable development. It was designed to promote thoughtful discussion and informed decision making, and to encourage students to live a more conscientious lifestyle that contributes to quality of life for all—locally, nationally, and globally.

The K-4 poster was designed around the central declaration “The Earth is Our Home.” This declaration was adapted from the Earth Charter, which can be found at <www.earthcharterinaction.org/content>. There is also a “Little Earth Charter” for K-4 students at <www.edu.gov.mb.ca/k12/esd/lec.html>.

The images on the K-4 poster were selected to represent activities that relate to sustainable living. The poster has images of all four seasons, urban and rural settings with day and night images. The curvature at the top of the poster represents Earth, and all the students holding hands illustrate working together to achieve a sustainable future.

The words that surround the poster were taken from the K-4 Manitoba curriculum learning outcomes that relate to sustainability. These words have been captured in “word cards” that can be found on the Manitoba Education and Advanced Learning ESD website at <www.edu.gov.mb.ca/k12/esd/pdfs/word_cards.pdf>.

The website also has two sets of individual “picture cards” from the K-4 poster, which are available at <www.edu.gov.mb.ca/k12/esd/pdfs/picture_cards.pdf>. The first set is not numbered and is intended for general use. The second set of cards is numbered, and the numbers correspond to the card numbering system of the connections in this document.

Subject General Sustainability Connections

Many of the activities presented in this section promote an interdisciplinary approach to teaching by incorporating one or more subject areas into one learning experience.

The following are the Kindergarten ESD outcomes for social studies, science, and physical education/health education as an exemplar:

Social Studies:

- The social studies curriculum helps students make decisions that reflect care, concern, and responsibility for the environment.
- Students begin their exploration of rights and responsibilities by looking at personal responsibility, cooperation, and living peacefully.
- Students examine how the natural environment influences their daily lives.

Science:

- Students explore scientific inquiry and the design process.
- Students are encouraged to ask questions and to develop a curiosity about living things and events in their immediate environment.
- Trees, colours, and paper are three themes students explore.

Physical Education/Health Education:

- Students explore personal and social management and healthy lifestyle practices and learn to appreciate and respect the natural environment while participating in physical activity.
- Students recognize the food guide rainbow, that food helps them grow and feel good, and that food and fluid are needed to support physical activity.
- Students recognize safety indicators in the environment.
- Students can also learn to recognize their range of emotions and connect health and happiness.

Specific learning outcomes for each grade can be found on the *ESD Correlation Charts of Student Learning Outcomes*, which can be found at www.edu.gov.mb.ca/k12/esd/correlations/charts/index.html.

Learning Experiences and Activity Centres

The learning experiences and activity centres found in this section are presented in the order in which their themes appear in the foundation for implementation curriculum documents for social studies, science, and physical education/health education.

Some of the activities are designed

- as an introduction to a concept/theme
- to help students develop a concept or theme or to help students apply what they have already learned

The learning experiences are presented first, followed by the activity centres. Centres that correspond with a learning experience will include a reference to it. The corresponding picture and word cards are also indicated. A number of activity centres and learning experiences list only one or two picture/word cards. Where this is the case, teachers are invited to use the cards as theme

cards to be placed at the activity centre to draw students' attention to the subject of the activity.

In other activities or for learning experiences, you might wish to draw students' attention to the card or associated word/picture as it is shown on the ESD K-4 poster in order to provide an introduction to the topic/activity or to encourage discussion.

Each learning experience and activity centre description provides information about

- the outcome/intended learning that is targeted
- the materials that are required
- the directions
- suggested ways to assess student understanding of the outcome

Assessment

The assessment suggestions are primarily formative—that is, they will help the teacher to notice the students' initial understanding and to recognize the acquisition of new or extended understanding. This information will help you to plan and adjust the next steps for students and to provide feedback to the students. Some of the observations might be recorded on checklists or anecdotally. Since these observations are focused on very specific outcomes from social studies, science, and physical education/health education, they will need to be considered with the other evidence you have gathered for those targeted outcomes when the time comes to determine the students' final understanding.

Note: The science, social studies, and physical education/health education foundation for implementation curriculum documents also include many excellent suggestions for lessons that promote a sustainable development approach to living. These documents can be found at www.edu.gov.mb.ca/k12.

We hope you enjoy these activities with your students. If you have any questions, comments, or ideas that might enhance these activities, please contact the ESD consultant for Manitoba Education and Advanced Learning at 204-945-6156 or toll-free at 1-800-282-8069, ext. 6156.



EDUCATION FOR SUSTAINABLE
DEVELOPMENT: KINDERGARTEN
TO GRADE 4 POSTER ACTIVITIES

Kindergarten

KINDERGARTEN LEARNING EXPERIENCES

The lessons and activities presented in this website and related links are to supplement existing curriculum guidelines.

Sustainable Development Themes Related to the Kindergarten ESD Learning Experiences

Learning Experience	Subject	Cluster Section	SLO	Page
1. Needs	Social Studies	1. Me (K.1.2: My Basic Needs).	KE-025: Give examples of basic needs. <i>Examples: food, clothing, shelter . . .</i>	K-5
	Physical Education/ Health Education	5. Healthy Lifestyle Practices	K.5.K.A.1: Identify daily habits for leading a physically active and healthy life (i.e., daily physical activity, healthy eating, adequate sleep and rest, effective dental and hygiene practices).	
2. Doing the Right Thing	Social Studies	1. Me (K.1.5: My Responsibilities)	KC-002: Recognize that their actions affect others.	K-9
	Physical Education/ Health Education	4. Personal and Social Management	K.4.1.A.2b: Discuss behaviours that demonstrate personal responsibility and irresponsibility in a classroom (e.g., paying attention versus disrupting, sharing versus monopolizing equipment, staying on task . . .). (Note: This SLO is listed for Grade 1, but it is also congruent with Kindergarten Cluster 1.)	
3. Community Helpers	Social Studies	2. The People Around Me (K.2.1: Important People in My Life)	KC-003: Identify people who are responsible for helping and caring for them at home, at school, and in the community.	K-11
	Physical Education/ Health Education	3. Safety	K.3.K.B.4: Recognize safety helpers in the community (e.g., parent/guardian, family member, babysitter, teacher, principal, doctor, police officer, bus driver, Block Parent, lifeguard . . .).	

continued

Learning Experience	Subject	Cluster Section	SLO	Page
4. The Branch of Life	Social Studies	3. The World Around Me (K.3.2: The Natural Environment)	KL-013: Give examples of how the natural environment influences daily life. <i>Examples: work, play, clothing . . .</i>	K-13
5. Needs Around the World	Social Studies	3. The World Around Me (K.3.5: Basic Needs in Other Places)	KG-020: Recognize that people all over the world have the same basic needs. <i>Examples: food, clothing, shelter . . .</i> KG-021: Recognize that they may have different ways of meeting their basic needs than people in other parts of the world.	K-17
6. Once Upon a Seedling	Science	1. Trees	K-1-02: Identify ways in which humans and animals use trees. <i>Examples: humans eat apples and walnuts; birds make their homes in trees; deer eat leaves, bark, and tender twigs . . .</i>	K-19
7. Friends	Physical Education/ Health Education	4. Personal and Social Management	K.4.K.B.1a: Identify examples of responsible social behaviours (e.g., contributing by listening, following rules, taking turns, sharing equipment, speaking kindly, being courteous . . .) for getting along with others in school and in the schoolyard. K.4.1.B.1b: Discuss how feelings and experiences associated with participation in physical activities/ sports and/or social events can be the same or different from person to person (e.g., may feel excited, happy, angry, fearful, uncomfortable, frustrated . . .). K.4.K.B.2a: Identify ways (e.g., focus attention on the speaker, do not talk at the same time as the speaker, nod, keep still . . .) to show a person is listening attentively when communicating. K.4.K.B.2b: Identify activities that friends do together (e.g., communicate with each other, play games, share toys . . .).	K-23
8. Taking Care of Yourself	Physical Education/ Health Education	5. Healthy Lifestyle Practices	K.5.K.A.1: Identify daily habits for leading a physically active and healthy life (e.g., daily exercise, healthy eating, adequate sleep and rest, effective dental and hygiene practices).	K-25

Targeted Outcome/Intended Learning:

Social Studies: Cluster 1: Me (K.1.2: My Basic Needs)

KE-025: Give examples of basic needs. *Examples: food, clothing, shelter ...*

Physical Education/Health Education: 5. Healthy Lifestyle Practices

K.5.K.A.1: Identify daily habits for leading a physically active and healthy life (i.e., daily physical activity, healthy eating, adequate sleep and rest, effective dental and hygiene practices).

Note: Activity Centre #1 has a complementary activity for this learning experience.



Background:

This learning experience is designed to help students identify what people's needs are for a healthy life. It also helps students identify the differences between needs and wants.

Materials:

- chart paper, markers
- squares of white cardboard to be used as word cards
- packages from food items, toys, clothing items (for display table and for sorting)
- paper, scissors, glue for collage
- magazines and flyers for collage
- Suggested K-4 ESD Poster picture cards: 3, 4, 7, 9, 10, 15, 16, 19, 24, 27, 28. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word card: needs. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Books:

A House is a House for Me by Mary Ann Hoberman (1978). Manitoba Education Library Call #: E Hob.

Activity Directions:**Activity 1:**

Discuss what we need to live happy, healthy lives. Accept all of the students' suggestions. Write a word related to each student's suggestion on a card and ask the student to hold the card until everyone has had a turn. (For large groups, this portion of the activity might be too time-consuming. In this case, you could ask for a few suggestions and invite those who have not had a turn to hold the website picture cards.) Tell students that you are going to show them some pictures. As you share website pictures 3, 4, 7, 9, 10, 15, 16, 19, 24, 27, and 28 with the students, invite them to explain what needs come to mind. If they do not understand what "need" the picture represents, help them to discover the answer.

- Write the following words on chart paper: *food, shelter, clothing, and love*. Invite students to suggest the category in which their suggestion might fit. Discuss their decision and have each student place her or his word (or picture) card under one of the four categories (or create a new category if necessary).
- Discuss what items are not necessary. Identify these items as "wants." (This might require some discussion as, at this age, "wants" are often perceived as "needs.") Write the word *want* on the chart paper, and invite students to move their cards if they think their item should be there. (Note which students understand the concept, and adapt your lessons accordingly.)

Activity 2:

For a "needs and wants" display, invite students to bring in a representation of their favourite food items, toys, or clothing items. You can supplement the display with pictures and actual items representing our basic needs. As a group, share information about items on the table. Review what "need" and "want" mean. Guide students to sort the items into the two categories.

Activity 3:

During free time or centre time, invite students to sort the items on their own.

Activity 4:

Using pictures from magazines, have students create a collage of needs on one-half of the page and wants on the other side. These can include toys, foods, clothing, vehicles, etc.

Activity 5:

Read stories about needs and wants (e.g., *A House is a House for Me*).

Assess students' understanding by how they choose to sort items during free time and for the collage. Ask students about their choices to understand their reasoning. Discuss more appropriate choices where necessary.

See social studies BLM K3.5a: Basic Needs: Picture Sort.
Available online at <www.edu.gov.mb.ca/k12/cur/socstud/foundation_k/blms/k-3-5a.pdf>.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 1: Me (K.1.5: My Responsibilities)

KC-002: Recognize that their actions affect others.

Physical Education/Health Education: 4. Personal and Social Management

K.4.1.A.2b: Discuss behaviours that demonstrate personal responsibility and irresponsibility in a classroom (e.g., paying attention versus disrupting, sharing versus monopolizing equipment, staying on task . . .).

Note: This SLO is listed as a Grade 1 learning outcome on the Manitoba Education and Advanced Learning website, but it is also congruent with Kindergarten Cluster 1.

Background:

Our actions affect others. In our changing world where resource management is becoming a great concern, our attitudes and sensitivity to the needs of others has become an ever-increasing priority. Every bit counts and every person's contribution counts. If we all work together, we can support change for all people on earth.

Materials:

- basket or container
- paper, pencils, crayons
- Suggested K-4 ESD Poster picture cards: 4, 5, 7, 9, 10, 12, 14, 15, 16, 18, 24, 26, 28, 31, 32, 36. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word card: consequences. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Books:

A story about how our actions affect others, such as the following:
Taking Care of Mother Earth by L. Kruger (2009). Manitoba Education Library Call #E Car.

The Berenstain Bears Forget Their Manners by S. & J. Berenstain (1985).

Activity Directions:

Activity 1:

Read a story about how our actions affect others. *The Berenstain Bears Forget Their Manners* provides an opportunity for discussion of how our behaviour can affect others. List what actions were discussed in the story and how those actions could affect others. Expand this discussion to the immediate effects our actions can have on our classmates (e.g., leaving a mess in the classroom, helping or not helping others, etc.). In addition or alternatively, read *Taking Care of Mother Earth* by Leanne Flett Kruger. This book gives students an understanding of how our actions can affect others on a greater scale. Discuss how we can make our world a better place through our actions.

Activity 2:

For the “Doing the Right Thing” sharing circle, place the picture cards 4, 5, 7, 9, 10, 12, 14, 15, 16, 18, 24, 26, 28, 31, 32, and 36 in a basket (for larger groups, consider having two copies of each card in the basket). Have students choose a card from the basket. After looking at the card, have each student show her or his card to the group and discuss what is happening in the card. Is the action responsible? How does it affect others? At their desks, have students draw or write about themselves doing the responsible action shown in the picture they chose. To model the activity, pick a card and talk about what is happening in it. You can then suggest how they would draw themselves doing that activity and add a word or two to describe the actions in the picture. During sharing time, students can share their work and discuss the good things about each student’s contribution. Invite students to suggest anything that could be added to the picture/story to enhance the message. Students’ work can then be put into a class booklet. As a group, decide on a title for the booklet. Invite each student to decorate a portion of the cover.

Activity 3:

For a whole-class activity, create a community action project (e.g., clean the school grounds, plant flowers, make safety posters, etc.).

See social studies BLM K.1.5: My Responsibilities: Cards.
The BLM can be found at <www.edu.gov.mb.ca/k12/cur/socstud/foundation_k/blms/index.html>.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 2: The People around Me
(K.2.1: Important People in My Life)

KC-003: Identify people who are responsible for helping and caring for them at home, at school, and in the community.

Physical Education/Health Education: 3. Safety

K.3.K.B.4: Recognize safety helpers in the community (e.g., parent/guardian, family member, babysitter, teacher, principal, doctor, police officer, bus driver, Block Parent, lifeguard . . .).

Note: Activity Centre #3 has a follow-up activity.



Background:

This learning experience is designed to assist students in identifying people who help them beyond their immediate family.

Materials:

- a book that features community helpers
- paper pencils/markers for writing activity
- Suggested K-4 ESD Poster picture cards: 8, 11, 12, 14, 18, 20, 26, 30, 31, 33. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word card: protect. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Activity 1:

To help identify community helpers, show students the theme cards. Invite them to explain what it means. Discuss how community helpers protect us in various ways. Read a book that features community helpers. Invite students to name some of the people featured in the book and why they are important. Discuss which people are important in their lives. Who keeps them safe? Who cares for them? Who do they see when they are sick or have a toothache? Who makes sure that the garbage is taken away? Who cares for the school?

Activity 2:

Show students picture cards 8, 11, 12, 14, 18, 20, 26, 30, 31 and 33. Discuss who might be the important people in these pictures and why they are important. The cards can be interpreted in different ways and used to encourage students' imaginations. Invite each student to draw a picture of people who are important in his or her life.

Activity 3:

During free play, have materials available for students to role-play important community members (e.g., police officers, firefighters, teachers, principal, school custodian, etc.).

Observe their role-playing activities. Invite them to explain who they are role-playing and discuss their job. Guide their understanding where necessary.

See social studies BLM K.2.1e: Important People in My Life: Award Ribbon. The BLM can be found at www.edu.gov.mb.ca/k12/cur/socstud/foundation_k/blms/index.html.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 3: The World around Me (K.3.2: The Natural Environment)

KL-013: Give examples of how the natural environment influences daily life. *Examples: work, play, clothing . . .*

Background:

The natural environment influences us in a variety of ways. Weather determines what we wear and what activities we can do. The natural environment of an area determines what kind of home we can build and the plants we can grow. It provides us with opportunities to learn, enjoy the beauty of nature, exercise, and play. The natural environment provides us with energy and food. We must protect the natural environment so that we can continue to enjoy our way of life.

Use this learning experience as an application activity to help reinforce what students have learned about how the natural environment influences daily life.

Materials:

- a bag filled with various items from the classroom and home that are made from “natural materials” (e.g., pencil, cotton scarf, a clay item, a leather pouch, etc.)
- a basket or other container to put cards in
- scissors
- a branch (at least 40 cm. long) with one or two forks in it
- wool or twine
- a variety of materials found in nature (e.g., feathers, flower stems, seed pods, leaves—whatever students wish to bring from home or from the school ground)
- a selection of small pieces of clothing (odds and ends like an old sock or mitten)
- pictures of scenery and farmland
- invite students to bring from home any other items they wish to contribute and that they feel are related to the environment
- for the reading centre, have books about weather, farming, natural areas, etc.

- Suggested K-4 ESD Poster picture cards: 1, 3, 7, 9, 10, 11, 12, 13, 17, 18, 19, 20, 21, 22, 24, 32, 35. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word card: depend. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Books:

The Name of the Tree—A Bantu Tale Retold, by Celia Barker Lottridge (2002).
Manitoba Education Library Call #398.20899639 L68.

The Australian Women's Weekly Home Library, Students' Art and Crafts by Nancy Lewis Bartlett (1989). Manitoba Education Library Call # 372.5044 B37.

Activity Directions:**Activity 1:**

Show students the theme card *depend*. Invite them to explain what it means. Explain that in the story they are about to read, the word *depend* can mean a lot of things. Invite students to think about the word as you read the story. As a group, read *The Name of the Tree* (this story is fun to act out afterwards). Discuss how the animals were dependent on the natural environment for survival (e.g., they depended on the tree for food, and they also depended on the environment for rain to help things grow). Discuss how we are dependent on the natural environment. Encourage students to share their ideas. Offer suggestions.

Activity 2:

Assemble students in a circle on the floor. Ask them what the “natural environment” is (the natural environment refers to the world around us: soil, air, water, sun, animals, trees, rocks, etc.). Inform students that they are going to play a guessing game. One at a time, invite students to pick an item from a bag that is filled with items that originated from the natural environment (which could be almost anything except for synthetic fabrics and plastic items). If a small glass item or clay item is chosen, have them guess what it is made of. Explain how it was made from finely ground stone that was melted to very high temperatures and that stones are a part of the natural environment. If a leather item is chosen, let them guess what it is made from and then explain that it comes from the skin of an animal (cow, pig, etc.), and that animals are part of the natural environment. Continue until every student has had a turn. The students will be amazed to make the connections!

Activity 3:

Use this activity on a separate day from Activities #1 and #2. After students have learned about the various ways that the natural environment influences their lives, use picture cards 1, 3, 7, 9, 10, 11, 12, 13, 17, 18, 19, 20, 21, 22, 24, 32, and 35 in a sharing circle activity. Pass a basket containing the picture cards around the circle. Students take turns selecting a picture card and describing what aspects of the natural environment are featured in the picture and how this aspect influences our lives. You can model the activity by first choosing a card yourself, and then inviting students to have a turn. Prompt students by asking the following questions: “What do you see in the picture?” “Can you tell what time of the year it is?” “How can you tell?” “What are the people doing in the picture?” “How is the natural environment important for what is happening in the picture?” This activity can help you to assess the level of understanding students gained from the previous activity.

Activity 4: *

For the “Classroom Branch of Life,” explain to the class that today they will be creating an environmental weaving. Discuss what weaving is. Show students some samples of simple weavings (e.g., a placemat or perhaps a project that has already been completed in class). Show them how there are two directions in which the thread of the weaving goes (e.g., vertical strands and horizontal strands). Discuss how the class will work together to create a weaving using wool and a branch. The branch will serve as the frame of the weaving; the wool or twine will provide the fabric for one direction of the weaving. Items from the natural environment will provide structure/fabric for the other direction of the weaving. Note: The students’ winding of the wool does not have to be in a specific direction. Have fun with the activity. There will be plenty of places to insert items to create “a weaving,” whether it looks neat and tidy or not.

As a group or in groups of three, wind the twine, string, or wool from one fork of the branch to another. Let students choose the direction of the winding, which they can change at their whim. Give each student the opportunity to make several loops with the twine. As they work, ask them where the twine, etc., came from (i.e., we depend on the environment for these materials).

Once a suitable network of threads has been completed, invite students to choose items from the collection of natural materials that they think adds beauty or interest to our world, and have them weave these items into the network of thread.

* Classroom Branch of Life: Activity adapted with permission from Valerie Watermulder and Barbara Batulla.

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Kindergarten Learning Experience #4: The Branch of Life

Next, have them choose items that help us live in our environment (e.g., keep us warm, help us get from one place to another, etc.), and weave these things into the network. Continue with plants and animals (pictures, small figures, etc.) from the environment that provide us with food.

Finally, include things that need to be protected, etc. Throughout the activity, encourage discussion and ideas. Display the class weaving in an area where all can admire it.

Variation: If you have access to a wooded area, have each student make their own weaving from fallen branches. Have them work in pairs to weave the twine, taking turns to hold the branch while the other student weaves.

Observations of students' contributions to the discussion of items that should be included in the weaving will give you an indication of students' understanding of the concept.



Photo by Barbara Batulla.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 3: The World around Me (K.3.5: Basic Needs in Other Places)

KG-020: Recognize that people all over the world have the same basic needs. *Examples: food, clothing, shelter . . .*

KG-021: Recognize that they may have different ways of meeting their basic needs than people in other parts of the world.



Note: This is an extension of Learning Experience #1.

Background:

Review what we need to live happy, healthy lives (from Learning Experience #2). Accept all of the students' suggestions. Write each suggestion on a card and ask the student to hold the card until after everyone has had a turn. Write the following words on chart paper: *food, shelter, clothing, and love*. Invite students to suggest which category their suggestions might fit under. Discuss their decisions and have students place their cards under one of the four categories (or create a new category if necessary).

Discuss which items are not necessary. Identify these items as "wants." Write the word *want* on chart paper, and invite students to move their cards if they think their item should be there.

Materials:

- pictures, stories about students from other countries
- magazines and store flyers
- Suggested K-4 ESD Poster picture cards: 4, 7, 10, 12, 15, 16, 19, 22, 24, 25, 27, 29. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word card: needs. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Activity 1:

For “Needs Around the World,” look at pictures and read stories about students from other countries. Discuss what the needs of students from other countries might be. Establish that their basic needs are the same: food, shelter, clothing, love.

Discuss how our needs might be met differently than the needs of, for example, a student from Mexico. What would students from Mexico wear? Would they need winter clothes? Why or why not? What kinds of foods do they eat? How are their houses different from ours? Why? Conclude that factors such as climate, the natural environment, and culture influence how needs are met.

Activity 2:

Have students use travel magazines and store flyers to find examples of needs. Make a collage of needs in Canada versus needs in a warm country such as Mexico.

Activity 3:

As a review, use picture cards 4, 7, 10, 12, 15, 16, 19, 22, 24, 25, 27 and 29. Have students identify what needs are being met in the pictures. Would these be different in another country? If so, how would the needs be met in that country?

Students’ responses will help you to assess understanding. Be sure to encourage input from all students.

Targeted Outcome/Intended Learning

Science: Cluster 1: Trees

K-1-02: Identify ways in which humans and animals use trees. *Examples: humans eat apples and walnuts; birds make their homes in trees; deer eat leaves, bark, and tender twigs . . .*

Note: Activity Centre #4 has a related activity for this learning experience.

Background:

Have objects on display, both natural and fabricated, that come from trees. Have students brainstorm for other items that come from trees.

Talk about animals that eat parts of trees. What fruits and nuts do humans eat that come from trees? We use trees to build our homes, to make paper, and to burn as fuel. Animals depend on trees for their homes and house-building materials.

For interesting online lessons from Manitoba Fisheries, go to <www.gov.mb.ca/conservation/sustain/educate.html> and click on *Kindergarten (K)*.

Materials:

- paper, pencils, colouring materials
- a carpeted space or grassed area (for acting out a seed's growth)
- Suggested K-4 ESD Poster picture card: 11. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word cards: protect, restore, value, respect, conserve, needs, care, beauty, depend. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Websites:

Using The Tiny Seed in the Classroom: See <www.eric-carle.com/bb-seed.html> for related activities.

Books:

The Tiny Seed by Eric Carle (1987). Winnipeg Public Library Call #J581 Car. Brandon Public Library Call #E Car. Manitoba Education Library Call #582.C37.

Activity Directions:

Activity 1:

Talk about animals (including birds, reptiles, and insects) that live in or eat parts of trees. What fruits and nuts do humans eat that come from trees? How else do humans use trees (to build our homes, for shelter belts, for shade, to beautify our yards, to build tree forts, to make paper, to burn as fuel)? Animals depend on trees for their homes and house-building materials.

Activity 2:

Read *The Tiny Seed* by Eric Carle. Discuss what happens to the seed throughout the book. Ask students how people and animals use the seeds and the plants in the story. Encourage them to draw their own pages for a class story using a tree species, showing what the tree might be used for in its different stages of growth. See the website <www.eric-carle.com/bb-seed.html> for related activities.

Activity 3:

For “Once Upon a Seedling,” act out how a seed grows to be a tree. Tell students: “Roll up in a little ball. Now I’ll dig a hole for each of you. Here’s the watering can. Don’t you feel cozy? Now it’s time to start growing. Let your big toe peek out as the first rootlet. Stick your whole leg out as the rootlet grows. Now reach one arm up into the air slowly, slowly. There’s your first branch. Now spread your fingers wide open. There’re the leaves. Put your other leg out for more roots. Slowly stand up and extend the other arm. Now you have a trunk. Reach both arms up high towards the sun and sway with the wind. Smile as the bees tickle your blossoms. Birds are making a nest in your branches. Ouch, ouch! A woodpecker is looking for insects under your bark. Tug, tug, tug! People are picking your apples. Yum, yum! The apples are good! Thank you, tree!”

Have students relax and shake their bodies out. Tell them they are now people again. In a circle, talk about what it was like to be a tree. Ask students how animals and people were using their tree. Write their answers on the board or on chart paper. Guide them in this discussion to see the many ways trees contribute to the environment (e.g., pollen for bees = honey for us; homes for birds and animals, food for birds, food for people).

Activity 4:

As a review, read each of the website word cards to students. With each card (protect, restore, value, respect, conserve, needs, care, beauty, depend), ask students: “What does this word mean?” Discuss their responses, and then ask: “What does this word mean to you when you think of trees?” Their responses can be an indicator of how much appreciation they have gained for trees (or any growing plant) through these learning experiences.

Build a tree with students: see

<www.edu.gov.mb.ca/k12/cur/science/found/kto4/kc1.pdf>.

Targeted Outcome/Intended Learning:

Physical Education Health Education:
4. Personal and Social Management

K.4.K.B.1a: Identify examples of responsible social behaviours (e.g., contributing by listening, following rules, taking turns, sharing equipment, speaking kindly, being courteous . . .) for getting along with others in the school and schoolyard.

K.4.1.B.1b: Discuss how feelings and experiences associated with participation in physical activities/sports, and/or social events, can be the same or different from person to person (e.g., may feel excited, happy, angry, fearful, uncomfortable, frustrated . . .).

K.4.K.B.2a: Identify ways (e.g., focus attention on the speaker, do not talk at the same time as the speaker, nod, keep still . . .) to show a person is listening attentively when communicating.

K.4.K.B.2b: Identify activities that friends do together (e.g., communicate with each other, play games, share toys . . .).



Background:

Have a discussion about activities that students enjoy doing with their friends. Use the words and picture cards to explore various activities and behaviours that help to make friendships grow.

Materials:

- paper and pencils/crayons, etc.
- puppets (optional)
- Suggested K-4 ESD Poster picture cards: 4, 7, 8, 9, 10, 12, 14, 17, 21, 25, 26, 27, 28, 31, 32. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word cards: care, celebrate, cooperate, grow, enjoy, protect, listen, respect, share, safety, walking. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Activity 1:

For “Friends,” invite students to choose a picture card from among cards 4, 7, 8, 9, 10, 12, 14, 17, 21, 25, 26, 27, 28, 31 and 32, and then write a few words and draw a picture about how friends are doing something together in the picture.

Activity 2:

Have students choose one of the following word cards: care, celebrate, cooperate, grow, enjoy, protect, listen, respect, share, safety, walking. Discuss what the word might mean in terms of friendship (e.g., What does the word *cooperate* mean? How do friends cooperate? Can you tell me about a time when you and a friend cooperated to do something? What happened? How did that feel?). Encourage students to create a story about friends doing an activity associated with their word.

Activity 3:

The picture cards or word cards could also be used to help students pick a topic for a puppet show (i.e., have each group choose a picture or word card). In small groups, have students create a puppet show to demonstrate sharing, talking together nicely, taking turns during a game, or working together to solve a problem. Perform the show in front of classmates. Have other students guess what the show was demonstrating.

Targeted Outcome/Intended Learning:

Physical Education/Health Education: 5. Healthy Lifestyle Practices

K.5.K.A.1: Identify daily habits for leading a physically active and healthy life (e.g., daily exercise, healthy eating, adequate sleep and rest, effective dental and hygiene practices).

Background:

Read a story about taking care of yourself. Invite students to share their ideas about how we can stay healthy. Have various storybooks about exercising, healthy eating, and proper hygiene available for students to examine.

Materials:

- clay from the garden or clay slurry from a pottery studio
- water or a hand-washing kit
- Suggested K-4 ESD Poster picture cards: 7, 9, 10, 12, 15, 16, 24, 27, 28. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Activity 1:

For “Taking Care of Yourself,” use picture cards 7, 9, 10, 12, 15, 16, 24, 27 and 28 to get students thinking about the different activities involved in taking care of themselves. In a sharing circle, place the picture cards in the centre. Invite students (one at a time) to select a card, and explain how they think the people in the picture are taking care of themselves (e.g., wearing warm clothing or exercising by going for a walk). Help reluctant participants with prompts. Accept all answers, and guide students to think of alternative viewpoints.

Activity 2:

For “Personal Hygiene,” check with your local community health nurse for the availability of a hand-washing kit. Alternatively, mix clay with water to create a soupy mix (a local pottery artist might be able to provide this). Have students dip their hands into the mix. Let them dry for a minute. Blindfold students and have them wash their hands as thoroughly as they can. Have students share the results of their efforts. How much mud is left on their hands? If that mud were actually germs, how well did they do at getting rid of them? Discuss how they felt about the hand-washing activity. Demonstrate and have students practise proper hand washing: using soap, wash the front and back of hands for a count of 10 per side. Wash in between fingers, and rub fingertips gently (remind them to turn the water tap off while they are soaping their hands). Assure them that if they follow this procedure, they will get all of the dirt off of their hands.

Activity 3:

Discuss what to do when you have a cold. Encourage them to contribute suggestions. Discuss sneezing or coughing into your elbow and not your hands.

Remind them that after they blow their nose, they should wash their hands every time. Have the class practise this activity. During activity time, encourage students in the puppet/drama area to create a play about hand washing or what to do when you have to cough or sneeze.

KINDERGARTEN ACTIVITY CENTRES

The lessons and activities presented and related links are to supplement existing curriculum guidelines. The activity centres presented here can be used on their own, in combination with other activity centres, or, in some cases, as a whole-group activity. References to related learning experiences are given where applicable.

Sustainable Development Themes Related to the Kindergarten ESD Poster Activity Centres

Activity Centre	Subject	Cluster Section	SLO	Page
1. Needs	Social Studies	1. Me (K.1.2: My Basic Needs)	KE-025: Give examples of basic needs. <i>Examples: food, clothing, shelter . . .</i>	K-29
2. Rules Help Us	Social Studies	1. Me (K.1.4: Rules Help Us)	KP-022: Give examples of rules and identify their purposes. <i>Examples: school rules, safety rules . . .</i> VP-006: Respect the rules of the classroom, playground, and school. VE-007: Respect their own and others' property.	K-31
3. Who Am I?	Social Studies	1. Me (K.2.1: Important People in My Life)	KC-003: Identify people who are responsible for helping and caring for them at home, at school, and in the community.	K-33
	Physical Education/ Health Education	3. Safety	K.3.K.B.4: Recognize safety helpers in the community (e.g., parent/guardian, family member, babysitter, teacher, principal, doctor, police officer, bus driver, Block Parent, lifeguard . . .).	
4. Create a Tree	Science	1. Trees	K-1-02: Identify ways in which humans and animals use trees. <i>Examples: humans eat apples and walnuts; birds make their homes in trees; deer eat leaves, bark, and tender twigs . . .</i>	K-35

continued

Activity Centre	Subject	Cluster Section	SLO	Page
5. Mushy Masterpieces	Science	1. Trees	K-1-02: Identify ways in which humans and other animals use trees. <i>Examples: humans eat apples and walnuts; birds make their homes in trees; deer eat leaves, bark, and tender twigs . . .</i>	K-37
		3. Paper	<p>K-3-01: Use appropriate vocabulary related to their investigations of paper. Include: characteristic, thick, thin, hard, soft, smooth, rough, absorbent, pliable.</p> <p>K-3-02: Recognize that paper is most often made from trees.</p>	

Targeted Outcome/Intended Learning:

Social Studies Cluster 1: Me (K.1.2: My Basic Needs)

KE-025: Give examples of basic needs. *Examples: food, clothing, shelter . . .*

Note: See Learning Experience #1 for related activities.

Materials:

- dollhouse
- dolls
- doll clothes
- tiny model food items
- Suggested K-4 ESD Poster picture cards: 3, 4, 19, 22, 23, 27, 30, 33, 35. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word card: needs. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Alternately, have a variety of food item boxes, clothing items, toys, and toy buildings on display.



Activity Directions:

Activity 1:

For sorting needs and wants, explain to students that the items at this centre are all things that we need to live. Invite students to create a home for the dolls, and play at giving the dolls the things that they need to live. You can model sorting the items into categories (e.g., foods, buildings, clothing, machines, etc.). Encourage students to sort the items into various categories of their own choice. Then have students sort the items into needs and wants.

Suggestions for Assessment

At the end of centre time, students can be invited to share their categories and reasons for sorting the items as they did. Use observations about students who seem confused or who provide sophisticated responses to differentiate next steps.

See social studies BLM K.3.5a: Basic Needs: Picture Sort. Find it at www.edu.gov.mb.ca/k12/cur/socstud/foundation_k/blms/index.html.

Targeted Outcome/Intended Learning:

Social Studies Cluster 1: Me (K.1.4: Rules Help Us)

KP-022: Give examples of rules and identify their purposes. *Examples: school rules, safety rules . . .*

VP-006: Respect the rules of the classroom, playground, and school.

VE-007: Respect their own and others' property.

Background:

This activity can be used as follow-up activity to discussions and activities suggested in *Kindergarten Social Studies: Being Together: A Foundation for Implementation*. Find it online at www.edu.gov.mb.ca/k12/cur/socstud/foundation_k/index.html.

Materials:

- toy school bus, people, and stop signs so that students can role-play bus safety rules
- dress-up centre: warm clothing or dress-up clothing for dolls
- toy bicycles and dolls
- puppets or dolls for demonstrating safety rules, sharing, being kind, taking care of the school, etc.
- Suggested K-4 ESD Poster picture cards: 4, 7, 8, 9, 12, 14, 18, 21, 25, 26, 27, 28, 29, 31, 34, 36. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word card: cooperate. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Activity 1:

For “Rules Help Us,” review with students the meaning of the word *rules*. Brainstorm some rules that they have in the classroom. Show them the word card *cooperate*. Sound the word out and discuss what it means. Discuss how cooperating helps us to follow many rules. Show students the following picture cards: 4, 7, 8, 9, 12, 14, 18, 21, 25, 26, 27, 28, 29, 31, 34, and 36. As a group, ask students what rules might be related to each picture.

Activity 2:

For centre time, have a group of two to four students select one of the picture cards. Ask what rule is shown in the picture. Invite the group to create a play that tells a story about the rule that is portrayed in the picture card (i.e., bus rules, playground safety rules, no littering, dressing properly for the weather, bicycle safety) or add your own picture cards.

Suggestions for Assessment:

Listen as students respond and play. Ask questions to reveal their thinking.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 2: The People around Me
(K.2.1: Important People in My Life)

KC-003: Identify people who are responsible for helping and caring for them at home, at school, and in the community.

Physical Education/Health Education: 3. Safety

K.3.K.B.4: Recognize safety helpers in the community (e.g., parent/guardian, family member, babysitter, teacher, principal, doctor, police officer, bus driver, Block Parent, lifeguard . . .).



Note: Learning Experience #3 should be completed prior to this activity centre. Students will need to have explored and had class discussions about members of their community that they feel are important for their care and safety.

Background:

This learning experience is designed to help students identify people who help them beyond their immediate family.

Materials:

Assemble materials for the following roles (or other roles that student relate to):

- Teacher: paper and pencils, a pointer stick, ABC books, etc.
- Police officer: provide circles of paper and markers to create a police badge (parent helpers can attach a safety pin or jewelry pin to the back of the badge), a blue jacket, plastic police hat, etc.
- Firefighter: a toy fire engine, big boots, a plastic fire helmet, and a stretch of old water hosing for a fire hose
- Doctor: lab coat, doctor's toy kit, baby doll, etc.
- Grandma/Auntie/Mom: dress, dress-up shoes, glasses, purse, baby doll, etc.
- Father/Grandfather/Uncle: pants, shirts, glasses, fake moustache, etc.

3

Kindergarten Activity Centre #3: Who Am I?

- Suggested K-4 ESD Poster picture cards: 2, 6, 8, 12, 14, 18, 20, 26, 29, 30, 31, 33 and/or pictures of a teacher, police officer, firefighter, custodian, doctor, female/male family leader etc. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word card: care. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Books:

The PM Starter Reading Series level 2 has a book called *Moms and Dads* that describes various parents' jobs.

Activity Directions:

Before centre time, review with students some of the community helpers that you have discussed previously. Look at the website picture cards 2, 6, 8, 12, 14, 18, 20, 26, 29, 30, 31, and 33 (or other supporting material you may have), and discuss with students what role the people in the pictures might have as community helpers. Have materials available for students to role-play important community members (e.g., police officers, firefighters, teachers, principal, school custodian, etc.). If the school has the PM Starter Reading Series, have the book *Moms and Dads* available for students to read.

Activity 1: "Who am I?"

Explain to the students that they are to choose (either by selecting a picture card or as free choice) a community caregiver to role-play. At the activity centre, students can then choose items that they feel portray that character best (students can work in pairs or on their own), and then practise/play at being that individual. When centre time is over, invite students to portray or describe their character to the class, and let classmates try to guess which character the student is portraying.

Suggestions for Assessment:

After a character has been portrayed and identified, probe for how that character can be helpful to students. Provide clarifications if necessary.

See BLM K.2.1e: Important People in My Life: Award Ribbon. Available online at <www.edu.gov.mb.ca/k12/cur/socstud/foundation_k/blms/index.html#cluster2>.

Targeted Outcome/Intended Learning:

Science Cluster 1: Trees

K-1-02: Identify ways in which humans and animals use trees. *Examples: humans eat apples and walnuts; birds make their homes in trees; deer eat leaves, bark, and tender twigs . . .*

Note: See Learning Experience #6 for related activities.

Background

This activity should be used as an application activity (i.e., after a discussion of tree parts has taken place).

Materials:

- one 28 x 33 cm piece of recycled cardboard (or heavy gauge paper) for each student
- glue
- a drawing or picture of a tree with its parts labelled (including trunk, branches, bark, roots, leaves, buds)
- bits of string, sandpaper, cork, fabric, other tree-like “stuff”
- scraps of coloured paper
- Suggested K-4 ESD Poster picture cards: 11, 19, 20, 21, 29. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word card: create. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Activity 1:

“Create a Tree” Have the materials available for students to examine and experiment with. Tell students that at this centre they will be able to build their own tree on paper. Ask them to be sure to include all parts of the tree: the trunk, roots, branches, leaves and flowers, and fruit or nuts (provide a picture of a tree for them to reference).

Talk about how the tree might be used by other living things (e.g., for bird nests; a place for insects to eat and live; a home for a squirrel or raccoon; a student might be swinging on a swing attached to the tree; he or she might be eating fruit or nuts from the tree; he or she might be putting a bird feeder in the tree). Encourage them to include people and animals in their picture.

Activity 2:

For a discovery table or free play centre, have various paper products and parts of trees (seeds, cones, etc.) available for students to use as building materials for art.

Suggestions for Assessment

Examine the trees that students make to see if they show how the tree is being used by humans or animals.

A Tree Grows is a narrative pantomime suitable for Kindergarten. See it online at <www.childdrama.com/appletree.html>.

