

Grade 2 Science

Grade 2

Cluster 1: Growth and Changes in Animals

Overview

In Grade 2, students focus on animals to build upon their knowledge of living things (see *Grade 1, Cluster 1: Characteristics and Needs of Living Things*). All animals grow and change from birth until adulthood. Because children are interested in the changes that take place over the lifetime of different animals, observing these changes becomes a powerful learning experience for them. In their explorations of growth, students compare their own growth with the growth patterns of various animals, and they learn about the conditions needed to support healthy development. Particular attention is given to the nutritional requirements of humans.

PRESCRIBED LEARNING OUTCOMES

SUGGESTIONS FOR INSTRUCTION

Students will...

2-1-01 Use appropriate vocabulary related to their investigations of growth and changes in animals.
 Include: food groups, *Canada's Food Guide to Healthy Eating*, offspring, adult, behaviour, life cycle, stage, life processes, as well as terms relating to life cycles studied.
 GLO: B3, C6, D1

- Introduce, explain, and reinforce vocabulary throughout the cluster.
- **Word Wall**
 Develop a classroom list of science words as the unit of study progresses. Record the words on cards and post on a Science Word Wall (Cunningham, 1991). Post the list where it is easily visible and encourage students to refer to it during journal or other writing.

2-1-02 Identify and describe constant and changing characteristics of humans as they grow and develop.
Examples: eye colour remains constant, height changes...
 GLO: D1, E3

2-1-03 Recognize that all humans do not grow and develop at the same rate.
 GLO: B3, D1, E1, E3

- **Comparing Myself**
 Have students bring photos of themselves as an infant, a toddler, and as a six- or seven-year-old. Have students work in pairs to complete the following chart. Post charts and have students present their information to the class.

How I Have Changed	
<u>Same</u>	<u>Different</u>
blue eyes	taller
brown hair	longer/more hair

2-0-1b. Make predictions based on observed patterns or on collected data. (ELA 1.1.1, 1.2.1) GLO: A1, C2

2-0-5b. Use, with guidance, tools to observe, measure, and construct. *Examples: ruler, metre stick, pan balance, magnifying glass, bathroom scale, thermometer...* (Math SS-VIII.1.2) GLO: C2, C3, C5

2-0-5d. Estimate and measure length using standard units. (Math SS-I.1.2) GLO: C2, C3, C5

2-0-6a. Construct and label concrete-object graphs, pictographs, and bar graphs using 1:1 correspondence. (Math SP-III.2.2) GLO: C2, C6

2-0-6b. Discuss data and generate new questions from displayed data. (Math SP IV.1.2) GLO: A1, A2, C2, C5

- Have students look at the baby pictures of their classmates. Ask students the following questions:
- How are all the babies the same?
 - How have all the babies changed?
- Picture Match: Put the baby pictures on the bulletin board and ask students to try and match each picture to a student in the classroom. Discuss how easy or difficult they found this task. Why?

- **Height Comparison**
 Have students work in pairs to measure the height of their partner and then record their information on self-stick notes. Place the self-stick notes on a pre-constructed class graph.
 Ask students these questions:
 - Why do you think that students of the same age are not the same height? (food, family characteristics)
 - At what age do you think we stop growing?
 Have students measure, record, and graph the heights of a class of students in a higher grade.

(continued)

TEACHER NOTES

SUGGESTIONS FOR ASSESSMENT

Teachers may want to have a set of classroom photos ready in order to facilitate student comparisons of contemporary and baby photographs.

