
Kindergarten

Cluster 2: Colours

Overview

Colour is an important part of the world around us. Through observations and the use of specific vocabulary, students develop their ability to describe their world in terms of colour. They also explore how to create colours by mixing them and where colours are found in the environment.

PRESCRIBED LEARNING OUTCOMES	SUGGESTIONS FOR INSTRUCTION
<p><i>Students will...</i></p>	
<p>K-2-01 Use appropriate vocabulary related to their investigations of colours.</p> <p>Include: red, yellow, blue, orange, brown, black, white, purple, green, grey, pink, mix, light, dark, match, primary colour.</p> <p>GLO: C6, D3</p>	<ul style="list-style-type: none"> ➤ Introduce, explain, use, and reinforce vocabulary throughout this cluster. Students need to learn to identify and name different colours. This understanding can be developed in tasks within art, mathematics, language arts, social studies, and science throughout the Kindergarten year. Look for situations in which students’ conversations, questions, and responses demonstrate readiness for the introduction of a specific term. New vocabulary will enable them to talk about colour in a more succinct and precise manner. Use the new term(s) in your conversations with them. ➤ Colour Word Wall Display colour words along with appropriately coloured symbols where they are easily visible. Add each colour word when that colour becomes the focus as in Colour of the Day/Week.
<p>K-2-02 Sort and classify objects by colour.</p> <p>GLO: C2, D3</p>	<ul style="list-style-type: none"> ➤ Colour of the Day/Week Introduce colours by featuring a colour for each day/week. Use that colour for routine classroom activities such as recording attendance, making name tags, and organizing centre activities. Have students wear items of clothing that match the colour of the day/week.
<p>K-0-3c. Select materials to be used. GLO: C2, C3</p> <p>K-0-6a. Construct, with guidance, concrete-object graphs using 1:1 correspondence. (Math SP-III.2.0) GLO: C2, C6</p> <p>K-0-6b. Compare data using appropriate terms. <i>Examples: more, less, same...</i> (Math SP-IV.1.0) GLO: A1, A2, C2, C5</p> <p>K-0-6c. Place materials and objects in a sequence or in groups using a single, self-determined attribute. (Math PR-I.1.0) GLO: C2, C3, C5</p> <p>K-0-7b. Describe, in a variety of ways, what was done and what was observed. <i>Examples: concrete materials, drawings, oral language....</i> (ELA 4.1.2, 4.1.3) GLO: C6</p>	<ul style="list-style-type: none"> ➤ Colour Treasure Hunt Have the students find something in the room that is coloured red, blue, yellow, etc. Have them share their discoveries with the class and then use the items to make a concrete graph. Have students compare the data on their graphs using appropriate terms. ➤ Sort and Classify By Colour (Centre) At the Math Centre, provide a variety of materials that can be classified and sorted according to colour. Examples: unifix/interlocking cubes, beads, buttons, etc. Have students sort a material of their choice or a combination of different materials according to colour, and record what they have done through drawings.
	<ul style="list-style-type: none"> ➤ Colour Collage Have students work in small groups to create a one-colour collage using a variety of materials/tools. Examples: magazine pictures, wallpaper samples, cloth, wool, crayons, markers, paint, etc.

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TEACHER NOTES

SUGGESTIONS FOR ASSESSMENT

Note: Commercially made materials often have consistency of colour, necessary for Early Years sorting tasks. Sorting tasks are made more difficult when attributes are not easily recognized and identifiable.

Materials used for sorting should be in solid colours. Avoid multi-coloured buttons, beads, etc. Craft buttons come in solid colours.

Interview: Sort and Classify by Colour

Before the interview gather a set of commercially made materials such as interlocking cubes or craft buttons.

1. Show the student different cubes and have him/her orally identify the colours.

<input type="checkbox"/> red	<input type="checkbox"/> green
<input type="checkbox"/> orange	<input type="checkbox"/> blue
<input type="checkbox"/> yellow	<input type="checkbox"/> black
<input type="checkbox"/> brown	<input type="checkbox"/> purple

2. Show the student the unifix cubes, etc. Ask the students to sort the cubes by colours.
 - student sorted correctly
 - student was able to name/label the sorted groups

3. Give the student a small collection of craft buttons or cubes and a labelled pictograph. Have the student place the materials on the graph.
 - student sorted correctly on the pictograph
 - student was able to tell how many of each colour were on the graph
 - student was able to indicate which was more, less, the same

PRESCRIBED LEARNING OUTCOMES
<i>Students will...</i>

SUGGESTIONS FOR INSTRUCTION

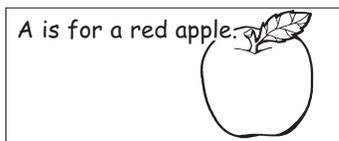
➤ **Colour Surveys**

At the Math Centre, have the students

- survey classmates to determine favourite colours
- tally and graph the colours that classmates wear
- compare the data using terms such as more, less, and same

➤ **Writing Centre**

Have the class make a big alphabet book. Have each student select a letter of the alphabet and choose an object to represent that letter. Students must draw, label, and colour their object accordingly. Example:



K-2-03 Compare and contrast colours using appropriate terms.