For educators interested in accessing recycled materials, visit the Arts Junktion website at <www.ArtsJunktion.mb.ca>.

Targeted Outcome/Intended Learning:

Science: 1. Trees

K-1-02: Identify ways in which humans and other animals use trees. *Examples: humans eat apples and walnuts; birds make their homes in trees; deer eat leaves, bark, and tender twigs . . .*

3. Paper

K-3-01: Use appropriate vocabulary related to their investigations of paper. Include: characteristic, thick, thin, hard, soft, smooth, rough, absorbent, pliable.

K-3-02: Recognize that paper is most often made from trees.



Background:

Share picture cards 5, 11, 25, 26, 34 and 36 with the class. Ask students how these pictures might relate to paper. Discuss their responses, and lead them to the conclusion that most paper is made from trees, most of our books are made from paper from trees, and most paper can be recycled.

Read a book about where paper comes from and how it is made. Provide various paper products for students to examine. Have students look around the classroom for items that are made from trees. Brainstorm for ideas on how to save paper.

Partner with a Grade 3 class that is making paper. Have the Grade 3s demonstrate how paper is made.

Discuss the importance of not wasting paper (e.g., Encourage students to use scrap paper for making notes; when using coloured paper for art projects, save the scraps; don't cut a little circle in the middle of a piece of paper, and cut from the edge instead, etc.). Create recycled paper pulp for exploration and sculpture.

Recycle paper scraps.

Materials:

- water (approximately 1 cup)
- 2-3 sheets of newspaper

- 1-2 paper serviettes (serviettes with a colourful pattern give the pulp more interesting texture) (for extra interest, a few leaves and small flower petals can also be included)
- 2 tbsp. of white glue (optional)
- paper towels (at least one per student)
- recycled styrofoam food trays or plastic plates

Activity 1:

- Suggested K-4 ESD Poster picture cards: 5, 11, 25, 26, 34, 36. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word card: recycle, needs. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity 2:

- various paper products and parts of trees for a discovery table

Activity Directions

Prior to using the centre, show students the word card *recycle*. Discuss what “recycle” means. Explain that in this centre they will be recycling old paper into something new. Place the word card on the wall near the centre.

Activity 1:

The following are the instructions for making Mushy Masterpieces.

1. In a mixing bowl, have students shred two or three sheets of newsprint and one or two paper serviettes. Add just enough warm water to cover the paper (approximately one cup), and let soak for 30 minutes or more.
2. Pour the paper, tissue, and water into a food processor. Process until a mushy consistency is reached (with a few small bits of paper still visible). Add in white glue. This mixture can then be distributed in cups for use as a sculpting material.

3. Students can scoop one or two teaspoons of the pulp onto a tray. Let them experiment with the mush before deciding what to make. Use words to describe the pulp, such as *squishy*, *wet*, *mushy*, etc. Note: you might have to model this activity, as some students will likely find the texture to be off-putting and hesitate to try. You can demonstrate shaping the mush into letters, squeeze some of the water out and shape the mush into balls, roll it into snake shapes, make a heart shape, and use a toothpick or pencil tip to make a hole (for a pendant). Once students see others enjoying the experience, they will all want to try.
4. Encourage students to make small shapes or creatures out of the pulp, and let dry for approximately three days. Creations will be solid and paintable once dry. Creations can also be decorated with eyes and antennae, etc.

Suggestions for Assessment:

Pay attention to the students' contributions to the class discussions of where paper comes from, its uses, and how less can be wasted. Find ways of ensuring each student has a chance to show her or his understanding. Perhaps a checklist of ways to save paper can be made and used on an ongoing basis for you and the students to monitor their paper consumption. This would help to reveal whether students have really understood the importance of reducing consumption and can apply it to their daily school life.

The paper activity and other tree activities are available at www.talkabouttrees.org/plans.html.



EDUCATION FOR SUSTAINABLE
DEVELOPMENT: KINDERGARTEN
TO GRADE 4 POSTER ACTIVITIES

Grade 1

GRADE 1 LEARNING EXPERIENCES

The lessons and activities presented in this website and related links are to supplement existing curriculum guidelines.

Sustainable Development Themes Related to the K-4 ESD Poster Learning Experiences

Learning Experience	Subject	Cluster Section	SLO	Page
1. Festival!	Social Studies	1. I Belong (1.1.2: Cultural Expressions)	VI-003: Respect stories, traditions, and celebrations of others	1-7
2. What Does Peace Feel Like?	Social Studies	1. I Belong (1.1.4: Remembrance Day)	KC-004: Identify Remembrance Day as a time to think about peace and war.	1-11
	Physical Education/ Health Education	4. Personal and Social Management— Knowledge	K.4.1.B.2a: Identify different ways (e.g., not interrupting, waiting for appropriate time, not hurting feelings of others, asking for a time out, avoiding tantrums . . .) of expressing feelings and emotions that contribute to getting along with others.	
3. Take Care of This Place	Social Studies	2. My Environment (1.2.4: My Community)	VL-008: Respect neighbourhood and community places and landmarks. <i>Examples: do not litter or vandalize . . .</i>	1-15
	Physical Education/ Health Education	4. Personal and Social Management— Skills	S.4.1.A.3: Demonstrate behaviours that show social responsibility (e.g., look after belongings, follow directions, encourage others, express feelings in an appropriate manner, work/play cooperatively with others . . .) in daily routines.	

continued

Learning Experience	Subject	Cluster Section	SLO	Page
4. What's for Dinner?	Social Studies	2. My Environment (1.2.5: The Natural Environment)	KL-012: Recognize that people depend on the environment for survival.	1-17
	Science	1. Characteristics and Needs of Living Things	<p>1-1-07: Recognize that plants, animals, and humans, as living things, have particular needs. <i>Examples: plants need sunlight and water . . .</i></p> <p>1-1-08: Describe what is needed to care for a pet, a farm animal, or an indoor plant. <i>Examples: provide fresh water for their hamster daily, feed and bed calves regularly . . .</i></p> <p>1-1-09: Compare ways in which humans and other animals meet their needs. <i>Examples: senses, locomotion, tools . . .</i></p> <p>1-1-10: Describe how humans and other living things depend on their environment to meet their needs. <i>Examples: the environment provides humans and other living things with food . . .</i></p>	
5. Micro-Hike	Science	1. Characteristics and Needs of Living Things	<p>1-1-06: Observe and identify similarities in life processes between themselves and other living things. <i>Examples: they eat, sleep, grow, and breathe, and so do other living things . . .</i></p> <p>1-1-10: Describe how humans and other living things depend on their environment to meet their needs. <i>Examples: the environment provides humans and other living things with food . . .</i></p>	1-21
6. Needs of Plants	Science	1. Characteristics and Needs of Living Things	<p>1-1-08: Describe what is needed to care for a pet, a farm animal, or an indoor plant. <i>Examples: provide fresh water for their hamster daily, feed and bed calves regularly . . .</i></p>	1-25

continued

Learning Experience	Subject	Cluster Section	SLO	Page
7. Take a Vote	Science	1. Characteristics and Needs of Living Things	1-1-13: Develop, implement, and evaluate personal and group action plans that contribute to a healthy environment for themselves and for other living things. <i>Examples: wash hands before eating, reduce amount of waste produced by the class . . .</i>	1-29
	Physical Education/ Health Education	4. Personal and Social Management—Skills	S.4.1.A.3: Demonstrate behaviours that show social responsibility (e.g., look after belongings, follow directions, encourage others, express feelings in an appropriate manner, work/play cooperatively with others . . .) in daily routines.	
8. Create a Creature	Science	3. Characteristics of Objects and Materials	1-3-11: Demonstrate ways to reduce, reuse, and recycle materials during classroom learning experiences.	1-31
9. Let's Help Out	Science	4. Daily and Seasonal Changes	1-4-17: Use the design process to construct a device or structure that helps a Manitoba animal adjust to seasonal changes. <i>Examples: winter bird feeder, dog house, dog "booties" for winter . . .</i>	1-33
10. How Are You Feeling?	Physical Education/ Health Education	4. Personal and Social Management—Knowledge	K.4.1.B.2a: Identify different ways (e.g., not interrupting, waiting for appropriate time, not hurting feelings of others, asking for a time out, avoiding tantrums . . .) of expressing feelings and emotions that contribute to getting along with others.	1-37
11. Take the Mouthwash Challenge	Physical Education/ Health Education	5. Healthy Lifestyle Practices	K.5.1.A.3: Identify daily dental hygiene practises (e.g., regular brushing and flossing, healthy food choices . . .) for care of primary and permanent teeth.	1-39

Notes

Targeted Outcome/Intended Learning:

Social Studies: Cluster 1: I Belong (1.1.2: Cultural Expressions)

VI-003: Respect the stories, traditions, and celebrations of others.

Related Activity: Activity Centre #1



Background:

The following free resource is available from Citizenship and Immigration Canada (Communications Branch). Do an Internet search to locate them online.

“The Voices of Our People” activity kit (ages 5–13) to help students know themselves better and to connect to each other, their community, and country.

Materials:

Objects from different cultures in the community, such as

- a menu from a Greek restaurant
- a Tae Kwon Do school brochure
- a Festival du Voyageur sash
- a package of tortilla chips, etc.
- something from students’ homes that reflects their culture
- a map of the world
- paper and pencils/colouring materials
- books about other cultures/traditions

For Mardi Gras activities:

- large plastic bottles (e.g., milk jugs, liquid laundry detergent bottles that are well washed and cut in half), pop bottles, tin containers, cardboard tubing
- buttons, ribbons, fabric scraps, coloured paper scraps, and other material for decorating masks and musical instruments
- cake mix and ingredients
- Suggested K–4 ESD Poster picture cards: 4, 12, 26. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Websites:

Go to <www.essortment.com/all/gameforchild_rwnd.htm> for games from around the world.

For information on holidays around the world, go to <www.holidays.net>.

For Mardi Gras in particular, go to <www.holidays.net/mardigras/story.htm>.

Books:

A Calendar of Festivals. Manitoba Education Library Call #394.26 G54.

Uncle Vova's Tree by Patricia Polacco (1989). Manitoba Education Library Call #E Pol.

The Big Storm by R. Tregobov and M. Kovalski (1992). Manitoba Education Library Call #E Tre.

Me and Mr. Mah by A. Spalding and J. Wilson (2001). Manitoba Education Library Call #E Spa.

Sooshewan, Child of the Beothuk by Donald Gale (1988). Manitoba Education Library Call #3 E Gal.

Activity Directions:**Activity 1:**

Have students bring in samples of objects from different cultures in the community (e.g., a menu from a Greek restaurant, a Tae Kwon Do school brochure, something from home that reflects their culture, etc.). See if students can identify the country of origin of the item. Together, locate the countries of origin on a map of the world.

Activity 2:

Invite a community member/elder to the school to visit the class and talk about culture. If one of the students has traditional clothing, ask if they could wear it to class or show it to the class. Invite students who know traditional dances or play a traditional musical instrument to demonstrate their talents.

Activity 3:

Read stories about other cultures, celebrations, and traditions. Potential books include *Uncle Vova's Tree*, *The Big Storm*, *Me and Mr. Mah*, and *Sooshevan Child of the Beothuk*.

Activity 4:

Play a game from another culture. Try the Inuit games from Activity Centre #1, or go to <www.essortment.com/all/gameforchild_rwnd.htm> for games from around the world.

Activity 5:

Have students illustrate and write about a tradition in their family. Share the stories with the class.

Activity 6: Festival!

Learn about a festival from another culture or country. Plan an art activity or prepare a food item associated with that festival. Have a parade or party to celebrate the festival in the classroom.

A good example is Mardi Gras. Students can create masks from milk bottles, liquid detergent bottles, and other large plastic (well cleaned) containers that have been cut in half. Cut eye holes for the students, and invite them to decorate the masks using various recycled materials, including wool, fabric, plastic coils from old booklets, buttons, bottle caps, pieces of foam, rubber bands, etc.

Students can also make various musical instruments with pop bottles, tin cans, cardboard tubes, etc., filled with rice, pebbles, or other small items that will give good sounds. Invite students to decorate the outside of the instrument with paper scraps, wool, twine, beads, buttons, etc.

Bake a "King Cake" and decorate it with yellow, green, and purple candies. Hide a small plastic figure in the cake. The child who finds the figure will be "king" or "queen" of the festival.

Play happy music and have a parade with the "king" leading the way for the "masked musicians."

Social Studies Blackline Masters

Activities can be found at

www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr1/blms/index.html.

If you enjoy creating things with your class, consider joining Arts Junktion. It's free, and membership gives you access to an amazing variety of materials for the classroom (again, at no cost to you). For more information, go to

www.ArtsJunktion.mb.ca.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 1: I Belong (1.1.4: Remembrance Day)

KC-004: Identify Remembrance Day as a time to think about peace and war.

Physical Education/Health Education: 4. Personal and Social Management-Knowledge

K.4.1.B.2a: Identify different ways (e.g., not interrupting, waiting for appropriate time, not hurting feelings of others, asking for a time out, avoiding tantrums . . .) of expressing feelings and emotions that contribute to getting along with others.

Background:

Read a book such as *What Does Peace Feel Like?*, *Somewhere Today*, or another book about peace, and have a discussion about peace. This should help students to gain a better understanding of how their actions relate to the bigger picture of “national peace.”

Make the connection that peace means getting along with others, and that a feeling of peace comes from having food, clean water, a safe place to live, proper clothing, and love.

Materials:

Activity 1 and 2:

- poster paper
- markers

Books:

What Does Peace Feel Like? by V. Randunsky (2004). Manitoba Education Library Call #303.66 R33.

Somewhere Today—A Book of Peace by S.M. Thomas and E. Futran (1998). Manitoba Education Library Call #303.66 T46.

Websites:

For songs and poems about peace (and other topics), go to www.Songs4Teachers.com.

In particular, see “Peace is Not . . .”, “Do You Know Where I Find Peace?”, and “We Are Proud Canadians.”

Activity 3:

- writing paper and writing/colouring materials
- Suggested K-4 ESD Poster picture cards: 2, 4, 14, 21, 25, 26. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word cards: think, relate, contribute, value, respect, care, citizen, cooperate, understand, listen, connect, need, appreciate, communicate, defend, help, enjoy, learn, share. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Websites:

For a description of the Golden Boy, see www.gov.mb.ca/mit/legtour/golden.html.

Activity Directions:**Activity 1:**

At reading time, ask students what the word *peace* means to them. Record their responses on a flip chart or board. Together, read and sing poems and songs about peace (see websites listed in Materials).

Activity 2:

Read a book such as *What Does Peace Feel Like?* or *Somewhere Today*. Afterwards, discuss with students what they learned. As the discussion proceeds, record students’ responses on a flip chart or board. Ask them where peace comes from and how you can find it. Discuss things that lead to a feeling of peace. These include the following:

1. Having the things you need, such as food, water, a safe place to live, clothes to keep you warm, help when you are sick or injured, and love from family and friends
2. Having at least some of the things you want, such as space to play, to learn, friends, and special things

Peace is accepting that we are all different, and we are all able to work out problems and misunderstandings. Ask for some ideas on how we can work out a problem without shouting and arguing. If ideas are not offered, suggest ideas, such as talking about it, sharing, taking turns, and walking away when an agreement can't be reached. Infer that examples of peace at home, at school, and in big countries are not that different from one another—peace begins with working out problems. Review students' ideas as a summary. Go back to the first question (What does *peace* mean?), and invite students to add to their first response.

Activity 3:

At an activity centre or as a class activity, show students the ESD word cards *think, relate, contribute, value, respect, care, citizen, cooperate, understand, listen, connect, need, appreciate, communicate, defend, help, enjoy, learn, and share*. Discuss what each word means and how it might relate to getting along and keeping peace. Have students select one word card, and ask them to write one or two sentences or draw a picture about what that word means to them. Also, show students picture cards 2, 4, 14, 21, 25, and 26. Discuss what the pictures have to do with peace. Google *the Golden Boy* or visit <www.gov.mb.ca/mit/legtour/golden.html> in order to find out what he represents and what relation this statue had with the First World War. Students can alternatively choose to write about one of the picture cards.

Students' written responses and illustrations can serve as an assessment of their understanding of the story/discussion, and can help teachers identify any concepts that require further exploration.

Social Studies Blackline Masters

Some activities can be found at <www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr1/blms/index.html>.

3

Grade 1 Learning Experience #3: Take Care of This Place

Targeted Outcome/Intended Learning:

Social Studies: Cluster 2: My Environment (1.2.4: My Community)

VL-008: Respect neighbourhood and community places and landmarks

Examples: do not litter or vandalize . . .

Physical Education/Health Education: 4. Personal and Social Management—Skills:

S.4.1.A.3: Demonstrate behaviours that show social responsibility (e.g., look after belongings, follow directions, encourage others, express feelings in an appropriate manner, work/play cooperatively with others . . .) in daily routines.



Background:

Have students describe ways to demonstrate respect for community places. Invite suggestions as to what would happen if we did not respect these places. Discuss the relationship between “rules” and “rights” (e.g., *Right*: we have the right to play in a safe playground—*Rule*: do not hurt others. *Right*: we have a right to play in a clean playground—*Rule*: do not litter or damage the playground).

Materials:

- paper and writing/drawing materials
- Suggested K-4 ESD Poster picture cards: 5, 7, 11, 12, 17, 18, 21, 27, 28, 29, 32. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word cards: connect, cooperate, help, relate, value, share. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Websites:

Go to <www.Starfall.com/n/holiday/earthday/play> and click on the Earth Day Globe.

Books:

Berenstain Bears Don't Pollute (Anymore) by S. & J. Berenstain (1991). Manitoba Education Library Call #E Ber. Note: The Manitoba Education Library also has a kit to accompany this book (Call #E Ber-kit).

Activity Directions:**Activity 1:**

Read *The Berenstain Bears Don't Pollute (Anymore)*. List the problems presented in the book. Discuss solutions. Have students draw a picture or describe ways that they can respect their neighbourhood, school, or community place (e.g., caring for a green space, picking up garbage, and planting trees or flowers). Share students' ideas, and decide on an activity that the class can do together to help their neighbourhood. (See also Social Studies BLMs 1.3.4a and b: which can be found at <www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr1/blms/index.html>.)

Activity 2:

In a sharing circle, have students take turns picking one of the following picture cards: 5, 7, 11, 17, 12, 18, 21, 27, 28, 29, 32. Each student suggests how the people in her or his card are respecting the neighbourhood or community place. Some of these will be more difficult than others, as the outcome of the actions in the card might reflect how the respect is being achieved rather than the actual activity shown. Accept all suggestions made by the students. This is a good activity to assess the application of acquired knowledge.

Activity 3:

For a short interactive reading game for students called Every Day is Earth Day, go to <www.Starfall.com/n/holiday/earthday/play> and click on the Earth Day Globe. This activity works very well on a smart board (or similar device).

Social Studies Blackline Masters

Activities can be found at

<www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr1/blms/index.html>.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 2: My Environment (1.2.5: The Natural Environment)

KL-012: Recognize that people depend on the environment for survival.

Science: Cluster 1: Characteristics and Needs of Living Things.

1-1-07: Recognize that plants, animals, and humans, as living things, have particular needs.

Examples: plants need sunlight and water . . .

1-1-08: Describe what is needed to care for a pet, a farm animal, or an indoor plant.

Examples: provide fresh water for their hamster daily, feed and bed calves regularly . . .

1-1-09: Compare ways in which humans and other animals meet their needs.

Examples: senses, locomotion, tools . . .

1-1-10: Describe how humans and other living things depend on their environment to meet their needs.

Examples: the environment provides humans and other living things with food . . .

Background:

Today, many people obtain almost all of their food from grocery stores. Foods come pre-packaged, pre-cooked, sliced, and diced. Students are often unaware of the connection that the food they eat and the clothes they wear have with the natural environment. This learning experience helps them to think about what is in their food and to understand how important the natural environment is to their survival.

Materials:

- 11 x 17 sheet of paper for each student
- pencil, crayons
- their lunch kit or a list of food eaten at a recent meal

- Suggested K–4 ESD Poster picture cards: 1, 3, 7, 11, 12, 19, 20, 22, 24, 27. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K–4 ESD Poster word cards: learn, evaluate, value, recognize, needs, depend, understand, connect. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Videos:

Wheat by Howard Storey and Catherine Mead (30 minutes) (VHS). Manitoba Education Library Call #10869.

Activity Directions:

Activity 1:

Write the word *depend* on the board. Ask students what this word might mean. If no response comes, ask what it means to depend on something or someone. Provide students with some examples (e.g., they depend on their caregiver to provide food to eat; they depend on the clock on the wall or the school bell to tell them when it is recess time; etc.). Invite students to discuss the word again. In a sharing circle, have students take turns choosing a card from picture cards 1, 3, 7, 11, 12, 19, 20, 22, 24 and 27. Students then describe how the picture on the card shows how we depend on the environment for our needs.

Activity 2:

Project Wild has developed an activity called “What’s for Dinner?” that helps students understand the source of their food. Ask students if they have ever wondered where their foods come from. Bring out a chicken sandwich and tell students that you are going to take a closer look at just what is in the sandwich. Ask students: “Where does the meat from this sandwich come from?” (*Answer: chickens*) Draw a chicken on the board below the drawing of the sandwich. Ask students: “Is there anything else in the sandwich?” (*Answer: bread*) Draw the bread next to the chicken. Ask students: “Where does bread come from?” (*Answer: wheat/grains or some might say flour*) Draw grains of wheat or a pile of flour below the bread. Ask students: “What else is in the sandwich?” (*Answer: lettuce from lettuce plants*) Draw a piece of lettuce next to the bread and a lettuce plant below the picture of the piece of lettuce. Ask students: “What else is in this sandwich?” (*Answer: mayonnaise – tell them that mayonnaise is made from eggs and vegetable oil*) Draw a blob of mayonnaise next to the bread, lettuce, and chicken, with a picture of an egg and a vegetable plant below the blob.

Tell students that they will each be able to map out the sources of their own lunch ingredients in the same way.

Ask students to take out their lunches. Ask them to look carefully at each item. Invite them to think about what individual ingredients each item is made of. Give each child a piece of 11 x 17" paper. Have students draw a small picture of themselves at the top of the paper. Below this, ask them to draw (and label) pictures of one or two items in their meal. For items that include more than one ingredient (e.g., a sandwich), have them draw the ingredients below the picture of the item (just as you did for the chicken sandwich).

Discuss some of the other ingredients in their lunches. What is cheese? Where do frozen peas come from? What are noodles made of (eggs, flour/rice)?

Break down each component of the chosen items, drawing the source below the item (e.g., cheese = milk = cow; noodles = eggs = chicken; flour/ rice = grains).

Next, for all items that end with an animal, ask students what they think that animal would eat. (You can go back to the chicken in the chicken sandwich as an example.) Ask the students to draw what the animal eats (usually grains/ plants) below the picture of the animal. Point out that all of the ingredients from their lunch end up with plants at the bottom of the rows. Ask them what the plants need to live (water, air, sun, and soil). At the bottom of the page, have them draw the sun, air, soil, and water. As a conclusion, discuss how all of our needs come down to our dependence on the environment. Post the drawings where students can compare their lunch components to those of their classmates.

Watch the movie *Wheat* (VHS, 30 minutes), which is the story of wheat from sowing the seed to slurping spaghetti.

Social Studies Blackline Masters

Activities can be found at

<www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr1/blms/index.html>.

Targeted Outcome/Intended Learning:

Science: Cluster 1: Characteristics and Needs of Living Things

1-1-06: Observe and identify similarities in life processes between themselves and other living things.

Examples: they eat, sleep, grow, and breathe, and so do other living things . . .

1-1-10: Describe how humans and other living things depend on their environment to meet their needs.

Examples: the environment provides humans and other living things with food . . .

For a related activity, see also Activity Centre #4.

Background

This learning experience is designed to assist students in recognizing and understanding the needs of humans and other animals.

Materials:

- Suggested K–4 ESD Poster picture cards: 1, 3, 11, 19, 20, 21, 22, 35. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K–4 ESD Poster: word card: connect. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity 1:

- poster paper or white board and markers for teacher
- paper and writing materials for students

Books:

A House is a House for Me by Mary Ann Hoberman (1978). Manitoba Education Library Call #E Hob.

Sharing Nature with Children by Joseph Bharat Cornell (1983). Manitoba Education Library Call #508.071 C67.

Activity 2:**Websites:**

See <www.safewater.org> for a list of materials and a lesson plan description.

Activity 3:

- magnifying glasses
- two-metre length of string per student
- a grassed one-metre square area for each student
- paper and pencil (optional)

Activity Directions:**Activity 1:**

Show the word card *connect*, and discuss how we are all connected. Create a Venn diagram to compare the needs of animals, people, and plants. Conclude that all animals need food, air, water, and shelter, and all living things need food, air, and water. Read stories about animal homes.

Read *A House is a House for Me* by Mary Ann Hoberman. Discuss how our basic needs are very similar to other animals. Encourage students to help make comparisons between the needs of people and those of other living things. Have students select an animal and draw a picture of its house (or create a model of its house) and its other needs. The class could make their own version of the story.

Activity 2:

The Safe Drinking Water Foundation (SDWF) has an excellent website with free online lesson plan activities and experiments that teach students about water pollution and our need for safe drinking water (K-12). Go to <www.safewater.org> and click on Education, School Programs.

Oak Hammock Marsh offers activity kits. From the Project Wet kit. Try Activity #3: Aqua Notes. Learn the many ways you need and use water through singing simple songs. For more information, go to <www.oakhammockmarsh.ca>.

Activity 3:

Inform students that today they will be going on a special adventure. This adventure is based on a “micro hike” activity that was included in the book *Sharing Nature with Children* by Joseph Bharat Cornell. In the activity, students use their imaginations to shrink themselves down to the size of an ant, and then go for a “micro hike” through a dense jungle of “spear plants.” Their job is to report on the activities of the inhabitants of the “spear jungle.” Lead them to a quiet area of the school ground or a nearby park. Hand out the lengths of string. Ask each student to span their strings over the most interesting area of ground they can find. Tell students that you are giving them a “magical” magnifying glass that will shrink them down to the size of an ant. Crawling on their stomachs, have them cover their area inch by inch, looking at the grass, soil, twigs, and critters. Tell them that they must keep their eyes no higher than one foot from the ground. Ask them what kind of world they are travelling through. What creatures are they meeting? Are they friendly? How do they spend their day? When they are finished exploring, gather them together to share what they discovered. Ask them what creatures they met. How do these creatures meet their needs for water, shelter, food, and air? How did it feel to be in a grass forest? Where would you go to find shelter if you were a tiny animal? Would it be hard to live in this environment? Why?

Back in the classroom, have students draw or write about their discoveries, or tell a story about their mysterious micro world. Their account of the experience will help teachers assess how much this activity helped students understand the needs of living things, and what areas might require further exploration.

For a related language arts activity, the class could watch or read an interactive George Shrinks story by William Joyce (on CD-ROM, Manitoba Education Library Call #4775), *The Leaf Men and the Brave Good Bugs* by William Joyce (Call #E Joy), or one of the Littles books by John Peterson (various titles, Call #F Pet).

For interesting online lessons from Manitoba Fisheries, go to www.gov.mb.ca/conservation/sustain/educate.html. Click on Grade 1.

Social Studies Blackline Masters

Activities are available at

www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr1/blms/index.html.

Targeted Outcome/Intended Learning:

Science: Cluster 1. Characteristics and Needs of Living Things

1-1-08: Describe what is needed to care for a pet, a farm animal, or an indoor plant.

Examples: provide fresh water for their hamster daily, feed and bed calves regularly . . .

See Activity Centre #5 for care of animals for an application activity.



Background:

Discuss what is needed for all living things to survive. What do plants and animals in our care need compared with plants or animals that live in the wild? Pets, livestock, and household plants depend on us for food, shelter, water, and protection from diseases.

Companion animals need love and affection. In the wild, these animals would have other members of their own species to interact with; in our homes, they only have us.

In the wild, plants have access to water (rain) and nutrients (decomposing plant and animal material, and natural sunlight). In our homes and gardens, plants are more dependent on us for their survival.

Materials:

- seeds and egg cartons or other containers for planting seeds
- Suggested K-4 ESD Poster: picture cards: 11, 12, 13, 17, 20, 24. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster: word cards: protect, learn, respect, needs, care, contribute, depend, appreciate, understand, help. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Books:

The Tiny Seed by Eric Carle (1987). Manitoba Education Library Call #582.C37.

Activity Directions:**Activity 1:**

Have students act out how a seed grows to be a plant. (Tell students: “Roll up in a little ball, and now I’ll dig a hole for each of you. Here’s the watering can. Don’t you feel cozy? Now it’s time to start growing. Let your big toe peek out as the first rootlet. Stick your whole leg out as the rootlet grows. Now, reach one arm up into the air slowly . . . slowly. There’s your first shoot. Spread your fingers wide open. They’re the leaves. Put your other leg out for more roots. Slowly stand up and extend the other arm. Now you have a stalk. Reach both arms up high towards the sun and sway with the wind. Smile as the bees tickle your blossoms, Look! Now, seeds are growing. What a beautiful plant you have become!”)

Activity 2:

Read *The Tiny Seed* by Eric Carle. For activities, poetry, songs, and more, go to www.eric-carle.com/bb-seed.html.

Have each student plant her or his own seed. Students are responsible for their own seeds. Review what plants need to grow. Measure the plant’s growth each day. Create a bar graph of growth. Option: Have students plant different vegetable seeds. Predict which ones will grow the fastest, and then measure and compare.

Activity 3:

To aid in the assessment of students’ understanding of the importance of caring for plants and animals that we raise domestically, have a sharing circle or discussion about plants and animals in our care. Use the following word cards: *protect, learn, respect, needs, care, contribute, depend, appreciate, and help*. Read the words slowly together. Ask students what each word means, then ask individual students what a selected word means to them with regards to an animal or plant.

6

Grade 1 Learning Experience #6: Needs of Plants

For a quick theme-related interactive game to add to a computer centre, go to www.starfall.com/n/holiday/gardenshop/load.htm?f&n=main. Students pick a type of flower to grow, and plant it. The shop is run by a fairy tale giant.

Other assessment tools are available in blackline master form at www.edu.gov.mb.ca/k12/cur/science/found/kto4/blms.pdf.

For interesting online lessons from Manitoba Fisheries, go to www.gov.mb.ca/conservation/sustain/educate.html. Click on Grade 1.

Targeted Outcome/Intended Learning:

Science: Cluster 1: Characteristics and Needs of Living Things

1-1-13: Develop, implement, and evaluate personal and group action plans that contribute to a healthy environment for themselves and for other living things.

Examples: wash hands before eating, reduce amount of waste produced by the class . . .

Physical Education/Health Education: 4. Personal and Social Management-Skills

S.4.1.A.3: Demonstrate behaviours that show social responsibility (e.g., look after belongings, follow directions, encourage others, express feelings in an appropriate manner, work/play cooperatively with others . . .) in daily routines.

See Activity Centre #6 for a complementary activity.

Background:

This learning experience is to assist students in recognizing and adopting healthy practices.

Materials:

- paper and writing materials
- Suggested K-4 ESD Poster number cards: 1, 3, 4, 5, 6, 8, 11, 13, 14, 16, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 30, 33, 34, 35, 36. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word cards: value, needs, care, protect, reduce, think, safety, share. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Videos:

Disease Prevention: Growing Up Healthy by Sunburst Visual Media (14 minutes) (DVD or VHS). Manitoba Education Library Call #D10677 or #10677. This resource teaches students (K-2) how to take care of their bodies every day to keep themselves healthy and fight germs that make them sick.

Activity Directions:

Activity 1:

Brainstorm for ideas of things students can do to make our world a healthy place to be (e.g., washing hands, reducing classroom waste, cleaning up, etc.). Record their answers on chart paper (possibly with a simple illustration by each answer). Post the chart for students to reference. For a class activity or activity centre, use 1, 3, 4, 5, 6, 8, 11, 13, 14, 16, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 30, 33, 34, 35, and 36. Students choose a card, and then illustrate and write one or two sentences about how the activities in the picture help to create a healthy environment. Encourage students to use one of the suggested word cards in their writing. Students' writing can be published in a class book about our healthy world. Observe students' writing and talk to them about their reasoning in order to assess their understanding and help them work through the concept of making our world a healthy place to be.

Activity 2:

Brainstorm some projects that the whole class could do to help contribute to a healthy environment. Take a vote! Decide on one group project that the class could take on (e.g., litter-less lunch, school ground clean-up, etc.).

Activity 3:

As an additional activity, show the DVD *Disease Prevention: Growing up Healthy*. Discuss, and have students draw a scene from the movie.

Targeted Outcome/Intended Learning:

Science: Cluster 3: Characteristics of Objects and Materials

1-3-11: Demonstrate ways to reduce, reuse, and recycle materials during classroom learning experiences.



Background:

This learning experience is designed to assist students in understanding, recycling, and possibly taking action to recycle.

Materials:

Activity 1:

- Suggested K-4 ESD Poster picture cards: 1, 3, 5, 6, 8, 16, 18, 27, 32, 33, 34, 36. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word cards: recycle, rethink, reduce, reuse. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity 2:

- paper and material scraps
- broken toy pieces
- left-over items from other class projects
- glue

Books:

Metal Mutz by David Ellwand and Christine Tagg (2003).

The Zlookish by Dominique Demers and Sarah Cummins (2007). Western Manitoba Regional Library Call #j E Demers.

Videos:

Recycle Rex by Walt Disney Educational Media Company (12 minutes) (DVD). Follow Rex and his friends as they learn about waste management and recycling. They want to prevent their sports field from becoming a dump. Manitoba Education Library Call #D-11004.

Activities Directions:

Activity 1:

Use the sustainable development word cards *recycle*, *rethink*, *reduce*, and *reuse* to do some brainstorming with word webs. What do these words mean? How can these things be done in our classroom? Encourage all ideas and suggestions.

Activity 2:

Look at the picture cards 1, 3, 5, 6, 8, 16, 18, 27, 32, 33, 34, and 36. What is happening in each of these pictures? Can any of these activities be done in the classroom? Discuss how students can use paper carefully so as not to waste paper. If recycling exists in the school, encourage using the recycle box. If possible, have a litter-less lunch day. For painting activities, use recycled aluminum or sterilized styrofoam trays instead of purchasing containers. Create a class action plan for reducing consumption and reusing/recycling materials during classroom activities.

Activity 3:

“Create a Creature.” Read *Metal Mutz* by David Ellwand and Christien Tang or *The Zlookish* by Dominique Demers and Sarah Cummins. Have a recycle activity where paper scraps, broken toy pieces, fabric scraps, or left-over items from class projects, etc. are available for students to create a creature of their own.

Activity 4:

Watch *Recycle Rex* and discuss what happened. Perhaps a checklist of ways to save paper and other class materials can be made and used on an ongoing basis to monitor the consumption of materials. This would help to reveal whether students really understand the importance of reducing consumption and can apply it to their daily school life.

Become a member of Arts Junktion and gain access to many wonderful free materials for use in class activities (not just art!). Membership is free. For more information, go to <www.ArtsJunktion.mb.ca>.

Targeted Outcome/Intended Learning:

Science: Cluster 4: Daily and Seasonal Changes

1-4-17: Use the design process to construct a device or structure that helps a Manitoba animal adjust to seasonal changes.

Examples: winter birdfeeder, dog house, dog "booties" for winter . . .



Background:

Natural areas with sufficient food and shelter are quickly disappearing from many places in our world. Students learn that their efforts can make a difference by helping local wildlife populations. This activity has focused on small birds, but you may consider bat houses, toad huts, a deer feeder, a duck box, etc. If food is being provided, the food source must be ongoing as birds and animals come to depend on such sites.

Use the theme cards *help* and *protect* to begin the "Let's Help Out" discussion.

Materials:

- milk cartons, wooden boxes, wood scraps, or other materials suitable for design and construction
- birdseed (if constructing a bird feeder)
- Suggested K-4 ESD Poster picture card: 21. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word cards: protect, help. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Websites:

Hinterland Who's Who: Blue Birds Available online at www.ffdp.ca/hww2.asp?cid=7&id=56.

Build a Better Birdhouse. Available online at www.virtualsk.com/current_issue/better_birdhouse.html

Books:

The House I'll Build for the Wrens by Shirley Neitzel and Nancy Winslow Parker (1997). Brandon Library Call #j E Neitzel.

You may also consider other stories about helping wild animals in the winter or summer, or students' books about building structures for wildlife.

Activity Directions:**Activity 1:**

Discuss ways we can help animals prepare for seasonal changes. (*Examples: insulate your dog's or rabbit's house with straw for the winter; leave bits of string out in the spring for nesting materials for birds, squirrels, and other nesting animals; build a bird feeder; make doggy booties; make a bird feeding/watering centre in the schoolyard; plant more trees for animals/birds to live in; and build a birdhouse/nesting box or raise funds to purchase one.*) Have students draw pictures of one or more ways that they can help an animal adjust to seasonal changes. Brainstorm for a project that the students would like to do.

Activity 2:

Look at books about making bird feeders and houses. Read about which bird species live in Manitoba. Discuss why we need to help wildlife (i.e., many areas that would normally provide food and shelter for local wildlife and birds have been replaced with housing developments, businesses, or farms. Tall trees with hollows/holes for nesting are particularly difficult to find.). Access the websites listed in the materials section. Tell students about the mountain bluebird's return to the Prairies as a result of people building birdhouses for them.

After brainstorming for ideas and drawing pictures of designs, have the class come together or work in groups to design a bird feeder, birdbath, birdhouse, etc. (preferably using recycled materials). Help students ensure that their design is strong enough and heavy enough for the outdoors. If a bird feeder is constructed, raise funds to buy seed for the feeder. Find a place in the schoolyard to place the feeder/house. Make sure that the feeder is filled consistently, as birds come to depend on it as a food source.

Activity 3:

Visit a wildlife centre near your community. In advance of the visit, have students compose a list of questions about the needs of wildlife. After answering their questions, centre staff could suggest a suitable class project to help wildlife (e.g., building a duck box/nesting perch, blue birdhouse, suet feeder, seed feeder, or fundraising for a special project).

Examine students' drawings to assess their understanding of animals' needs and adaptations to seasonal changes. Note the questions students compile to ask of an expert. Help them to ask meaningful questions that address the topic.

Blackline masters for assessing the design process can be found at www.edu.gov.mb.ca/k12/cur/science/found/kto4/blms.pdf.

Targeted Outcome/Intended Learning:

Physical Education/Health Education: 4. Personal and Social Management-Knowledge

K.4.1.B.2a: Identify different ways (e.g., not interrupting, waiting for appropriate time, not hurting feelings of others, asking for a time out, avoiding tantrums . . .) of expressing feelings and emotions that contribute to getting along with others.

Background:

Some cultures have different ways of expressing feelings, communicating (e.g., responses may be more delayed, thoughtful; eye contact and hand gestures can be different, etc.). Students should be aware of how these differences can contribute to understanding each other. Before the activities, show students the word theme cards, and discuss how these words are important when communicating with others.

For some background information on non-verbal communication, go to www.christian-counseling-online.com/nonverbal-communication.html and www.tru.ca/faculty/jhu/Cross%20Cultural%20Nonverbal%20Communication.pdf.

Materials:

- pictures from magazines showing facial expressions
- poster paper
- writing materials
- Suggested K-4 ESD Poster picture cards: 4, 7, 9, 12, 18, 26, 27. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word cards: learn, relate, value, respect. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Websites:

Kindergarten Social Studies: Manitoba Curriculum Framework of Outcomes by Manitoba Education. Winnipeg, MB: Manitoba Education, Citizenship and Youth, 2005. This resource provides cards that are illustrated with facial expressions of students (BLM K.2.3b). Available online at www.edu.gov.mb.ca/k12/cur/socstud/foundation_k/blms/k-2-3b.pdf.

10 Grade 1 Learning Experience #10: How Are You Feeling?

Books:

Second Step: A Violence Prevention Curriculum—Grade 1 Kit. Manitoba Education Library Call #6432.

Activity Directions:

Activity 1:

If there are students who have relatives who originate from another country or who have an Indigenous background, arrange for an elder from that group to come to talk to the class about some mannerisms or ways of communicating that their culture might have that differs from mainstream culture.

Alternatively, together with students, create an interview sheet that students can use to interview their parents or relatives about how they communicate.

Activity 2:

After the interview, discuss how the students express their emotions. The class could draw pictures of faces (or use the Kindergarten BLM listed above, or find pictures from magazines, showing different expressions like a smile, frown, raised eyebrows, downcast eyes, etc.). Match these pictures with words such as happy, sad, angry, surprised, shy, respectful, etc. Display the pictures on poster paper, or create a match-up card game.