PRESCRIBED LEARNING OUTCOMES	SUGGESTIONS FOR INSTRUCTION
<p><i>Students will...</i></p>	<p>Ask the following questions:</p> <ul style="list-style-type: none"> • What do you notice about the data collected? • How is this graph the same as our class height graph? • How is this graph different from our class height graph? • If we measured the heights of a class of high school students what do you think the graph would show? Explain your thinking.
<p>2-1-04 Recognize that food is a form of energy and that healthy eating is essential for growth and development. GLO: B3, D1, D4, E4</p>	<p>➤ Energy Analogy</p> <p>Give the students this analogy: Gas is to car as food is to _____. (animal)</p> <p>Ask students the following questions for reflection:</p> <ul style="list-style-type: none"> • What word do you think belongs in the blank? Why? • Why does a car need gas? • Why do animals need food? (to provide energy)
<p>2-0-4f. Work in a variety of cooperative partnerships and groups. (ELA 5.2.1) GLO: C7</p>	<p>➤ Healthy Bodies</p> <p>Have students think about what their bodies need to stay healthy and grow and have them share their ideas with a partner. Discuss the findings with the whole class.</p>
<p>2-1-05 Identify the four food groups of <i>Canada's Food Guide to Healthy Eating</i> and give examples of foods from each group. GLO: B3, E1</p>	<p>➤ Food Sort</p> <p>Provide students with pictures of a variety of foods representing the four food groups. Have them work in small groups to sort the pictures using their own classification system. Share their sorts with the class. Develop with the students a food group label for each sort. Clarify any misconceptions regarding food group placements at this time.</p>
<p>2-0-4g. Verbalize questions, ideas, and intentions during classroom activities. GLO: C6 2-0-6c. Place materials and objects in a sequence or in groups using one or two attributes, and describe the system used. (Math SP-III.0.2) GLO: C2, C3, C5</p>	<p>➤ Canada's Food Guide</p> <p>Distribute a copy of <i>Canada's Food Guide to Healthy Eating</i> to students. Ask these questions:</p> <ul style="list-style-type: none"> • What information is included in the <i>Food Guide</i>? • How does this information help you decide what to eat each day? • Why is important to eat something from each food group each day? • Where do things like potato chips, cake, and candy fit on the <i>Food Guide</i>?

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TEACHER NOTES

SUGGESTIONS FOR ASSESSMENT

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Canada's Food Guide to Healthy Eating is distributed by Health Canada telephone (204) 983-2508, or (613) 954-5995. It is also available online at <www.hc-sc.gc.ca>.

Paper and Pencil Task: Food Sort

Student Directions: Provide pictures of food, labels from food, etc., for students. Have students sort the pictures into the correct food groups, using a chart like the one below.

Fruits & Vegetables	Breads & Cereals
Poultry, Meat, Fish, & Meat Substitutes	Dairy
Other	

PRESCRIBED LEARNING OUTCOMES	SUGGESTIONS FOR INSTRUCTION
<p><i>Students will...</i></p>	
<p>2-1-06 Plan a menu for one day based on the four food groups outlined in <i>Canada's Food Guide to Healthy Eating</i>. GLO: B3, C4, D1</p>	<p>➤ Meal Planning Use food pictures from the sorting activity, magazines, or student drawings. Have the students illustrate a nutritionally balanced breakfast, lunch, and supper. Display each meal on a paper plate. Ask students to explain why their meals are balanced.</p>
<p>2-0-7e. Describe, in a variety of ways, what was done and what was observed. <i>Examples: concrete materials, captioned drawings, oral language...</i> (ELA 4.1.2, 4.2.5) GLO: C6</p>	<p>➤ Fact Talk About Food Have students give a short talk about good nutrition and the four food groups from <i>Canada's Food Guide for Healthy Eating</i>. Provide opportunities for students to practise their talks with parents and peers before the presentation. (See <i>ELA, Grade 2</i>, p. 222.)</p>
	<p>➤ Math Connection Have students survey their classmates to find out what their favourite foods are and then graph the data collected.</p>
<p>2-1-07 Recognize that foods humans eat come from plants and animals, and classify foods accordingly. GLO: B1, B3</p>	<p>➤ Brainstorm Have students work with a partner to brainstorm a list of ten foods for each food group. Ask students: Where does the food you have listed come from before it gets to the grocery store? Through the discussion, have students recognize that food comes from plants and animals.</p>
<p>2-0-6c. Place materials and objects in a sequence or in groups using one or two attributes, and describe the system used. (Math SP-III.0.2) GLO: C2, C3, C5 2-0-9a. Willingly consider other people's views. GLO: C5, C7</p>	<p>➤ Sort and Classify Foods Have students sort their listed foods according to whether they come from plants or animals. Discuss with the class any foods they have had difficulty in placing.</p>
	<p>➤ Twenty Questions Place one food item or a replica or picture of the food item in an opaque bag. Have students apply the information learned about foods to ask questions that can be answered yes or no, and to try and discover the identity of the hidden food. Questioning continues until the food has been identified or twenty questions have been asked. The student who guesses correctly chooses the next food item.</p>