Examples: lighter than, darker than, brighter than...

GLO: C2, D3

K-2-04 Order a group of objects based on a given colour criterion.

Examples: order objects of the same colour range from lightest to darkest...

GLO: C2, D3

K-0-4a. Manipulate materials purposefully. GLO: C1, C2

K-0-6c. Place materials and objects in a sequence or in groups using a single, self-determined attribute. (Math PR-I.1.0) GLO: C2, C3, C5

➤ **Viewing Coloured Objects**

Display two objects of the same colour that are of different tints or shades. Ask students the following questions:

- Which colour is lighter?
- Which colour is darker?

Repeat with several different coloured pairs.

➤ **Sorting Coloured Objects by Value**

Provide a set of objects of the same colour that range from light to dark. Have students work in pairs to arrange items from lightest to darkest or darkest to lightest. Hint: Have students squint at the colours in order to see which shade or tint of the colour is lighter or darker.

➤ **Comparing Coloured Strips by Value**

Prepare colour strips in which the colours are either dark or light and distribute one strip to each student. Have students hold up the colour that is named by the teacher. These students can then be asked to group themselves according to the darker shades of the colour or lighter shades of the colour. Example: lighter reds stand here, darker reds stand there.

Art Extension: Give each student one coloured tempera block and either one black or one white tempera block. Demonstrate how to make a colour lighter or darker by gradually mixing more and more white or black with the pure colour. Have students try this exercise using their dabs of mixed colour on manila paper.

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Commercially available, sample strips for paint are good sources for colours of different shades/tints.

The term “value” refers to the amount of light or dark in a colour. Example: A light, sky blue is of higher value than a navy blue. The navy blue has less white in it and is of lower value. Value (light/dark), intensity (bright/dull), and hue (colour) are three variables that artists use to talk about colour.

Paper and Pencil Task: Ordering Colours

Provide students with four paper strips or paint samples. The strips or samples should be variations of the same colour. Have the students order them from lightest to darkest and then glue them in order onto a piece of paper.

PRESCRIBED LEARNING OUTCOMES

SUGGESTIONS FOR INSTRUCTION

Students will...

➤ **Ordering Coloured Strips by Intensity**

Provide students with paint strips of varying intensities in a variety of colours. Be sure to include neon colours as well as dull colours. Have students order the strips from brightest to dullest.

K-2-05 Predict and describe changes in colour that result from the mixing of primary colours and from mixing a primary colour with white or black.
GLO: C2, D3

➤ **Making Colour Splashes**

Have students fold a small piece of heavy paper in half and then open it up. Using tempera or finger paint, have students put a blob of one primary colour on one half and a different primary colour on the other half. Have students predict what will happen when they refold the paper and press. Have students test their predictions by folding and pressing. As they re-open the paper, use the following questions for discussion:

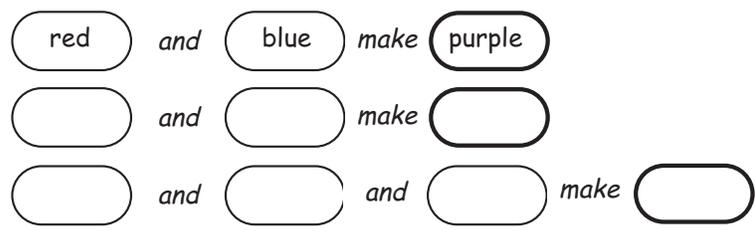
- What two colours did you start with?
- What colour do you see now?
- What do you think will happen if you repeated this activity?
- What have you learned from this investigation?

Have students repeat the procedure using new paper and different colours of paint. Students should make predictions about what the resulting colour might be.