Targeted Outcome/Intended Learning:

Physical Education/Health Education: 5. Healthy Lifestyle Practices

K.5.1.A.3: Identify daily dental hygiene practices (e.g., regular brushing and flossing, healthy food choices . . .) for care of primary and permanent teeth.



Background:

Contact your local health authority. A public health nurse or community health worker may be available to come out to do a presentation for the class.

Materials:

- toothbrushes
- dental floss
- an apple
- a carrot
- toothpaste (enough for the whole class)
- baggies to transport toothbrushes
- mouthwash that shows residue in colour (This is safe for students six years and up—but remind them to “swish and spit.”)
- boxes from popular cereals and treats
- paper and colouring materials
- Suggested K-4 ESD Poster picture cards: 12, 15, 16, 19, 24. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word cards: understand, learn, protect, safety. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Activity 1:

As an introduction to this activity, invite students to participate in a sharing circle. In a basket, have the picture cards and word cards suggested above, along with a toothbrush, toothpaste, dental floss, and an apple, carrot, or other healthy snack. Choose one item and model the activity for the students, and then invite each child in turn to choose a card/item and talk about what the card/item means to them when thinking about healthy teeth. Accept all answers, and use their contributions to expand the discussion.

Activity 2:

Ask students to bring their toothbrushes to school. Provide some toothpaste (so that they are all using the same brand). Have them brush their teeth thoroughly, and then swish with a brand of mouthwash that shows residue in colour. Have them draw a picture of what they see when they look in a mirror, and/or write a journal entry about their observations. Discuss proper brushing techniques. Demonstrate proper techniques. Have students rebrush their teeth and swish again. Is there an improvement? Have students add to their journal entry (with drawings or words) their conclusions about the activity. These entries can be a useful tool in the assessment of students' understanding and further discussion. Invite an older class to come in and demonstrate brushing and flossing. Students could write a "how to" book about brushing teeth (complete with photos).

Activity 3:

Look at boxes of popular cereals and treats. Have students look for the words *sugar*, *glucose*, *sucrose*, and *fructose*. Discuss how too much sugar can harm your teeth.

For some informative and fun online videos, search "Tooth Brushing Kids" at <www.Youtube.com>. Click on *Crawford the Cat*.

GRADE 1 ACTIVITY CENTRES

The lessons and activities presented in this website and related links are to supplement existing curriculum guidelines. The activity centres presented here can be used on their own, in combination with other activity centres, or, in some cases, as a whole-group activity. References to related learning experiences are given where applicable.

Sustainable Development Themes Related to the K-4 ESD Poster Activity Centres

Activity Centre	Subject	Cluster Section	SLO	Page
1. You in a Shoebox	Social Studies	1 I Belong (1.1.1: Personal Identity)	KI-007: Give examples of groups with which they identify. <i>Examples: cultural, linguistic, community . . .</i>	1-45
2. Inuit Snow Games	Social Studies	1. I Belong (1.1.2: Cultural Expressions)	VI-003: Respect the stories, traditions, and celebrations of others.	1-47
3. Nature in Our Lives	Social Studies	2. My Environment (1.2.5: The Natural Environment)	KL-012: Recognize that people depend on the environment for survival.	1-53
	Science	1. Characteristics and Needs of Living Things	1-1-07: Recognize that plants, animals, and humans, as living things, have particular needs. <i>Examples: plants need sunlight and water . . .</i>	
4. Where in the World Did This Come From?	Social Studies	3. Connecting With Others (1.3.6: Global Connections)	KG-021: Identify relationships or connections they have with people in other places in the world.	1-57

continued

Activity Centre	Subject	Cluster Section	SLO	Page
5. What Am I?	Science	1. Characteristics and Needs of Living Things	<p>1-1-06: Observe and identify similarities in life processes between themselves and other living things.</p> <p><i>Examples: they eat, sleep, grow, and breathe, and so do other living things...</i></p> <p>1-1-10: Describe how humans and other living things depend on their environment to meet their needs.</p> <p><i>Examples: the environment provides humans and other living things with food . . .</i></p>	1-59
6. Pet Care Centre	Science	1. Characteristics and Needs of Living Things	<p>1-1-06: Observe and identify similarities in life processes between themselves and other living things.</p> <p><i>Examples: they eat, sleep, grow, and breathe, and so do other living things . . .</i></p> <p>1-1-08: Describe what is needed to care for a pet, a farm animal, or an indoor plant.</p> <p><i>Examples: provide fresh water for their hamster daily, feed and bed calves regularly . . .</i></p>	1-61
7. How Can I Help?	Science	1. Characteristics and Needs of Living Things	<p>1-1-13: Develop, implement, and evaluate personal and group action plans that contribute to a healthy environment for themselves and for other living things.</p> <p><i>Examples: wash hands before eating, reduce amount of waste produced by the class . . .</i></p>	1-63
	Physical Education/Health Education	4. Personal and Social Management—Skills	S.4.1.A.3: Demonstrate behaviours that show social responsibility (e.g., look after belongings, follow directions, encourage others, express feelings in an appropriate manner, work/play cooperatively with others...) in daily routines.	

continued

Activity Centre	Subject	Cluster Section	SLO	Page
8. What Should I Do?	Social Studies	3. Connecting with Others: (1.3.5: Conflict Resolution)	<p>KP-025 Give examples of causes of conflict and solutions to conflict in the school and community.</p> <p>KP-026 Identify ways to deal with bullying.</p> <p>VP-012 Be willing to help resolve conflicts peacefully.</p>	1-65
	Physical Education/Health Education	4. Personal and Social Management	<p>K.4.1.B.3a Identify what can happen when someone becomes angry (e.g., red face, tense muscles, loud voice, physical aggression . . .) and healthy ways to deal with anger (e.g., take time to think about it, talk to the person who made you angry, ask an adult for help, go for a supervised walk/run . . .).</p> <p>K.4.1.B.3b Identify several causes of conflicts that may occur in class or play situations (e.g., disagreeing over whom to play with, what to do, what to play with; not taking turns; not sharing; not being fair; wanting to be first . . .).</p> <p>K.4.1.B.3c Identify ways (e.g., be calm, seek adult help, take turns, follow rules, apologize . . .) to avoid or reduce potential conflict situations (i.e., in class, at play).</p>	

Notes

Targeted Outcome/Intended Learning:

Social Studies: Cluster 1: I Belong
(1.1.1: Personal Identity)

KI-007: Give examples of groups with which they identify.

Examples: cultural, linguistic, community . . .



Background:

This activity centre is designed to assist students in understanding their personal identity.

Materials:

- chart paper
- markers
- index cards
- shoebox
- paper
- pencils, crayons, etc.
- various items and photos representing groups that students identify with
- Suggested K-4 ESD Poster picture cards: 3, 4, 9, 12, 18, 25, 26, 27, 35. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word card: citizen. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Activity 1:

Discuss the meaning of the word *identity*. List various factors that influence personal identity including family (brothers and sisters, grandparents, etc.), country of origin, language, culture, climate, membership in groups, personal interests, and exposure to and taste in music/art. Record these factors on chart paper to create a word bank. Brainstorm for positive character traits (kindness, responsibility, courage, trustfulness, respectful, cheerful, etc.). Record this additional information on the chart for students to reference.

Activity 2:

Show students the word card *citizen*. Discuss what the word means. Place the word card by the activity centre. Explain to the students that as citizens of their community, they have a unique identity (remind them of the discussion from Activity 1). Invite them to share their identity with others by creating a box full of things that represent their “identity.”

Have students decorate and fill a shoebox with images, ideas, pictures, and objects that they feel represent their identity. Have them include a written explanation about the items if possible. For students who are not yet able to give a written explanation, invite them to copy words from the word bank to describe themselves. The words could be printed on index cards with a picture next to them (e.g., a student who prints “swimmer” on the card could draw a picture on the card of someone swimming). When the shoeboxes are complete, have students present their shoeboxes to the class, or have students try to guess the maker of each box according to its contents.

The shoebox activity provides teachers with valuable insight into students’ understanding of the concept of identity. It also provides teachers with an opportunity for some one-on-one feedback with students to clarify understanding.

There are several good activity suggestions for this topic in the social studies blackline masters, which can be found at www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr1/blms/index.html.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 1: I Belong (1.1.2: Cultural Expressions)

VI-003: Respect the stories, traditions, and celebrations of others.

Background:

This activity centre is designed to assist students in enjoying Inuit culture.

Materials:

- Suggested K-4 ESD Poster picture cards: 4, 12, 25. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word card: culture. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Books:

(The following books would be useful for a reading centre or to read to students about the stories, traditions, and celebrations of others.)

The Lonely Inukshuk by Students of Inuglak School, Whale Cove, Nunavut (1999). Manitoba Education Library Call #E Lon.

Maple Moon by Connie Brummel Crook (1997). Manitoba Education Library Call #E cro.

The Kids Book of the Far North by Ann Love and Jane Drake (2000). Manitoba Education Library Call #909.913.

Videos:

The Wapos Bay series by Gordon Tootoosis (24 minutes each) (DVD). An award-winning series of animations about three Cree students living in remote northern Saskatchewan. English and Cree soundtracks. See *The Elements*: Manitoba Education Library Call #D-11113 and *They Dance at Night*: Call #D-11110.

Games:

- Print out pictures of the Inuit snow games from this website (can be laminated to create poster stations for the gym or classroom)
- one dowel or piece of leather (for Ac Sa Raq Thong game)
- one 10-foot-long soft rope (Holman Island Dog Team Pull game)
- one large rock and several small stones (Nakartartuq game)
- one skipping rope and a cloth to tie in middle of the rope (Holman Island Skipping)

Activity Directions:**Activity 1:**

For the reading centre, show students the word card *culture*. Invite students to provide definitions for the word. Explain that many of the books in the reading centre describe aspects of the culture of the people featured in the books. Post the word card near the centre.

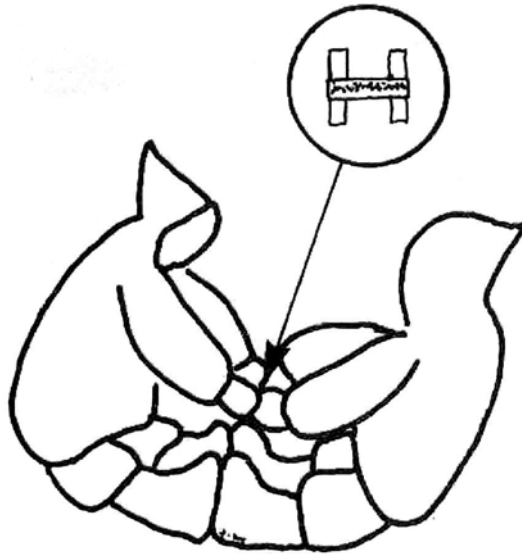
Activity 2:*

Inuit snow games reflect many facets of the Inuit culture and lifestyle. Most of the games help to develop skills for life in the Arctic. Skills include strength, endurance, throwing, aiming, stalking, etc. These games will give students meaningful insights into both the fun and hardships of a people who live intimately with winter and snow. These games would be great indoors or as an outdoor winter activity. Review each game prior to the activity, and discuss with students what skill the game might help the player develop for real-life situations.

* Inuit Snow Games: This activity and the illustrations are reproduced from Pattimore, J. *Snow Activity Program*. Winnipeg, MB: Manitoba Parks Branch, Department of Natural Resources, 1981.

Ac Sa Raq (Thong Game)

Sit facing each other on the floor (ground). Legs are kept straight while one student places her or his feet against the other student's feet. Both opponents hold onto a dowel or piece of rawhide. The object is to pull your opponent up off the ground.

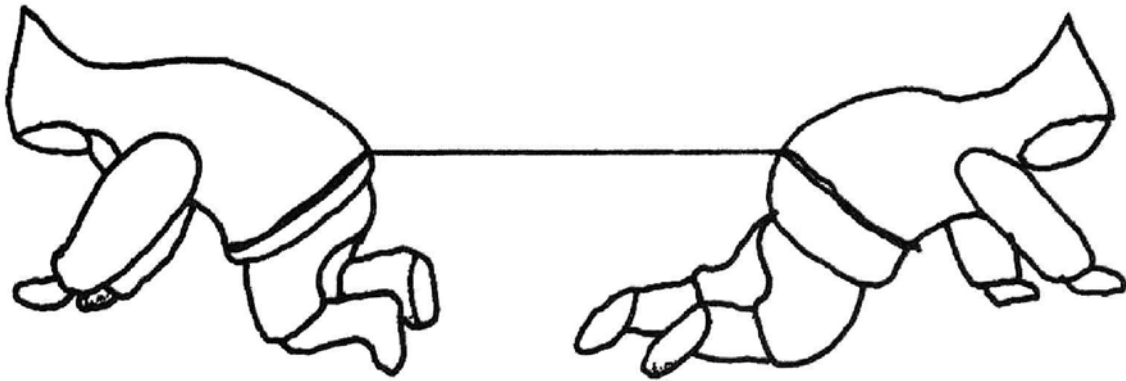
**Tu Nu Miu (Back to Back)**

Two students sit back to back with a mark on the ground beneath them (e.g., tape on the floor). The object of the game is to push your opponent over the line using only your hands and feet.



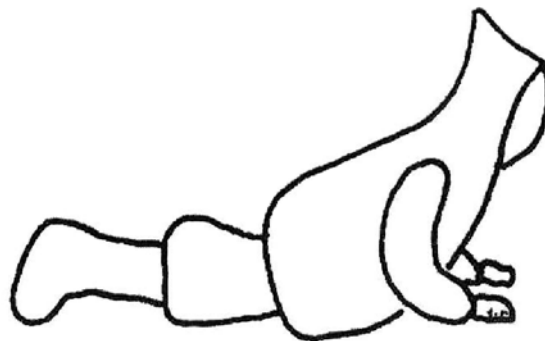
Holman Island Dog-Team Pull

A rope is used as a harness around each opponent's waist. On hands and knees, the contestants try to pull their opponent over a line drawn between them.



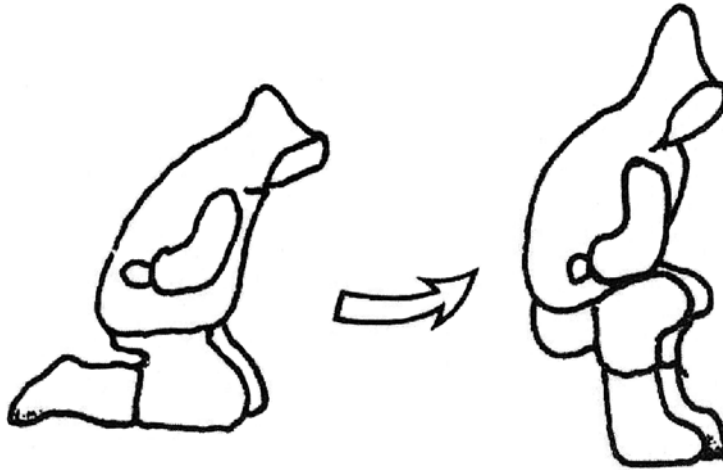
Seal Racing

Opponents lie on their stomachs on the floor. Using their hands for support, with legs limp and body trailing, students race for the finish line.

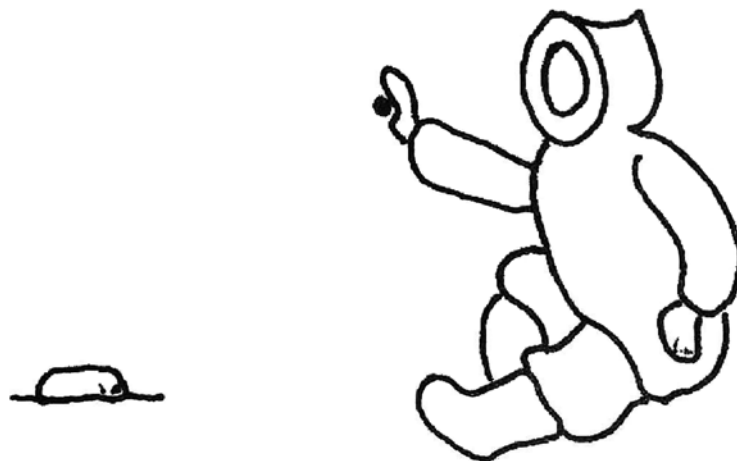


Peed Le Ta Tuq

Opponents move from a kneeling position to a squatting one with a quick jump and then back to kneeling again.

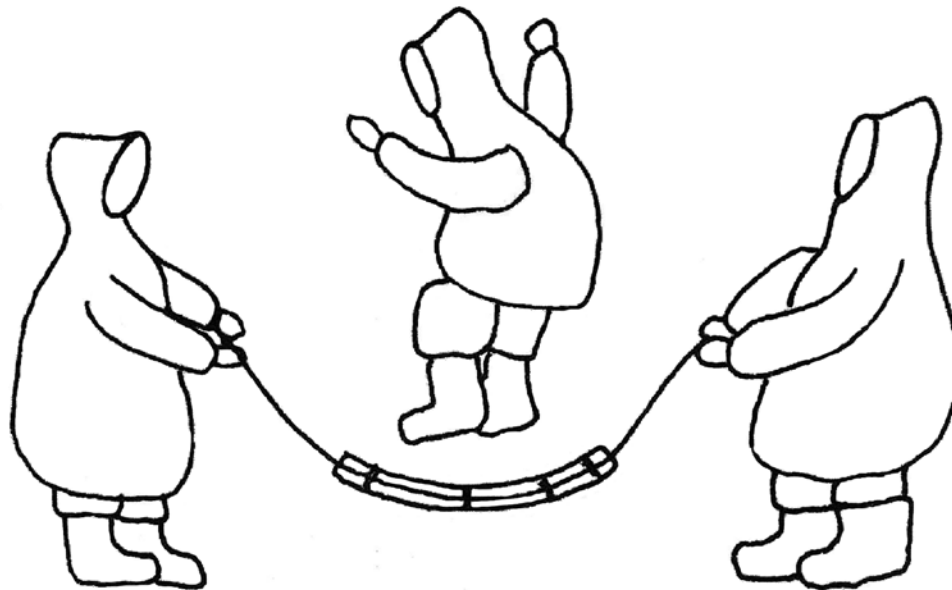
**Nakartartuq**

Using pebbles for tossing and a large stone as the target, students take turns trying to hit or land their pebbles as close to the stone as possible.



Holman Island Skipping

A rope with an animal hide rolled around the mid-portion of the rope is used as the "skipping rope." The skin is swung rhythmically from side to side. The object is to make as many jumps as possible.



Targeted Outcome/Intended Learning:

Social Studies: Cluster 2: My Environment (1.2.5: The Natural Environment)
KL-012: Recognize that people depend on the environment for survival.

Science: Cluster 1: Characteristics and Needs of Living Things

1-1-07: Recognize that plants, animals, and humans, as living things, have particular needs.

Examples: plants need sunlight and water . . .

This centre would be a good follow-up to the Project Wild “What’s For Dinner?” game featured in Learning Experience #4.

Background:

This activity centre is designed to assist students in making connections with the natural world.

Materials:

- scissors
- glue stick
- rulers
- cardboard (card stock weight or stronger)
- a variety of magazines and fliers
- Suggested K-4 ESD Poster picture cards: 4, 7, 9, 10, 11, 12, 13, 18, 19, 24, 29, 30, 31. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word card: depend. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Activity 1:

Show students the word card *depend*. Discuss what the word means and how people depend on elements from the natural environment for their survival. Place the card near the centre. In this activity, students will match everyday items (e.g., foods, clothing, furniture, classroom materials) to elements from the natural environment from which they originated. Prior to independent exploration of this centre, meet with the class as a group and discuss the activity. You could then “walk the class through” the activity using one or two examples, and model the selection process, discussing reasons for making the selections and reviewing what is meant by the “elements of the natural environment.”

Have a variety of magazines and flyers available for students to access. Students find and cut out pictures of everyday items (e.g., paper, bread, milk) and elements of nature (e.g., tree, wheat, cow). Students then match the items to the elements from nature from which they come. To create a “match-up” game for their classmates, invite students to glue each of their items onto a card-sized piece of cardboard.

Note: Remind students to glue onto cardboard only those items and elements for which they have found a match (i.e., the paper card matches with the tree card; the bread card matches the wheat card; the cow card matches with the milk card. etc.)

Activity 2:

Using picture cards 4, 7, 9, 10, 11, 12, 13, 18, 19, 24, 29, 30, and 31, have students sort the cards according to which season they feel the cards represent. Have them write or talk about what is happening in each card, and how they know what season it is.

After centre time, students can share their responses with the class and explain why they made the choices they did. This will provide an opportunity to check for understanding. It will also provide an indication of where you should take the lesson from here (i.e., Are there any misconceptions? Are some students showing evidence of advanced learning? etc.). Discuss any misunderstandings.

The next page shows examples of students’ match-ups.



Targeted Outcome/Intended Learning:

Social Studies: Cluster 3: Connecting With Others (1.3.6: Global Connections)

KG-021: Identify relationships or connections they have with people in other places in the world.

Background:

Before using the centre, show students the word card *connect*. Discuss what the word means. Have a discussion with students about how we all have connections to other parts of the world. Do they have family in other parts of the world? Have they ever eaten a banana or an orange? Look at the labels found on fruit. Where did they come from? Look at clothing labels. Where were they made? Help students to find these countries on a world map. Read stories about these countries. Place the word card *connect* near the activity centre.

The Canadian Hunger Foundation provides detailed lessons on people's needs around the world. Go to <www.chf.ca> and search for "teacher resources".

Materials:

- products and items from other parts of the world
- books and pictures of the countries where products originate from
- a world map
- pins or stickers to identify locations on the map
- labels to place on items and on the map
- markers
- lengths of string
- Suggested K-4 ESD Poster picture cards: 4, 26. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word card: connect. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Activity 1:

Encourage students to bring in fruit, vegetables, clothing, and objects made in other parts of the world. Label these items with their place of origin. Have the items on display for students to look at. Using a large world map, high-light (using a pin or sticker) these locations for the students. In the activity centre, have the items laid out for students to examine. Ask them to match the places of origin with the highlighted marks on the map. Students can use lengths of string to measure how far away these locations are from Manitoba. Students can then look at books about these places and share their observations with the class.

Note: A map could be posted over the location of the centre for the duration of the time this centre is active. Then each group of students could add more strings to what previous groups have contributed.

Assess students' understanding by the knowledge they choose to share with classmates. Do they understand that the products came from a place far away? Can they point to the locations on the map and the location of their own home? To further explore or expand their understanding, prompt them with questions about how the people from that country live: their homes, types of plants living there, their clothing. How long would it take to travel to that country? etc.

The Manitoba Education and Advanced Learning Social Studies website has excellent ideas and resources for 1.3.5: Conflict Resolution and for 1.3.6: Global Connections, including a students-helping-students idea. It can be found at <www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr1/cluster3.pdf>.

The Blackline Masters section includes a conflict resolution Y-chart activity centre activity and a Global Scavenger hunt. See it at <www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr1/blms/index.html>.

Targeted Outcome/Intended Learning:

Science: Cluster 1: Characteristics and Needs of Living Things

1-1-06: Observe and identify similarities in life processes between themselves and other living things.

Examples: they eat, sleep, grow, and breathe, and so do other living things . . .

1-1-10: Describe how humans and other living things depend on their environment to meet their needs.

Examples: the environment provides humans and other living things with food . . .

This centre is a good application activity and can be used in conjunction with Learning Experience #5.

Background:

This activity centre is designed to assist students in observing and identifying commonalities between themselves and other living things.

Materials:

- pictures of various animals and plants (calendar pictures are great)
- cardboard squares large enough for each picture
- 12"/30cm. lengths of wool/cord.
- laminate or glue the pictures onto cardboard and attach the cord to the cardboard
- Suggested K-4 ESD Poster picture cards: 11, 12, 19, 21, 24, 27, 32, 35. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word card: needs. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Activity 1:

Before students begin the following game, show them the word card *needs*. Discuss what needs they have and what needs their pets have.

Tell the students that they are going to play a guessing game. In groups of four or five, students take turns being the “guesser,” and the others will be “answer-givers.” The guessers will have a cardboard picture placed on their back (like a signboard). The board will have a picture of a plant or animal on it. (Make sure that they cannot see what their animal is!) Guessers will then go up to each answer-giver, show the animal/plant, and ask the answer-giver one question about the animal. The question must be about the animal or plant’s needs (e.g., “Do I live in the water?” “Do I eat plants?” “Is my home a burrow?”). The answer-giver can only answer “yes,” “no,” or “sometimes.” When students guess correctly, everybody switches roles. (Variation: students can be answer-givers and guessers at the same time. When they guess what they are, they can switch their picture card to the front side or remove it.)

Note: It might be helpful to create a series of charts with the class so students have a point of reference for their questions (e.g., one chart could list/show types of homes, such as a *burrow*, a *nest in a tree*, or a *wood pile*, and habitats, such as a *pond*, *lake*, *forest*, or *field*; another chart could list things to eat, such as *berries*, *leaves*, *fish*, *mice*, and *insects*, and indicate the climate of the home, such as *hot*, *dry*, *wet*, or *cold*).

While students are playing, check to insure that they are asking questions about the animal’s environment in order to obtain clues as to its identity. The complexity of the questions they ask can provide clues to their level of understanding.

Targeted Outcome/Intended Learning:

Science: Cluster 1: Characteristics and Needs of Living Things

1-1-06: Observe and identify similarities in life processes between themselves and other living things.

Examples: they eat, sleep, grow, and breathe, and so do other living things . . .

1-1-08: Describe what is needed to care for a pet, a farm animal, or an indoor plant.

Examples: provide fresh water for their hamster daily, feed and bed calves regularly . . .

See Learning Experience #6 to complement this activity centre.

Background:

This learning activity is designed to follow up on Activity Centre #5 with an application to a farm animal or pet.

Materials:

- items for care of a specific animal(s) (e.g., for a dog: leash, brush, food bowl, collar, toy, bone, etc.)
- items that are not needed (e.g., candy box, hat, shovel, etc.)
- basket or box
- paper, pencils, crayons
- one or more toy animals
- Suggested K-4 ESD Poster picture cards: 11, 12, 13, 17, 20, 24. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word card: needs. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Activity 1:

Prior to using the centre, review the basic needs of living things. Place the word card *needs* near the activity centre.

Have a box containing items needed to care for a cat, dog, or other pet, along with items that are not needed. Invite students to sort the items and draw on paper those that are needed. The centre can include toy animals so that students can act out caring for those animals.

Invite students to share their reasons for their method of sorting items. Evaluate their understanding by the accuracy of their sorting or recording of items needed by animals. Discuss misconceptions.

Targeted Outcome/Intended Learning:

Science: Cluster 1: Characteristics and Needs of Living Things

1-1-13: Develop, implement, and evaluate personal and group action plans that contribute to a healthy environment for themselves and for other living things.

Examples: wash hands before eating, reduce amount of waste produced by the class . . .



Physical Education/Health Education: 4. Personal and Social Management

S.4.2.A.3: Demonstrate appropriate behaviours for getting along with others (e.g., wait for one's turn, share equipment, help others, invite others to play, show respect for individual differences . . .) in partner activities.

This activity could also be used as a class writing activity (see Learning Experience #7).

Background:

This activity centre is designed to assist students in developing and possibly implementing an action plan to help other living things.

Materials:

- pens, pencils, crayons
- paper
- Suggested K-4 ESD Poster picture cards: 1, 3, 4, 5, 6, 8, 11, 13, 14, 16, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 30, 33, 34, 35, 36. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word card: ideas. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Activity 1:

Show students the word card *ideas*. Discuss its meaning. Place the card at the activity centre. Brainstorm for ideas of things students can do to create a healthy environment (including washing hands, reducing classroom waste, cleaning up, etc.). Place picture cards 1, 3, 4, 5, 6, 8, 11, 13, 14, 16, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 30, 33, 34, 35, and 36 in a container. Students choose a card, write one or two sentences, and draw a picture to describe how the activities in the picture help to create a healthy environment. Sentences can be edited and published in a class book. The class can then decide on a group project to contribute to a healthy environment (e.g., litter-less lunch day, etc.).

Targeted Outcome/Intended Learning:

Social Studies: Cluster 3: Connecting with Others (1.3.5: Conflict Resolution)

KP-025: Give examples of causes of conflict and solutions to conflict in the school and community.

KP-026: Identify ways to deal with bullying.

VP-012: Be willing to help resolve conflicts peacefully.

Physical Education/Health Education: 4. Personal and Social Management

K.4.1.B.3a: Identify what can happen when someone becomes angry (e.g., red face, tense muscles, loud voice, physical aggression . . .) and healthy ways to deal with anger (e.g., take time to think about it, talk to the person who made you angry, ask an adult for help, go for a supervised walk/run . . .).

K.4.1.B.3b: Identify several causes of conflicts that may occur in class or play situations (e.g., disagreeing over whom to play with, what to do, what to play with; not taking turns; not sharing; not being fair; wanting to be first . . .).

K.4.1.B.3c: Identify ways (e.g., be calm, seek adult help, take turns, follow rules, apologize . . .) to avoid or reduce potential conflict situations (i.e., in class, at play).

Background:

This activity is meant as an application activity. The activity serves to help students apply some of the skills and knowledge of conflict resolution that they have already learned. As such, this lesson can provide the teacher with valuable information as to the students' understanding of the outcome, and can help spotlight areas that may require more focus.

Before using the centre, show students the word card *cooperate*. Discuss its meaning. Tell students that they will be doing an activity that focuses on how people can cooperate. Place the card at the centre.

Materials:

- Create one card with a question mark on it.
- Print out scenarios (listed below) from this activity centre and paste them onto the backs of the picture cards.
- Suggested K-4 ESD Poster picture cards: 9, 10, 26, 27, 31. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word card: cooperate. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Activity 1:

Divide the students into groups. Have each group choose a problem scenario card (e.g., someone is not sharing, someone is not taking turns, someone has made you really mad, someone is not being fair, someone always wants to be first). Do the first scenario as a group to model for everyone. Talk about fairness and how to make the solution positive for all individuals involved. Have the groups write or draw a story about the problem. Their answers should

1. identify the problem
2. explain why it is a problem
3. describe how the people involved might feel
4. suggest how the problem could be worked out with a happy ending for all

Be prepared for potential surprise responses (e.g., the person who is not sharing may be happy because she has all the toys!). The group could then act out the story in front of the class (encourage creativity through puppets, props, etc.). Teachers can create their own scenarios or choose from the following (use of picture cards optional).

Scenario Cards for Activity Centre #8

Scenario 1 (Picture Card #9):

At your school, it is against the rules to throw snowballs. Some students who are building a fort pick up some sticky snow and start throwing snowballs at you and your friends. What do you do?

Scenario 2 (Picture Card #31):

You are on the school bus and the two students in the seat behind you start teasing you and calling you names. You can feel your face turning red, your muscles are tensing, and you are getting really mad. What do you do?

Scenario 3 (Picture Card #27):

You are having lunch with your friends. The new student whom you are not sure you like comes to sit with your group. What can you do?

Scenario 4 (Picture Card #26):

It's math centre time, which is your favourite activity, but the person who should have been at that centre the previous day missed his turn because of a dentist appointment. The teacher has forgotten that he missed his turn. Should you remind the teacher and wait until tomorrow for your turn, or should you not worry about it and enjoy going to your favourite activity?

Scenario 5 (Picture Card #10):

The most popular kid in class has chosen to play with you at recess. You really like him and want him to like you. He wants to go for a walk in a place that you know is off limits. What do you do?

Scenario 6 (Use a card with a question mark on it):

Describe a problem that you have had with another student. How did you feel about what was happening? How did you solve the problem? Was your decision a good one? How else could you have solved the problem?



EDUCATION FOR SUSTAINABLE
DEVELOPMENT: KINDERGARTEN
TO GRADE 4 POSTER ACTIVITIES

Grade 2

GRADE 2 LEARNING EXPERIENCES

The lessons and activities presented in this website, and related links are to supplement existing curriculum guidelines.

Sustainable Development Themes Related to the K-4 ESD Poster Learning Experiences

Learning Experience	Subject	Cluster Section	SLO	Page
1. Taking Care of the Earth	Social Studies	1. Our Local Community (2.1.2: Natural Resources)	KI-017: Give examples of ways in which the natural environment influences their communities.	2-7
	Science	4. Air and Water in the Environment	2-4-11: Explain and appreciate the importance of clean air and water for humans, plants, and animals.	
2. Pass it On . . .	Social Studies	1. Our Local Community (2.1.8: Remembrance Day)	KP 035: Identify possible sources of conflict in groups and communities.	2-9
	Physical Education/ Health Education	4. Personal and Social Management	<p>K.4.2.B.2a: Identify positive communication skills (e.g., focus on speaker, repeat back information, use appropriate body language, ask relevant questions, include everyone, disagree politely, show self-control, take turns, work cooperatively . . .) for listening with attention in small group settings.</p> <p>K.4.2.C.1a: Identify appropriate ways for sharing and expressing feelings and emotions related to different situations (e.g., cooperative-type activities, competitive-type activities, at home, in public . . .).</p> <p>K.4.2.C.1b: Discuss ways (e.g., show empathy when others are suffering, help rather than hurt or neglect others, respect rather than belittle, support and protect rather than dominate or ignore . . .) to communicate with someone who is feeling different emotions (e.g., sad, happy, hurt, angry . . .).</p>	

continued

Learning Experience	Subject	Cluster Section	SLO	Page
3. Can This Be Done Here?	Social Studies	2. Communities in Canada (2.2.3: Natural Resources)	KL 021: Give examples of ways that the natural environment shapes daily life in the communities studied.	2-11
4. Wetland Metaphors	Social Studies	2. Communities in Canada (2.2.3: Natural Resources)	KL-022: Explain the importance of conserving or restoring natural resources.	2-13
5. The Important Natural Resource Book	Social Studies	2. Communities in Canada (2.2.4: Work, Goods, and Products)	VE-013: Appreciate that their quality of life is enhanced by the work and products of other Canadian communities. <i>Examples: West Coast lumber, Atlantic fish, Northern mines, Prairie grain . . .</i>	2-17
6. Everyday and Sometime Foods	Social Studies	3. The Canadian Community (2.3.5: Canadian Needs, Choices, and Decisions)	KE-039: Give examples of media influences on their choices and decisions.	2-19
	Physical Education/ Health Education	5. Healthy Lifestyle Practices	K.5.2.C.1a: Differentiate between "everyday" and "sometime" foods in <i>Canada's Food Guide to Healthy Eating</i> .	
7. Helping Animals	Science	1. Growth and Changes in Animals	2-1-17: Identify and describe ways in which humans help other animals. <i>Examples: protecting endangered animals, feeding birds . . .</i>	2-23
8. Cleaning Up Without "Voom"	Science	2. Properties of Solids, Liquids, and Gases	2-3-16: Describe ways humans dispose of solids and liquids to maintain a clean and healthy environment.	2-25
9. Wind Power	Science	4. Air and Water in the Environment	2-4-05: Use the design process to construct and test a device that shows evidence of air movement. <i>Examples: windsock, wind chime, pinwheel, sailboat, kite . . .</i>	2-29

continued

Learning Experience	Subject	Cluster Section	SLO	Page
10. The Plastics Challenge	Science	4. Air and Water in the Environment	2-4-11: Explain and appreciate the importance of clean air and water for humans, plants, and animals.	2-31
11. Precious Water	Science	4. Air and Water in the Environment	2-4-13: Recognize that clean water is an increasingly scarce resource in many parts of the world, and describe consequences of a shortage of clean water.	2-33
12. Water <i>Dos</i> and <i>Don'ts</i>	Science	4. Air and Water in the Environment	2-4-14: Record personal use of water, and identify ways in which they can reduce water usage. <i>Examples: rather than leaving water running while brushing teeth, turn off tap to reduce usage . . .</i>	2-35
13. Healthy Living Charades and Stories	Physical Education/ Health Education	5. Healthy Lifestyle Practices	K.5.2.A.1: Identify the daily habits and responsibilities for leading a physically active and healthy life (e.g., self-regulation relative to practising daily health routines for cleanliness, rest, healthy eating, good posture . . .).	2-37
14. Hand-Washing Horribles	Physical Education/ Health Education	5. Healthy Lifestyle Practices	K.5.2.A.2: Identify common communicable disease/illness conditions in the classroom and home, and ways to prevent the spread of disease/illness conditions (e.g., cover mouth when coughing, wash hands regularly, share food appropriately).	2-39

Notes

Targeted Outcome/Intended Learning:

Social Studies: Cluster 1: Our Local Community
(2.1.2: Natural Resources)

K1-017: Give examples of ways in which the natural environment influences their communities.

Science: Cluster 4: Air and Water in the Environment

2-4-11: Explain and appreciate the importance of clean air and water for humans, plants, and animals.

See Activity Centre #1 for an application activity for this theme.



Background:

Come to a consensus on the meaning of the term *natural resources*. See Social Studies BLM 2.1.2: Natural Resources at www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr2/blms/index.html for a definition and suggestions. Students list examples of natural items in the classroom or in their homes.

Students discuss resources that are used or needed by their community. Examine picture cards 1, 7, 12, 13, 21, 22, 23, 24, 28, and 31. What natural resources are being used in these pictures? What are they being used for?

Materials:

- map of Manitoba
- paper and writing materials
- various materials to create a diorama
- Suggested K-4 ESD Poster picture cards: 1, 7, 12, 13, 21, 22, 23, 24, 28, 31. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Activity 1:

Look at a map of Manitoba. List cities and towns that are located near rivers or other water bodies. List cities and towns that are not located near rivers. Why are more cities and towns located near water? What do communities use water for (e.g., drinking, irrigation, transportation, fishing, recreation, water for mechanical processes in factories, etc.)? What problems could there be if no water was near? What problems can having water nearby create (e.g., flooding, erosion)? Talk about safety measures that can be taken to protect communities from such problems.

Activity 2:

Do a “tree survey” by taking a walk around the neighbourhood. Count the number of trees on each block and in parks. Which areas look or feel better? Which areas have more trees? Are the two related? Talk about the benefits of having trees in the community (e.g., aesthetics, shade, shelter, homes for wildlife, fruit, clean the air, soak up extra moisture, prevent erosion, etc.).

Activity 3:

Discuss the importance of taking care of the natural environment. Have students examine or draw a map of your community. Look at the map and decide on a good location for a new green space. Have them create a diorama or mural for the new green space with areas for trees, wildlife (birds, rabbits), and a water source. Encourage other ideas to enhance the space for all community members (e.g., a wood pile as a shelter for rabbits and ground squirrels, birdhouses, bat houses, a bird feeding station, a community garden area with a compost site, a fitness trail or nature study trail, etc.).

Activity 4:

Brainstorm ways students can help the natural environment of their community (e.g., recycling, using less paper, conserving water and energy, cleaning up litter, planting trees, putting up birdhouses on school property, and creating a community/school garden). Make a plan to act on one of the ideas presented.

Students’ suggestions for the plan can provide an opportunity to assess how well they are able to apply what they have learned to real-life situations.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 1: Our Local Community (2.1.8: Remembrance Day)

KP 035: Identify possible sources of conflict in groups and communities.

Physical Education/Health Education: 4. Personal and Social Management

K.4.2.B.2a: Identify positive communication skills (e.g., focus on speaker, repeat back information, use appropriate body language, ask relevant questions, include everyone, disagree politely, show self-control, take turns, work cooperatively . . .) for listening with attention in small group settings.

K.4.2.C.1a: Identify appropriate ways for sharing and expressing feelings and emotions related to different situations (e.g., cooperative-type activities, competitive-type activities, at home, in public . . .).

K.4.2.C.1b: Discuss ways (e.g., show empathy when others are suffering, help rather than hurt or neglect others, respect rather than belittle, support and protect rather than dominate or ignore . . .) to communicate with someone who is feeling different emotions (e.g., sad, happy, hurt, angry . . .).

Background:

This learning experience looks at one aspect of conflict in groups and communities. For a simple conflict chart, see the Manitoba Social Studies BLM 2.1.8b at <www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr2/blms/index.html>. While it is titled Remembrance Day Conflict Chart, it is also designed for local issues.

Materials

- Suggested K-4 ESD Poster picture cards: 2, 4, 9, 18, 25, 26, 27, 29, 35. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word card: respect. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Websites:

For songs and poems about peace and other topics (particularly the songs “Peace is Not . . .”, “Do You Know Where I Find Peace?”, and “We Are Proud Canadians”), go to <www.Songs4Teachers.com>.

Books:

What Does Peace Feel Like? by V. Randunsky (2004). Manitoba Education Library Call #303.66 R33.

Somewhere Today—A Book of Peace by Shirley Moore Thomas and Eric Futran (1998). Manitoba Education Library Call #303.66 T46.