TEACHER NOTES

SUGGESTIONS FOR ASSESSMENT

Performance Task: Meal Planning

Scoring Rubric

- 4 Student’s work demonstrates a solid understanding of the four food groups and of a balanced meal. Three balanced meals are presented. Explanation is clear and complete.
- 3 Student’s work demonstrates a good understanding of the four food groups and of a balanced meal. Three meals are presented with two being balanced. Explanation is complete.
- 2 Student’s work demonstrates a basic understanding of the four food groups and of a balanced meal. Three meals are presented with one being balanced. Explanations may or may not be clear.
- 1 Student’s work demonstrates a limited understanding of the four food groups and of a balanced meal. At least two meals are presented. Meals shown are not balanced. Explanation is unclear or missing.

Student Journal Entry: Meal Planning

Tell students: Pat used these ingredients to make a pizza:

- whole wheat pizza crust
- cheese
- tomato sauce
- green peppers
- onions
- mushrooms
- ground meat

Is his pizza a healthy meal choice? (Yes.) Explain your thinking. Look for references to the four food groups.

Paper and Pencil Task: Sort and Classify Foods

Provide students with pictures of different types of food. Have students sort the foods according to whether they come from plants or animals. See Blackline Master 10: Food Sorting Cards. Student Directions: Cut out each picture. Glue each picture where it belongs.

Food from Animals	Food from Plants
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PRESCRIBED LEARNING OUTCOMES
<i>Students will...</i>
<p>2-1-08 Recognize that all animals can have offspring, and that offspring generally resemble their parents. GLO: D1, E1</p> <p>2-1-09 Compare the appearance of young and mature animals of the same type. GLO: D1, E1, E3</p>
<p>2-0-4a. Follow simple directions, and describe the purpose of steps followed. GLO: C2</p> <p>2-0-4f. Work in a variety of cooperative partnerships and groups. (ELA 5.2.1) GLO: C7</p> <p>2-0-5a. Make, with guidance, observations that are relevant to a specific question. GLO: A1, A2, C2</p> <p>2-0-5e. Record observations using written language, drawings, and, with guidance, charts. (ELA 4.1.2, 4.2.5) GLO: C2, C6</p>

SUGGESTIONS FOR INSTRUCTION

➤ **Matching Offspring**

Show the students a picture of a baby animal such as a calf, along with several different kinds of adult animals including the parents of the baby. Ask the following questions:

- Which adult is this animal’s parent?
- How do you know?

➤ **What’s My Name?**

Have students work in cooperative groups to fill in the chart with the names of the males, females, and babies of a variety of animals.

Male	Female	Baby
Rooster	Hen	Chick
Gander	Goose	Gosling
Buck	Doe	Fawn
Boar	Sow	Cub
Bull	Cow	Calf

Share group findings with the entire class.

➤ **Adult-Baby Comparison — Field Trip**

In the spring, have the class visit a local farm or zoo to observe baby animals and their parents. Have students record their observations on a chart such as the one below. Have students use the appropriate names for males, females, and babies as they observe and ask questions.

Animal	Things that are the same in the baby and parent	Things that are different in the baby and parent

Have students share their observations with the class.

TEACHER NOTES

See *Success For All Learners* and *Science Safety* for guidelines related to school trips. A field trip can provide the opportunity to address other outcomes in this cluster including 2-1-10, 2-1-11, 2-1-13, 2-1-16, 2-1-17.

Agriculture in the Classroom, telephone: (204) 487-4029, can provide ideas for field trips, guest speakers, and learning resources to support these outcomes. Contact your local Manitoba Agriculture office for additional information about resource materials and speakers.

SUGGESTIONS FOR ASSESSMENT

Group Assessment: What's My Name?