K-0-1b. Make predictions as to what might happen during explorations. (ELA 1.2.1) GLO: A1, C2
K-0-2a. Seek information from others.
Examples: people at school, at home, in the community... (ELA 3.2.2, 3.2.4; Math SP-II.1.0) GLO: C6
K-0-4e. Participate in cooperative group learning experiences. (ELA 5.2.1) GLO: C7
K-0-5c. Record observations using drawings. (ELA 4.1.2, 4.2.5) GLO: C6

➤ **Investigating Colour — Combining Primary Colours**

At the Art/Science Centre provide yellow, red, and blue tempera or finger paint. Have students investigate to determine the results of mixing combinations of these colours. Have students record their findings. Example:



As a class, discuss the findings.

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In the traditional colour wheel used by artists, the primary colours are red, yellow, and blue. This colour wheel illustrates the location of the secondary colours: orange, green, and purple. It shows that mixing red and yellow produces orange; mixing blue and yellow produces green; and mixing red and blue produces purple.

The scientists' (physicists') colour wheel is less well-known. It includes the primary colours of yellow, magenta, and cyan. The emphasis of Cluster 2: Colours is to have students identify common colours and understand colour mixing. It is not necessary to use the scientists' colour wheel. Most learning resources reference the artists' colour wheel.

Performance Task: Combining Primary Colours

Scale	Follows Directions	Records Findings
4	independently completes the activity	records findings independently
3	requires additional directions to complete the activity	records findings independently
2	requires some assistance to complete the activity	records findings with some assistance
1	requires direct assistance to complete the activity	records with direct assistance

Science Journal Entry

Have students show what happens when black and white paints are mixed with the primary colours.

Note: This is not intended to be a teacher-created record. Students should be encouraged to develop their own way of recording.

PRESCRIBED LEARNING OUTCOMES	SUGGESTIONS FOR INSTRUCTION
<p><i>Students will...</i></p>	<p>Add white and black paint to the centre. Have students repeat their investigations and record their findings. (Link to K-2-04 Art Extension, making colours lighter or darker.)</p> <p>Discuss the results in a Sharing Circle. (See <i>ELA, Strategies</i>, p. 106.) Use the following questions to guide the discussion:</p> <ul style="list-style-type: none"> • What changes did you see when you used white paint with another colour? • What changes did you see when you used black paint with another colour? • Can you make or match a colour that another classmate has made?
<p>K-2-06 Create a colour to match a given sample by mixing the appropriate amounts of two primary colours.</p> <p>GLO: C3, D3</p> <p>K-0-8a. Recognize that learning can come from careful observations and investigations. (ELA 3.3.4) GLO: A1, A2, C2</p> <p>K-0-9b. Willingly observe, question, and explore. GLO: C5</p>	<p>➤ Matching Colours</p> <p>At the Art/Science Centre provide yellow, red, and blue paint and “colour cards” made by mixing various amounts of each of the primary colours. Have students explore colour mixing to create a match for each colour card.</p>
<p>K-2-07 Explore to identify and describe colours found in their environment.</p> <p><i>Examples: rocks, flowers, shells, blocks, crayons...</i></p> <p>GLO: C2, D3</p> <p>K-0-1a. Ask questions that demonstrate a curiosity about living things, objects, and events in the immediate environment. (ELA 1.2.4, 3.1.2, 3.1.3) GLO: A1, C2, C5</p> <p>K-0-4d. Respond to the ideas and actions of others. (ELA 1.1.2) GLO: C5, C7</p> <p>K-0-4f. Verbalize questions during classroom learning experiences. GLO: C6</p> <p>K-0-5a. Observe using one or a combination of senses. GLO: C2</p> <p>K-0-9c. Express enjoyment of science-related classroom activities. GLO: C5</p>	<p>➤ Observing the Environment: Colour Walk</p> <p>On a walk around the neighbourhood or school grounds, have the students look for and identify colours in the environment. Encourage them to ask questions about what they see. Focus their observations with the following questions:</p> <ul style="list-style-type: none"> • What colours can you see? • Which colour is the lightest? • Which colour is the darkest? • Which colour do you see the most often? Why? <p>Have students select three small objects, each of a different colour. These objects are placed in a collection bag and returned to the classroom where they are used for sorting, classifying, and comparing ranges of colour or brightness.</p>

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TEACHER NOTES

SUGGESTIONS FOR ASSESSMENT

In Kindergarten, students will have difficulty creating an exact colour match. However, they should begin to recognize which two colours are required to make a third.

Observation Checklist: Matching Colours

The student

- willingly participates in the activity
- understands the directions given
- keeps trying until satisfied with the results
- records findings in pictures
- attempts writing
- works cooperatively
- shares the materials
- discusses findings with others

Discuss with students which objects can be collected and which ones cannot. Reinforce respect for living things and safety procedures.

TEACHER NOTES

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