Activity Directions:**Activity 1:**

Students read a book such as *What Does Peace Feel Like?*, *Somewhere Today*, or another book about peace. Students then have a discussion about peace to gain a better understanding of how their actions relate to the bigger picture of “national peace.” Students read the poem “Peace is Not . . .” from <www.Songs4Teachers.com>. Students make the connection that peace means getting along with others and communicating effectively. A feeling of peace comes from having food, clean water, a safe place to live, proper clothing, and love.

Activity 2:

Conflicts in groups and communities can sometimes start with a simple misunderstanding. To show how misunderstandings can sometimes begin, explain that you are going to whisper a secret message to one student. That student will then carefully repeat the message in a whisper to the person next to him or her, and so on, until the message has been given to everyone. No one is allowed to speak during this exercise except the person who is transferring the message. Have the last student to receive the message repeat it out loud for the whole class. Has the message changed? Discuss what can happen in real life when a message changes as it is translated or passed from one person to another, country to country. How could this result in conflict? What are some ways that this could be prevented from happening or resolved (e.g., repeating the message back, ensuring proper understanding, etc.)? Discuss some other causes of misunderstandings (e.g., cultural differences, differences in attitudes, hand gestures, body language, and expressions).

3

Grade 2 Learning Experience #3: Can This Be Done Here?

Targeted Outcome/Intended Learning:

Social Studies: 2: Communities in Canada
(2.2.3: Natural Resources)

KL 021: Give examples of ways that the natural environment shapes daily life in the communities studied.

Activity Centre #1 is related to this learning experience.



Background:

On the board, brainstorm for the various aspects of the natural environment: weather, climate, seasons, types of storms, soil type (rocky, sandy, clay soils, rich soils), proximity to water (lakes, rivers, streams, ocean), types of plants growing in the area (grassy, lichen, shrubs, deciduous trees, evergreens), terrain (flat, hilly, mountainous).

Discuss how the weather would affect the way people dress, the way they build their houses, etc. Ask them how living next to water might affect the weather and how they dress. Talk about soil type. Look at pictures of farms in the communities studied. Infer that soil type and weather could influence farming (and manufacturing).

Talk about how all these things can influence what types of plants and animals live in or near the communities studied.

Materials:

- four or five books about the communities being studied
- paper and pencil for recording ideas
- Suggested K-4 ESD Poster picture cards: (1, 3, 22), (7, 9, 28), (11, 12), (17, 19), (4, 24). Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Activity 1:

Break students into groups and then give each group one or a set of the following sustainable development website picture cards: (1, 3, 22), (7, 9, 28), (11, 12), (17, 19), (4, 24). Ask students to decide whether the kinds of activities featured in the picture card(s) they were given would be possible in the community they are studying. Prompt students with ideas (e.g., After looking at the “wind power” card, ask whether this community would be a windy place, and whether it has hills or open spaces where a wind farm could be used for power. After looking at the gardening card, ask what kinds of plants would grow here. What kinds of plants do we grow in our community? After looking at the farm and garden cards, ask what kinds of farms might be there. After looking at the recreation cards, you could ask what kinds of games and activities this community would have. Can they go fishing or canoeing? Do they get lots of snow? Is it cold enough in winter for skating?).

Encourage students to use books and other materials about the communities studied to confirm their ideas. Ask them to report their findings in their notebooks. Assess students’ understanding by observing their discussions and reading their notes.

Social Studies BLM 2.2.3 is useful in comparing two communities, etc. It can be found at
<www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr2/blms/index.html>.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 2: Communities in Canada (2.2.3: Natural Resources)
KL-022: Explain the importance of conserving or restoring natural resources.

Background:

The Canadian Wildlife Federation offers an education program called Project Wild, which includes an activity that uses various everyday objects as metaphors for parts of the wetland. This activity's objective is to give students an appreciation of the beneficial qualities of wetlands, and to help them understand their importance to both plants and animals (including humans).

The items and pictures listed in the materials section could serve as metaphors for the major attributes of wetlands. For example, the sponge serves as a metaphor for wetlands, which absorb excess water caused by runoff and hold moisture for a time even if standing water dries up. The pillow is a metaphor for how wetlands are resting places for migratory birds. The playground depicts how water provides a nursery for young wildlife. The sieve demonstrates how wetlands strain silt, debris, and small impurities from runoff water. Cereal depicts how wetlands provide food for wildlife and humans. Soap shows how wetlands help clean the environment. The rain barrel is a metaphor for how wetlands hold water for irrigation and are a source of moisture during dry periods. The food chopper and compost are similar to how wetlands break down plant and animal material so that nutrients can be re-used. The garden is like the wetlands in that both are a rich source of food. Recycle bins are like wetlands in that wetlands also recycle nutrients, fertilizers, and organic material collected from runoff through their own biological processes.

For more information about Project Wild, go to www.wildeducation.org/programs/project_wild/prog_wld.asp. To find out more about the importance of woodlands, go to the Project Learning Tree website at www.plt.org and search for "Tree Readings". There, you will find a kid-friendly article about the qualities of plants that make them useful to humans for a variety of products. You can find statistics about how important trees are in a community at www.arborday.org/trees/benefits.cfm. This site also features a picture that students can click on to obtain information about how trees in your yard can benefit the environment.

Materials:

- one large bag or box
- a sponge
- one small pillow
- a flour or pasta sieve
- a small box of cereal or a picture of groceries
- a toy baby bed or crib
- a bar of soap
- a small toy house
- pictures of animals, plants, lakes, streams (from calendars, etc.)
- books about wetlands and wetland creatures
- Suggested K-4 ESD Poster picture cards: 7, 13, 20, 21, 24, 34. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word card: depend. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions

Activity 1:

Ask students if they know what the word *metaphor* means. Provide some examples of metaphors (“an angel” is often used as a metaphor for someone who is very kind and generous; “a volcano in your tummy” is a metaphor for feeling upset; a turtle or a sloth can be used as a metaphor of slowness; “a sticky situation” is a metaphor for having a problem that you don’t know how to solve easily; “ants in your pants” is a metaphor for not being able to sit still). Use the worksheet from the following site for practice (optional): <http://bogglesworldesl.com/metaphor_worksheets.htm>. Invite students to try some metaphors of their own. This would make a useful writing activity that students could illustrate and display.

Activity 2:

Wetland Metaphors: Place the items and cards from the materials list into a box for later use. One of our most important natural resources is water. Discuss with students the sources of water in their community and in the communities studied (e.g., rivers, streams, lakes, ponds, oceans, etc.). Invite students to close their eyes and imagine one of these wetlands. Ask them to consider what animals and plants they might see, what the air smells like, and what sounds they hear. Discuss why these water bodies might be important to people and animals. Record their ideas on the board. If not offered, suggest how water bodies collect extra rainwater and meltwater—sort of like a sponge. Talk about how water bodies can provide homes and nesting places for hundreds of species of birds, fish, plants, and animals, just like our community provides a place for us to live. If possible, show them pictures of wetlands and animals that live there (calendars are a good source of pictures).

Bring out the mystery box. Tell students that everything in the container has something to do with a wetland or, more precisely, the items in the container are a metaphor for what water bodies do for the natural environment and our community. (Remind them of what a metaphor is.)

Divide students into small groups and tell them that each group will have the opportunity to choose something from the box. The group will then have to figure out how the item or picture represents a wetland or what it does. Give students a few minutes to compile their ideas, and then have them report their ideas to the class. Record their ideas on chart paper, and use this opportunity to correct any misconceptions and address any missed ideas.

Follow this activity with a concluding discussion of why water resources are so important to Canadian communities. Have students write a summary of the activity in their science journals. Ask them to give examples of at least three metaphors from nature and what the metaphors mean to the natural environment. Check their responses for understanding, and discuss.

Note: Kits and activities related to this theme are available on loan from Oak Hammock Marsh. For more information, go to www.oakhammockmarsh.ca/programs/educators/index.html.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 2: Communities in Canada (2.2.4: Work, Goods, and Products)

VE-013: Appreciate that their quality of life is enhanced by the work and products of other Canadian communities.

Examples: West Coast lumber, Atlantic fish, northern mines, Prairie grain . . .



Background:

Use this learning experience as an application activity after learning about the work and products of the Canadian community studied.

Materials:

- books and materials about the communities studied
- writing materials, good quality paper for final copy
- Suggested K-4 ESD Poster picture cards: 1, 4, 7, 11, 12, 21, 22, 24. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word card: Connect. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Books:

The Important Book by Margaret Wise Brown (1990). Manitoba Education Library Call #E Bro.

Activity Directions:

Activity 1:

Read *The Important Book* by Margaret Wise Brown, and discuss the rhythm of the story (i.e., the lines rhyme and the first line of each page is repeated at the

bottom of the page). Discuss some of the important things in the students' lives. Ask for examples of important work and products made in their community using natural resources. Use picture cards 1, 4, 7, 11, 12, 21, 22, and 24 to encourage discussion. Extend the discussion to important products and work in the community they are studying. Brainstorm for ideas. Encourage students to use their notebooks, classroom information, and books about the communities studied for ideas. Record their contributions on chart paper.

Activity 2:

Invite each student to select one product or work from natural resources in the communities studied (as listed on the chart paper), and ask them to write a descriptive poem about the product or work. Encourage them to format their poem in a pattern similar to Ms. Brown's book. Model the activity for them, reminding them to keep the first and last lines of the poem the same.

The important thing about dairy farms is the cows.
They produce milk for me and you.
They give people jobs too.
But the most important thing about dairy farms is the cows.

Activity 3:

Students can include an illustration with their poem. These poems can be compiled into a class "Important Natural Resources of (name of the community) book."

To assess students' understanding of the importance of the work and products of the communities studied, observe what resources they choose to write about, and, if necessary, guide them in choosing an appropriate resource and discuss the importance of the resources.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 3: The Canadian Community (2.3.5: Canadian Needs, Choices, and Decisions)

KE-039: Give examples of media influences on their choices and decisions.

Physical Education/Health Education: 5. Healthy Lifestyle Practices

K.5.2.C.1a: Differentiate between “everyday” and “sometime” foods in *Canada’s Food Guide to Healthy Eating*.

Background:

Students look at various products (e.g., cereal, snack foods, novelty items, toys). Discuss with students the advertising they have seen promoting the product. List common features used to promote the products (e.g., colourful packaging, testimonials, jingles, etc.). Is the product a “need” or a “want”? If it is a “want,” does the advertiser try to convince you that it is a “need”? How does the advertiser accomplish that?

To aid in a discussion of everyday and sometimes foods, it might help teachers to refer to the following online article sponsored by the Heart and Stroke Foundation at <www.heartandstroke.com/atf/cf/%7B99452D8B-E7F1-4BD6-A57D-B136CE6C95BF%7D/Pumped_Issue7_EN.pdf>.

Other helpful articles can be found at <www.eatrightontario.ca/en/ViewDocument.aspx?id=34>.

For online lessons, game suggestions, and links to other sites, visit <www.healthyeatingpei.ca/toolkit-section6.php>.

Materials:

- colourful packages from cereal, snack foods, novelty items, toys
- writing and drawing materials (optional: tracing paper for reproduction of product boxes)
- Suggested K–4 ESD Poster picture cards: 5, 19, 21, 23, 24. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K–4 ESD Poster word card: distinguish. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Videos:

Healthy Habits for Kids, 2005 (DVD, 12 min.). Segment 1 discusses variety, introducing My Pyramid, outlining the food groups, and showing what each group does for the body. Segment 2 explains how and when to make healthy food choices. Manitoba Education Library Call #D-10955.

Activity Directions:**Activity 1:**

Look at various products and discuss how the advertisers attract your attention (point out bright colours, catchy sayings, happy looking people/characters on the package). Ask students what attracts them to a product. Record their responses on the board. Ask students what TV commercials they can remember and what they liked about the commercial. Ask them what the characters in the commercial said to them. Did they make the student want to buy the product? Record these responses on the board. In groups or as individuals, invite students to create their own jingle or advertisement for a product of their choice. Model to the students how to write a jingle. Provide some examples from Manitoba Education and Advanced Learning's *Kindergarten to Grade 4 English Language Arts: Curriculum Framework of Outcomes*, or access sample songs at <www.Songs4Teachers.com>.

Have students practise their songs or advertisement and present them to the class. Ask the class if they would buy the product advertised in their classmate's song and why.

There is an alternative activity that was created by teachers at Oak Bluff School. Have students bring in various cereal and snack boxes and examine them for sugar, protein, and fat content. Explain to them what the nutrition label means and how to use it. Discuss a number of the products as a group. Which products have the most sugar? Carbohydrates? Salt? Which are good sources of protein? Vitamins?

Discuss how advertisers encourage people to buy their products. Invite students to recreate the product box, highlighting the bad things about the product and using the same techniques advertisers use to get consumers to buy the products. Students can do this by drawing a picture of the box and adding slogans that warn of negative qualities of the product or by creating a commercial to present to the class. Have them present their picture to the class.

Extension: What is the packaging like? Is it wasteful? Can the packaging be recycled? Have the class write a letter to thank a company that uses “eco-friendly” packaging and/or write a letter to lodge a complaint against the waste of materials in packaging or packaging that is not biodegradable. Students can also brainstorm on how products could be packaged more wisely. These ideas could be added to the letter.

Activity 2:

Review *Canada's Food Guide*. Discuss everyday and sometimes foods. Where do the products the students studied fit into this? Is it an everyday or sometimes food? How do they know? How do they feel about what they have learned? Watch the DVD *Healthy Habits for Kids*.

Social Studies Blackline Masters

Along with links to media awareness websites, BLM 2.3.5 a provides a needs-versus-wants T-chart. See also BLM 2.3.5 b and c, available online at www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr2/blms/index.html.

Hands on Social Studies 2 includes a needs-versus-wants memory game (pp. 188-191). Manitoba Education Library Call #372.84044 L38.

Check out *Canada's Food Guide* at www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php.

Targeted Outcome/Intended Learning:

Science: Cluster 1: Growth and Changes in Animals

2-1-17: Identify and describe ways in which humans help other animals.

Examples: protecting endangered animals, feeding birds . . .

Activity Centre #5 has connections with this learning experience.

Background:

This lesson includes a series of activities that focus on different ways humans can help other animals. Teachers are invited to use whichever activities fit best with their own lesson plans.



Materials:

- props like stuffed animals, doctors' kits, outdoor clothing, binoculars, notebooks, insect nets, cameras (teacher can provide or students can bring items from home)
- Suggested K-4 ESD Poster picture cards: 7, 11, 17, 18, 21, 23. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word card: protect. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Books:

The House I'll Build for the Wrens by Shirley Neitzel (1997). Brandon Public Library Call #: JE Neitzel.

Books for Reading Centre: Stories about people helping animals or books about careers that involve helping animals.

Activity Directions:

Activity 1:

Read the story *The House I'll Build for the Wrens* by Shirley Neitzel. Ask

students how the boy is helping animals. Where would the wrens have gone if he did not build the house? Where else do wrens live? What happens if there are not enough trees around? What other ways can we help animals?

Activity 2:

Go to the Manitoba Education and Advanced Learning ESD website and look at picture cards 7, 11, 17, 18, 21, and 23 (non-motorized boats, planting trees, flowers for butterflies, preserving waterways, keeping the environment clean, using phosphate-free detergents). How are people in the pictures helping animals? Invite students to write a story about how they could help animals in their community.

Activity 3:

Brainstorm for jobs that people do that help other animals. Look for books about careers in this area. Have students choose a career that involves helping animals and do a presentation about that career. Students can use props like stuffed animals, doctors' kits, outdoor clothing, binoculars, notebooks, insect nets, or cameras to help bring their presentation to life. Look into such organizations as Manitoba Conservation, Canada Fisheries and Oceans, Veterinary Clinics, the Manitoba Wildlife Rehabilitation Centre, the Canadian Wildlife Federation (www.wildeducation.org), Sierra Club (www.sierraclub.ca), Manitoba Naturalists' Society, Ducks Unlimited, Oak Hammock Marsh (www.oakhammockmarsh.ca), Fort Whyte Alive (www.fortwhyte.org), Manitoba Forestry Association (www.thinktrees.org), Winnipeg Humane Society (www.winnipeghumanesociety.ca), and Nature Conservancy Canada Manitoba (www.natureconservancy.ca/en/where-we-work/manitoba).

Activity 4:

As a class, choose a project and plan a fundraiser to help a charitable organization that helps animals, or plan a visit to the Humane Society, a veterinary clinic, FortWhyte Alive, Oak Hammock Marsh, Manitoba Wildlife Rehabilitation Centre, or another park or centre near your community.

Activity 5:

Computer Activity: Greenpeace has some online games about protecting animals that students would enjoy. Find them at www.greenpeace.org/international/en/multimedia/multimedia-archive/fungames/.

The stories and presentations students create about helping animals and the organizations that help animals can provide valuable insight into students' understanding of this concept.

Targeted Outcome/Intended Learning:

Science: Cluster 2: Properties of Solids, Liquids, and Gases

2-3-16: Describe ways that humans dispose of solids and liquids to maintain a clean and healthy environment.

Learning Experience #11 has an activity about plastics.

Background:

As a class, discuss what the word *pollution* means. Pollution is anything that affects our land, air, or water in an unwanted way. Pollution can be tires, appliances, oil, and other refuse that finds its way into the water. It can be human-made chemicals in the air, water, or on the land. It can be chemicals and gases from factories. It can be plastics and other refuse on the playground. It can also be smoke from a forest fire or ash from an erupting volcano.

Review what kinds of pollution are found in your community. Ask students where the pollution goes. For solid wastes, where does the garbage go after it is taken away in the garbage truck? Where does soapy water from the drains go? What about smoke in the air? Ask how many students use recycling bins. Invite them to share what they know about the recycling process.

Explain to students that pollution happens as a natural part of life on Earth, but a lot of pollution caused by people could be reduced. We can help decrease the amount of pollution we cause just by changing some of our daily habits.

The following article about plastics is an interesting read for teachers:
<www.ted.com/index.php/talks/capt_charles_moore_on_the_seas_of_plastic.html>.

Materials:

- Cleaning up Voom: Cooking oil, water, ice cream pails (one for every group of 3–4 students) various “absorbent” materials (paper towels, flour, sponges, sawdust, etc.).
- Suggested K–4 ESD Poster picture cards: 1, 3, 5, 6, 7, 8, 11, 18, 19, 20, 21, 22, 23, 24, 27, 28, 29, 30, 32, 33, 34, 35, 36. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

- Suggested K-4 ESD Poster word card: protect. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Books:

The Cat in the Hat Comes Back by Dr. Seuss (1958).

Activity Directions:**Activity 1:**

On poster paper or on the board, write down the following three categories: “soil,” “water,” and “air.” Encourage students to list liquid and solid pollutants, and suggest which column they belong under. The class could take a walk through their neighbourhood, recording sources of pollution (contrails from an airplane in the sky, smoke stacks, noise from vehicles, exhaust, garbage on the ground . . .).

Activity 2:

A useful Project Learning Tree program involves students reading Dr. Seuss’s *The Cat in the Hat Comes Back* and being asked what represents pollution in the story. How did the cat get rid of the “pollution” (pink stuff)? (*Answer: First, he moved it from one place to another, and then he got help*). Who did he get help from? What did the little cats do? Who finally got rid of the mess? (*Little Cat Z*) Discuss how this way of dealing with a mess is a lot like how people deal with pollution. We move it from one place to another or break it into smaller pieces (dump it in the ocean or into the air or a landfill site), but does it disappear? In real life, is there something like “Voom” (i.e., the magical “Voom” in the story)? Discuss some positive ways that companies are now using to deal with pollutants (e.g., discuss how car oil can be recycled at special facilities, old paint can be taken to collection sites, and old plastics and glass are being used to make new building materials). For more Project Learning Tree ideas, contact the Manitoba Forestry Association at www.thinktrees.org for information about Project Learning Tree programs in your area.

Activity 3: Cleaning up Voom

Materials: cooking oil, water, ice cream pails (one for every group of 3-4 students), various “absorbent” materials (paper towels, flour, sponges, sawdust, etc.).

Objective: To engage students in creative problem solving, while helping them realize just how hard pollution can be to clean up.

Place two cups of water in each ice cream pail. To this, add one tablespoon of cooking oil. Divide students into small groups. Explain to them that they are now Little Cat Z and that their job is to clean up the “pink stuff” (cooking oil) from their pail of water. Have the absorbent materials laid out on a table in small containers. Show them what is in each container, and invite students to choose which materials to use to clean up the pollutant.

After they have finished, share the results. Were any groups successful in their clean-up attempts? What problems did they encounter? What would they do differently next time? Discuss how this is a very real problem in lakes and oceans where oil tankers sometimes accidentally spill their load, where factories drain liquids into water, or even when motor boats spew fuel into lakes and rivers. Discuss what a challenge it is to clean our environment of such pollutants. Explain that laws are now in place to prevent or control such pollution sources, but laws are not always easy to enforce—plus, accidents still do happen.

Use discussion and reactions of students to the experiment to assess their understanding of the concept.

Activity 4:

As a **reflective journal activity**, have students describe their experiment and what they learned about where our solid and liquid garbage goes. Encourage students to go online to find out more about oil spills and what causes them. Their reflections along with photos of the “Voom” experiment, and information about oil spills from the web, could be compiled into a **poster or newsletter** to share the information with other classes.

Activity 5: What’s Happening Here?

Use picture cards numbers 1, 3, 5, 6, 7, 8, 11, 18, 19, 20, 21, 22, 23, 24, 27, 28, 29, 30, 32, 33, 34, 35, and 36 for the following activity. Have students sit in a sharing circle. Have them take turns choosing one of the picture cards from a container. They must then show the card to other classmates and explain how the people or item in the picture are contributing to the reduction of pollution in their community. If they are not sure, they can seek help from the teacher or a friend. Note picture #36. It has a bin with the word “pre-use” printed on it. Ask students what this might mean. Discuss how many of the items we buy are things that we really don’t need or that come with excess packaging. We need to learn to be smart consumers and decide what is necessary and what is wasteful. Let manufacturers know how we feel.

Activity 6: Take Action:

This lesson could be followed up with a letter to a manufacturing company to give them a “thumbs up” or “thumbs down” about a product or the packaging that the product comes in. Encourage companies to use biodegradable packaging and environmentally friendly products.

Activity 7:

For an excellent website with online activities for Grades 2–6 students, go to www.epa.gov/epawaste/education/kids/planetprotectors/index.htm. There are also links for teachers on this website.

Many opportunities for assessment present themselves within this activity. Students often react very strongly to this activity, showing a desire to learn more and to get involved. While students are being “scientists,” listen for their contribution of ideas and questions about pollution. Are they expressing appreciation of how hard it is to clean up the spill? Are they asking questions about how real pollution events happen? What do they write about in their journal reflections? During the sharing circle, what comments do the cards evoke? Has the “Voom” activity made them more sensitive to pollution reduction activities? Their comments during the circle activity and journal reflection should indicate that.

Targeted Outcome/Intended Learning:

Science: Cluster 4: Air and Water in the Environment

2-4-05: Use the design process to construct and test a device that shows evidence of air movement.

Examples: windsock, wind chime, pinwheel, sailboat, kite . . .



Background:

This learning experience gives students an opportunity to use the design process to construct a wind device.

Materials:

- Suggested K-4 ESD Poster picture card: 1. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Activity 1:

The science curriculum instruction suggestion section for 2-4-05 provides steps for designing a wind device. It can be found at www.edu.gov.mb.ca/k12/cur/science/found/kto4/2c4.pdf.

York University has a PDF that assists Grade 2 students in the design process for building a wind device. It can be found at <http://exemplars.ysimste.ca/task/2ec.pdf>.

10 Grade 2 Learning Experience #10: The Plastics Challenge

Targeted Outcome/Intended Learning:

Science: Cluster 4: Air and Water in the Environment

2-4-11: Explain and appreciate the importance of clean air and water for humans, plants, and animals.

Activity Centre #6 fits well with this outcome. See also Learning Experience #8.

Background:

For interesting theme-related grinning planet articles, see www.grinningplanet.com/5005/water-conservation-supply-resources.htm.

This article, while too complicated for students, is an interesting read for teachers and provides interesting discussion information to share with students. It can be found at www.ted.com/index.php/talks/capt_charles_moore_on_the_seas_of_plastic.html. Alternately, see *The Story of Bottled Water* at <http://storyofstuff.org/movies/story-of-bottled-water/>.

Materials:

- plastic bags
- measuring tape
- chart paper
- Suggested K–4 ESD Poster picture cards: 5, 13, 18, 19, 20, 21, 23, 24, 27, 29, 32, 34, 35, 36. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions

Activity 1:

Ask students to imagine what life would be like without clean air and clean water. Ask them to list as many things as they can that might contaminate or make unsafe the air we breathe or the water we drink.

For a free download of an experiment to measure the cleanliness of air in your area, go to www.science.gc.ca/DB0E87EC-D6C3-47ED-B3A0-CC058B89C372/activitybook1.pdf. Other information is available at www.science.gc.ca.

Activity 2:

Invite students to collect and bring to school all of the plastics that their family disposes of over a one-week period. Ask them to have parents or older siblings

10 Grade 2 Learning Experience #10: The Plastics Challenge

help them wash any plastics that contained food before bringing them to school. Have all students place their bags of plastic side by side in one area. Together, measure the perimeter of the space taken up by the garbage. Calculate how much space the garbage would take up if you brought in one month's worth of plastics. How about six months? One year? Equate that to an area in the school (the perimeter of the gym, the whole school). Students should conclude that we create a lot of waste. Ask them to imagine how much plastic would be collected if everyone in the whole school brought in all their plastics. What about the whole community? Encourage students to write a summary of what they discovered in their journals.

Activity 3:

Plastics not only take up a lot of space in the landfill sites and recycling centres, they also cause serious hazards for wildlife, particularly in aquatic environments where fish and aquatic mammals get tangled in drink can holders and nets and mistake bags and other plastics for food. The process used in the production of plastic products also contaminates our air. Plus, most plastics do not biodegrade—they remain in the environment for a very long time. Using picture cards 5, 13, 18, 19, 20, 21, 23, 24, 27, 29, 32, 34, 35, and 36, review with students some of the ways that they can help reduce plastic wastes.

Activity 4:

If one does not already exist, lobby to have a recycling program established in your community and school.

Activity 5:

Look at various products sold in your community. If excess plastic packaging is used, consider writing a class letter to the manufacturer to ask them to use greener packaging. Encourage students to explain to the manufacturer how changing their packaging practices can help clean our water and our air.

Look at their reflective journal entries and their participation in class discussions. Assess how well students have applied their new knowledge to an understanding of the importance of clean air and water in our environment.

Excellent online lesson plans regarding water pollution and safe drinking water can be accessed through the Safe Drinking Water Foundation at www.safewater.org.

Targeted Outcome/Intended Learning:

Science: Cluster 4: Air and Water in the Environment

2-4-13: Recognize that clean water is an increasingly scarce resource in many parts of the world, and describe the consequences of a shortage of clean water.



Background:

Discuss with students how, in many parts of the world, clean water is a precious commodity. In many parts of Asia, South America, Central America, and Africa, tap water and well water are not safe to drink. In countries with a wet and dry season, there are times of the year when there is little or no water at all!

Tell students that they will be conducting an experiment to understand what it is like to have a limited water supply.

The Canadian Hunger Foundation, now known as CHF, provides detailed lessons on peoples' needs around the world. One of its lessons is called Water Works, which can be found by searching their website at <www.chf.ca>.

Materials:

- 1 litre bottle (or a water bottle)
- dish pan, soap, towels (for washing hands)
- Suggested K-4 ESD Poster picture card: 26. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word card: consequences. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Activity 1:

Ask students to bring a one-litre bottle (or a water bottle) to school with them in the morning. Have them fill the bottle, and tell them that this is all the fresh water they will have for the day. They are not allowed to drink from the water fountain. At the end of the day, discuss how it felt to be so conscious of the amount of water available. Record students' comments on chart paper.

Activity 2:

Discuss ways that they might be able to help. Many charitable organizations have programs to help communities in developing countries build wells and acquire water filters. For more information, see <http://thewaterproject.org>, www.samaritanspurse.ca the Christian Students' Fund at www.cfcCanada.ca, the Canadian Hunger Foundation at www.giftsthatmatter.ca, Canadian Feed the Students at www.canadianfeedthestudents.ca, Best Gift Ever at www.bestgiftever.ca, and more!

Targeted Outcome/Intended Learning:

Science: Cluster 4: Air and Water in the Environment

2-4-14: Record personal use of water, and identify ways in which they can reduce water usage.

Examples: rather than leaving water running while brushing teeth, turn off the tap to reduce usage . . .

Background:

This learning experience assists students to take individual actions to help the environment.

Materials:

- ice cream pail
- large measuring cup
- Suggested K-4 ESD Poster picture cards: 7, 13, 15, 16, 23. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word cards: reduce, protect, restore, consequences, value, conserve, and reuse. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Recommended Resource: activities, videos and resources connected to the Manitoba curriculum. Also see "What is Your water IQ?" at www.h2oiq.ca.

Activity Directions

Activity 1:

Brainstorm ways that students can save water at home and at school. To see how much water they are using, perform a few simple experiments. In pairs, have students time how long it takes to wash their hands. Then put a pail in the sink and run the water for the same amount of time. How much water was used? Chart the results. What was the average amount of water used? The total amount used? How can we reduce the amount of water we use to wash hands? (Turn off the tap while we soap up our hands.)

Activity 2:

Discuss activities to try at home: Have them find out which uses more water: a bath or a shower? To find out, plug the drain of the tub and take a five-minute shower. How much water collects in the tub? Discuss water-saver shower heads. Discuss other ideas, such as keeping a jug of water in the fridge so that people don't have to run the tap water to get a cool drink. Stop drips from leaky faucets. Collect rainwater in barrels. Use the rainwater to water flowers and gardens. Water the grass during the coolest part of the day (and not while it is raining). Make sure the washing machine is full each time. Don't keep running the water while you are washing hands, brushing teeth, etc. Fill a plastic bottle with water and a few stones and place it in your toilet tank without blocking moving parts—less water will now be used when the toilet is flushed. Use only organic fertilizers and pesticides. Don't dump toxic leftovers down the sewer or into the trash can. Find out where they can be safely disposed of. Plant a tree—trees store water and release it slowly into the ground. If your family changes the oil in the car at home, be sure to take it to a gas station for recycling. **Students can create a newsletter or poster about saving and protecting water.** This newsletter or poster can be taken home and/or distributed locally.

Activity 3:

Oak Hammock Marsh has Project Wet kits to loan for free. In particular: Kit #19: "Sum of Parts" demonstrates how everyone contributes to pollution of a river as it flows through a watershed, and recognize that everyone's contribution can be reduced. It can be accessed at <www.oakhammockmarsh.ca>. Also see *Rivers to Oceans: Learning about Watersheds* at <www.RiverstoOceansWeek.ca> and <www.safewater.org>.

Activity 4:

For a student-generated activity centre, students could create picture and word cards for a matching game of *Dos and Don'ts*. Students can use the word cards *reduce*, *protect*, *restore*, *consequences*, *value*, *conserve*, and *reuse*, and website picture cards 7, 13, 15, 16, and 23 as part of the matching game.

Targeted Outcome/Intended Learning:

Physical Education/Health Education: 5. Healthy Lifestyle Practices

K.5.2.A.1: Identify the daily habits and responsibilities for leading a physically active and healthy life (e.g., self-regulation relative to practising daily health routines for cleanliness, rest, healthy eating, good posture . . .).

Activity Centre #7 has related activities.

Background:

This learning experience assists students in identifying daily habits and taking action for healthy routines.

Materials:

- writing materials
- Suggested K-4 ESD Poster picture cards: 7, 9, 10, 15, 16, 18, 24, 27, 28. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Activity 1:

Use sustainable development website picture cards 7, 9, 10, 15, 16, 18, 24, 27, and 28 for the following activity. Have students select a card and write a story about healthy living, given the theme of the assigned card. Once edited, the stories can be collated into a classroom storybook about healthy living.

Activity 2:

Students pick a card from the website picture cards listed above and act out the healthy living activity depicted. Classmates are invited to guess what the activity is.

Targeted Outcome/Intended Learning:

Physical Education/ Health Education: 5. Healthy Lifestyle Practices

K.5.2.A.2: Identify common communicable disease/illness/conditions in the classroom and home, and ways to prevent the spread of disease/illness conditions (e.g., cover mouth when coughing, wash hands regularly, share food appropriately).



Background:

With increasing concerns about public health and communicable diseases (in particular, viruses), it is extremely important for students to learn proper hand-washing techniques. This activity will help students understand why proper hand washing is so important.

Materials:

- clay from the garden, or clay slurry from a pottery studio
- water, soap, towels, or a hand-washing kit from your local community health nurse
- Suggested K-4 ESD Poster card: 16. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word card: care. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

14 Grade 2 Learning Experience #14: Hand-Washing Horribles

Activity Directions:

Activity 1:

Check with your local community health nurse about the availability of a hand-washing kit, or mix clay with water to create a soupy mix (a local pottery artist might be able to provide this). Have students dip their hands into the mix. Let them dry for a minute. Each student is blindfolded and then washes her or his hands as thoroughly as possible. Have students share the results of their efforts. How much mud is left on their hands? If the mud were actually germs, how well did they do at getting rid of them? Discuss how they felt about the hand-washing activity. Demonstrate and have students practise the following proper hand-washing procedure: using soap, wash the front and back of hands for a count of 10 per side. Wash in between fingers, and rub fingertips gently (remind them to turn the water tap off while they are soaping their hands). Assure them that if they follow this procedure, they will get all of the dirt off of their hands.

Activity 2:

Students write and illustrate a reflective report (or journal entry), describing the hand-washing activity. In it, they describe what happened, how they felt about it, what changes they might make in how they wash their hands, and why. Use the reports to assess their understanding of the importance of clean hands and as a springboard to clarifying any misconceptions students might have developed.

Activity 3:

Discuss what to do when you have a cold. Encourage students to contribute suggestions. Discuss sneezing or coughing into your elbow and not your hands.

Special thanks to Janis Dilk of Vermillion Colony School for this activity idea.

GRADE 2 ACTIVITY CENTRES

The lessons and activities presented and related links are to supplement existing curriculum guidelines. The activity centres presented here can be used on their own, in combination with other activity centres, or, in some cases, as a whole-group activity. References to related learning experiences are given where applicable.

Sustainable Development Themes Related to the K–4 ESD Poster Activity Centres

Activity Centre	Subject	Cluster Section	SLO	Page
1. Working With the Environment	Social Studies	1. Our Local Community (2.1.2: Natural Resources)	KL-017: Give examples of ways in which the natural environment influences their communities.	2-43
	Science	4. Air and Water in The Environment	2-4-11: Explain and appreciate the importance of clean air and water for humans, plants, and animals.	
2. What is Leadership?	Social Studies	1. Our Local Community (2.1.7: Leadership)	KP-034: Give examples of ways in which they may demonstrate leadership.	2-45
3. Inuit Snow Games	Social Studies	2. Communities in Canada (2.2.1: Diverse Peoples)	KH 027: Recognize that First Nations and Inuit people are Canada's original peoples.	2-47
	Physical Education/Health Education	1. Movement	S.1.2.C.1: Demonstrate functional use of basic movement skills (e.g., hopping, jumping, kicking . . .) and equipment in outdoor activities and/or special events (e.g., hopscotch, rope skipping, snow soccer, tabloids, cultural theme days, Aboriginal games . . .).	

continued

Activity Centre	Subject	Cluster Section	SLO	Page
4. Where in the World?	Social Studies	3. The Canadian Community (2.3.6: Global Connections)	KG-032: Give examples of connections linking Canada to other countries. <i>Examples: food, immigration, media . . .</i>	2-53
5. Reading Centre	Science	1. Growth and Changes in Animals	2-1-17: Identify and describe ways in which humans help other animals. <i>Examples: protecting endangered animals, feeding birds . . .</i>	2-55
6. Keeping It Clean	Science	4. Air and Water in The Environment	2-4-12: Identify substances that pollute air and water, and describe ways of reducing such pollution. <i>Examples: car exhaust, smoke, carbon monoxide, oil, house paints, and sewage . . .</i>	2-57
7. Staying Safe	Physical Education/ Health Education	3. Safety	K.3.2.B.1: Identify safety rules to be followed related to the home, school, and community (i.e., road, vehicles such as tractors and boats, bus ridership, electricity, weather, seasons, stairs/balconies, tools, Internet use).	2-59

Targeted Outcome/Intended Learning:

Social Studies: Cluster 1: Our Local Community
(2.1.2: Natural Resources)

KL-017: Give examples of ways in which the natural environment influences their communities.



Science: Cluster 4: Air and Water in the Environment

2-4-11: Explain and appreciate the importance of clean air and water for humans, plants, and animals.

Activities suggested in Learning Experience #1 should be presented prior to using this activity centre. This centre can serve as an application activity or a follow-up to Learning Experience #1, and as such can provide assessment opportunities for this outcome.

Background:

The natural environment influences our communities in so many ways. Climate affects how we dress, what activities we can do, and the foods we can grow. The land and the living things it supports affect industry, agriculture, and population patterns. Proximity to clean water is important to all aspects of life. In this activity, students will gain an appreciation of the many businesses that depend on the natural environment for their existence, thus shaping the character of our communities.

Before using the activity centres, use a word web to review the basic components of the natural environment (water, soil, vegetation, weather, wildlife). Brainstorm with students the types of businesses that might depend on these resources for their needs (e.g., building companies, lumber yards, factories that use water in manufacturing, and grain companies (e.g., nurseries and landscapers, cement and brick manufacturers, farms, golf courses, etc.). In this activity centre, students will have the chance to find the names of real businesses that depend on the natural environment to make a living.

Materials:

- local newspapers, a local business directory
- scissors, glue stick, markers, paper

- Suggested K-4 ESD Poster picture cards: 1, 4, 6, 7, 8, 9, 12, 13, 19, 21, 22, 24, 28. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word card: environment. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Activity 1:

Provide pairs of students with local newspapers and a local business directory. Ask them to look through the newspapers and business directories to find examples of community activities and businesses that depend on natural resources (nursery, landscape, construction, parks, agri-business, recycling oil, etc.). Record the activity and the way it uses natural resources. This can be done as a collage or a list. Students can also create their own categories for sorting.

Activity 2:

Have students pick four picture cards from among picture cards 1, 4, 6, 7, 8, 9, 12, 13, 19, 21, 22, 24, and 28, and describe how the natural environment is important to the activity shown in the picture.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 1: Our Local Community (2.1.7: Leadership)

KP-034: Give examples of ways in which they may demonstrate leadership.

This activity complements Learning Experience #2.

Background:

This activity assists students to identify and develop leadership skills.

Materials:

- paper/ journals
- pencils/writing materials
- Suggested K-4 ESD Poster picture cards: 8, 14, 16, 18, 26, 27. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word cards: communicate, care, appreciate, cooperate, connect, contribute, create, help, ideas, protect, needs, learn, listen, organize, respect, teach, understand, value, share, safety. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Activity 1:

After a discussion of what makes a good leader, show students the word cards *communicate, care, appreciate, cooperate, connect, contribute, create, help, ideas, protect, needs, learn, listen, organize, respect, teach, understand, value, share,* and *safety*. Read each word with the whole class, and discuss what each word would mean to a good leader.

Activity 2:

Follow up with this activity. Place the word cards and picture cards 8, 14, 16, 18, 26, and 27 in a basket on the centre of the table. Congratulate the students and tell them that they are now all important leaders in their school. As a think-pair-share activity, have students choose a card, and then write or draw about how they would use this word or image in their new leadership role. Model the activity by choosing a card and discussing how you would use the word (e.g., “protect”). “As a leader in the school, I would make sure that all of the outside school doors were locked when class is underway” or “I would start a buddy system on the playground to make sure all the kids are safe and no one is picked on or treated unfairly.” Students could report their ideas to the class during sharing time or create a booklet of class leaders that the teacher can then read to the class and discuss.

While students are engaged in the activity, examine students’ drawings/ writing to assess their understanding of the selected word and what leadership means in relation to the word. Make suggestions to the student to clarify the student’s understanding. During sharing time, use anecdotal records to assess students’ understanding.

Social Studies Blackline Masters

Excellent discussion and learning activities for this theme at www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr2/blms/index.html.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 2: Communities in Canada (2.2.1: Diverse Peoples)

KH 027: Recognize that First Nations and Inuit people are Canada's original peoples.

Physical Education/Health Education: 1. Movement

S.1.2.C.1: Demonstrate functional use of basic movement skills (e.g., hopping, jumping, kicking . . .) and equipment in outdoor activities and/or special events (e.g., hopscotch, rope skipping, snow soccer, tabloids, cultural theme days, Aboriginal games . . .).