How Well Did We Work? Comments

We took turns. _____

Everyone participated. _____

We shared materials. _____

We listened to one another. _____

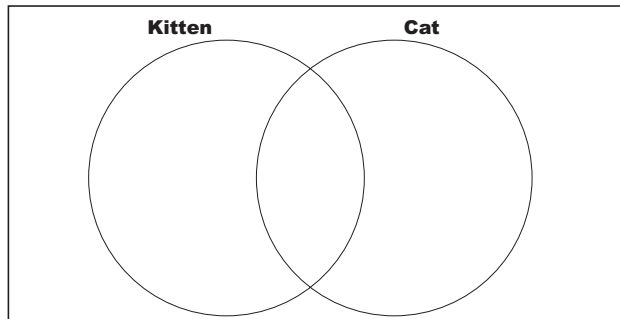
We encouraged one another. _____

We completed the work. _____

Paper and Pencil Task: Adult-Baby Comparison

Use a Venn diagram to compare similarities and differences between baby and adult of a given animal.

Example:



Provide the following list to be cut apart and pasted into the Venn diagram.

hairless	has fur	2 eyes
4 legs	drinks milk	eats solid food
has claws		

PRESCRIBED LEARNING OUTCOMES
<i>Students will...</i>
<p>2-1-10 Compare the length of time from birth to adulthood for humans and other animals. GLO: D1, E1</p> <p>2-1-11 Identify and describe constant and changing characteristics of an animal as it grows and develops. GLO: D1, E3</p>
<p>2-0-2a. Access information using a variety of sources. <i>Examples: elders, simple chapter books, concept books, CD-ROMs, Internet...</i> (ELA 1.1.2, 3.2.2 Math SP-II.1.2; TFS 2.1.1) GLO: C6</p> <p>2-0-5e. Record observations using written language, drawings, and, with guidance, charts. (ELA 4.1.2, 4.2.5) GLO: C2, C6</p> <p>2-0-7a. Propose an answer to the initial question based on their observations. (Math SP-IV.2.2) GLO: A1, A2, C2</p>

SUGGESTIONS FOR INSTRUCTION

➤ **Inquiry Chart**

Have the class use an Inquiry Chart (Hoffman, 1992) to research a specific animal. (See *ELA, Strategies*, p. 83.)

Inquiry Chart for _____			
Topic:	How do baby _____ look like their parents?	How do baby _____ look different from their parents?	How long does it take a baby _____ to become an adult?
What we know (as a class)			
Info. from books (group 1)			
Info. from videos (group 2)			
Info. from CD-ROMs (group 3)			
What we discovered (as a class)			

Have the class identify what they know about the first question. Divide the class into groups and provide each group with one or two reference sources such as books, videotapes, and CD-ROMs. Have the groups look at their resources to see if they contain answers to the first question. They record the information on a card such as the one below.

<p style="text-align: center;">Where did I (we) find the information I (we) need?</p> <p style="text-align: center;">What did the source(s) say?</p>
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Cards can then be placed on the Inquiry Chart. Once all the information has been gathered, have the class summarize what was discovered. Follow the same process to complete the remaining questions.

Ask the class the following questions:

- How long do human babies need to be fed by their parents?
- When do humans become adults or become independent?
- How long do other animals take to become adults or become independent?
- How are human babies different from these animals?
- What characteristics usually stay the same in animals from birth to adulthood?

TEACHER NOTES

SUGGESTIONS FOR ASSESSMENT

Refer to Assessment opposite 2-1-12.

Science Journal Entry: Inquiry Chart

Have students answer the following questions in their science journals:

- How am I the same as my parent/guardian?
- How am I different from my parent/guardian?

Look for

- things that stay the same, such as: two eyes, two ears, two legs, two arms, etc.
- things that are different, such as: size, amount of hair, muscles, etc.

PRESCRIBED LEARNING OUTCOMES	SUGGESTIONS FOR INSTRUCTION								
<p><i>Students will...</i></p>									
<p>2-1-12 Describe and classify a wide range of animals according to various characteristics and behaviours.</p> <p><i>Examples: skin covering, where they live, food they eat, day or night activity, how they move...</i></p> <p>GLO: C2, D1, E1</p>	<p>➤ Animal Facts: Video Research</p> <p>Show students a video that features a variety of animals. Have students record answers to a predetermined question while watching the video. Examples:</p> <table border="0" data-bbox="673 483 1177 636"> <thead> <tr> <th colspan="2" data-bbox="673 483 1177 514">What do animals eat?</th> </tr> <tr> <th data-bbox="673 520 966 552"><u>Animal</u></th> <th data-bbox="966 520 1177 552"><u>What it eats</u></th> </tr> </thead> <tbody> <tr> <td data-bbox="673 558 966 590">robin</td> <td data-bbox="966 558 1177 590">worms</td> </tr> <tr> <td data-bbox="673 596 966 627">kangaroo</td> <td data-bbox="966 596 1177 627">plants</td> </tr> </tbody> </table>	What do animals eat?		<u>Animal</u>	<u>What it eats</u>	robin	worms	kangaroo	plants
What do animals eat?									
<u>Animal</u>	<u>What it eats</u>								
robin	worms								
kangaroo	plants								
<p>2-0-1a. Ask questions that lead to investigations of living things, objects, and events in the immediate environment. (ELA 1.2.4, 3.1.2, 3.1.3; Math SP-I.1.2) GLO: A1, C2, C5</p> <p>2-0-2a. Access information using a variety of sources. <i>Examples: elders, simple chapter books, concept books, CD-ROMs, Internet...</i> (ELA 1.1.2, 3.2.2 Math SP-II.1.2; TFS 2.1.1) GLO: C6</p>	<p>Provide information resources (pictures, videotapes, books) about other kinds of animals. Have students place these animals in groups, according to how they move.</p>								
	<p>➤ Role Play</p> <p>Have students role-play the movement of different animals. Examples: leap like a frog, hop like a kangaroo, waddle like a duck, lumber like an elephant, gallop like a horse, slither like a snake, crawl like a caterpillar . . . Ask students the following questions:</p> <ul style="list-style-type: none"> • How do these movements help the animals get food and find protection from their enemies? • What other animals hop, crawl, etc.? <p>Have students carry out similar activities describing and grouping animals according to other characteristics (e.g., skin covering).</p> <p>➤ Pattern Book</p> <p>Have students use a familiar pattern book to write their own book about how animals move.</p> <p>Example: Frog, frog, how do you move? I leap from the lily pads and swim in the water. Robin, robin how do you move? I fly to the ground on a rainy day to collect worms for my dinner.</p>								

TEACHER NOTES

SUGGESTIONS FOR ASSESSMENT

Student Interview: Animal Facts (2-1-10 to 2-1-12)

Before interviewing the student, prepare a set of cards (16). See Blackline Master 11: Animal Sorting Cards. Each card should have a picture of a different animal on it. Include mammals, birds, fish, reptiles, amphibians, and insects. (Students don't have to know these terms.)

Say to students:

1. I want you to sort the animal pictures in one way.
What is your sorting rule?
2. Can you sort the pictures in another way?
What is your rule?
3. Can you sort the pictures in a different way?
Record the sorting rules.
4. Pick one of the animals.
Tell me what you know about the animal.

Expected responses will depend on the animal chosen. Students should make reference to some of the following for both the sorting and the animal:

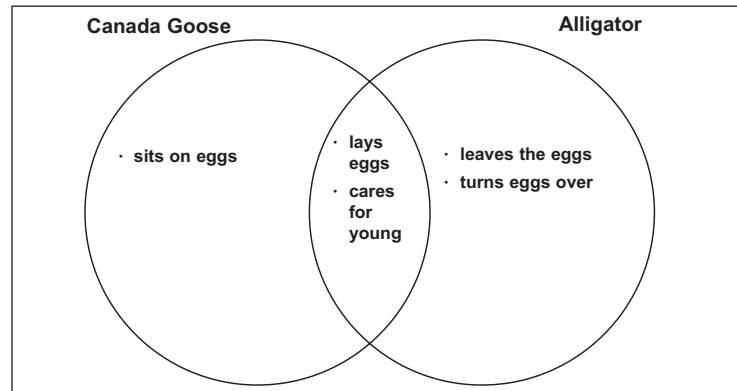
- living thing
- appearance (body parts)
- skin covering
- habitat
- foods they eat
- nocturnal/diurnal
- movement
- enemies
- life cycle
- names of male/female/baby
- protection (if known)