Background:

These Inuit games reflect many facets of Inuit culture and lifestyle. The Inuit are a fun-loving people, but the Arctic environment is full of hardships. Most of the games help to develop skills for life in the Arctic—skills include strength, endurance, throwing, aiming, stalking, etc. These games will give students meaningful insights into both the fun and hardships of a people who live intimately with winter and snow.

Google “Arctic Winter Games” to find out more about northern life. Wikipedia has some useful resources, including http://en.wikipedia.org/wiki/Arctic_Winter_Games.

Materials:

- Inuit snow games illustrated sheets
- a smooth dowel, piece of rawhide, or firm cloth
- a 10-foot length of soft rope
- pebbles and a large (flat stone)
- skipping rope
- a piece of cloth to tie around the middle of the skipping rope
- Suggested K-4 ESD Poster picture card: 12. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word card: connect. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Books:

The Lonely Inukshuk (1999). Manitoba Education Library Call #E Lon.

Maple Moon by Connie Brummel Crook (1997). Manitoba Education Library Call #E cro.

A Friend Called Chum by B. Wheeler (1984). Manitoba Education Library Call #E Whe.

The Kids Book of the Far North by Ann Love and Jane Drake (2000). Manitoba Education Library Call #909.913.

Soosheewan, Child of the Beothuk by Donald Gale (1988). Manitoba Education Library Call #3 E. Gal.

Videos:

The Wapos Bay series by Gordon Tootoosis (24 minutes each) (DVD). An award-winning series of animations about three Cree students living in remote northern Saskatchewan. English and Cree soundtracks. See *The Elements*: Manitoba Education Library Call #D-11113 and *They Dance at Night*: Call #D-11110.

Activity Directions:**Activity 1:***

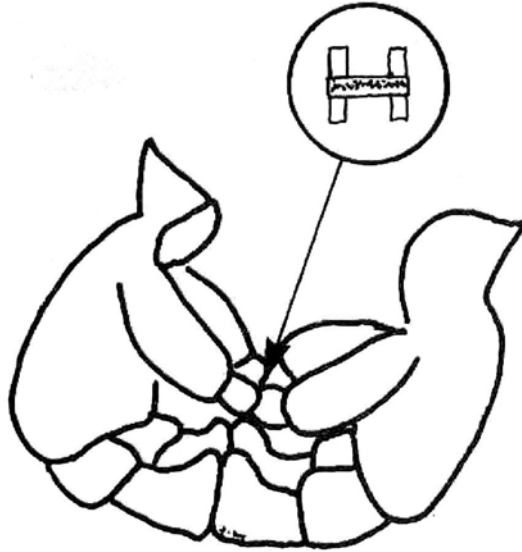
Have a collection of books about First Nations, Métis, or Inuit people for students to read and discover.

These games would be great indoors or as an outdoor winter activity. Review each game prior to the activity, and discuss with students what skill the game might help the player develop for real-life situations.

* **Note:** This activity is reproduced from: "Snow Activity Program" by J. Pattimore, Manitoba Parks Branch, Department of Natural Resources, 1981.

Ac Sa Raq (Thong Game)

Opponents sit facing each other on the floor (ground). Legs are kept straight while feet are placed against feet. Both opponents hold onto a dowel or piece of rawhide. The object is to pull your opponent up off the ground.

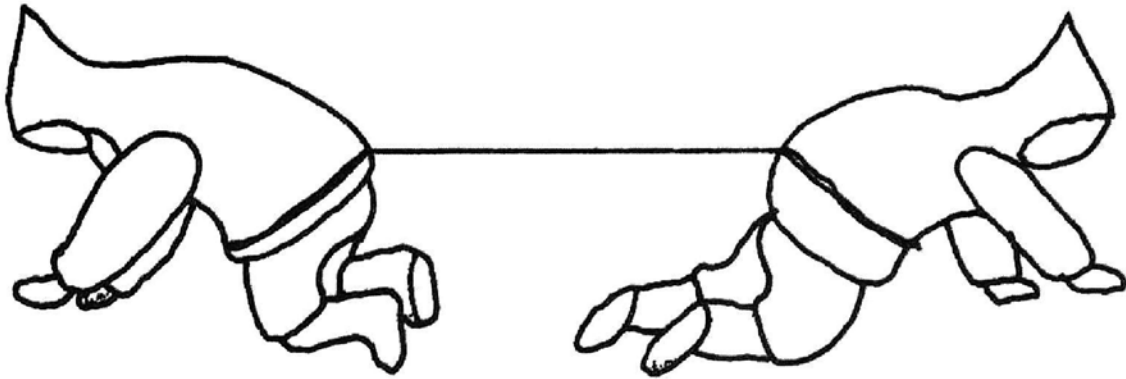
**Tu Nu Miu (Back to Back)**

Two students sit back to back with a mark on the ground beneath them (e.g., tape on the floor). The object of the game is to push your opponent over the line using only your hands and feet.



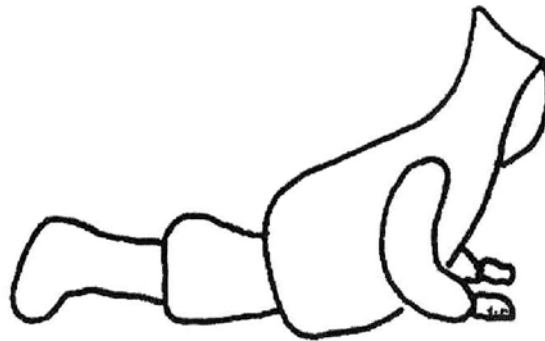
Holman Island Dog-Team Pull

A rope is used as a harness around each opponent's waist. On hands and knees, the contestants try to pull their opponent over a line drawn between them.



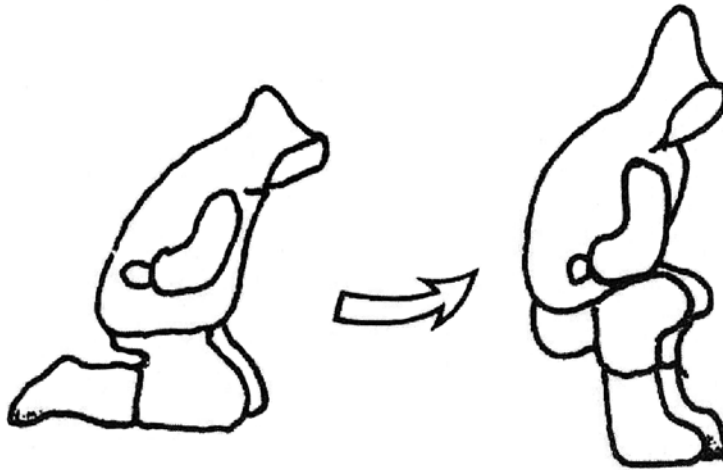
Seal Racing

Opponents lie on their stomachs on the floor. Using their hands for support, with legs limp and body trailing, students race for the finish line.

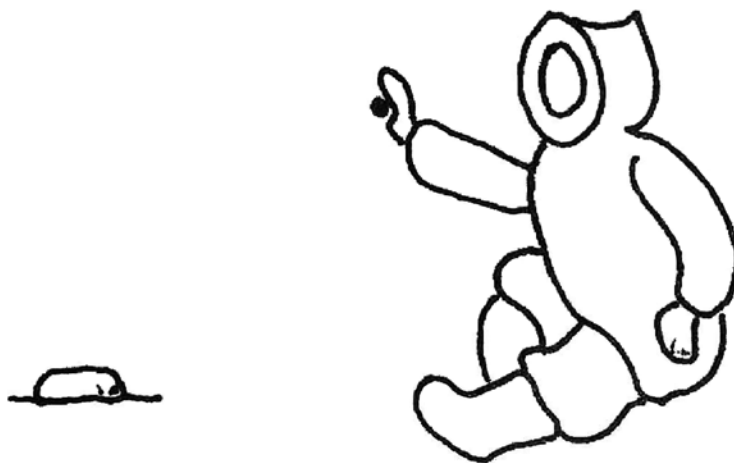


Peed Le Ta Tuq

Opponents move from a kneeling position to a squatting one with a quick jump and then back to kneeling again.

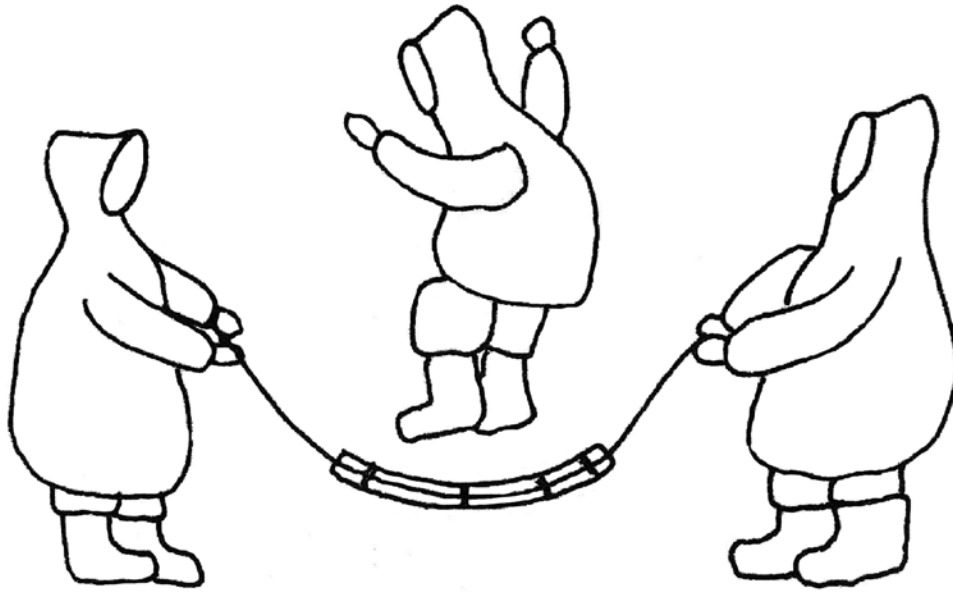
**Nakartartuq**

Using pebbles for tossing and a large stone as the target, students take turns trying to hit or land their pebbles as close to the stone as possible.



Holman Island Skipping

A rope with an animal hide rolled around the mid-portion of the rope is used as the “skipping rope.” The skin is swung rhythmically from side to side. The object is to make as many jumps as possible.



The social studies curriculum provides excellent suggestions, Internet links, and activities for this outcome. Among these are a collection of picture cards and descriptions of Aboriginal contributions and inventions (BLM 2.2.1c). These cards would be ideal for an activity centre. They can be found at www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr2/blms/index.html.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 3: The Canadian Community (2.3.6: Global Connections)

KG-032: Give examples of connections linking Canada to other countries.

Examples: food, immigration, media . . .

Background:

Before using the centre, have a discussion with the students about how we all have connections to other parts of the world. Do they have family in other parts of the world? Have they ever eaten a banana or orange? Look at clothing labels. Where were they made?

Materials:

- a large world map
- labels, pins, or stickers,
- lengths of string
- books and other information about the countries and places of product origin
- Suggested K-4 ESD Poster picture card: 4. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word card: need. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Activity 1:

Encourage students to bring in fruit, vegetables, clothing, and other objects made in other parts of the world. Label these items with their place of origin. Using a globe or large world map, highlight (using a pin or sticker) these locations for the students. In the activity centre, have the items laid out for students to examine. Show them how to find country information on the product labels. Ask them to match the places of origin with the highlighted

marks on the map. Students can use lengths of string to measure how far away these locations are from Manitoba. Note: If the map can be left up for the duration of the time that the centre will be in use, then students will be able to leave their lengths of string on the map, and a cumulative effect will help students see which countries we obtain the most goods from (i.e., assuming each student is measuring a different product). Encourage students to pick a product and learn a little about its country of origin. Students can share their discoveries with classmates following centre time (or after all students have used the centre), thus providing the teacher an opportunity to assess students' understanding of one aspect of how Canada is connected to other parts of the world.

Activity 2:

Use a length of string to measure how far your item travelled to get to Manitoba. Can you find the country on the map?

Targeted Outcome/Intended Learning:

Science: Cluster 1: Growth and Changes in Animals

2-1-17: Identify and describe ways in which humans help other animals.

Examples: protecting endangered animals, feeding birds . . .

See Learning Experience #7 for activity descriptions for this outcome.

Background:

This is intended as a reading centre. To introduce or reinforce the concept of habitat, the Frankie the Fish activity at

<www.edu.gov.mb.ca/conservation/sustain/habitathelp.pdf> could be useful.

Materials:

- Suggested K-4 ESD Poster picture cards: 11 or 21. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word card: help. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Books for Reading Centre:

The House I'll Build for the Wrens by Shirley Neitzel (1997). Brandon Library Call #J.E. Neitzel.

Hey! Get Off Our Train! by John Birmingham (1989).

The Great Kapok Tree by Lynn Cherry (1990). Manitoba Education Library Call #E Che.

The Adventures of Nick the Ecologist and his Robot O-Zone: The Mystery of the Missing Trees by Kevin J. Villeneuve (2007).

Activities:

Activity 1:

Ask students how they think humans help other animals. Record their information on a chart.

Activity 2:

Have students select one of the books. After students have read their book, have them tell you how humans help other animals. This can be recorded on the chart. The name of the book could be put by an item already on the chart. New items could be added. This may take a while for all students to have a chance to read the book they want.

Activity 3:

After all students have read and added their part, discuss ways in which students or the class could help animals. The class may wish to take action, such as establishing a bird feeder.

Targeted Outcome/Intended Learning:

Science: Cluster 4: Air and Water in the Environment

2-4-12: Identify substances that pollute air and water, and describe ways of reducing such pollution.

Examples: car exhaust, smoke, carbon monoxide, oil, house paints, and sewage . . .

Background:

This centre is useful as a review/application activity.

Materials:

- paper and writing materials
- Suggested K-4 ESD Poster picture cards: 1, 3, 5, 6, 7, 8, 11, 18, 19, 20, 21, 22, 23, 24, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word card: reduce. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Activity 1: In a basket, arrange picture cards 1, 3, 5, 6, 7, 8, 11, 18, 19, 20, 21, 22, 23, 24, 27, 28, 29, 30, 31, 32, 33, 34, 35, and 36. Tell students that their job is to pick three cards, and write or draw an explanation of how the activity or object in each card can help us to keep our air and/or water cleaner for humans, plants, and animals.

Targeted Outcome/Intended Learning:

Physical Education/Health Education: 3. Safety

K.3.2.B.1: Identify safety rules to be followed related to the home, school, and community (i.e., road, vehicles such as tractors and boats, bus ridership, electricity, weather, seasons, stairs/balconies, tools, Internet use).

The charades game in Learning Experience #13 has connections with this activity.

Background:

This activity is designed to assist students in recognizing and developing safe habits.

Materials:

- 15 cm. strips of cardboard
- pencils or markers to record safety rules
- Suggested K-4 ESD Poster picture cards: 7, 8, 9, 10, 14, 16, 28, 31. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word card: safety. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Activity 1:

Using sustainable development picture cards 7, 8, 9, 10, 14, 16, 28, and 31, ask students to create a safety statement to match each card. Invite students to create their own cards to show other safety rules (e.g., safety around ice, tools, tractors, etc.). Cards and statements could be later used as a match-up game.

The safety statements students create will help to assess their understanding of safety rules, and provide an opportunity for discussion of issues that might be unclear. Encourage students to check their statements for spelling and accuracy of the message.

Activity 2:

Students can then invite their classmates to play a match-up game to match their safety statements with a picture card.



EDUCATION FOR SUSTAINABLE
DEVELOPMENT: KINDERGARTEN
TO GRADE 4 POSTER ACTIVITIES

Grade 3

GRADE 3 LEARNING EXPERIENCES

The lessons and activities presented in this website and related links are to supplement existing curriculum guidelines.

Sustainable Development Themes Related to the K-4 ESD Poster Learning Experiences

Learning Experience	Subject	Cluster Section	SLO	Page
1. Spot a Good Citizen	Social Studies	1. Connecting with Canadians (3.1.1: Canadian Citizenship).	KC-001: Recognize citizenship as membership in the Canadian community. KC-002: Give examples of responsibilities and rights of Canadian citizens. VC-002: Be willing to contribute to their groups and communities.	3-7
2. You in a Shoebox	Social Studies	1. Connecting with Canadians (3.1.3: Personal Identity)	KI-007: Identify factors that may influence their identities. <i>Examples: culture and language, time and place, groups and communities, arts and media . . .</i>	3-9
3. Be a Leading Class	Social Studies	1. Connecting with Canadians (3.1.4: Leadership)	VP-011: Respect positive leadership in their groups and communities and in Canada. KP-032: Give examples of formal and informal leadership and decision making in groups and communities.	3-11
	Physical Education/ Health Education	3. Safety	K.3.3.B.4: Recognize roles of individuals in school and community who provide safety services (e.g., school staff, crosswalk patrols, police officers, Block Parents, firefighters, doctors, nurses, elders, ski patrols, snowmobile patrols, forest rangers, coast guards . . .).	
4. Poems of Peace	Social Studies	1. Connecting with Canadians (3.1.5: Conflict Resolution)	KP-033: Identify ways of resolving conflict in groups and communities. KP-034: Identify ways to deal with bullying.	3-13

continued

Learning Experience	Subject	Cluster Section	SLO	Page
5. Comparing and Concluding	Social Studies	2. Exploring the World (3.2.3: Human Rights)	KC-005: Recognize that people around the world have basic human rights. <i>Examples: access to food, water, shelter, a secure environment, education, fair and equal treatment . . .</i>	3-15
6. Match Them Up	Social Studies	2. Exploring the World (3.2.4: Personal Responsibility)	KG-027: Give examples of concerns common to communities around the world.	3-17
7. Who's Who in Human Rights	Social Studies	2. Exploring the World (3.2.3: Human Rights)	KG-028: Identify organizations that support communities in all countries of the world. <i>Examples: United Nations and UNICEF, Red Cross, Médecins sans frontières . . .</i>	3-21
8. Fair Trade	Social Studies	2. Exploring the World (3.2.4: Personal Responsibilities)	KG-031: Give examples of personal decisions and actions that may positively affect people locally or globally. <i>Examples: charitable donations and projects, recycling . . .</i>	3-23
9. Can This Be Done Here?	Social Studies	3. Communities of the World (3.3.3: Resources)	KE-036: Give examples of how the natural environment influences work, goods, technologies, and trade in communities studied.	3-25
10. Harmful and Helpful Plants	Science	1. Growth and Changes in Plants	3-1-09: Identify plant adaptations that can be harmful to humans, and describe their effects. 3-1-16: Identify how humans from various cultures use plant parts for food and medicine. <i>Examples: use of roots for food (carrots) and medicine (ginseng) . . .</i>	3-27

continued

Learning Experience	Subject	Cluster Section	SLO	Page
11. Name that Tree	Science	1. Growth and Changes in Plants	3-1-02: Observe, compare, and contrast the structure and appearance of several types of plants. <i>Examples: plants with different types of roots, trees with needles and trees with leaves . . .</i> 3-1-03 Show respect for plants as living things.	3-31
12. The Day All the Plants Disappeared	Science	1. Growth and Changes in Plants	3-1-14: Describe ways plants are important to the environment. <i>Examples: improve soil, air, and water quality; reduce erosion . . .</i> 3-1-18: Explain how humans replenish the plants they use and the consequences if plants are not replenished. <i>Examples: after loggers harvest trees, new ones should be planted to ensure a future lumber supply . . .</i>	3-37
13. That's Made from Plants?	Science	1. Growth and Changes in Plants	3-1-17: Investigate to determine how humans from various cultures make useful products from plant materials. <i>Examples: lumber milling, paper making, rope making, fabric making . . .</i>	3-39
	Social Studies	3: Communities of the World (3.3.3: Resources)	KE-036: Give examples of how the natural environment influences work, goods, technologies, and trade in communities studied.	
14. Soils	Science	4. Soils and the Environment	3-4-08: Explain the importance of understanding the characteristics of different soils. <i>Examples: enables farmers to determine which crops can be grown in a particular area; enables gardeners to improve plant growth; enables engineers to know what types of foundations to set for structures . . .</i>	3-41

continued

Learning Experience	Subject	Cluster Section	SLO	Page
15. What Shall We Build?	Science	4. Soils in the Environment	<p>3-4-10: Describe ways to return organic matter to the soil.</p> <p><i>Examples: composting, spreading manure on fields . . .</i></p> <p>3-4-11: Use the design process to construct a simple composter that returns organic matter to the soil.</p> <p><i>Examples: classroom composter for left-over food, school composter for grass clippings and leaves . . .</i></p>	3-45
16. Mock Trials	Physical Education/ Health Education	4. Personal and Social Management	<p>K.4.3.B.3b: Show an understanding of the steps in a conflict-resolution process (i.e., identify the goal; identify constraints, limiting conditions, and possible options; choose best option; evaluate for effectiveness).</p> <p>K.4.3.B.3c: Identify mediation skills (e.g., allow person to express opinions, summarize other person's point of view, recognize feelings of others . . .) that can be used as part of the conflict resolution process.</p>	3-49
17. Taking Care of Yourself	Physical Education/ Health Education	5. Healthy Lifestyle Practices	<p>K.5.3.A.2: Identify common communicable diseases/illnesses/conditions (e.g., colds, flu, pink eye, head lice . . .) in the classroom and home, and ways to prevent the spread of diseases/illnesses/conditions (e.g., cover mouth when sneezing or coughing, wash hands regularly, share food appropriately, use own hair utensils and headwear . . .).</p> <p>K.5.3.A.3: Assess personal dental care habits and identify ways to promote dental health for self and/or others.</p>	3-51

Targeted Outcome/Intended Learning:

Social Studies: Cluster 1: Connecting with Canadians (3.1.1: Canadian Citizenship)

KC-001: Recognize citizenship as membership in the Canadian community.

KC-002: Give examples of responsibilities and rights of Canadian citizens.

VC-002: Be willing to contribute to their groups and communities.

Activity Centre #1 has an “application” activity.



Background:

Discuss the concept of citizenship, and describe what it means to be a good citizen. Use the following website word cards to generate ideas: reduce, protect, relate, safety, teach, consequences, contribute, defend, value, respect, predict, care, contribute, culture, recycle, cooperate, share, appreciate, understand, connect, communicate, listen, help.

Together, make a list of rules, responsibilities, and rights that exist in families, in the school, and in the community. Identify that with every right comes a responsibility (e.g., every student has the right to be safe; every student has the responsibility of controlling her or his actions so as not to hurt others; the corresponding rule is “do not hurt other students”).

Materials:

- poster paper
- create “good citizenship” forms
- class camera
- Suggested K-4 ESD Poster word cards: reduce, protect, relate, safety, teach, consequences, contribute, defend, value, respect, predict, care, contribute, culture, recycle, cooperate, share, appreciate, understand, connect, communicate, listen, help. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Activity 1:

Create a classroom citizenship poster that lists characteristics that all students agree upon. Include such concepts as sharing, being fair, respecting others, following rules, helping one another, cleaning up, etc.

Activity 2:

Prepare small “good citizenship” forms that students can fill out when they see classmates perform an action that is included on the poster. The forms could say: “I saw _____ doing the following good citizenship action: _____, by doing _____ on date. Way to go! Submitted by _____.”

Have students deposit the forms in a class “citizenship” box. At the end of the week (or month), celebrate those who were recognized. As an alternative, have classroom “spotters” watch for good citizenship behaviours in their peers. Spotters can then ask the teacher to photograph the “good citizen” in action (each day, have new spotters so that everyone has a turn). Print out and arrange the photos on a poster at the end of the week or month. The spotters can label the photo of their “good citizens” with information on what they were doing to deserve the nomination. Note: Be sure that spotters are being fair and are including all students in their considerations.

From time to time, check the forms to see if students are recognizing their classmates for the appropriate reasons (e.g., how the person was showing fairness, respecting others, etc.). Where misunderstandings of a concept are displayed, take that opportunity to discuss the error with the student.

The social studies curriculum provides excellent discussion topics and suggestions for brainstorming, defining, using Venn diagrams, and engaging in sorting activities. It also provides links to online resources for this theme. This material can be found at <www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr3/cluster1.pdf>.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 1: Connecting with Canadians (3.1.3: Personal Identity)

KI-007: Identify factors that may influence their identities.

Examples: culture and language, time and place, groups and communities, arts and media . . .

Background:

Discuss the meaning of the word *identity*. List various factors that influence personal identity, including family (brothers a membership in groups, personal interests, exposure to and taste in music/art).

Brainstorm for positive character traits (kindness, responsibility, courage, trustfulness, respectful, cheerful, etc.). Record this information on the board for students to reference.

Materials:

- boxes (one per student)
- wrapping paper, tissue, fabric (and other items to decorate box)
- paper, pencils, pens
- Suggested K-4 ESD Poster word cards: relate, value, respect, traditions, culture, citizen, share, appreciate, connect, communicate. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Have students decorate and fill a shoebox with images, ideas, pictures, and objects that they feel represent their identity. Ask them to write a short explanation of how each item relates to their identity. Have students choose one of the following website word cards: relate, value, respect, traditions, culture, citizen, share, appreciate, connect, or communicate. Ask them to include something about the theme of the card as it relates to them. The outside of the box could feature a list of action verbs that describe the student's activities/actions; another side of the box could include a list of adjectives that

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Grade 3 Learning Experience #2: You in a Shoebox

describe the person. When the shoeboxes are complete, have students present their shoeboxes to the class, or have students try to guess the maker of each box according to its contents.

This is a fun way for students to explore this outcome in context. Teachers can assess students' understanding of various aspects of identity by examining their ongoing projects and providing feedback to enhance their understanding.

The social studies curriculum includes BLMs 3.1.3a and b, which provide a definition and positive character traits activities. They can be found at www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr3/blms/index.html.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 1: Connecting with Canadians
(3.1.4: Leadership)

VP-011: Respect positive leadership in their groups and communities and in Canada.

KP-032: Give examples of formal and informal leadership and decision making in groups and communities.

Physical Education/Health Education: 3. Safety

K.3.3.B.4: Recognize roles of individuals in the school and community who provide safety services (e.g., school staff, crosswalk patrols, police officers, Block Parents, firefighters, doctors, nurses, elders, ski patrols, snowmobile patrols, forest rangers, coast guards . . .).



Background:

Make a list of leaders in the community. Have students prepare a list of questions that they would like to ask a community leader. Invite the principal or other community leader to come into the class to discuss what it is like to be a leader.

Identify the qualities of a good leader: good listener, decisive, concern for others' well-being, fair, good planner, etc.

Materials:

- Suggested K-4 ESD Poster picture cards: 5, 8, 14, 15, 16, 18, 19, 20, 23, 24, 27, 32, 35. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Activity 1:

In a think-pair-share activity, think of problems a leader can face (e.g., your friend wants to cut in line while you are line leader—what do you do?). Discuss findings with the class. In groups, have students create a series of problems for their peers to solve. Students should share all problem scenarios with their teacher to ensure that they are on topic and understand the task. Students could present their ideas in a game format. Once the project is complete, check for spelling and neatness. Students can share their projects with classmates. Discuss solutions that students suggest.

Activity 2:

Encourage students to design a class project to lead the school in a meaningful program emphasizing that kids can make a difference. Some ideas include a litter-less lunch day, a healthy lunch day, a cookie bake sale to raise money for a local charity, clean the school grounds day, a clean teeth or clean hands initiative, etc. Students can have different roles in the campaign (e.g., poster design, giving a speech at assembly, giving a presentation to other classes, doing announcements on the P.A., writing a letter to parents to announce the event, contacting sponsors, etc.). To help students choose a topic or explore topics, use the website poster or website picture cards 5, 8, 14, 15, 16, 18, 19, 20, 23, 24, 27, 32, and 35.

Social Studies Blackline Master 3.1.4. has useful information. It can be found at <www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr3/blms/index.html>.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 1: Connecting with Canadians (3.1.5: Conflict Resolution)

KP-033: Identify ways of resolving conflict in groups and communities.

KP-034: Identify ways to deal with bullying.

Activity Centre #2 has a complimenting activity.

Background:

This learning experience is designed to assist students in understanding conflict resolution and developing conflict resolution skills.

Materials:

- Suggested K-4 ESD Poster word cards: think, learn, relate, restore, teach, distinguish, consequences, contribute, evaluate, defend, value, respect, create, recognize, ideas, needs, predict, care, contribute, celebrate, culture, repair, citizen, extend, depend, cooperate, share, organize, appreciate, understand, enjoy, connect, communicate, listen, grow, help. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Books:

Peace Begins with You by Katherine Scholes (1989). Manitoba Education Library Call #303.66 S36.

Activity Directions:

Activity 1:

As a group, read the book *Peace Begins with You* by Katherine Scholes. Discuss how conflicts can begin (e.g., when people's needs and wants do not fit together), and review what actions the author suggests to solve the problems.

Activity 2:

Have students write a poem or story about how they can work together to solve conflicts in their lives. Use the website word cards as vocabulary for their writing and to reinforce discussion. Discuss words whose meanings might be unclear.

See the Social Studies 3.1.5 Conflict Resolution section for lesson introductions, discussion, use of Y-charts, and Blackline Masters 3.1.5 a, b, c, and d. It can be found at <www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr3/cluster1.pdf>. There are also resources at <www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr3/blms/index.html> to support this topic.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 2: Exploring the World
(3.2.3: Human Rights)

KC-005: Recognize that people around the world have basic human rights.

Examples: access to food, water, shelter, a secure environment, education, fair and equal treatment . . .



Activity Centre #3 has interactive games about world hunger available as a free downloadable PDF.

Background:

Ask students what the term *human rights* means to them. List their ideas on the board and discuss. Conclude that human rights are the conditions people require in order to live healthy, happy, safe lives. Ask them to identify things they believe all people in the world should have. Use the website poster to help them think of ideas. List their ideas. Look over the list together carefully. Are there things listed that are not necessary for survival? Are some things luxuries? Try to condense their ideas to represent the basic human rights of people all over the world (i.e., food, water, shelter, security, education, fair treatment, equality).

Some storybooks about the life of a child from another country may be useful. Some books from the Manitoba Education Library that might be useful are included in the materials section.

Materials:

- ESD website poster
- travel brochures and various magazines
- glue sticks, scissors, paper writing materials
- Suggested K-4 ESD Poster word card: protect, learn, safety, environment, value, respect, needs, care, traditions, citizen, diversity, cooperate, share, grow, communicate. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Books:

Let's Eat! What Children Eat Around the World by Beatrice Hollyer (2004).
Manitoba Education Library Call #394.12 H64.

This is the Way We Go to School: A Book about Children Around the World by Edith Baer (1992). Manitoba Education Library Call #E. Bae.

Wake up, World: A Day in the Life of Children Around the World by Beatrice Hollyer (1999). Manitoba Education Library Call #305.2309 H64.

Videos:

All the Colors of the Earth by Sheila Hamanaka and Crystal Taliefero (8 minutes) (VHS). First recited, then sung, the poetic words reveal that, despite outward differences, children everywhere are essentially the same. Manitoba Education Library Call #10793.

Activity Directions:**Activity 1:**

Read a book about a child from another country. As you read, ask students to pay attention to what the child from that country eats, what his or her home looks like, where the child goes to school, what activities the child engages in, and how the child relates to the world. After the story, record their observations on a comparison chart. Record the human rights of children from that country on one section of the chart, and record the human rights of children in this country on another. Encourage all students to contribute. Conclude that, although there are differences in types of foods, shelters, the way schools might look, etc., the rights of children all over the world are basically the same.

Activity 2:

In pairs or on their own, invite students to write a story that compares components of basic human rights in two countries (e.g., they could create a story about two children—one from Canada and one from another country—and write about/illustrate a day in their lives, comparing what they eat, what their home looks like, where they go to school, who their friends and family are, where they get their water from, etc.). Encourage them to conclude that although their lives are different, their basic needs are the same. Have them include at least five of the website word cards in their writing.

Use the discussion to encourage participation and clarify learning. Activity Centre #2 will assist teachers in assessing students' understanding of the concepts studied.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 2: Exploring the World
(3.2.4: Personal Responsibility)

KG-027: Give examples of concerns common to communities around the world.

Use the cards generated here as a memory game in Activity Centre #4.



Background:

After making comparisons between human rights in communities in different parts of the world, brainstorm for ideas about concerns associated with these rights (i.e., What things do we need in order to acquire these rights?). Concerns common to communities around the world revolve around the ability to obtain basic human rights.

Help students to extend their thinking to conclude that we are dependent upon Earth and that protection of the natural environment is essential to our ability to meet our basic needs.

Materials:

- cardboard cut to match the size of the picture cards
- markers
- Suggested K-4 ESD Poster picture cards: 1, 2, 4, 5, 7, 9, 11, 12, 13, 15, 16, 19, 21, 22, 24, 25 29. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Activity 1:

List our basic human rights on the board: food, water, shelter, security, education, fair treatment/equality. Create a word web for each right. Ask students what we need in order to obtain that right:

- **Food:** They might say money, grocery stores, caregivers, gardens, etc. Lead them in their discussion to end the web with clean water, clean air, fertile soil, etc.
- **Water:** taps, bottled water, stores End with clean rivers, lakes
- **Shelter:** houses, apartment buildings, money, trees, building materials, natural resources.
- **Security:** police; leaders; well fed, healthy, happy people who can get along End with clean, nurturing natural environment.
- **Education:** teachers, schools End with healthy people who can afford time to learn.
- **Fair treatment:** getting along, understanding each other People who are healthy and happy have time and energy to consider the rights of others.

Activity 2:

The object of this activity is to create a series of cards that list concerns that are common to communities all over the world. These cards will match with website picture card numbers 1, 2, 4, 5, 7, 9, 12, 13, 15, 16, 19, 21, 22, 24, 25, and 29.

Model the activity for them by using two of the cards as examples. Take card #20 (a man digging in a compost). Ask students how this picture could relate to a concern shared by most communities around the world. Record all answers, and write the most commonly accepted answer on a strip of cardboard the approximate size of the website picture card. (Hint: a suitable answer would be that communities require nutrient-rich soils to grow food. An alternative might be that composting reduces the amount of garbage in landfills. The need to reduce waste going to landfills is also a concern to many communities). Another card to model might be card #25 (children reading books). The expected response would be that all communities want their children to be educated and able to read.

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Grade 3 Learning Experience #6: Match Them Up

As a pair-share activity, divide the remaining picture cards among the students. Ask students to create a word or phrase for each picture card. The phrase must outline a related concern common to communities throughout the world (e.g., *hydro card* represents access to electricity; *marsh card* represents protection of watersheds/a reliable water source; *playground card* represents safe places for kids to play; *kids holding hands* represents friendship, understanding, fair treatment, acceptance; *garden card* represents access to healthy sources of food; *wind wheels* represents cleaner sources of power; *children reading* represents access to education; *washing hands* represents healthy disease-free living, clean water; *housing* represents shelter for all, etc.).

Once they are done, have groups share their ideas with the class. Invite comments from classmates. Once revisions are made and spelling is checked, invite children to record their phrases onto playing cards to be used as a class match-up game.

The social studies curriculum is rich in information and activities associated with this topic. Check out brainstorming ideas at <www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr3/cluster2.pdf>, and BLMs 3.2.4 a, b, and c at <www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr3/blms/index.html>.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 2: Exploring the World (3.2.3: Human Rights)

KG-028: Identify organizations that support communities in all countries of the world.

Examples: United Nations and UNICEF, Red Cross, Médecins sans frontières . . .

This learning experience would also be suitable as an activity centre.

Background:

Some human rights groups work in Manitoba. Some of the worldwide human rights organizations have Manitoba chapters. All have websites and might provide speakers.

Materials:

- computers
- paper and writing materials
- names of various organizations that support communities worldwide and locally (e.g., UNICEF, Red Cross, Doctors Without Borders, Christian Children's Fund [CCF], Free the Children, Canadian Feed the Children Fund, Canadian Hunger Foundation [CHF], Oxfam Canada, United Nations World Food Program [UNWFP], International Relief Fund for the Afflicted and Needy [IRFAN], Samaritan's Purse, Red Cross; Locally: Salvation Army, Light House Mission, Siloam Mission, The United Way, Jewish Federation of Winnipeg, Mennonite Central Committee [MCC], etc.)
- Suggested K-4 ESD Poster picture card: 26. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word cards: reduce, sustainable, think, protect, learn, relate, restore, consequences, contribute, defend, environment, value, respect, conserve, ideas, needs, care contribute, reuse, recycle, citizen, cooperate, appreciate, understand. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Activity 1:

Have available a list of organizations that support communities worldwide and locally. In pairs, have students select a specific organization (or suggest one of their own). Ask them to find out how their organization helps people. Does it work with children, housing, clean water projects, health education, etc.? What countries or location does it serve? What other information did they find interesting about the organization studied? Have students record their findings (in a report/poster or story) in their own words. (Encourage students to use the word cards for their vocabulary.) Based on their findings, have students tell the class the organization's activities. The reports could be compiled into a class book on human rights/humanitarian aid organizations.

Activity 2:

As a class, discuss each of the presentations, and decide which organization they feel they as a class could support—either by volunteering, promoting the organization locally, raising funds, or by collecting goods for that cause.

Note: *Hands On Social Studies*. Jennifer Lawson (ed.). Winnipeg, MB: Portage and Main Press, 2003. Manitoba Education Library Call #372.83044 L38. Grade 3, pp. 123–128, has descriptions of several service organizations.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 2: Exploring the World
(3.2.4: Personal Responsibilities)

KG-031: Give examples of personal decisions and actions that may positively affect people locally or globally.

Examples: charitable donations and projects, recycling . . .



Activity Centre #3 has a related activity about world hunger.

Background:

Fair Trade Manitoba has information about other fair trade products available at <http://fairtrademanitoba.ca/>. In its FAQ section, it lists the requirements for a product to be listed as a fair trade product.

The website for Kids Can Make a Difference has examples of projects students have created in order to help others. Find it at www.kidscanmakeadifference.org/.

Materials:

- writing materials
- Suggested K-4 ESD Poster picture cards: 1, 3, 5, 6, 8, 11, 13, 14, 16, 18, 20, 23, 24, 27, 30, 32, 29, 33, 35, 36. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word cards: reduce, sustainable, think, protect, learn, relate, restore, consequences, contribute, defend, environment, value, respect, conserve, ideas, needs, care contribute, reuse, recycle, citizen, cooperate, appreciate, understand. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Activity 1:

Read the *Child Voice* article about fair trade chocolate. Discuss what makes a product a fair trade product. Ask students how they might be able to help. One way to help is for students to consider and ask their parents to consider buying fair trade products when they shop.

Activity 2:

Many products come packed in excessive non-biodegradable packaging that will take up valuable space in the landfill site. Students can raise awareness of their concerns about excessive packaging either in the school or in the local community by creating posters that bring this problem to the attention of others, by being careful consumers themselves, and by lobbying to change packaging practices by writing letters to government officials and companies. As a positive approach to this concern, write a thank-you letter to companies that are changing their packaging practices. Encourage students to use the word cards listed above for vocabulary.

Activity 3:

Sharing Circle: Examine website picture cards 1, 3, 5, 6, 8, 11, 13, 14, 16, 18, 20, 23, 24, 27, 30, 32, 29, 33, 35, and 36. Place the cards in a basket. One at a time, have students pick a card (the person holding the card will be the speaker) and share with the class what is happening in the picture that would positively affect people, locally or globally, and why. Give an example of how they personally could make a difference regarding the theme of the card. This activity can provide teachers with an observational record of how well students have grasped this concept, and also provides an opportunity to address any misconceptions.

Social studies uses sharing circles, discussion, decision trees, and small-group activities for this topic. See Blackline Master 3.2.4c. It is available at www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr3/blms/index.html.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 3: Communities of the World (3.3.3: Resources)

KE-036: Give examples of how the natural environment influences work, goods, technologies, and trade in the communities studied.

Background:

This activity helps students acquire knowledge about the natural environment of the communities studied and apply that knowledge to an investigation of how the natural environment affects the livelihood of the people of that community.

Materials:

- Suggested K–4 ESD Poster picture cards: 1, 2, 4, 7, 11, 12, 22, 24. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Books:

- books about work, trade, and agriculture in the community studied
- books or pictures about the natural environment of the community studied
- a list of farming types (e.g., dairy farms, grain farms, orchards), businesses, and goods that could be produced
- photos of the area where the community studied is located

Activity Directions:

Activity 1:

Provide students with a simple list of potential farming types, technologies, and businesses that can be carried out in a variety of communities (e.g., cattle ranch, dairy farming, grain farm, sugar production, rice production, mining, fishing, oil production) and website picture cards 1, 2, 4, 7, 11, 12, 22, and 24. In groups of two or three, have students examine the list and picture cards and decide which of those businesses, technologies, or farming practices might be carried out in the community studied.