PRESCRIBED LEARNING OUTCOMES
<i>Students will...</i>
<p>2-1-13 Describe and compare ways in which different animals care for their offspring.</p> <p><i>Examples: Canada geese, bears, alligators, bees...</i></p> <p>GLO: D1, E1</p>
<p>2-0-4a. Follow simple directions, and describe the purpose of steps followed. GLO: C2</p> <p>2-0-4h. Follow given safety procedures and rules. GLO: C1</p>
<p>2-1-14 Describe changes in the appearance and activity of various animals as they go through a complete life cycle.</p> <p>Include: an insect, a bird, an amphibian.</p> <p>GLO: D1, E3</p> <p>2-1-15 Compare the life cycles of animals that have similar life cycles and those that have different life cycles.</p> <p><i>Examples: bee and butterfly, gerbil and butterfly...</i></p> <p>GLO: E1, E3</p>
<p>2-0-5a. Make, with guidance, observations that are relevant to a specific question. GLO: A1, A2, C2</p> <p>2-0-5b. Use, with guidance, tools to observe, measure, and construct. <i>Examples: ruler, metre stick, pan balance, magnifying glass, bathroom scale, thermometer...</i> (Math SS-VIII.1.2) GLO: C2, C3, C5</p>
(continued)

SUGGESTIONS FOR INSTRUCTION

➤ **Animal Comparison**

Have students work in small groups to compare the parent care provided by the following animals.



Phrases to use for the comparison

- lays eggs
- leaves the eggs
- sits on eggs
- cares for young
- turns eggs over
- teaches babies to swim
- cares for young until following spring
- both parents care for young

➤ **Mealworm Life Cycle**

Have students observe daily the changes in the mealworms. When the mealworms enter the pupa stage, have students observe the mealworms with a magnifying glass. Have them record the changes that they observe. Have students draw and label a Life Cycle Diagram for the mealworm.

➤ **Read Aloud and Discuss: Butterflies**

Read a science book about a butterfly’s life cycle. Identify the changes from egg to caterpillar to cocoon to butterfly. Focus the discussion on the following questions for reflection:

- Where did the caterpillar come from? (an egg)
- How does the caterpillar meet its own needs?
- What happens as the caterpillar changes?

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TEACHER NOTES

SUGGESTIONS FOR ASSESSMENT

Set up a life cycle that the students can actively observe during the course of this cluster. Mealworms can be purchased from most pet stores and the stages of their life cycle are easy to observe.

In the pupa stage of the mealworm's life, students can actually observe the changes that take place because mealworms do not spin a cocoon or chrysalis.

Other life cycle options include raising brine shrimp, hatching chicken eggs, raising painted butterflies, or collecting tadpoles and watching them turn into frogs.

Educators are allowed to collect tadpoles for use in the classroom. However, tadpoles/frogs should be returned to the location from which they were collected.

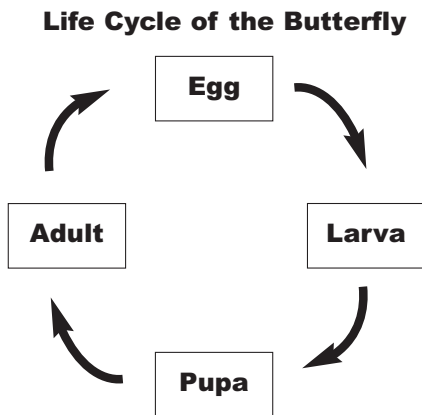
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PRESCRIBED LEARNING OUTCOMES
<i>Students will...</i>
<p>2-0-7d. Connect new experiences, ideas, and information with prior knowledge and experiences. (ELA 1.2.1, 2.1.2) GLO: A2</p> <p>2-0-7e. Describe, in a variety of ways, what was done and what was observed. <i>Examples: concrete materials, captioned drawings, oral language...</i> (ELA 4.1.2, 4.2.5) GLO: C6</p> <p>2-0-9c. Take the time to repeat a measurement or observation for greater precision or detail. GLO: C5</p>

SUGGESTIONS FOR INSTRUCTION

➤ **Life Cycle Diagram**

Model to show students how to draw a life cycle diagram based on the information gathered from the science book and the ideas discussed. If using the life cycle of an insect, ensure that students are familiar with the terms “larva” and “pupa.”