To help them decide, provide photos and books about the environment in and around the community studied. Discuss how certain activities require special characteristics of the natural environment to be present in order to carry out the activity. For example, cattle farming requires open pasture land. Therefore, this is not an activity that could be carried out easily in a mountainous region. Similarly, forestry could not be carried out in an open grassland area. Some activities require a reliable source of water (fisheries, lumber mills, rice fields); others require areas with rock formations (mining).

Share and discuss students' findings. The accuracy of their predictions will help you assess how well students understand the correlation between the natural environment and the economy of a community.

Social studies Blackline Master 3.3.3c, which discusses global diversity, has useful information for discussions. Find it at www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr3/blms/index.html.

Targeted Outcome/Intended Learning:

Science: Cluster 1: Growth and Changes in Plants

3-1-09: Identify plant adaptations that can be harmful to humans, and describe their effects.

3-1-16: Identify how humans from various cultures use plant parts for food and medicine.

Examples: use of roots for food (carrots) and medicine (ginseng) . . .



Some of the activities might be incorporated in an activity centre.

Background:

Use the lesson to engage students and acquire information about plants. The activity centre lessons (including book and website references) would be suitable for furthering their knowledge and applying that knowledge to a contextual activity.

Projects generated from this activity centre can help to assess students' understanding of harmful and helpful plants for humans.

Materials:

- Suggested K-4 ESD Poster picture cards: 11, 12, 17, 19, 21, 24. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster picture cards: think, protect, learn, safety, distinguish, consequences, walking, evaluate, environment, access, value, conserve, recognize, needs, ideas, predict, care, reuse, repair, recycle, diversity, activity depend, cooperate, share, organize, identify, appreciate, understand, enjoy, communicate, listen, grow, help. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Websites:

Information about poisonous plants from websites such as <www.wikihow.com/Identify-Poison-Ivy>.

Books:

A Taste of Wild Fruits by Manitoba Forestry Association Inc. and Manitoba Natural Resources (1984).

A Field Guide to Edible Wild Plants (Eastern/Central North America) by L.A. Peterson (1977).

Magic and Medicine of Plants by Reader's Digest (1986). Manitoba Education Library Call #615.321 M33.

Food Plants of Coastal First Peoples by Nancy Turner (2006). Manitoba Education Library Call #641.6 AS4.

The Good Earth: A Guide to Vegetables, Fruits, Grains, Spices, Culinary Herbs of Our Planet by Jon Gregerson (1992). Manitoba Education Library Call #581.632 G74.

Wild Plants of Central North America for Food and Medicine by Stephen Jackson and Linda Prine (1978). Manitoba Education Library Call #581.63097 J32.

Forest Pharmacy: Medicinal Plants in American Forests by Steven Foster (1995). Manitoba Education Library Call #615.32097 F68.

You Can Eat Them, You Know: Wild Food Plants by Oscar Nito (1977). Manitoba Education Library Call #641.603 M35.

Medicines to Help Us: Traditional Métis Plant Use by Christi Belcourt, et al. (2007). Manitoba Education Library Call #K615.321 M33.

Videos:

How Plants Are Used by National Geographic Society (17 minutes) (VHS).

African Plant Explorer: Fatimah Jackson by Canadian Learning Company (15 minutes) (VHS). Manitoba Education Library Call #8717.

Plants by Bill Nye (26 minutes) (VHS). Manitoba Education Library Call #D-6080.

Activity Directions:

Activity 1:

Help students to identify and avoid harmful plants by showing them pictures of stinging nettle and poison ivy. Note that poison ivy has a different appearance in different seasons, so seasonal pictures are needed.

Activity 2:

To engage students in thinking about plants as food, show them website picture cards 12, 17, 19, 21, and 24. Ask them what plants in the picture could be used as food by humans and how they could be prepared. The pictures of flowers and wetlands might give them some trouble! Suggest that certain flower species are used for food in many parts of the world (e.g., dandelion roots can be dried, ground, and used to make a coffee-like drink; chamomile tea is made from flowers of the chamomile plant; fancy restaurants sometimes add certain flowers to salads, etc.). The marsh can provide many good foods for people to eat (e.g., wild rice; the grains from cane grasses and phragmite reeds can be ground and used as flour; the roots and stems of cattails can be peeled and eaten raw or cooked, etc.). Encourage students to contribute other ideas.

Activity 3:

Invite students to learn more about edible wild plants during reading time by providing them with some of the books suggested above. To further their knowledge, show one of the videos or the DVD suggested above.

Activity Centre or Whole-Class Activities:

See suggested activities in Grade 3 Activity Centre #6: Create a Menu, Solve a Mystery.

Targeted Outcome/Intended Learning:

Science: Cluster 1: Growth and Changes in Plants

3-1-02: Observe, compare, and contrast the structure and appearance of several types of plants.

Examples: plants with different types of roots, trees with needles and trees with leaves . . .

3-1-03: Show respect for plants as living things.

Background:

There are so many different types of plants and tree species, all with their own special needs and qualities. Each has its own contribution to make to the natural environment. This lesson will help students to discover that a forest is not “Just a bunch of trees.”

The *Native Trees of Manitoba Field Guide* is also available in print form from Manitoba Conservation at <www.gov.mb.ca/conservation/forestry/contact.html>.

Materials:

- notebooks, pencils, erasers
- magnifying glasses
- markers or mini-flags on posts (optional)
- key to the tree leaves sheet
- one branch from an oak tree, spruce, or other common species
- leaf morphology sheet
- leaves
- paper and pencil crayons
- Suggested K-4 ESD Poster picture cards: 11, 12, 17, 19, 21, 24. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word cards: protect, restore, distinguish, value, replenish, respect, conserve, recognize, care, beauty, depend, appreciate, help. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Websites:

Poison Ivy. Available online at <<http://landscaping.about.com/od/galleryoflandscapephotos/ig/Pictures-of-Poison-Ivy/>>.

Stinging Nettle. Available online at <http://landscaping.about.com/od/weedsdiseases/p/stinging_nettle.htm>.

Native Trees of Manitoba Field Guide. Available online at <www.gov.mb.ca/conservation/forestry/pdf/health/fieldguidefinal.pdf>.

Books:

One of several available tree guides, such as *Science Nature Guides—Trees of North America* by Alan Mitchell (2003). San Diego, CA: Thunder Bay Press, ISBN 1 85028 265 X.

Activity Directions:**Activity 1:**

Discuss the plants found in picture cards 11, 12, 17, 19, 21, and 24. Create a chart on the board with the following columns: type of plant, habitat, soil type, other needs, uses to humans. Either in groups or as a class activity, ask students the following questions and record their answers on the chart: “What kinds of plants do you see in this picture?” “What natural environment are the plants in this picture living in?” “Where else might you find them growing?” “What kind of soil do they need?” “What other needs do you think they have?” “How do these plants help humans?” (*Answers could include: Trees give us shade, building materials, and oxygen. Berry and vegetable plants give us food and oxygen. Flowers are nice to look at, provide oxygen for us to breathe, support insects that also pollinate crops, and you can eat some of them. Marsh grasses provide shelter for animals and ducks, hold water, filter water, and clean it.*) The marsh picture might require some discussion and guidance from the teacher.

Activity 2:

Armed with a magnifying glass, notebook, and pencil, have students set out on an exploration of a natural area (even the schoolyard can reveal some amazing diversity). Inform students that their job is to find as many different types of plants as possible. In order to verify their claim, students must very carefully draw a picture of each plant species that they find, including in their

picture the stem, a branch, a leaf (paying special attention to the shape of the leaf), and, if present, a flower or seed pod from each specimen. At the end of the activity, the class can gather together to tally the results. If a field guide is available, the class can try to identify the species.

Important Note: Remind students not to pick any of the plants. The objective is to appreciate the species diversity, not decrease it! Also, **beware of poison ivy and stinging nettle**. Tell students not to touch plants in or along the edges of wooded areas. Show students pictures of poison ivy and stinging nettle before starting the walk.

Variation: In addition to drawing their specimens, if working in the schoolyard or an open area, the class could make markers (stakes or wires with a flag on it) to mark out their discoveries. This helps to avoid duplication and provides the opportunity for the class to share their discoveries onsite, as well as to discuss the natural environment the plant is growing in. The following are some questions to help students appreciate their plants:

- Is it on gravel, which is a harsh environment, or in rich soil?
- If seeds are present, how do students think the seeds might be dispersed? (Does it have a seed pod that springs open? Do the seeds fall to the ground? Does it have prickly seeds that stick to animals that pass by, or fruit that birds and animals eat and then eliminate the seeds at another location? Does it have parachute seeds that use the wind to take them to other places? etc.)
- How abundant is the species? Are there several of them in one location, or is the plant all alone?

Activity 3:

Students will be amazed by just how many tree species live in their community. Use a guide to North American trees such as: *Native Trees of Manitoba Field Guide* and *Science Nature Guides—Trees of North America* to look at the variety of trees that live in our country. Note the distinctive shapes the body of each tree has (some are tall and slender, some are very rounded, some have branches starting at the bottom of the tree, while others have branches starting halfway up the trunk).

Ask students why they think different trees have different shapes (some grow tall and straight to try to reach for the sun in dense forests, while others try to push away competitors by having their branches spread far from the trunk, etc.). Have children act out the shape of various trees with their arms and legs. (Note: in the forest, not all members of a species will have the same shape, competition for light, space, disease, and soil conditions can change the

shape of individual specimens. Therefore, shape is not always a reliable form of identification.) Look at pictures of different types of seed pods and cones of various species. Discuss how the seeds might get from one place to another (e.g., squirrels, airborne, etc.).

Hand out the sheet about leaf morphology. Discuss the shapes of leaves, and familiarize students with the terminology associated with leaf morphology. Ask them what the word *toothed* might mean in relation to a leaf shape. Ask for a volunteer to draw a toothed leaf on the board. How about a lobed leaf or a needle-shaped leaf? Invite students to collect leaves on their way to school. Try to identify the shapes of these leaves. Save the leaves for a leaf rubbing art activity.

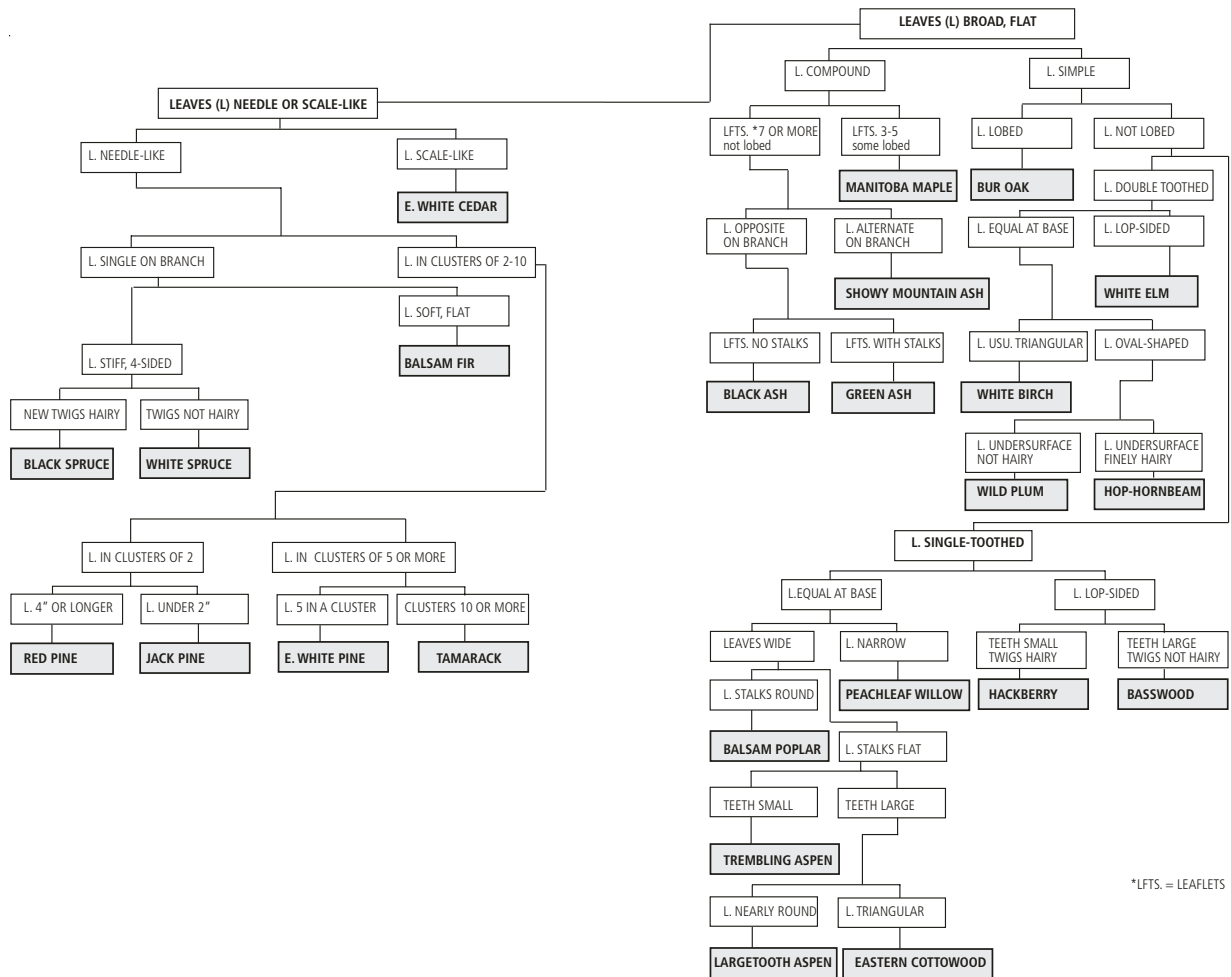
As a group, model how to identify a tree using the key to plant leaves included on this website. Using a branch from a tree species common to your area, work through the key, practising the terminology and referring to the leaf morphology sheet. (Note: As many ornamental and introduced species exist in urban areas, not all trees can be identified accurately, but this activity will give students a good idea of how diverse our tree species population is.)

Divide students into groups of three or four. Hand out the key to plant leaves. Tell students that they will now have the opportunity to try identifying a tree on their own. Remind them to stay close to the group, and to choose a tree that has a distinct trunk and that is taller than they are (this will eliminate most shrub species). When they have identified their tree, have them share their results with the group.

Activity 4:

For leaf rubbings, have students save one or two leaves from their tree identification field trip. Using the side of a crayon or pencil crayon, have them make a rubbing of their leaf, and share the leaves that others have collected to make a leaf rubbing collage. Preserve some of the leaves collected by pressing them in phone books or other heavy books for three to five days. Students can then glue the dried leaves to their leaf collage.

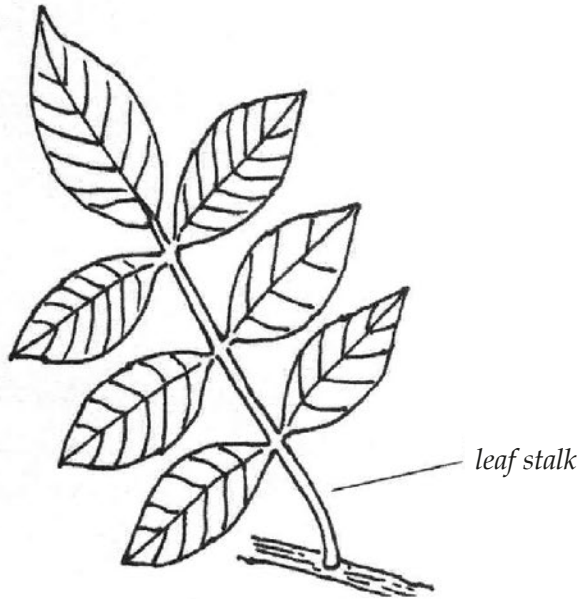
Leaf Key



* Reproduced from *Field Guide to the Native Trees of Manitoba*, by E.T. Oswald and F.H. Nokes, Canadian Forestry Service/Manitoba Natural Resources, 1988 (pp. 14 & 15). Available online at www.gov.mb.ca/conservation/forestry/pdf/health/fieldguidefinal.pdf.

Illustration 1: "Leaf Language"

Compound leaf (with 7 leaflets)



simple leaf



Leaf single-toothed



Leaf lobed



Leaf double-toothed

Illustration by Barbara Batulla.

Targeted Outcome/Intended Learning:

Science: Cluster 1: Growth and Changes in Plants

3-1-14: Describe ways plants are important to the environment.

Examples: improve soil, air, and water quality; reduce erosion . . .

3-1-18: Explain how humans replenish the plants they use and the consequences if plants are not replenished.

Examples: after loggers harvest trees, new ones should be planted to ensure a future lumber supply . . .

Background:

This learning experience will assist students in learning the importance of plants in our world. The materials section includes a number of very useful websites.

Materials:

- writing materials, paper
- Suggested K-4 ESD Poster picture card: 11. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word card: replenish. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Websites:

Manitoba Hydro has a forest enhancement program for small-scale tree plantings. Information on this program can be found at www.hydro.mb.ca/environment/forest_enhancement/funding_criteria.shtml.

Links to several sites outlining the benefits of trees to urban, rural, and riparian environments can be found at www.treelink.org/linx/?navSubCatRef=56.

For statistics about how important trees are in a community and information about how trees around a yard benefit the environment, go to www.arborday.org/trees/benefits.cfm.

For general tree information as well as information about Los Angeles and its one million trees program, go to <www.fs.fed.us/psw/programs/uesd/uep/products/1/psw_cufr741_LA_Million_Trees_gtr.pdf>.

For interesting online lessons from Manitoba Fisheries, go to <www.gov.mb.ca/conservation/sustain/educate.html> and click on *Grade 3*.

Search the World Wildlife Federation Kids for a Living Planet website for its “Forests Alive” lesson.

Activity Directions:

Activity 1:

Look at website picture card #11. Ask students what is happening in the picture. Ask them if they know of anyone who has planted trees recently. Ask them if they know why they were planting trees. Brainstorm why trees are important: in the city, in the country; in a big forest. Have students visit the websites listed. Ask each student to find two or more important facts about the usefulness of trees. Read about the Los Angeles One Million Trees project. Why do they want to plant so many trees? Read about rainforest destruction. What happens when trees are not re-planted?

Activity 2:

Have students write a story called “The Day All the Plants Disappeared.” Include the impact on animals, people, and the environment. See <www.edu.gov.mb.ca/k12/cur/science/found/kto4/3c1.pdf>.

Activity 3:

Develop a plan to plant a tree or shrub in your school ground or a nearby park. Maintain or clean an existing flower bed or forested area, or support a local natural areas program.

Oak Hammock Marsh offers an activity kit in its *Wonders of Wetlands* series called “Treatment Plants.” This kit helps students to describe how plants remove pollutants from the water. For more information, go to <www.oakhammockmarsh.ca>.

Targeted Outcome/Intended Learning:

Science: Cluster 1: Growth and Changes in Plants

3-1-17: Investigate to determine how humans from various cultures make useful products from plant materials.

Examples: lumber milling, paper making, rope making, fabric making . . .



replenish

Social Studies: Cluster 3: Communities of the World (3.3.3: Resources);

KE-036: Give examples of how the natural environment influences work, goods, technologies, and trade in the communities studied.

Background:

There are many items we use that are directly made from plants. This learning experience will assist students in identifying some common articles made from plants.

Materials:

- For the display table, arrange a collection of items made from plants, such as paper, popsicle sticks, wooden musical instruments, cotton, hemp cloth or string, rice paper (or other handmade paper), rattles or other items made from vegetable gourds, items made from bamboo, etc.
- microscope
- containers of water
- microscope slides
- newspaper (1 sheet)
- food processor
- magazines and flyers featuring gift items and objects from other countries.
- glue, scissors, 11x17-inch paper
- Suggested K-4 ESD Poster picture cards: 3, 4, 7, 8, 14, 20, 21, 24, 25, 30. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word card: replenish. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Activity 1:

Invite students to bring in objects they may have at home that are made from plant material (in particular, items from other countries). Brainstorm for items that are made from plants.

Look at the website picture cards 3, 4, 7, 8, 14, 20, 21, 24, 25, and 30. Can students spot things that are made from plant materials in each picture?

Activity 2:

As an experiment; combine shredded paper with enough water to cover the paper in a bowl. Let it soak for an hour. Process paper and water in a food processor until smooth. Place a drop of the pureed paper on a microscope slide. Invite students to examine the paper under various magnifications. Add a drop of food colouring or ink. Now what do they see? Ask them to draw what they see. Discuss how fibres of cellulose help plants to be structurally strong and, in turn, help materials made from plants to be strong too. Students could then enter their observations in a science journal.

Activity 3:

Use photographs from magazines, travel brochures, and flyers to create a collage of the various uses of plant materials. Have students create a collage of items made from plants.

Targeted Outcome/Intended Learning:

Science: Cluster 4: Soils and the Environment

3-4-08: Explain the importance of understanding the characteristics of different soils.

Examples: enables farmers to determine which crops can be grown in a particular area, enables gardeners to improve plant growth, enables engineers to know what types of foundations to set for structures . . .

Background:

This learning experience will assist students in understanding different soil characteristics.

Materials:

- samples of garden soil
- clear jars or containers (with lids)
- samples of clay, loam, humus, sand, small pebbles
- mortar and pestle
- microscope
- science journal
- containers to hold water
- water
- Suggested K-4 ESD Poster picture cards: 11, 19, 21, 22. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Websites:

The Great Plant Escape. This site, which can be found at <<http://urbanext.illinois.edu/gpe/case2/c2facts2.html>>, helps students understand the characteristics of soil.

Journey to Forever. This is an excellent site linking to a variety of other sites as well as providing background information about soil composition, soil fauna, and a variety of experiments that can be performed in class. It can be found at <www.journeytoforever.org/edu_compost.html>.

14 Grade 3 Learning Experience #14: Soils

Books:

The Amazing Dirt Book by Paulette Bourgeois (1990). Manitoba Education Library Call #631.4 B69.

It's Moving Day by Pamela Hickman (1990). Manitoba Education Library Call #591.5648 H52.

Amazing Mud by Jean Anderson (2006).

Dirt by Steve "the Dirt Meister" Tomecek (2002). Manitoba Education Library Call #631.4 T64.

Backyard Biology: Observing Nature at School and Home by Bob DeWeese (1994). Manitoba Education Library Call #372.35044 S36b.

Videos:

How to Make Mud Pie by Michael Grayson (15 minutes) (VHS). Manitoba Education Library Call #8594.

All about Soil by Desiree Coleman (23 minutes) (VHS). Manitoba Education Library Call #5578.

Rocks and Soil by Bill Nye (26 minutes) (DVD). Manitoba Education Library Call #D6003.

Activity Directions:

Activity 1:

Use the websites and books as an introduction to understanding the characteristics of soils. Discuss what is needed to create a fertile garden. How can we keep our gardens fertile? Try testing a cup of soil to determine its composition by adding the soil and two cups of water to a clear bottle or jar. Put a lid on the jar, give it a shake, and then let it sit for a few minutes. Organic material will float to the top, clay will remain suspended in the water for a while, and sand/minerals will precipitate to the bottom. A good soil will have a mixture of all components. (See *Journey to Forever* website for more details.)

Activity 2:

In a discussion about soil types and the importance of understanding soil characteristics for building and gardening, in a sharing circle pass around website picture cards 1, 2, 11, 19, 21, and 22. Have pairs of students choose a card and brainstorm for ideas of why understanding soil types would be important to someone involved with the picture (either for building the site, planting there, managing the area . . .).

Activity 3:

Examine different types of soil components under a microscope. Which are the finest and which have the most texture to them? How will this affect the way water moves through them? Now try adding water to each type of soil component (let it sit for a few minutes). What happens to the water? Does it flow through quickly? Does it pool in spots? What does the material feel like when it is wet? Does it ooze around your fingers or is it solid to the touch? How would that affect a building that was placed on it? Have students record their observations in their journal. What conclusions can they draw about the different soil components?

Assessment:

Read student journals to check for understanding.

Targeted Outcome/Intended Learning:

Science: Cluster 4: Soils in the Environment

3-4-10: Describe ways to return organic matter to the soil.

Examples: composting, spreading manure on fields . . .

3-4-11: Use the design process to construct a simple composter that returns organic matter to the soil.

Examples: classroom composter for leftover food, school composter for grass clippings and leaves . . .



sustainable

Background:

There is an amazing amount of information about composting available for educators. The resources listed in the materials section of this lesson are just a sampling!

Materials:

- Suggested K-4 ESD Poster picture cards: 20, 26. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word cards: reduce, sustainable, think, protect, safety, restore, consequences, contribute, defend, compost, environment, value, replenish, respect, conserve, needs, recycle, reuse, contribute, care, citizen, depend, cooperate, share, appreciate, understand, grow, help. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Websites:

Journey to Forever. This site provides background information about soil composition, links to building a composter in the school, experiments with pop bottles including building a “Soda Bottle Bioreactor,” and more. Find it at www.journeytoforever.org/edu_compost.html.

Garden Organic. This site provides simple step-by-step instructions on how to build a composter, as well as definitions and safety hints to mind along the way. It is available at www.gardenorganic.org.uk/schools_organic_network/lz_comp.htm.

Manitoba's Green Action Centre has excellent composting information and information about its Master Composters program. Find out more at <<http://greenactioncentre.ca/>>.

Books:

Animals Under the Ground by Allan Fowler (1997). Manitoba Education Library Call #591.757 F69.

Compost Critters by Bianca Lavies (1993). Manitoba Education Library Call #591.526404 L39.

Worms Eat Our Garbage: Classroom Activities for a Better Environment by Mary Appelhof, et al. (1997). Manitoba Education Library Call #372.357 A66.

Lunch Box for Plants by Rhea Brillinger. Manitoba Education Library Call #K372.35 L85.

Video:

Diary of a Worm by Alexander Gould (8 minutes) (DVD). Norwalk, CT. 2004. A diary story follows a few months in the life of a young worm. Manitoba Education Library Call #D-10779.

Activity Directions:

Activity 1:

Visit someone in the neighbourhood who has a compost bin. Ask them to explain how they use their compost. Find out if your city, town, or municipality has a compost program for grass clippings, leaves, and Christmas trees. What is done with the compost? If no program exists, how can one be started?

Activity 2:

Create a composter for your school or classroom. If you already have a composter from the previous year, create activities to maintain interest (to keep the project “sustainable”). You could have students examine the soil from the composter and compare it with garden soil, or you could do an experiment where plants are grown in soil from the composter as well as soil from the schoolyard. Measure plant growth from the two samples and make note of leaf colour and the overall health of the plant. Discuss any differences with reference to the benefits of composting to plants. You could also do a worm population study. Divide the composter into sections and place only certain kinds of plant waste in each section. Do some types of plants decompose faster than others? Do some make a better compost? etc.

Activity 3:

Using the books, websites, and kits listed above (along with resources available in the school), have students write a newsletter for their parents and other classes about the benefits of composting. Encourage students to work in groups or as individuals to create a series of articles about the life of a worm, critters of the soil, the importance of healthy soil, benefits to people of healthy soils, what happens when soil is not taken care of (e.g., poor farming practices, strip logging), how to build a composter in your yard, how they built one in the classroom, and what happened during the process, etc.

Some students can be illustrators, some can be researchers, and others can be writers and editors. To help them with vocabulary, encourage them to use the following word cards in their articles: *reduce, sustainable, think, protect, safety, restore, consequences, contribute, defend, compost, environment, value, replenish, respect, conserve, needs, recycle, reuse, contribute, care, citizen, depend, cooperate, share, appreciate, understand, grow, and help.*

The newsletter articles (an application process) will give teachers insight into how well students have understood the concept, as well as an opportunity to clarify and further student learning.

Targeted Outcome/Intended Learning:

Physical Education/Health Education: 4. Personal and Social Management

K.4.3.B.3b: Show an understanding of the steps in a conflict-resolution process (i.e., identify the goal; identify constraints, limiting conditions, and possible options; choose best option; evaluate for effectiveness).

K.4.3.B.3c: Identify mediation skills (e.g., allow person to express opinions, summarize other person's point of view, recognize feelings of others . . .) that can be used as part of the conflict-resolution process.

Background:

This activity could be done as an application lesson to help students practise their mediation skills and conflict resolution strategies.

Materials:

- Suggested K-4 ESD Poster picture cards: 8, 9, 11, 17, 19, 21, 23, 27, 30, 33, 35. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Explain to students that they are going to be presented with a series of conflicts and scenarios to solve. For each scenario/conflict, there will be a complainant (two students), a perpetrator (one or two students), a judge/mediator (one or more students), and a jury (the rest of the class). The complainant will state the problem and provide evidence that an actual problem exists. The perpetrator will defend his or her reasons for creating the "problem." The jury can decide who has made the stronger argument, and the judge will decide who was right and what the consequence (if any are required) should be. Each of the website picture cards 8, 9, 11, 17, 19, 21, 23, 27, 30, 33, and 35 will represent a conflict or scenario. Students should have the opportunity to play judge, jury, and perpetrator or complainant.

Card 8 Scenario: Students/teachers are now required to turn off computers at the end of the day and to check classroom electrical power bars to ensure that they are turned off as well. "Complainant" is against this practice; "perpetrator" is determined to enforce the new rule. Both sides must defend their positions. Can there be a peaceful solution?

Card 9 Scenario: There is considerable discussion about safety issues and space usage on the school playground. The “complainant” claims that someone is destroying his snow forts and, because the “perpetrator” is always complaining about the fort activities, the complainant is sure that the perpetrator is to blame. The perpetrator denies the accusation, but insists that the schoolyard should be open to everyone. Can there be a peaceful resolution?

Alternately, students can create their own conflict scenario for this picture. The card lends itself well to a discussion of bullying and safety issues

Card 11 Scenario: Tree-planting debate. The “complainant” does not want trees planted on the school ground. She says that the trees are messy and take up valuable playing space. The “perpetrator” argues that there are many benefits to having planting trees near the school. Whose argument is better and why?

Card 17, 19 Scenario: Flowerpots or mini-garden patch for the schoolyard. The “complainant” group argues against greenery; the “perpetrator” group argues in favour.

Card 21 Scenario: Fitness trail or wetland habitat. A small marsh near the school is being considered as a site for a new fitness trail. That would mean bulldozing/filling in the marsh and destroying the habitat. The community and the school really need a fitness trail. The “complainant” and the “perpetrator” are on opposite ends of the problem. They must come up with convincing evidence to support their sides of the argument. Can the judge/mediator help them find a middle ground?

Card 23 Scenario: It has been decided by student council to provide funds to buy phosphate-free detergent for the canteen as part of a greener school project. The “complainant” is worried that this will take away valuable funds needed for a field trip. The “perpetrator” argues why this is important.

Card 30 Scenario: The “complainant” lodges a complaint that the teacher (the “perpetrator”) is keeping the gym too cold (students are freezing!). The teacher defends her decision (prevents overheating during exercising, lowers heating costs, cuts carbon emissions, etc.).

Card 33 Scenario: New light bulbs have been installed in the school. The “complainant” complains that the new light bulbs are hard on the eyes, unattractive, risks to landfill sights, more costly, etc. The “perpetrator” defends the decision (does a poll on how many people find these lights to be hard on the eyes, etc.).

Card 35 Scenario: The Grade 3 class has decided to hold a class garage sale to raise funds for either a new action game for the class or a new class computer game, but they have to decide which one to get.

Targeted Outcome/Intended Learning:

Physical Education/Health Education: 5. Healthy Lifestyle Practices

K.5.3.A.2: Identify common communicable diseases/illnesses/conditions (e.g., colds, flu, pink-eye, head lice . . .) in the classroom and home, and ways to prevent the spread of diseases/illnesses/conditions (e.g., cover mouth when sneezing or coughing, wash hands regularly, share food appropriately, use own hair utensils and headwear . . .).

K.5.3.A.3: Assess personal dental care habits and identify ways to promote dental health for self and/or others.

Background:

Read a story about taking care of yourself. Invite students to share their ideas about how we can stay healthy. Have various storybooks about exercising, healthy eating, and proper hygiene available for students to read.

Encourage students to research to discover more about disease prevention.

Materials:

- clay from the garden, or clay slurry from a pottery studio
- water
- a Manitoba Health hand-washing kit
- Suggested K-4 ESD Poster picture cards: 7, 10, 15, 16, 24, 28. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word cards: think, protect, consequences. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Activity 1:

Use picture cards 7, 10, 12, 15, 16, 24, and 28 to get students thinking about the different activities involved in taking care of oneself. In a sharing circle, place the picture cards in the centre of the circle. Invite students (one at a time) to select a card, and explain how they think the people in the picture are taking care of themselves (e.g., wearing warm clothing or exercising by going for a walk). Accept all answers, and guide children to think of alternative viewpoints.

Activity 2:

Check with your local community health nurse for the availability of a hand-washing kit (they are excellent) and, if possible, invite the nurse to give a presentation on hand washing. Alternately, mix clay with water to create a soupy mix (a local pottery artist might be able to provide this). Have students dip their hands into the mix. Let dry for a minute. Blindfold each student and have them wash their hands as thoroughly as they can. Have students share the results of their efforts. How much mud is left on their hands? If that mud were actually germs, how well did they do at getting rid of them? Discuss how they felt about the hand-washing activity. Demonstrate and have children practise proper hand washing: using soap, wash the front and back of hands for a count of 10 per side, wash in between fingers, and rub fingertips gently (remind them to turn the water tap off while they are soaping their hands). Assure them that if they follow this procedure, they will get all of the dirt off of their hands.

Discuss what to do when you have a cold. Encourage them to contribute suggestions. Discuss sneezing or coughing into your elbow and not your hands. Have the class practise this activity. During activity time, encourage children to create a play about hand washing or what to do when you have to cough or sneeze. This play, along with the hand-washing activity, or a demonstration on how to brush your teeth properly could then be presented to the Kindergarten class.

GRADE 3 ACTIVITY CENTRES

The lessons and activities presented and related links are to supplement existing curriculum guidelines. The activity centres presented here can be used on their own, in combination with other activity centres, or, in some cases, as a whole-group activity. References to related learning experiences are given where applicable.

Sustainable Development Themes Related to the K-4 ESD Poster Activity Centres

Activity Centre	Subject	Cluster Section	SLO	Page
1. Create a Match-up Game	Social Studies	1. Connecting with Canadians (3.1.1: Canadian Citizenship)	KC-002: Give examples of responsibilities and rights of Canadian citizens.	3-55
2. Sorting and Classifying	Social Studies	1. Connecting with Canadians (3.1.5: Conflict Resolution)	KP-033: Identify ways of resolving conflict in groups and communities.	3-57
3. Interactive Online Activity	Social Studies	2. Exploring the World (3.2.3: Human Rights)	KC-005: Recognize that people around the world have basic human rights. <i>Examples: access to food, water, shelter, a secure environment, education, fair and equal treatment . . .</i>	3-59
4. A Memory Game	Social Studies	2. Exploring the World (3.2.4: Personal Responsibilities)	KG-027: Give examples of concerns common to communities round the world.	3-61

continued

Activity Centre	Subject	Cluster Section	SLO	Page
5. Tree Charades	Science	1. Growth and Changes in Plants	<p>3-1-01: Use appropriate vocabulary related to their investigations of growth and changes in plants.</p> <p>Include: growing medium, nutrient, energy, root, stem, leaf, flowers, pistil, stamen, ovule, pollen, seed, fruit, adaptation, life cycle.</p> <p>3-1-07: Identify the basic parts of plants and describe their functions.</p> <p>Include: roots, stems, leaves, flowers, pistil, stamen, ovule, pollen, seeds, fruit.</p>	3-63
6. Create a Menu, Solve a Mystery	Science	1. Growth and Changes in Plants	<p>3-1-16: Identify how humans from various cultures use plant parts for food and medicine</p> <p><i>Examples: use of roots for food (carrots) and medicine (ginseng) . . .</i></p>	3-65

Targeted Outcome/Intended Learning:

Social Studies: Cluster 1: Connecting with Canadians
(3.1.1: Canadian Citizenship)

KC-002: Give examples of responsibilities and rights of Canadian citizens.



Background:

This could be used as “application” activities to be done after a list of students’ rights at school have been established.

Materials:

- 15-cm. long cardboard or heavy gauge paper cardstock
- writing materials
- Suggested K-4 ESD Poster picture cards: 9, 25. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word card: rethink. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

With input from the class, make a list of rights students have at school. Have students match each “right” with a “responsibility,” or these “rights,” “responsibilities,” and “rules” can be recorded on cards and used as a classroom match-up game.

Observation of students’ responses will help you to verify understanding and provide the opportunity to correct any misconceptions students might have, and thus clarify the concept of rights versus rules and responsibilities in their minds.

The social studies curriculum provides many good suggestions on this topic in the Canadian citizenship section of www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr3/cluster1.pdf. The Blackline Master 3.1.1a, which can be used to sort and classify examples of responsibilities and rights, is great for an application activity in an activity centre. It is available at www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr3/blms/index.html.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 1: Connecting with Canadians
(3.1.5: Conflict Resolution)

KP-033: Identify ways of resolving conflict in groups and communities.

Learning Experience #4 could be used as an “engage” activity.

Background:

Cooperating with other people is an important social skill. This activity centre helps to provide an introduction to conflict resolution. Conflict resolution skills are useful skills in many situations including dealing with sustainable development issues.

Materials:

- scissors
- laminator (optional)
- Suggested K-4 ESD Poster picture card: 4. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word card: cooperate. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Books:

We Can Work it Out: Conflict Resolution for Children by Barbara K. Polland (2000). Manitoba Education Library Call #303.69 P64.

Hands On Social Studies Jennifer Lawson (ed.) (2003). Manitoba Education Library Call #372.83044 L38.

Activity Directions:

Activity 1:

Read the book *We Can Work it Out* by B.K. Polland. It provides good photographs of children interacting with one another, and suggestions for working things out. It is useful as an introduction to conflict resolution or for a review discussion prior to using the conflict resolution cards suggested below.

Activity 2:

Hands On Social Studies (pp. 62–67) has some excellent information on the six forms of conflict resolution and the importance of admitting when you are wrong. The conflict resolution cards on pages 64–67 would work well in an activity centre or as an application activity (i.e., sort the cards as to what form of conflict resolution each represents).

The social studies Blackline Masters provide two activities suitable for an activity centre: 3.1.5b: Bullying Survey and 3.1.5d: Role-Playing.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 2: Exploring the World
(3.2.3: Human Rights)

KC-005: Recognize that people around the world have basic human rights.

Examples: access to food, water, shelter, a secure environment, education, fair and equal treatment . . .



Lesson #5 has complementary activities.

Background:

This activity centre will assist students in learning about basic human rights.

Materials:

- computer
- Suggested K-4 ESD Poster picture card: 26. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word card: relate. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Description:

Activity 1:

The United Nations World Food Programme has created interactive games about world hunger for teachers and students alike. Do an internet search for its “Food Force” series of games and find some that are appropriate for Grade 3 students.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 2: Exploring the World (3.24: Personal Responsibilities)
KG-027: Give examples of concerns common to communities around the world.

This centre could be used as an application activity to follow Learning Experience #6, which has activities required to complete Activity #1 of this activity centre.

Background:

This activity centre provides an opportunity for students to apply their understanding of human rights to familiar and new situations.

Materials:

- board cut to match the size of the picture cards
- markers
- cards generated from Lesson 6
- an assortment of recycled materials, magazines, and flyers
- a three-metre long piece of construction paper
- glue, scissors
- Suggested K-4 ESD Poster picture cards: 1, 2, 4, 5, 7, 9, 12, 13, 15, 16, 19, 21, 22, 24, 25 29. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word card: recognize. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Activity 1:

Use cards created in Learning Experience #6. Invite students to arrange the cards on a table face side up. Allow a few minutes for viewing, and then flip them over. Students must then try to remember and match the picture cards with their corresponding card, listing the community concern associated with the picture (see Learning Experience #6 for further details).

Activity 2:

Create a human rights mosaic using recycled materials and pictures from magazines, flyers, etc. Divide a large strip of paper into sections (one per student or student group). Each student (or pair of students) chooses one aspect of basic human rights (e.g., safety, clean water, nutritious food, love, housing). Using various recycled materials and pictures from magazines, invite them to create a picture on their section of the mural that represents the basic human right that they have chosen (encourage them to try a “dry mock-up” of the picture before they attach everything to the mural). After the mosaic is complete, invite students to interpret their section of the mural for the class.

Variation: The mural could focus on organizations that help people locally or around the world.

Students’ interpretations of the human right represented will give you a window into their understanding and provide an opportunity for one-on-one discussion about aspects of human rights.

For access to a wonderful array of recycled materials for classroom use, consider joining ArtsJunktion. It’s free! For more information, go to <www.ArtsJunktion.mb.ca>.

Targeted Outcome/Intended Learning:

Science: Cluster 1: Growth and Changes in Plants

3-1-01: Use appropriate vocabulary related to their investigations of growth and changes in plants.