➤ **Researching Life Cycles**

Have students work in pairs to find information about the life cycle of an animal. Include different animals such as insects, birds, amphibians, reptiles, mammals, and fish. Have students represent their findings visually and share them with the class.

➤ **Gallery Walk**

Do a gallery walk to look at the visual representations of the different life cycles. Have students select two life cycles to compare and contrast by using the following headings. Students can fill in their list after viewing the representations.

The _____ Cycle and the _____ Cycle

Ways they are alike

Ways they are different

TEACHER NOTES

SUGGESTIONS FOR ASSESSMENT

Students should have opportunities to study diverse animals. Studying an insect, a bird, and an amphibian will ensure variation, but students do not need to be familiar with these animal classifications.

The Manitoba Fisheries Sustainable Development website provides teacher background information and instructional suggestions related to fish lifecycles .

Science Journal Entry: Life Cycles

Student Directions: Choose either a bird, a frog, or a butterfly. Tell about its life cycle. Include a labelled diagram. When your entry is complete use the following checklist to rate your work.

Science Journal Self-Assessment

- My work (diagrams/writing) is neatly done.
- My diagram is labelled.
- I have used science words.
- My entry has all the information asked for in the question.

PRESCRIBED LEARNING OUTCOMES
<i>Students will...</i>
<p>2-1-16 Observe and describe an animal’s life processes. Include: eating habits, movement, rest patterns, breathing. GLO: E3</p> <p>2-1-17 Identify and describe ways in which humans help other animals. <i>Examples: protecting endangered animals, feeding birds...</i> GLO: B1, B5</p>
<p>2-0-4h. Follow given safety procedures and rules. GLO: C1</p> <p>2-0-5a. Make, with guidance, observations that are relevant to a specific question. GLO: A1, A2, C2</p> <p>2-0-5c. Estimate and measure the passage of time related to minutes and hours. (Math SS-VI.1.2) GLO: C2, C3, C5</p> <p>2-0-5e. Record observations using written language, drawings, and, with guidance, charts. (ELA 4.1.2, 4.2.5) GLO: C2, C6</p> <p>2-0-8a. Recognize that learning can come from careful observations and investigations. (ELA 3.3.4) GLO: A1, A2, C2</p>

SUGGESTIONS FOR INSTRUCTION

➤ **Mealworm Observation**

Give each student a mealworm and a magnifying glass. Have students use as many of their senses as possible to observe the worms. Make labelled diagrams of their observations. Note: mealworms can be put in a sealable plastic bag if students are reluctant to touch them. Ask students the following questions:

- What do you notice about the mealworm’s body?
- How does the mealworm move?
- What does the mealworm eat?

➤ **Pet Observation**

Have students observe a classroom pet over the course of a day and record the animal’s activity. Example:

Herbie Hamster’s Day

9:00 am eating seeds
9:30 am sleeping
10:00 am playing on the wheel

Ask the students the following questions:

- Were there any changes in the pet’s breathing during the day?
- When was the pet most active?
- What do you think would be happening if a record were kept of the pet’s nighttime activity? Explain your thinking.

➤ **Helping Animals to Survive**

Use a Directed-Reading-Thinking activity (Stauffer, 1969; Santa 1988) using stories that focus on the ways in which humans help other animals to survive. (Note: the Directed Reading-Thinking activity is discussed in *ELA, Strategies*, pp. 120-122.)

➤ **Posters**

Have students make posters to encourage other students in the school to help animals, for example, feeding birds in winter or building nesting boxes.

TEACHER NOTES

SUGGESTIONS FOR ASSESSMENT

Refer to Appendix D for information on animals in the classroom. It is recommended that mammals be classroom visitors, rather than long-term pets.

Observation Checklist: Mealworm Observation

During the “mealworm” learning experiences, look for the following skills:

The student

- asks questions about mealworms
- follows rules regarding care of mealworms
- uses magnifying glass to observe mealworms
- makes relevant observations
- records observations using words and drawings
- demonstrates an interest in the mealworm learning experiences

NOTES