Include: growing medium, nutrient, energy, root, stem, leaf, flowers, pistil, stamen, ovule, pollen, seed, fruit, adaptation, life cycle.

3-1-07: Identify the basic parts of plants and describe their functions.

Include: roots, stems, leaves, flowers, pistil, stamen, ovule, pollen, seeds, fruit.



diversity

Background:

Two websites have some excellent online activities and lesson plans about plants for K-3 classes. The Tree Link website at www.treelink.org/kids/activities.html has a variety of areas to explore. The second website at www.urbanext.uiuc.edu/gpe/tg/c6-intro.html takes students directly to an online interactive site called *The Great Plant Escape*, which provides a series of lessons that help students learn plant vocabulary, anatomy, and the importance of plants in our lives.

Materials:

- Suggested K-4 ESD Poster picture cards: 11, 12, 17, 19, 21. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word card: diversity. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Activity 1:

Access the Tree Link website to find appropriate activities among a variety of areas to explore. Clicking *resources* and then *kids and community trees* leads to a wide variety of resources. The second website takes students directly to an

online interactive site called *The Great Plant Escape*, which provides a series of lessons that help students learn plant vocabulary, anatomy, and the importance of plants in our lives. These activities are designed for Grades 4 and 5 but might be useful with Grade 3 students.

For more information about Project Learning Tree, contact the Manitoba Forestry Association at <www.mbforestryassoc.ca> or Project Learning Tree at <www.plt.org>.

Activity 2:

In pairs, have students pick out a website picture card from among cards 11, 12, 17, 19, and 21, and act out the type of plant shown on the card. Other students at the centre must try to guess what type of plant is being depicted by its shape and movement (perhaps the second student is “picking” something from the plant, etc.). This activity would be good for engaging students in the topic of plant diversity.

Targeted Outcome/Intended Learning:

Science: Cluster 1: Growth and Changes in Plants

3-1-16: Identify how humans from various cultures use plant parts for food and medicine.

Examples: use of roots for food (carrots) and medicine (ginseng) . . .

Background:

This centre is useful in helping students develop their research/information-gathering and -reporting skills, as well as applying their learning to real-life situations.

Use the kits and/or videos as part of engaging and acquiring information about plants.

The activity centre lesson (including book and website references) would be suitable for furthering their knowledge and applying that knowledge to a contextual activity. Projects generated from this activity centre can help to assess students' understanding of the importance of plants to food and medicine for humans.

Materials:

- Suggested K-4 ESD Poster picture card: 12. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word card: identify. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Websites:

Forest Survival: These sites discuss how to use Mayan knowledge of plants to survive in a South American forest. Available online at www.Newtonsapple.tv/teacherguide.php?id=1418 and www.reachutmichigan.org/funexperiments/agesubject/lessons/jungle.html.

Books:

A Taste of Wild Fruits by Manitoba Forestry Association and Manitoba Natural Resources (1991).

A Field Guide to Edible Wild Plants (Eastern/Central North America) by L.A. Peterson (1977).

Magic and Medicine of Plants by Reader's Digest (1986). Manitoba Education Library Call #15.321 M33.

Food Plants of Coastal First Peoples by Nancy Turner (2006). Manitoba Education Library Call #41.6 AS4.

The Good Earth: A Guide to Vegetables, Fruits, Grains, Spices, Culinary Herbs of Our Planet by Jon Gregerson (1992). Manitoba Education Library Call #581.632 G74.

Wild Plants of Central North America for Food and Medicine by Stephen Jackson and Linda Prine (1978). Manitoba Education Library Call #581.63097 J32.

Forest Pharmacy: Medicinal Plants in American Forests by Steven Foster (1995). Manitoba Education Library Call #615.32097 F68.

Manitoba Education Kits:

You Can Eat Them, You Know: Wild Food Plants by Oscar Nito (1977). Manitoba Education Library Call #J641.603 M35.

Medicines to Help Us: Traditional Metis Plant Use by Christi Belcourt, et al. (2007). Manitoba Education Library Call #K615.321 M33.

Videos:

How Plants are Used by National Geographic Society (17 minutes) (VHS). Manitoba Education Library Call #3124.

African Plant Explorer: Fatimah Jackson by the Canadian Learning Company (15 minutes) (VHS). Manitoba Education Library Call #8717.

Plants by Bill Nye (26 minutes) (VHS). Manitoba Education Library Call #D-6080.

Activity Directions:

Activity 1:

In groups or as individuals, using the resources listed above, have students create a menu using edible forest plants.

OR

Activity 2:

Have students write a story about surviving in the forest. They could be provided with various scenarios (e.g., They have cut themselves and they need to use plants to heal their wound. They have eaten something that made their stomach sick and they need to use something to calm their stomach. They have to make a meal for their family and they need to use food from the forest, etc.).

Activity 3:

Have them look for a plant, fruit, or vegetable that they are unfamiliar with (preferably from another country), and create a poster or report about how people use that plant for food or medicine or both.



EDUCATION FOR SUSTAINABLE
DEVELOPMENT: KINDERGARTEN
TO GRADE 4 POSTER ACTIVITIES

Grade 4

GRADE 4 LEARNING EXPERIENCES

The lessons and activities presented in this website, and related links are to supplement existing curriculum guidelines.

Sustainable Development Themes Related to the K-4 ESD Poster Learning Experiences

Learning Experience	Subject	Cluster Section	SLO	Page
1. Take a Stand	Social Studies	2. Canadian Citizenship (4.2.5: Government)	4-KE-048: Identify various ways in which governments help people meet their needs. <i>Examples: education, health care, sanitation . . .</i>	4-7
2. Windmills and More	Social Studies	3. Living In Manitoba (4.3.2: Environmental Stewardship and Sustainability)	4-KL-023: Identify issues related to environmental stewardship and sustainability in Manitoba.	4-9
3. Open Your Own Tour Company	Social Studies	3. Living In Manitoba (4.3.5: Artistic and Cultural Achievements)	4-KL-025: Describe places of historic, cultural, or environmental significance in Manitoba. <i>Examples: Lower Fort Garry, the Forks, musée de Saint-Boniface, Thunderbird House, provincial/national parks . . .</i>	4-11
4. What a Landscape!	Social Studies	4. History of Manitoba (4.4.1: Early Life and Settlement)	KL-026: Describe the influence of the natural environment on settlement in Manitoba.	4-15
5. Create a Creature	Science	1. Habitats and Communities	4-1-04: Identify physical and behavioural adaptations of animals and plants, and infer how these adaptations help them to survive in a specific habitat. <i>Examples: ducks' webbed feet and waterproof feathers help them dive for food in the marsh . . .</i>	4-17

continued

Learning Experience	Subject	Cluster Section	SLO	Page
6. Invertebrate Critter Survey	Science	1. Habitats and Communities	4-1-07: Investigate and describe a variety of local and regional habitats and their associated populations of plants and animals.	4-21
7. What's for Dinner?	Science	1. Habitats and Communities	4-1-09: Recognize that plant and animal populations interact within a community. 4-1-10: Recognize that the food chain is a system in which some of the energy from the sun is transferred eventually to animals. 4-1-11: Construct food chains and food webs, and classify organisms according to their roles. Include: producer, consumer, herbivore, omnivore, carnivore, predator, prey, scavenger.	4-25
8. Predator-Prey Games	Science	1. Habitats and Communities	4-1-13: Predict, based on their investigations, how the removal of a plant or animal population may affect the rest of the community. <i>Examples: if the wolves were removed from a community, the deer population may increase rapidly . . .</i>	4-31
9. Cleaning Up Without Voom	Science	1. Habitats and Communities	4-1-14: Investigate natural and human-caused changes to habitats, and identify resulting effects on plant and animal populations. Include: endangerment, extinction. 4-1-15: Describe how their actions can help conserve plant and animal populations and their habitats. <i>Examples: clean up a local stream to improve fish and bird habitat . . .</i>	4-35

continued

Learning Experience	Subject	Cluster Section	SLO	Page
10. What's That Noise?	Science	3. Sound	4-3-12: Describe harmful effects of high or sustained sound levels and identify potential sound hazards at home or in the community. <i>Examples: leaf-blowing machines, snowblower, stereo, drone of machinery . . .</i>	4-39
11. Investigate	Science	4. Rocks, Minerals, and Erosion	4-4-12: Investigate and describe ways in which soil erosion is controlled or minimized in their community and in communities around the world. <i>Examples: windbreaks, retaining walls, terracing, cover crops, reforestation . . .</i>	4-43
12. The Great Sand Blowing Contest, and Other Investigations	Science	4. Rocks, Minerals, and Erosion	4-4-13: Use the design process to determine an appropriate system for controlling soil erosion in a given situation.	4-45
13. Look Out Landscape!	Science	4. Rocks, Minerals, and Erosion	4-4-15: Identify natural phenomena and human activities that cause significant changes in the landscape. <i>Examples: floods, avalanches, mud slides, hydroelectric dams, clearing land for agriculture, clear-cut forestry, forest fires . . .</i>	4-49
14. Inuit Games: Design-a-Game	Physical Education/ Health Education	4. Personal and Social Management	K.4.4.B.1b: Discuss connections or representations of cultures in different physical and recreational activities <i>(e.g., lacrosse from Aboriginal culture, tinikling from Philippines, voyageur games from French-Canadian culture . . .).</i>	4-51
15. Healthy Body Snack Survey	Physical Education/ Health Education	5. Healthy Lifestyle Practices	S.5.4.A.3b: Use problem-solving strategies to reduce barriers to healthy eating and to improve food choices, if appropriate.	4-57

Notes

Targeted Outcome/Intended Learning:

Social Studies: Cluster 2: Canadian Citizenship
(4.2.5: Government)

4-KE-048: Identify various ways in which governments help people meet their needs.

Examples: education, health care, sanitation . . .



Background:

This learning experience will assist students in identifying the various levels of governments in Canada.

Note: Activity Centre #3 will need to be done before this learning experience.

Materials:

- reports from Activity Centre #3
- old phone books
- computers
- writing materials
- Suggested K-4 ESD Poster picture card: 2. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word cards: protect, safety, teach, defend, access, conserve, ideas, needs, recycle, culture, celebrate, care, citizen, organize, understand, connect, communicate, listen, grow, help. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Activity 1:

For “Take a Stand,” have students share their Activity #3 news articles with the class. Discuss each article and decide if there is one that the class can act on. Decide what that action could be (e.g., letter to the editor, letters to a government official, newsletter to parents to bring student’s concerns to their attention, etc.)

Or

Activity 2:

For “Serving the Public,” use old phone books, divide the government section of the book into sections (either city, province, federal, or alphabetically). In pairs, have students select three government departments from the section of the phone book they were given and encourage them to find out more about these departments. What do their chosen government departments do to help people? What portion of the population do they serve? What would happen if these departments did not exist? Students may use computers, publications, or telephone their chosen departments in order to complete their research. Encourage students to use the SD cards for vocabulary in their writing.

For Blackline Masters activities related to this outcome, go to www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr4/blms/index.html.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 3: Living In Manitoba (4.3.2: Environmental Stewardship and Sustainability)

4-KL-023: Identify issues related to environmental stewardship and sustainability in Manitoba.

Background:

This learning experience first looks at windmills and wind farms as environmental stewardship and sustainability issues. It then suggests other environmental stewardship and sustainability issues students could investigate.

Materials:

- telephone directory, business directories
- Suggested K-4 ESD Poster picture cards: 1, 22. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word cards: reduce, sustainable, think, protect, learn, relate, etc. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Websites:

Wind Power with Miller is an excellent site where students can play an interactive game and navigate on their own. Available online at www.windpower.org/en/knowledge/wind_with_miller.html.

Activity Directions:

Activity 1:

Define the terms *environmental stewardship* and *sustainability*. Invite students to write about or discuss examples of each in Manitoba.

Activity 2:

To find out more about wind farms, invite students to use the website *Wind Power with Miller* at <www.windpower.org/en/knowledge/wind_with_miller.html>. Check the Manitoba Yellow Pages to find locations of wind farms in Manitoba.

Activity 3:

This is a series of scenarios/issues for students to investigate. Working in small groups, students can choose one scenario or issue, research it, and present the findings to the class, discussing how the issue is related to environmental stewardship/sustainability, and identifying the negative or positive consequences of the topic. Where applicable, they could also propose an appropriate resolution to the issue. Some topics could include cutting down trees along riverbanks, clear-cutting of trees, initiating a user-pay waste disposal system, creating a “protected land area,” creating laws to regulate disposal of toxic chemicals and the use of pesticides and herbicides, and banning cleaning products that contain phosphates. What are the facts about going “power smart”? What are the pros and cons of natural gas heat? Encourage students to use the word cards for vocabulary words in their writing.

Social Studies Blackline Master 4.3.2: Environmental Stewardship and Sustainability: This BLM may be helpful for Activity 3. Find it at <www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr4/blms/index.html>.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 3: Living In Manitoba (4.3.5: Artistic and Cultural Achievements)

4-KL-025: Describe places of historic, cultural, or environmental significance in Manitoba.

Examples: Lower Fort Garry, the Forks, musée de Saint-Boniface, Thunderbird House, provincial/national parks . . .



connect

Background:

Students explore their places that are of historic, cultural, or environmental significance in Manitoba.

Materials:

- Brochures from various historic and natural sites in Manitoba
- Suggested K–4 ESD Poster picture card: 2. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K–4 ESD Poster word card: connect. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Websites:

Manitoba Hydro: Go to http://en.wikipedia.org/wiki/Manitoba_Hydro for important Hydro sites.

Manitoba Conservation Provincial Parks: Go to www.gov.mb.ca/conservation/parks/popular_parks/index.html, and then click on *alphabetical parks listing* to link to the desired park, or go to the *regions* link to find the parks and map in that area.

Lower Fort Garry: Go to www.pc.gc.ca/lhn-nhs/mb/fortgarry/index_e.asp.

Riding Mountain National Park: Go to www.pc.gc.ca/pn-np/mb/riding/index_E.asp.

Travel Manitoba: Go to www.travelmanitoba.com and click on *family fun* or *leisure activities*.

3

Grade 4 Learning Experience #3: Open Your Own Tour Company

Tourism Winnipeg: Go to <www.tourismwinnipeg.com>.

Discover Winnipeg: Go to <www.discoverwinnipeg.ca>.

Activity Directions:

Choose one of . . .

Activity 1:

Open Your Own Manitoba Tour Company! Have the class create a name for the company. Divide students into groups of three or four. Assign each group a specific area of Manitoba (Shield Country, south-eastern Manitoba, south-central Manitoba, the Winnipeg Region, Portage Region, South Interlake, North Interlake, Brandon, Westman Region, south-western Manitoba, the Manitoba Escarpment, Northern Manitoba, Manitoba's far north). Inform the groups that their job is to create a guided tour of their assigned region. Each tour must include information about two people who contributed historically or artistically to their region, two sites of environmental significance, and two sites of historical and/or cultural significance in the assigned area. Students can use brochures, websites, regional tourist centres, or government agencies to complete their presentation. The assignment can be submitted as

- a poster with maps or pictures that highlight each significant point
Or
- a bus tour where “the audience” sits in a row as if on a bus while each presenting student takes a turn at being the tour guide
Or
- a presentation, where presenting students point out each site on a map and describe its historical, cultural, or environmental significance

Activity 2:

For “Where in Manitoba is . . .,” have students working in groups or on their own. Students choose one or more of the following sites (feel free to add to the list). Ask them to find out where in Manitoba the site is located, what the significance of the site is, and why it is special to Manitobans. **Where, oh where is:** Pisew Falls; The birthplace of Nellie McClung (and who she was); South Indian Lake; The site of the Seven Oaks Massacre; Lower Fort Garry; Oak Hammock Marsh; Captain Kennedy House; The Spirit Sands; The Golden Boy; Limestone Generating Station; Prince of Wales Fort; Molson Lake Rock Paintings; (Norway House); King Miner (Thompson); International Peace

3

Grade 4 Learning Experience #3: Open Your Own Tour Company

Gardens; York Factory; Baldy Mountain (Duck Mountain Prov. Park); The City Built on Rock (Flin Flon); Thunderbird Nest—The Narrows; St. Andrew's Lock (Lockport); AECL Pinawa/Pinawa Dam; Bannock Point Petroforms (Whiteshell Prov. Park); West Hawk Lake; Garson Quarry; The home of Dr. Charlotte Ross (Whitemouth); La Verendrye Trail; Atikaki Park; Tiger Hills; Riel House; Stott Site (Grand Valley Prov. Park); Virden (oil wells); Royal Canadian Mint; The home of Margaret Lawrence (Neepawa); Delta Marsh; Fort la Reine (Portage la Prairie); Fort Gibraltar; Chief Peguis; Red River Floodway; Precambrian Shield; Turtle Mountains; The Winnipeg Floodway

Social Studies Blackline Master 4.3.5: Artistic and Cultural Achievements Significant Places (at <www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr4/blms/index.html>) may be useful.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 4: History of Manitoba (4.4.1: Early Life and Settlement)
KL-026: Describe the influence of the natural environment on settlement in Manitoba.

Background:

This learning experience assists students in looking at examining the natural environment and its influence on Manitoba's settlement.

Materials:

- 30–60 cm square blocks, heavy cardboard, or heavy drywall with portions of the paper removed from one side
- fabric scraps, branches, stones, old silk flowers/pine cones, dried grasses, etc., to create landscape features
- Manitoba relief maps or atlases showing natural land formations and watersheds of Manitoba, and settlement patterns.
- plaster of Paris, modelling clay, or other material for creating relief
- paints, brushes, scissors, glue
- Suggested K–4 ESD Poster picture card: 2. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Activity 1:

In small groups, have students study maps showing geological formations, rivers, and other elements of the natural environment of Manitoba. Invite them to create a model of Manitoba (or a region of Manitoba), including land formations, forests, grasslands, riverbeds, lakes, and marshes. Once the models are complete, have students look at maps of settlement patterns of early settlers. Add these settlements to their model. Discuss why the settlers might have chosen the places they first settled in. Add information about Aboriginal populations during that period. Is there any correlation between European settlement and the Aboriginal encampment areas?

Activity 2:

Invite students to pretend that they are settlers wandering through their miniature Manitoba landscapes. Have them discuss, write about, or describe what route they would use to move about the province. What areas might have looked the best to settle in and why? Ask them to consider natural environment factors, such as flood zones, soil conditions, proximity to water, etc.

Note: Many wonderful materials for classroom use are available free of charge through ArtsJunktion. To become a member (that's free too) or for more information, go to <www.ArtsJunktion.mb.ca>.

For more background and activities for Cluster 4, go to <www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr4/cluster4.pdf>.

Targeted Outcome/Intended Learning:

Science: Cluster 1: Habitats and Communities

4-1-04: Identify physical and behavioural adaptations of animals and plants, and infer how these adaptations help them to survive in a specific habitat.

Examples: ducks' webbed feet and waterproof feathers help them dive for food in the marsh . . .



Background:

In this activity, students can apply what they have learned about plant and animal adaptations by creating an animal or plant that has adaptations to help it survive in a specific habitat (real or imagined) of the student's choice. Encourage creativity and attention to detail.

For an interesting online lesson from Manitoba Fisheries, go to www.gov.mb.ca/conservation/sustain/educate.html and click on *Grade 4*.

Materials:

- pieces of fabric, twigs, wool, corks, bottle caps, sandpaper, and anything else natural or recycled that can spark the imagination
- trays to display materials in an appealing, orderly way
- white glue
- large squares of cardboard (one per student) as a base for their creature collage
- scissors
- Suggested K-4 ESD Poster picture card: 21. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word card: evaluate. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

“Create a Creature”

Have materials on display and organized neatly in an appealing way. Draw students’ attention to the condition of the display and remind them that you expect the area to look similar to this when they complete the activity.

Explain to students that today they will be creating a plant or animal that has adaptations to help it survive in a specific habitat. Students can choose any habitat they like. It can be a make-believe habitat or a real one. Ask students to think about what their creature would look like. What would its hands/paws/claws and feet/flippers/claspers look like? What about its head, eyes, legs (if it has any), body, teeth, etc.? Remind them to include all parts of the body. Ask them to think about the habitat they have chosen for their plant or animal. Is it hot or cold, and does it have extremes in temperature? What is the ground like? Is it rocky, wet, hilly, or flat? Is there lots of shelter around? What kinds of plants live in this habitat? What animals live there? What characteristics would the creature/plants need to cope with these factors?

Suggest they draw out their design on paper first. Tell them that once their rough design is completed, then they can choose materials to create their “creature collage.” Model the activity for them (without influencing their own personal choices). Talk about the materials available and what you might be considering (e.g., “I will need something to create the head/stem of my creature/plant. I’ll also have to think about its legs/branches. Does it have a protective covering/thorns? What materials could I use to make the covering?, etc.). Encourage them to do a walk around the materials table to get some ideas (before they choose anything).

Once they are set on a design and have drawn it for themselves, hand out the squares of cardboard and allow the students (a few at a time) to choose materials for their project.

When the activity is complete, invite each student to present her or his creature/plant to the class and describe its habitat and the adaptations it has in order to live in that habitat. Ask students if their animal/plant has a special name. “Where does it live?” “What does it eat?” “Where would it sleep?” “What does it do during winter?” etc.

As a follow-up activity, encourage students to write a story about their animal/plant. The stories could be displayed alongside the completed artwork.

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Grade 4 Learning Experience #5: Create a Creature

For more information about this theme, please visit the Grade 4 Science Cluster 1 at <www.edu.gov.mb.ca/k12/cur/science/found/kto4/4c1.pdf>.

Note: Many wonderful materials for classroom use are available free of charge through Arts Junktion. To become a member (that's free too) or for more information, go to <www.ArtsJunktion.mb.ca>

Targeted Outcome/Intended Learning:

Science: Cluster 1: Habitats and Communities

4-1-07: Investigate and describe a variety of local and regional habitats and their associated populations of plants and animals.

Background:

This activity can be linked to 4-1-08 for measuring a plant population in a given habitat (in this activity, students will measure the invertebrate populations). It can also be linked to 4-1-13 and 4-1-14, as invertebrates are excellent monitors of water quality in natural systems. The better the water quality, the greater the species diversity of invertebrates.

The books listed have stories, illustrations, and technical information about various aquatic invertebrate species.

Materials:

- two samples of water: one from a pond, river, or marsh, and one from a temporary water source (e.g., ditch, puddle, etc.)—a polluted source would also be good to study
- magnifying glasses
- spoons
- small plastic containers
- four clear plastic storage bins (30 cm. x 50 cm. and 14 cm. high)
- white paper to place under the bins for easy viewing
- microscopes and microscope slides
- grid paper and small clear square containers to place over the paper
- pencils and paper for recording observations
- an illustrated picture of aquatic invertebrates (one per student)
- Suggested K-4 ESD Poster picture card: 21. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Books:

Canadian Album Series – Insects by Barbara Batulla (1985). Manitoba Education Library Call #595.70971 B38.

Wilderness Album Series – Invertebrates by Barbara Batulla (1990).

Activity Directions:

For the Diversity of Living Things—Invertebrate Critter Survey: Prior to class, collect samples of water from two natural water bodies. Store the samples in large pails in a cool, dark location.

Clear the tables and chairs from the centre of the classroom and place white paper or sheeting on the floor on four separate areas. Place four clear plastic storage bins on the paper. Allow enough space between each bin so that students can move comfortably, sit around the bins, and take notes.

When students arrive, explain to them that they will be comparing two water samples for diversity of aquatic invertebrates/aquatic habitats. Show them the illustrated picture and tell them that they are to look at the creatures in the water, draw them, and try to identify them using the picture. Remind them to handle the animals with care as they are delicate living things. Tell them not to leave them under the microscope, to take turns, to share, etc.

1. Pour contents of the pails into the four bins. Assign half of the students to one water sample and half to the other. Have students use the spoons and small containers to scoop samples of water up for individual study and record what they see.
2. After 20 minutes, the two groups can switch bins and repeat the activity.
3. Compare their findings for the two water samples. Was there a difference in species diversity between the samples? Was there more of one species than others? Some species are more tolerant of pollutants than others. When one species dominates, this may be an indicator that the water is polluted. Scientists often use the presence or absence of certain invertebrate species as an indicator of water purity in a natural environment.
4. To measure population density, have students pour one cup of pond water into a square clear-bottomed container. Place grid paper underneath the container. Calculate the area of the container by counting the number of grid squares (length x width), and ask students to count the number of aquatic creatures in their sample. Calculate the number of creatures per square. Compare with the other water sample.

Oak Hammock Marsh and Ducks Unlimited offer several water kits that would complement this outcome. For more information, go to www.oakhammockmarsh.ca.

Common Freshwater Invertebrate Species in Manitoba

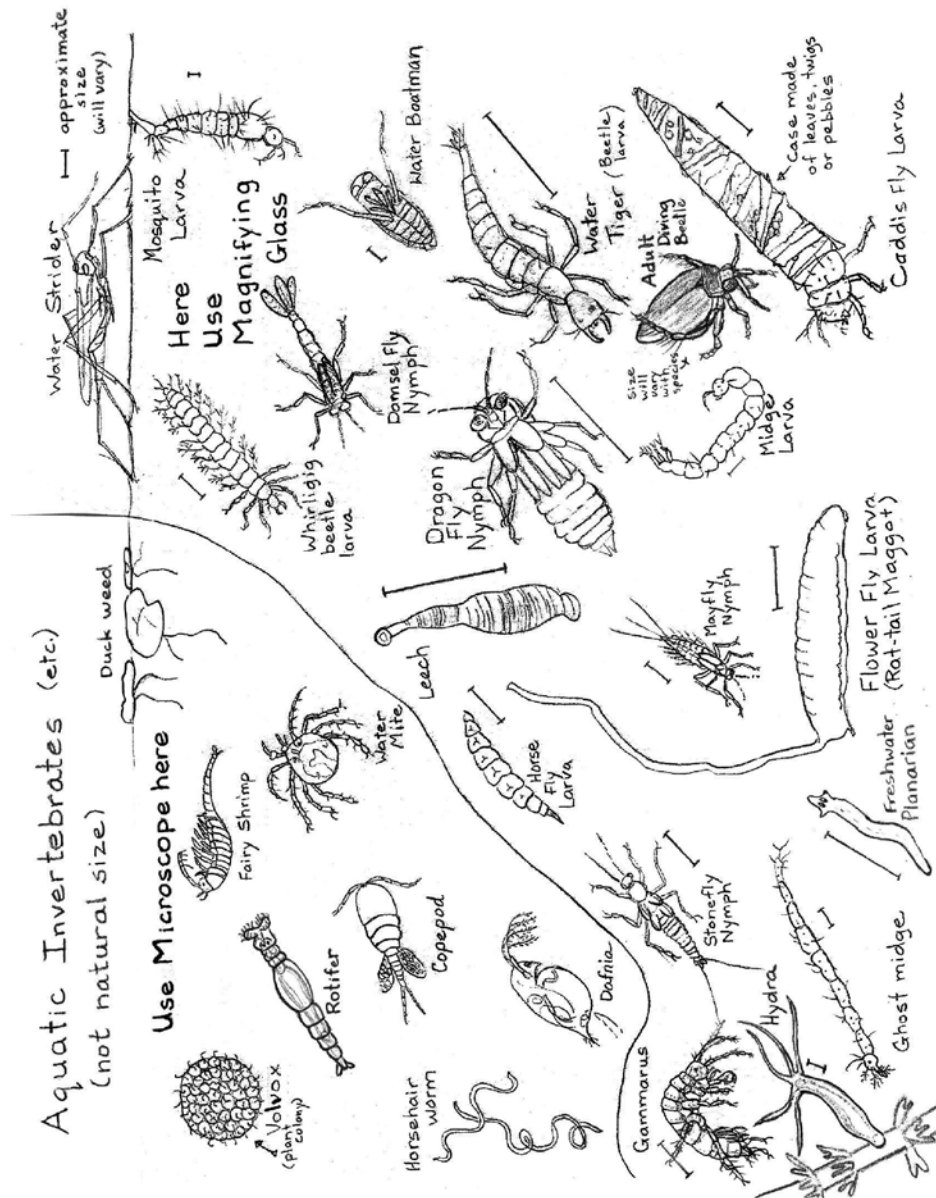


Illustration by Barbara Batulla.

Targeted Outcome/Intended Learning:

Science: Cluster 1: Habitats and Communities

4-1-09: Recognize that plant and animal populations interact within a community.

4-1-10: Recognize that the food chain is a system in which some of the energy from the sun is transferred eventually to animals.

4-1-11: Construct food chains and food webs, and classify organisms according to their roles. Include: producer, consumer, herbivore, omnivore, carnivore, predator, prey, scavenger.



understand

Background:

This activity was originally developed by Project Wild to assist students in making connections between what they eat and from where their food comes. For interesting online lessons from Manitoba Fisheries, go to <www.gov.mb.ca/conservation/sustain/educate.html> and click on *Grade 4*.

Note: The first activity can also be borrowed in kit form from Oak Hammock Marsh.

Materials:

- Students' lunch boxes or a list of what they had to eat the previous evening
- pencil, crayons
- 11 x 17 sheet of paper for each student
- Suggested K-4 ESD Poster picture card: 21. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word cards: learn, relate, distinguish, evaluate, environment, value, respect, needs, diversity, depend, identify understand, connect. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Ask students if they ever wondered where their foods come from. Bring out a chicken sandwich. Say "Let's have a closer look at just what is in a sandwich." Draw a picture of a person at the top of the white board with a drawing of the sandwich below her or him. Ask students, "Where does the meat from this sandwich come from?" (*Answer: chickens*) (Draw a picture of a chicken on the board below the drawing of the sandwich.) "Is there anything else in the sandwich?" (*Answer: bread*) (Draw the bread next to the chicken.) "Where does bread come from?" (*Answer: wheat/grains or some might say flour*) (Draw grains of wheat or a wheat plant below the bread.) "What else is in the sandwich?" (*Answer: lettuce from lettuce plants*) (Draw a piece of lettuce next to the bread and a lettuce plant below the picture of the piece of lettuce.) Ask again, "What else is in this sandwich?" (*Answer: mayonnaise*) Tell them that mayonnaise is made from eggs and vegetable oil (Draw a blob of mayonnaise next to the bread, lettuce, and chicken, with a picture of an egg and a plant below the blob. Draw a chicken below the egg.) Draw all components of the sandwich on the board, drawing the component parts below the sandwich with the individual ingredients below this.

Tell students that they will each be able to map out the sources of their own dinner ingredients in the same way. Ask them to look carefully at each item (or the main item). Invite them to think about what individual ingredients each item is made of. Give each child a piece of 11x17-inch paper. Have students draw self-portraits at the top of the paper. Below this, have them draw (and label) pictures of each item in their meal. For items that include more than one ingredient (e.g., a sandwich), have them draw the ingredients below the picture of the item (just as you did for your sandwich).

Decide what other items in their dinners are made of. "What is cheese (milk product)?" "Where do frozen peas come from?" "What are noodles made of (eggs, flour/rice)?" Break down each component of the meal, drawing the source below the item (e.g., cheese = milk = cow; noodles = eggs = chicken plus flour/rice = grains).

For all items that end with an animal, ask students what that animal would eat. Ask the students to draw what the animal eats (usually grains/plants) below the picture of the animal. Point out that all of the ingredients from their lunch end up with plants at the bottom of the rows. Ask them what the plants need to live (i.e., water, air, sun, and soil). At the bottom of the page, have them draw the sun, air, soil, and water. Discuss how all of our needs come down to our dependence on the environment and energy from the sun.

Draw an energy pyramid and identify the components of the picture as parts of the pyramid. Label components as producers, consumers, herbivores, and omnivores. Compare the dinner pyramid with one from the natural environment. Discuss what would happen if one of the links were removed and how the transfer of energy would be affected. Post the drawings where children can compare their lunch components to those of their classmates.

As a journal activity, have students write about what they discovered. Their observations can assist teachers in assessing their understanding of the outcomes targeted. Encourage students to use the word cards for vocabulary.

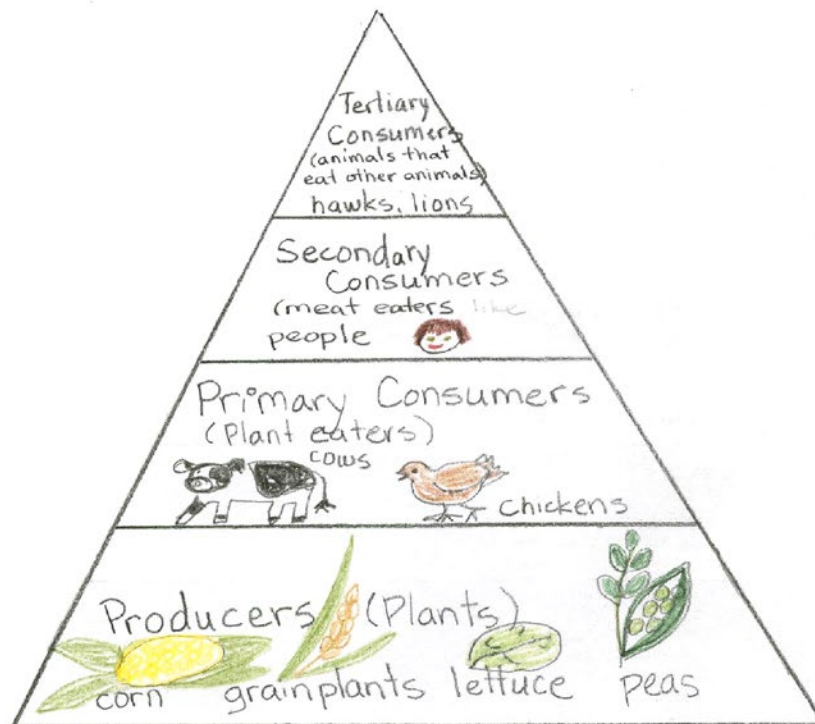
The science page on the Manitoba Education and Advanced Learning website also has many excellent ideas in Cluster 1. Find them at <www.edu.gov.mb.ca/k12/cur/science/found/kto4/4c1.pdf>.

7 Grade 4 Learning Experience #7: What's For Dinner?

"What's For Dinner" Child's Diagram of Dinner Components



"What's For Dinner" Child's Diagram of Energy Pyramid



Energy Pyramid

by Chris

Targeted Outcome/Intended Learning:

Science: Cluster 1: Habitats and Communities

4-1-13: Predict, based on their investigations, how the removal of a plant or animal population may affect the rest of the community.

Examples: if the wolves were removed from a community, the deer population may increase rapidly . . .

Background:

This learning experience helps students understand that the different parts of nature are interconnected. If we change one part of a community (even for “good” reasons), other parts may be affected.

Materials:

- poster and journal entries from Learning Experience #7
- an open area such as a field or gym space
- wrapped candy or another item that can be used to represent plant food (you will need three times half the number of students)
- Suggested K-4 ESD Poster picture card: 21. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word cards: diversity, protect. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Activity 1:

For “What if . . .” use the drawings and energy pyramids created by the students during Learning Experience #6 to discuss what would happen if you removed a plant or animal from a population. Go back to the sandwich example. What would happen if there were no more wheat plants? (Expect

responses like “no more bread,” or “no more chickens.”) (Chickens eat the wheat, so take away the wheat and the chicken has nothing to eat. Therefore, no more sandwich.) Ask what would happen if you took away certain plants from a community. What would happen to the animals that eat those plants? What would happen to the predators that eat the plant eaters (herbivores)? Refer back to the energy pyramid to show the interdependency.

Activity 2:

For the “What is Overcrowding?” activity, have students sit in a semi-circle around you. Ask them if they know what *overcrowding* means. Explain that overcrowding happens when there are too many individuals trying to fit into a given space (when an area exceeds its maximum holding capacity, like on an elevator). Students could discover what physical overcrowding feels like by having them all try to fit into a small space. What might *overcrowding* mean when referring to an animal or plant population? Overcrowding in a natural community happens when there are too many of one species for the size of the community, and not all of the individuals can get enough food, nesting space, shelter, etc. A game of musical chairs (where the chair taken away represents nesting space, habitat, or food) could illustrate the effects of overcrowding.

To check for understanding, follow the game with a discussion of what happened during the game (with reference to removing nesting space/food).

Activity 3:

The object of the “Predator/Prey Game” is to demonstrate the importance of predators within an ecosystem. Ask students how they think predators could help with “overcrowding.” Inform the children that they are going to play a game that will help them understand how a predator population can help prevent an “overcrowding” problem from happening.

Playing the Game: Select a large open area for playing the game (about the size of a small gymnasium). Set distinct boundaries. Add an item to the area that can represent food plants. The number of food items used should be about three times half the number of prey in the game.

Divide the children into two groups in a two-thirds/one-third ratio (i.e., one group should be three times the size of the other). The smaller group will be the predators (wolves), the larger group the prey (deer). Tell the deer that their job is to pick up as many food items as possible (they must find at least three in order to survive). Tell them that they only have two minutes to do this before the predators (wolves) pick up their trail and give chase. If a wolf tags a deer,

the deer must give its food to the wolf and fall to the ground. The wolves must each have at least six food items in order to survive.

After the deer have had two minutes, let the wolves start hunting. The total length of the game is four minutes. After the game, have students regroup. Do a count: how many deer survived and how many wolves? Try the game again, this time with more wolves and fewer deer. Then with fewer wolves and more deer. What happens to the players in these situations? What happens to plant supplies in each situation?

Activity 4:

As a follow-up, have students investigate population dynamics of real plant and animal communities (e.g., lemmings and owl/fox populations; island populations where no predators are present; Easter Island: a human population study). Invite them to share their findings with the class.

See Science Cluster 1 at <www.edu.gov.mb.ca/k12/cur/science/found/kto4/4c1.pdf> for excellent suggestions for this theme.

Targeted Outcome/Intended Learning:

Science: Cluster 1: Habitats and Communities

4-1-14: Investigate natural and human-caused changes to habitats, and identify resulting effects on plant and animal populations.
Include: endangerment, extinction.

4-1-15: Describe how their actions can help conserve plant and animal populations and their habitats.

Examples: clean up a local stream to improve fish and bird habitat . . .

Activity Centre #5 has a related activity.

Background:

For interesting online lessons from Manitoba Fisheries, go to www.gov.mb.ca/conservation/sustain/educate.html and click on *Grade 4*.

See also World Wildlife Federation, *Schools for A Living Planet* at <http://schools.wwf.ca/Lessons>. Click on *Grade 4* and then click on *Exploring Habitats*. Note you must sign in to access the lesson plans.

Materials:

- poster paper
- computers for research
- Suggested K-4 ESD Poster picture card: 18. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word cards: reduce, sustainable, think, protect, learn, relate, safety, restore, teach, consequences, contribute, evaluate, defend, environment, respect, predict, care, diversity, cooperate, communicate, listen, help. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Cleaning Up Without Voom: cooking oil, water, ice cream pails (one for every group of 3-4 students), various absorbent materials (paper towels, flour, sponges, sawdust, cotton batting, lengths of string, dishwashing detergent, etc.).

Books:

The Cat in the Hat Comes Back by Dr. Seuss (1958).

Environmental Education Activity Guide K-8 by Project Learning Tree (1993).

Activity Directions:**Activity 1:**

In its Environmental Education Activity Guide K-8, Project Learning Tree includes a useful “The Cat in the Hat Comes Back” activity. After students read the book by Dr. Seuss, ask them what represented pollution in the story. How did the cat get rid of the pink stuff? (*Answer: First he moved it from one place to another, and then he got help.*) Who did he get help from? What did the little cats do? Who finally got rid of the mess? (*Answer: little cat “Z”.*) Discuss how this way of dealing with a mess is a lot like how people deal with pollution. We move it from place to place, break it into smaller pieces (dump it in the ocean or into the air or a landfill site). But does it disappear? In real life, is there something like “voom” (i.e., the magical “voom” in the story)? Discuss some positive ways that companies are now dealing with pollutants (e.g., car oil can be recycled at special facilities, and old paint can be taken to collection sites; old plastics and glass are being used to make new building materials).

Activity 2:

For the “Cleaning Up Without Voom” activity, the objective is to engage students in creative problem solving while helping them realize just how hard pollution can be to clean up.

Explain to the students that they are now important scientists with a very serious problem to solve. A large boat carrying thousands of litres of oil has just smashed into the rocks on the river/lake near your community. The oil has spilled into the water and is causing a serious threat to the community’s drinking water supply, the animals and plants that live in the water, and all those who depend on the shoreline for food, shelter, and nesting space. The students’ job as scientists is to clean up the mess before any serious damage is done to the natural environment.

Place two cups of water in each ice cream pail. Add one tablespoon of cooking oil. Divide students into small groups, one group per pail. Have the various materials laid out on a table in small containers for the students to experiment with. Review the materials with the students. Show them what is in each container, and discuss how real scientists use various methods to clean up such spills. They may attempt to contain the floating oil with loops of rope on the water's surface. They sometimes use absorbent solids to soak up the spill, and they might also try chemicals that break down the oil into less harmful compounds. Invite students to discuss their options and choose which materials they feel would best clean up the pollutant.

Allow the groups a few minutes to try various solutions. Report their successes to the class along the way.

After they have finished, have the whole class examine each sample. Have each group give a written report of their findings. Were any groups successful in their clean-up attempts? What problems did they encounter? What would they do differently next time? Discuss how this is a very real problem in lakes and oceans where oil spills happen, where factories drain liquids into water, or even when motor boats spew fuel into lakes and rivers. Discuss what a challenge it is to clean our environment of such pollutants. Explain that laws are in place to prevent or control such pollution sources, but enforcement of the laws is sometimes difficult and accidents still do happen.

Activity 3:

For an extension activity, have students create a poster about their experiment. Students can work in groups. One group can write and illustrate the materials required; another can describe the procedure used for the experiment. A third group could compile the scientist group reports to be included on the poster. Another group can do research on the Internet to find out more about oil spills and water pollution. The class can come up with a plan to make people more aware of the harmful effect of water contaminants. During the writing process, encourage students to use the word cards for their vocabulary.

This activity is so hands-on that students can really feel connected to the issue. Use discussions students have during the experiment, project materials, and posters to assess students' understanding of the effects that changes in habitats can have on plant and animal populations.

Oak Hammock Marsh offers several kits suitable for this outcome, including kit #28, *Water Criminals, Guilty or Innocent* (a mock trial about water pollution), and *Enviroscape*, a large model of a watershed where students can participate and see how our actions affect a watershed and its associated habitats. For more information, go to <www.oakhammockmarsh.ca>.

The Safe Drinking Water Foundation offers online lesson plans and kits that can be ordered. These lessons help students understand the causes of water pollution, the effects on us and the natural environment, and things we can do to help. For more information, go to <www.safewater.org>.

Manitoba Education and Advanced Learning's science website also has excellent ideas for this theme in Cluster 1. Visit <www.edu.gov.mb.ca/k12/cur/science/found/kto4/4c1.pdf>.

Targeted Outcome/Intended Learning:

Science: Cluster 3: Sound

4-3-12: Describe harmful effects of high or sustained sound levels and identify potential sound hazards at home or in the community.

Examples: leaf-blowing machines, snowblower, stereo, drone of machinery . . .

Background:

This learning experience will assist students in recognizing and understanding some of the sound hazards they encounter.

Materials:

- 11 x 17" paper for "music experiment" drawing
- drawing materials
- music player
- poster paper, writing materials
- telephone directory for access to local radio stations
- Suggested K-4 ESD Poster picture card: 26. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word cards: reduce, think, protect, learn, safety, consequences, contribute, environment, value, respect, recognize, contribute, care, citizen, cooperate, share, identify, appreciate, understand, enjoy, communicate, listen, grow, help. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Websites:

Lesson Planet: Put teachers in touch with several lesson plans on noise pollution. See www.lessonplanet.com/search?keywords=noise+pollution&rating=3.

10 Grade 4 Learning Experience #10: What's That Noise?

Activity Directions:

Activity 1:

For “What is Noise Pollution?”, discuss with students the meaning of the phrases *sound hazard* and *noise pollution*. Brainstorm with students to create a list of noises/sounds that make them uncomfortable at home, in the community, and in school. Have students record and share their ideas about how your body tells you that sounds are too loud (e.g., difficulty concentrating, a feeling of agitation or irritability, headache, can't hear others, buzzing in the ears, temporary hearing loss). Discuss how animals might feel or react to loud noises.

Activity 2:

For “A Music Experiment,” discuss what kinds of music the students enjoy listening to. Invite students to bring a recording of their favourite song or artist. Provide a wide variety of alternative forms of music (soft songs, slow songs, fast-paced songs, whale songs, children's music, dance music). Provide each student with an 11 x 17" piece of paper and colouring materials. Tell the students that they are going to hear a variety of music styles at various volumes, and invite them to draw or doodle a separate picture for each music selection they hear. The pictures can be of whatever they wish, or they can be lines of moving colour that reflect what they are hearing. Ask them to label each picture as to which music selection it corresponds to. Alternatively, divide the class into several groups. Have each group listen to a specific kind of music. While they are listening, ask them to draw a picture or create coloured lines that reflect how they feel about what they are hearing.

Once the pictures have been created, invite students to share their creations with the class. Discuss how the drawings have been influenced by the sound. Did the music tempo and sound level affect the appearance of their drawings? What does this tell us about how sounds can affect our feelings and moods? When can this be good? When can it be bad? Use student discussion and reactions to the activity to assess their understanding and the success of the activity with regard to heightening their understanding of the effects of noise on our minds.

Activity 3:

For “Sharing the Knowledge” in groups or on their own, have students investigate (in books or on websites) the problems associated with noise pollution in one of the following environments: a) in the classroom, b) in the community, c) in the natural environment, d) in the home. Investigate how long our hearing can be exposed to loud sounds before damage occurs. Invite each group to present their findings to the class, in a discussion, on a computer page, or as a presentation.

Activity 4:

For “Make a Pledge,” invite students to share what they have learned by creating a public service announcement or a poster to warn people about the negative effects of loud noise. Encourage students to use words from at least five of the word cards listed above. Posters and announcements can be general, outlining the effects of noise pollution in the school, community, and natural environment, or they can be geared towards a specific situation (e.g., in the classroom, in the workplace, in the natural environment, at social gatherings, in the home, etc.). The announcements can be read during school assembly and/or forwarded to a local radio station along with a letter asking announcers to share the students’ findings with their listeners. Posters can be placed in an area where other classes can see them or in the community.

Activity 5:

Have students agree on what sound levels are acceptable, and make a class pledge to monitor/control the amount of sound to which students expose themselves.

For more information on this outcome, please see science Cluster 3: Sound at www.edu.gov.mb.ca/k12/cur/science/found/kto4/4c3.pdf.

Targeted Outcome/Intended Learning:

Science: Cluster 4: Rocks, Minerals, and Erosion

4-4-12: Investigate and describe ways in which soil erosion is controlled or minimized in their community and in communities around the world.

Examples: windbreaks, retaining walls, terracing, cover crops, reforestation . . .



Background:

This learning experience is to help students find examples of soil erosion and how to alleviate soil erosion. Manitoba Education and Advanced Learning's science website has more information at <www.edu.gov.mb.ca/k12/cur/science/found/kto4/4c4.pdf>.

Materials:

- Suggested K-4 ESD Poster picture card: 11. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word cards: reduce, sustainable, protect, restore, consequences, contribute, compost, environment, value, replenish, conserve, care, diversity, appreciate, understand, grow, help. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

"Investigate": In groups of two or on their own, have students investigate one of the following terms or phrases: hedgerows, terracing, reforestation, harrowing, leaving stubble in the fields between plantings, wind breaks, rock walls, dikes, retaining walls, cover crops, zero tillage farming, companion crops.

Ask students to find pictures that illustrate the term, and invite them to report on the following:

- how the technique minimizes erosion
- under what circumstances the technique is used
- how effective this technique is for minimizing erosion
- what other benefits or what problems this technique has
- what can happen if the technique is not used

Encourage students to use at least five of the word card words listed above when writing about their term or phrase.

Information can be presented in poster form or as a written page that can then, once edited, be compiled into a class booklet on soil protection.

Assess students' level of understanding by their choice of vocabulary words used and the content of their reports. Individual understanding can be assessed by questioning/observing individual members of the group.

Targeted Outcome/Intended Learning:

Science; Cluster 4: Rocks, Minerals, and Erosion

4-4-13: Use the design process to determine an appropriate system for controlling soil erosion in a given situation.

Background:

Use the information students acquired during 4-4-12 (Learning Experience #11: Investigate) and the following scenarios to assist in the design of a system for controlling erosion.

Materials:

Sand blowing contest:

- one long table
- two ice cream pails of fine sand
- eight to 10 large straws
- sticks, small stones, miniature trees, small pieces of screening, clumps of grass

Water problems:

- One ice cream pail filled with sand, clay, loam, soil, stones, pebbles, twigs and water
- Freezer
- Materials to build a trough and basin (e.g., a two-metre by 50-centimetre piece of cardboard rounded to create a channel and lined with plastic, a large washtub or plastic bin as the basin for the “melt water materials” to flow into).

Enviroscape:

- Contact Oak Hammock Marsh for the loan of an “Enviroscape” at www.oakhammockmarsh.ca.

Alternatively, create your own watershed using a large block, small wooden blocks, or cardboard boxes for buildings, twigs or popsicle sticks to build bridges, sprinkles, cocoa mix, and food colouring for pollutants, soil, modelling clay, grasses, toy trees, etc. to create berms and natural barriers along riverbanks and water channels.

- Suggested K-4 ESD Poster picture card: 11. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word cards: reduce, sustainable, think, protect, restore, consequences, contribute, evaluate, environment, value, conserve, recognize, predict, care contribute, repair, citizen, diversity, appreciate, understand, help. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Experiment with different conditions to discover appropriate methods of soil erosion control for each condition.

Activity 1:

The “Fine Particle Wind Erosion: Sand Blowing Contest” is a very messy activity! Objective: To simulate topsoil or sand erosion caused by wind, and to explore different methods of preventing the soil/sand from blowing away. Set up a long table (approximately 2 metres long by 1.5 metres wide). Pour one pail full of sand on either end of the table (approximately 30 centimetres from the end of the table). Inform students that the piles of sand represent soil in a field, and that they are now farmers or structural engineers who are faced with a serious soil erosion situation. Their job is to try to prevent the soil from blowing away by creating a barrier. Provide a variety of materials for students to experiment with, and explain to them that they must decide which materials would be best for preventing wind erosion. Divide the class into two groups (or four groups and have two runs of the simulation). Assign four students in each group to be “the wind.” These students will use the straws to blow the sand towards the centre of the table. Assign another four students to be the “engineers.” These students will experiment with various materials to try to halt the movement of sand. Remaining students can be the audience. Have students from opposing teams stand at each end of the table. On your mark, have the “wind” students begin to blow their sand pile towards the centre of the table (duration one minute). After one minute, stop the blowing and have the “engineers” erect “erosion barriers.” Once barriers are in place, have the “wind” students blow for another minute. Then have the engineers try other materials. Repeat this three times, and discuss which group was more effective in preventing the sand from moving and why.

Discuss how their findings could be used in a real-life situation. As a journal entry, ask students to describe the activity, give examples of where this problem might occur, and explain what they felt was the best solution to the problem. Encourage students to use at least five words from the word card list as vocabulary words in their journals.

As a follow-up activity, teachers could plan a trip to Spruce Woods Provincial Park or Grand Beach Provincial Park to study dune movement firsthand.

Activity 2:

For a “Water Problems” activity, create a mini-glacier to study how various-sized particles move through water, and infer how this information could be used to prevent soil erosion along riverbanks and other water bodies. Place stones, pebbles, sand, clay, loam, small twigs, and fine soil particles in an ice cream pail. Add approximately two cups of water and mix well. Let the mixture stand for a few hours, then add more water and place the pail in the freezer until frozen solid. Two hours prior to the experiment, remove the pail from the freezer and allow the concoction to defrost a bit. Have students create an inclining river bed (approx. 15–20 degree slope), using a long piece of cardboard that has been shaped to resemble a river bed, and lined with plastic. Students may wish to create some traction on the river bed by putting a few lines of hot glue onto the plastic liner to simulate the surface of a river bottom. Place a large flat bin at the base of the river bed, and arrange the plastic so that it fans into the bin (to resemble a river delta). Rest the top of the “river bed” on a stool or other elevated flat surface, and, when ready, pour the “glacier” onto the top of the river bed. Allow several hours for the glacier to totally melt; invite students to make periodic observations as to how the particles are settling out. When the glacier has melted, observe and discuss which particles settled out first, which settled next, and so on. Ask students how this information could help engineers to control the erosion of riverbanks. Students can record their ideas in a journal entry once again using the word cards for vocabulary (use the journal entries to assess students’ understanding and ability to apply what they have observed).

Activity 3:

For the “Environment” activity, arrange to borrow one of Oak Hammock Marsh’s Enviroscape kits. The kit comes with lessons, directions, and everything needed to create flooding conditions and soil erosion prevention in a watershed. This is an excellent resource. To book the kit, go to <www.oakhammockmarsh.ca>. If the kit is not available, students can create their own watershed. Students can carve out riverbeds, a lake, and valleys or hills

can be added using modelling clay, or other materials. Buildings can be added for factories, farms, and towns. Leave depressions by the farmland and factories so that runoff enters the waterways. Place the “watershed” in a plastic bin or sink to collect excess water. Sprinkle water onto the model (so that runoff enters the rivers and lakes). Food colouring sprinkles or hot chocolate mix can be sprinkled on the ground as pollution and loose soil. Students then can see how pollution and eroded topsoil can enter the watershed. Next, have students suggest and design dikes, treed areas, and other methods of preventing the runoff of materials into the water bodies.

For more lesson background, visit Cluster 4: Rocks, Minerals, and Erosion on the Manitoba Education and Advanced Learning science page at www.edu.gov.mb.ca/k12/cur/science/found/kto4/4c4.pdf.

Targeted Outcome/Intended Learning:

Science: Cluster 4: Rocks, Minerals, and Erosion

4-4-15: Identify natural phenomena and human activities that cause significant changes in the landscape.

Examples: floods, avalanches, mudslides, hydroelectric dams, clearing land for agriculture, clear-cut forestry, forest fires . . .



conserve

Background:

This activity helps students examine activities that have changed the landscape. This is an opportunity to examine a local change and/or a change that is in the news.

Materials:

- Suggested K-4 ESD Poster picture card: 1, 4, 11, 22, 24. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word cards: reduce, sustainable, think, protect, learn, safety, restore, consequences, evaluate, defend, environment, value, replenish, respect, create, conserve, recognize, ideas, needs, predict, beauty, repair, contribute, care, diversity, depend, cooperate, appreciate, understand, help. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Activity 1:

For the “Look out Landscape!” activity, have students investigate one of the following situations: floods, avalanches, mudslides, clearing land for agriculture, clear-cut forestry, forest fires, clearing land for housing developments, tornadoes, drainage of wetlands for farming/housing, scenes from picture cards 1, 4, 11, 24, and 22. Invite them to answer the following questions: How often are these situations caused by humans? What positive and/or negative effects can these situations have on the landscape? What

steps can be taken to prevent or minimize the negative effects of these situations? Encourage students to use the word cards for vocabulary in these investigations.

Activity 2:

Oak Hammock Marsh offers a kit called “Water Soakers Find” (Water Resource Kit #29) that helps students understand how wetlands absorb water and help prevent floods. To borrow this kit or for more information, go to www.oakhammockmarsh.ca.

For more information about this outcome, see Cluster 4: Rocks, Minerals, and Erosion at www.edu.gov.mb.ca/k12/cur/science/found/kto4/4c4.pdf.

Targeted Outcome/Intended Learning:

Physical Education/Health Education: 4. Personal and Social Management

K.4.4.B.1b: Discuss connections or representations of cultures in different physical and recreational activities (e.g., lacrosse from Aboriginal culture, tinikling from Philippines, voyageur games from French-Canadian culture . . .).

Background:

Wikipedia has good background information concerning the Arctic Winter Games at <http://en.wikipedia.org/wiki/Arctic_Winter_Games>.

Materials:

- One dowel or piece of leather (for Ac Sa Raq Thong game)
- One 10-foot-long soft rope (Holman Island Dog Team Pull game)
- One large rock and several small stones (Nakartartuq game)
- One skipping rope and a cloth to tie in middle of the rope (Holman Island Skipping game)
- Materials for student-created games
- Suggested K-4 ESD Poster picture card: 4. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word cards: think, walking, defend, value, create, care, depend, activity cooperate, share, organize, enjoy, communicate, listen. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Websites:

Wikipedia describes and shows photos of the northern whaling festivals and provides links to other interesting sites, including winter survival skills and descriptions of games. See <www.wikipedia.org/wiki/nalukataq>. Print out of pictures of the Inuit snow games from this website. (The pictures can be enlarged and laminated to create poster stations to be placed on the wall of the gym or classroom.)

14 Grade 4 Learning Experience #14: Inuit Games: Design-a-Game

Activity Directions:

Activity 1:

For the “Create a Game” activity, brainstorm games that students know from their own cultural background. Discuss how these games reflect physical features of the land, climate, practical skills for future occupations, etc. Invite students to create a “regional game” for their area of Manitoba based on demographics (i.e., physical features of their area, climate, and potential jobs they might have as adults, etc.). Have students create a written description of their game so that they can describe it to others. Encourage them to use the vocabulary word cards. Features of the games students create will help you to assess students’ understanding of the concept. Question students further to verify understanding and clarify misconceptions.

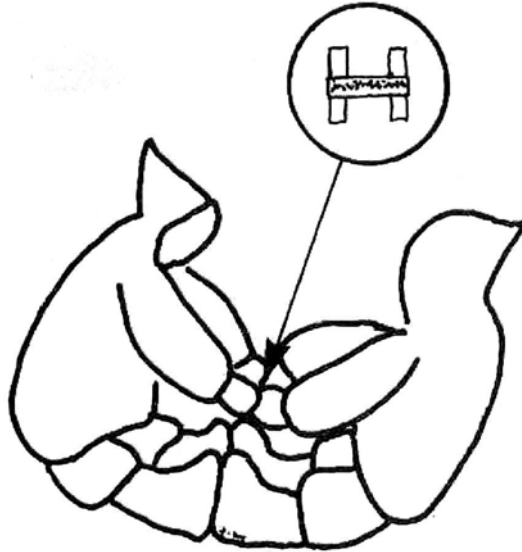
Activity 2:*

“The Inuit Snow Games” reflect many facets of the Inuit culture and lifestyle. The Inuit are a fun-loving people, but the Arctic environment is full of hardships. Most of the games help to develop skills for life in the Arctic. Skills include strength, endurance, throwing, aiming, stalking, etc. These games will give students meaningful insights into both the fun and hardships of a people who live intimately with winter and snow. These games would be great indoors or as an outdoor winter activity. Review each game prior to the activity, and discuss with students what skills the game might help the player develop for real-life situations.

* **Note:** This activity is reproduced from: “Snow Activity Program” by J. Pattimore, Manitoba Parks Branch, Department of Natural Resources, 1981.

Ac Sa Raq (Thong Game)

Sit facing each other on the floor (ground). Legs are kept straight while the pairs students place their feet together. Both opponents hold onto a dowel or piece of rawhide. The object is to pull your opponent up off the ground.



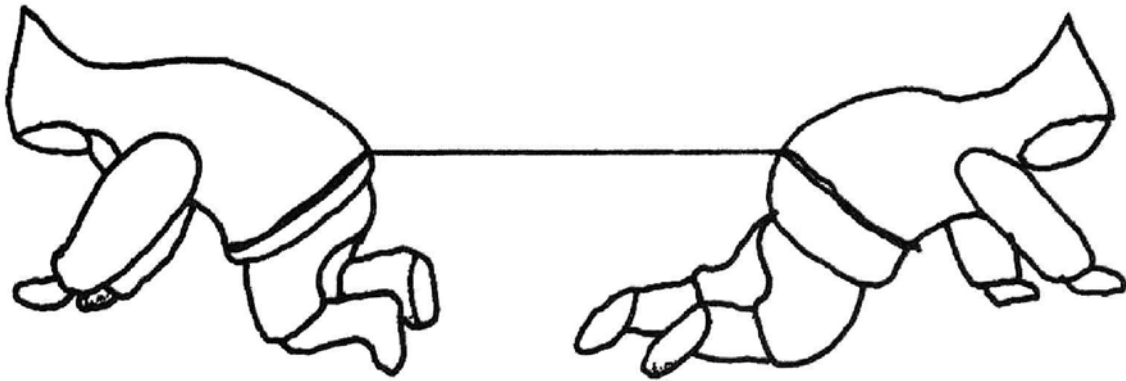
Tu Nu Miu (Back to Back)

Two children sit back-to-back with a mark on the ground beneath them (e.g., tape on the floor). The object of the game is to push your opponent over the line using only your hands and feet.



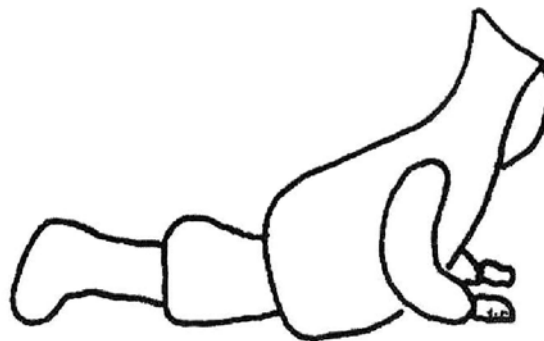
Holman Island Dog-Team Pull

A rope is used as a harness around each opponent's waist. On hands and knees, the contestants try to pull their opponent over a line drawn between them.



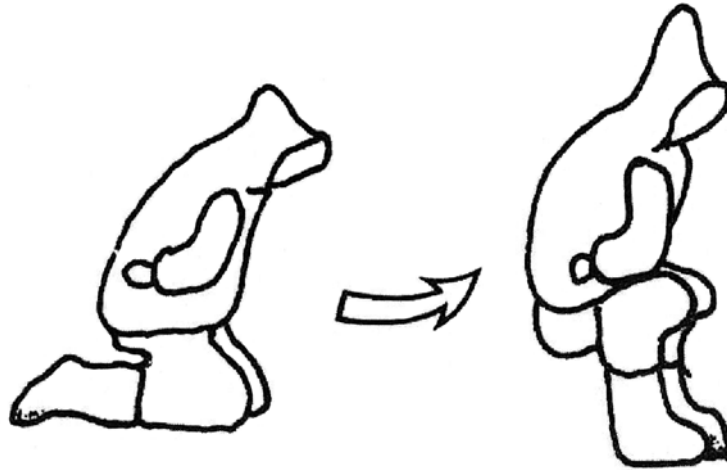
Seal Racing

Opponents lie on their stomachs on the floor. Using their hands for support, with legs limp and body trailing, students race for the finish line.



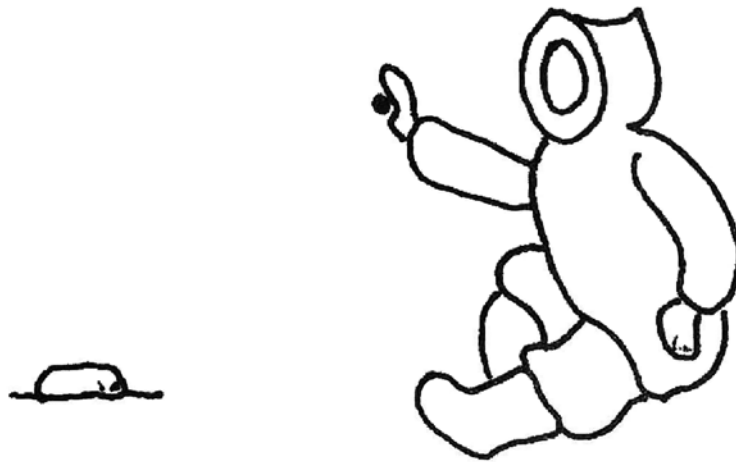
Peed Le Ta Tuq

Opponents move from a kneeling position to a squatting one with a quick jump and then back to kneeling again.



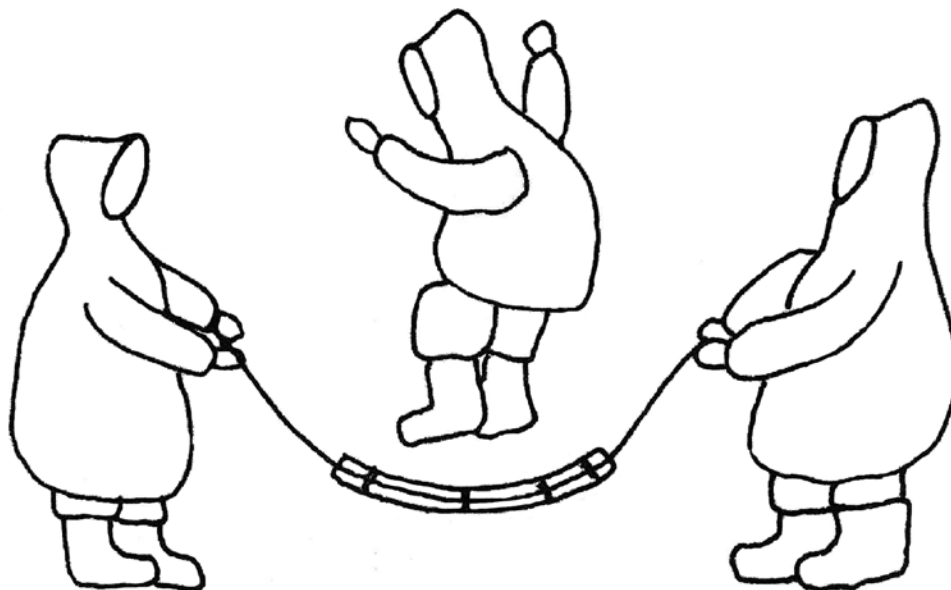
Nakartartuq

Using pebbles for tossing and a large stone as the target, children take turns trying to hit or land their pebbles as close to the stone as possible.



Holman Island Skipping

A rope with an animal hide rolled around its mid-portion is used as the “skipping rope.” The skin is swung rhythmically from side to side. The object is to make as many jumps as possible.



Targeted Outcome/Intended Learning:

Physical Education/Health Education: 5. Healthy Lifestyle Practices

S.5.4.A.3b: Use problem-solving strategies to reduce barriers to healthy eating and improve food choices, if appropriate.

Background:

To aid in a discussion of “everyday” and “sometimes” foods, it might help teachers to refer to this online article sponsored by the Heart and Stroke Foundation. See <www.heartandstroke.com/atf/cf/%7B99452D8B-E7F1-4BD6-A57D-B136CE6C95BF%7D/3971gra4.pdf>.

Materials:

- *Manitoba’s Food Guide to Healthy Eating*
- boxes from various cereal and snack brands
- paper
- pencil crayons
- Suggested K–4 ESD Poster picture cards: 12, 19, 24, 27. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Activity 1:

For “Good Food,” discuss how we can gain enjoyment from food without giving up healthy eating. Brainstorm what we like about the foods we eat (e.g., crunchy texture, sweet taste, salty taste, juicy, smooth, etc.). Then discuss what foods we can choose that give the desired sensations without the negative qualities (e.g., crunchy foods that have not been fried in fat). Encourage ideas that provide “sometimes” foods in moderation. Invite students to create a sample menu for the week, create a class healthy meal, or an enjoyable but healthy cafeteria menu. Create a plan for a garden that contains the students’ favourite fruits and vegetables. Make plans for a home, community, or school garden.

Activity 2:

For a “Healthy Body Snack Survey” activity, discuss healthy limits of sugars, fats, salts, and other ingredients in our foods. Have students examine the nutrition facts on the side of the boxes. Discuss what these facts mean. Invite students to identify which products they feel are healthy and which ones contain insufficient nutrients (low in protein or vitamins), or too much sugar, sodium, trans fats, etc. Look at the design of various boxes. What attracts their attention? Does the advertising lead you to buy one brand over another? Have students choose a product that they feel is missing certain nutrients, or has too much of a certain ingredient. Explain that their job is to redesign the cover of the food product box to bring attention to that point in a catchy, appealing way (e.g., with only 120% of your daily fat requirements! . . .).

Post their artwork in an area where other classes can see it.

GRADE 4 ACTIVITY CENTRES

The lessons and activities presented and related links are to supplement existing curriculum guidelines. The activities centres presented here can be used on their own, in combination with other activity centres, or, in some cases, as a whole-group activity. References to related learning experiences are given where applicable.

Sustainable Development Themes Related to the K-4 ESD Poster Activity Centres

Activity Centre	Subject	Cluster Section	SLO	Page
5. Citizen Go Fish	Social Studies	2. Living in Canada (4.2.2: Canadian Citizenship)	4-KC-004: Explain from a personal perspective what it means to be a citizen of Canada.	4-61
6. What if . . .	Social Studies	2. Living in Canada (4.2.3: Public and Private Property)	4-KE-047: Use examples to distinguish between public and private property. 4-VE-012: Respect public and private property.	4-63
7. Make a Difference	Social Studies	2. Living in Canada (4.2.5: Government)	4-KC-002: Identify democratic ideals in Canadian society. <i>Examples: equality, freedom, citizen participation in government . . .</i>	4-65
8. Interview Who?	Social Studies	3. Living In Manitoba (4.3.2: Environmental Stewardship and Sustainability)	4-KL-023: Identify issues related to environmental stewardship and sustainability in Manitoba.	4-67

continued

Activity Centre	Subject	Cluster Section	SLO	Page
9. How Does This Help?	Science	1. Habitats and Communities	<p>4-1-14: Investigate natural and human-caused changes to habitats, and identify resulting effects on plant and animal populations. Include: endangerment, extinction.</p> <p>4-1-15: Describe how their actions can help conserve plant and animal populations and their habitats.</p> <p><i>Examples: clean up a local stream to improve fish and bird habitat . . .</i></p>	4-69
10. Employment Opportunity	Physical Education/ Health Education	3. Safety	<p>K.3.4.B.4: Recognize roles of individuals in school and community who provide safety services (e.g., school staff, crosswalk patrols, police officers, Block Parents, firefighters, doctors, nurses, elders, ski patrols, snowmobile patrols, forest rangers, coast guards . . .).</p>	4-71

Targeted Outcome/Intended Learning:

Social Studies: Cluster 2: Living in Canada (4.2.2: Canadian Citizenship)

4-KC-004: Explain from a personal perspective what it means to be a citizen of Canada.

Background:

This activity centre is intended to be an application activity. Discussions about Canadian citizenship and the qualities of a good citizen should be undertaken prior to using these activities. Students' writings, discussion during the card game, and the concepts explored through the acrostic poem will help you to assess students' understanding of the concept of citizenship.



Materials:

- writing paper and pen
- Suggested K-4 ESD Poster picture cards: 1, 2, 4, 5, 6, 7, 8, 11, 13, 14, 16, 18, 20, 22, 23, 24, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word cards: protect, learn, relate, safety, teach, contribute, defend, compost, value, respect, conserve, care, contribute, celebrate, reuse, repair, culture, recycle, diversity, cooperate, share, appreciate, understand, connect, communicate, listen, grow, help. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Activity 1:

For "Being a Good Citizen," have students choose five cards and write about how the scenes in the cards reflect being a good citizen.

Alternatively, have students choose a card from those listed above, and write a story about what is happening in the picture. If there are people involved in the story, have students explain how the people are being good citizens (e.g., saving energy, recycling, cleaning up, reducing the amount of garbage they produce, stopping the spread of germs, etc.). Encourage students to use at least five of the word card words in their writing.

Activity 2:

For “Go Fish Citizen,” make copies of the cards and invite students to play a “go fish” game by asking questions such as “Do you have a card that shows someone saving energy?”

Activity 3:

Ask students to create an acrostic poem using the letters from the words *good citizen*, with each letter representing a different trait that makes one a good citizen.

The Manitoba social studies curriculum provides additional ideas for activity centres in Cluster 2. See it at <www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr4/cluster2.pdf>.

As well, “Appendix G: Resources Organized by Learning Experience” provides connections to citizenship and heritage information. This can be found at <www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr4/appendixg.pdf>.

Sites for Heritage Minutes and Citizenship can be found on the Manitoba Education and Advanced Learning web page at <www.edu.gov.mb.ca/k12/cur/socstud/supporting/4-2.html>.

Hands On Social Studies Grade 4 lists the *Canadian Charter of Rights and Freedoms* (page 97); the rights of children are also summarized (page 98). Manitoba Education Library Call #372.83044 L38.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 2: Living in Canada (4.2.3: Public and Private Property)

4-KE-047: Use examples to distinguish between public and private property.

4-VE-012: Respect public and private property.

Background:

On a T-chart, have students categorize public and private property items in the school.

Materials:

- T-chart
- pencils, pens, paper
- Suggested K-4 ESD Poster picture cards: 2, 14, 18, 22, 26, 29. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word cards: citizen, beauty, access, care, appreciate, culture, contribute, diversity, enjoy, protect, needs, recognize, learn, respect, value, share, walking. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

Ask students to choose one of the picture cards 2, 14, 18, 22, 26, or 29, and have them write a story about what life would be like without public places such as the one featured on the card. Encourage students to use at least four of the word cards listed above in their story. Assess students' sensitivity and understanding of the topic by reading their stories and providing feedback where necessary.

Note: The Manitoba Education and Advanced Learning curriculum document *Grade 4 Social Studies: Manitoba, Canada, and the North: Places and Stories: A Foundation for Implementation* includes many interesting suggestions. It is available online at <www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr4/cluster2.pdf>. The blackline master “BLM 4.2.3: Public and Private Property” is particularly useful for this topic.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 2: Living in Canada: 4.2.5:
Government

4-KC-002: Identify democratic ideals in
Canadian society.

*Examples: equality, freedom, citizen participation
in government . . .*



Physical Education/Health Education: 4: Personal and Social Management

K.4.4.A.3: Identify the steps of the decision-making/problem-solving
process with an emphasis on the final steps (e.g., making the decision,
taking action, evaluating results . . .).

Background:

After discussing and defining democracy and the roles of local, federal, and provincial governments, identify the current ideals of Canadian society: equality, freedom, citizen participation in government. Model what these ideals mean to you, and encourage students to share their thoughts. For more background activities and suggestions, see the Grade 4 Social Studies *Foundation for Implementation* document at: <www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr4/cluster2.pdf>.

Materials:

- news articles containing current issues related to Canadian democratic ideals of equality, freedom, and citizen participation in government
- paper
- writing materials
- computers for final draft
- Suggested K-4 ESD Poster picture card: 26. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.
- Suggested K-4 ESD Poster word card: communicate. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

For “Make a Difference,” invite students to bring to school news articles containing current issues relating to democratic ideals in Canada. Review some of the articles and choose a simple example to model to the students. Tell students that you are very interested in the topic of the chosen article. Explain why (e.g., you don’t think people in the article were treated fairly). Ponder out loud: “I wonder what I could do to help. I could come up with a step-by-step plan to try to help. Here are some of the steps I could take: I could find out more about the issue. I could find out if there are any laws about what happened. I could find out who enforces these laws and write to them. Maybe they don’t know what happened”

Tell students that now it is their turn to try. Working in pairs or small groups, have students choose an article and propose an action or solution that could be taken to address the issue. As part of the process, remind students to use the following steps:

- Determine why this problem is important to them, their community, and/or the world
- Identify the problem
- Brainstorm for potential solutions
- Create a step-by-step action plan
- Divide up jobs
- Take action
- Describe how the results could be evaluated

Students could follow up on their action plan by writing a letter to local government expressing their concerns. Alternatively, they could create a poster to let other people know of the concern, or take another action that is appropriate to the situation.

Observe students’ discussions and provide suggestions where necessary.

Targeted Outcome/Intended Learning:

Social Studies: Cluster 3: Living In Manitoba (4.3.2: Environmental Stewardship and Sustainability)

4-KL-023: Identify issues related to environmental stewardship and sustainability in Manitoba.

Learning Experience #2: Windmills and More: This learning experience includes connections to this activity.

Background:

Use this activity centre as an application activity. As such, it can help teachers assess students' understanding through observation and discussion. The interview activity could also be assessed through student self-reflection. Ask students how they felt their interview went. Are there questions they should have asked? Did they find out everything they wanted to know?

For engaging and acquisition suggestions, see Cluster 3 and Learning Experience #2 in the Grade 4 Social Studies curriculum at www.edu.gov.mb.ca/k12/cur/socstud/foundation_gr4/cluster3.pdf.

Materials:

- local yellow pages/phone book/business directory
- Suggested K-4 ESD Poster picture cards: 1, 3, 7, 5, 6, 8, 11, 12, 19, 20, 23, 22, 24, 27, 29, 30, 33, 34, 35. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word cards: compost, communicate, contribute, conserve, consequences, distinguish, protect, recycle, recognize, repair, reduce, refuse, resist, respect, understand, value, reuse, sustainable, share. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

Activity 1:

For the “Sharing Circle/Learning Centre” activity, use the picture cards and word cards listed above. In a sharing circle, invite students to choose a card and describe how the scene or the word on the card relates to sustaining and/or protecting our environment for the future.

Activities 2:

For the “Interview Who?” activity, provide students with copies of the local yellow pages and business directories. Ask them to identify companies that are involved in different forms of stewardship and sustainability (e.g., recycling, auto-wreckers, landscapers, oil recycling companies, solar panel distributors, wind farms, etc.). Students can then choose one company that they would be interested in learning more about. Have them compose a list of questions to interview a representative of the company. The list could include the following questions: “How long has your company been in business? How is it involved in stewardship and sustainability? What are the goals and objectives of the business? Is it publicly owned, privately owned, or not for profit?” (Students could share their questions with the class and revise their questions to create a well-rounded interview.) If an interview is possible (either over the phone, in-person, or online), students can report their findings after the interview has been completed. Create a class “Who’s Who in Environmental Stewardship and Sustainability” list.

Targeted Outcome/Intended Learning:

Science: Cluster 1: Habitats and Communities

4-1-14: Investigate natural and human-caused changes to habitats, and identify resulting effects on plant and animal populations.

Include: endangerment, extinction.

4-1-15: Describe how their actions can help conserve plant and animal populations and their habitats.

Examples: clean up a local stream to improve fish and bird habitat . . .



Background:

This activity can be offered as an introduction to the topic, and to engage students in thoughts about how their actions could help conserve plant and animal populations/habitats. The activity could also be repeated in a sharing circle after the outcome has been explored in order to encourage students to engage in self-reflection and to discuss how their attitudes or ideas might have changed based on what they have learned about human-caused changes to habitats.

If students are not sure of the differences between human- and nature-caused habitat changes, you may want to look at science Cluster 1, SLO 4-4-14 at <www.edu.gov.mb.ca/k12/cur/science/found/kto4/4c1.pdf>. It provides a sorting activity where students create a chart changes to habitats before starting Activity Centre #5.

Materials:

- paper and writing materials
- Suggested K-4 ESD Poster picture cards: 1, 3, 5, 6, 7, 8, 11, 13, 20, 21, 22, 23, 24, 25, 27, 26, 29, 30, 32, 34, 33, 35, 36. Available online at <www.edu.gov.mb.ca/k12/esd/poster.html>.

Activity Directions:

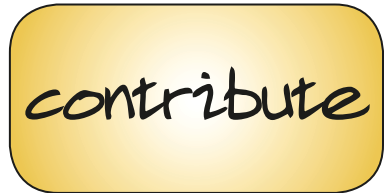
In the “How Does this Help?” activity, students work in pairs to sort the picture cards into “natural agents of change” and “human agents of change.”

For the “How Does this Help?” activity, in a pair-share activity, students can examine a set of cards and then record how the actions in the card help to conserve plant and animal populations. You might also have them record how they could personally help. When all groups have had a turn examining the cards, their thoughts can be shared during a group discussion.

Targeted Outcome/Intended Learning:

Physical Education/Health Education: 3. Safety

K.3.4.B.4: Recognize roles of individuals in school and community who provide safety services (e.g., school staff, crosswalk patrols, police officers, Block Parents, firefighters, doctors, nurses, elders, ski patrols, snowmobile patrols, forest rangers, coast guards . . .).



Background:

This activity could serve as an application activity where students can use the knowledge they gained during class discussion to create job descriptions for various community leaders who provide safety services.

Assess students' understanding of safety service providers based on the contents of the job descriptions they create.

Materials:

- classified section of local newspapers
- Suggested K-4 ESD Poster picture cards: 31. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.
- Suggested K-4 ESD Poster word cards: think, protect, safety, teach, distinguish, consequences, evaluate, respect, recognize, predict, care, contribute, citizen, depend, cooperate, share, organize, identify, understand, communicate, listen, help. Available online at www.edu.gov.mb.ca/k12/esd/poster.html.

Activity Directions:

For “Employment Opportunity,” have students choose one of the following positions: school principal, teacher, school bus driver, caretaker, crosswalk patrol, police officer, Block Parent, firefighter, doctor, nurse, elder, ski patrol, snowmobile patrol, forest ranger, coast guard, etc. Invite them to create a job description and a classified advertisement to promote the position that they have chosen. Encourage them to use the word cards for vocabulary, and to follow the format of one of the advertisements from the classified section of the newspaper for their own classified ad. Remind them to emphasize parts of the job that relate to protecting and caring for people and their safety.



EDUCATION FOR SUSTAINABLE
DEVELOPMENT: KINDERGARTEN
TO GRADE 4 POSTER ACTIVITIES

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