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# Life in an Ecosystem

## Plants and Habitat



### Including:

Living Things and Spaces  
The Interdependence of Plants and Animals  
Producers and Consumers  
Food Chains  
Adaptations  
The Human and Natural Effects  
Design a Habitat

An Integrated Unit for Grade 3/4

Written by:

The Curriculum Review Team 2005

Length of Unit: approximately: 5.6 hours

July 2005



## **Life in an Ecosystem**

### **Plants and Habitat An Integrated Unit for Grade 3/4**

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### **An Integrated Unit for Grade 3/4**

**Written by:**

**The Curriculum Review Team 2005**

CAPB

(416)325-0000

EDU

**Based on a unit by:**

Bina Tiberia, Patricia McIntyre, Emelda Byrne (Project Leader)

St. Gabriel

(519) 948-1111

Windsor Essex District Catholic School Board

emelda\_byrne@wecdsb.on.ca

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## Life in an Ecosystem

### Plants and Habitat An Integrated Unit for Grade 3/4

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## Unit Context

We share the earth with many different living things. All of these living things play a significant role in our lives. Therefore, investigating our link or interdependence upon one another helps us appreciate the need to take care and respect our earth.

The combined grade unit plans are based on the two Science strands in the Ontario Curriculum: Growth and Changes in Plants and Habitats and Communities. This unit is written for a grade 3/4 class and is related to the Life Systems strand.

This is a task-based integrated unit that requires students to work in both group and independent activities.

The integrated unit, "Life in an Ecosystem" focuses on plants and habitats. Students examine similarities and differences of the physical characteristics of plant species, the effect of environmental conditions on plants, an understanding of habitat and community, the dependency of plants and animals on their habitat and their interrelationships when living in a specific habitat, and the ways in which humans can change habitats and the effects of these changes on plants and animals.

The skills presented in this unit give the students a deeper appreciation and understanding of the beauty of God's creation.

### **CATHOLIC GRADUATE EXPECTATIONS**

CGE 4h - participates in leisure and fitness activities for a balanced and healthy lifestyle.

CGE 1a - illustrates a basic understanding of the saving story of our Christian faith.

## Unit Summary

Students will begin by classifying living things according to their characteristics and functions. They will observe living things grow, move, use food, and adapt to changes around them. As the students work through the subtasks in this unit, they will make connections between the natural and human effects on living species.

In subtask 1, students will observe and classify living things.

In subtask 2, students will investigate the various ways plants and animals help each other meet their basic needs.

In subtask 3 and 4, students will identify how plants and animals get the energy they need to survive. They will learn how they are a part of a community of living things by creating a food chain.

In subtask 5, students will learn about some of the special features or adaptations of plants and animals. They will begin to make inferences and gain an understanding of how adaptations help living things survive.

In subtask 6, students will consider how habitats change over time. During this process, they will gain an understanding of how humans affect living communities in both positive and negative ways.

In subtask 7, the culminating task, students will work independently to plan, design, and create a natural habitat. The students will create this habitat in the form of a diorama. In addition, a written/oral presentation will consolidate their learning.

## Culminating Task Assessment



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Students work individually to research and create a habitat diorama. Students use the knowledge gained throughout the unit to design the perfect natural habitat for living things. Students demonstrate the interdependence of living things necessary for survival within their habitat display. They present their dioramas and written research to the class in an oral presentation.

Students will receive a written and oral evaluation.

Students will receive an individual grade on:

- diorama display
- written research
- reflection
- oral presentation

There are several blackline masters and rubrics included which can be used to devise and assess the dioramas, written reports, and oral presentations.

#### **Catholic Graduate Expectations:**

CGE 4a - demonstrates a confident and positive sense of self and respect for the dignity and welfare of others.

CGE 4e - sets appropriate goals and priorities in school, work, and personal life.

CGE 5e - respects the rights, responsibilities, and contributions of self and others.

## Links to Prior Knowledge

The following are prerequisite skills that students need to begin the work of this unit:

1s6 - classify characteristics of animals and plants by using the senses (e.g., texture, colour, size, sounds);

1s17 - compare the basic needs of humans with the needs of other living things (e.g., the need for food, air, water, light);

2s15 - use appropriate vocabulary in describing their investigations, explorations, and observations (e.g., use the words egg, caterpillar, larva, chrysalis, and adult in describing the metamorphosis of a butterfly);

2s16 - record relevant observations, findings, and measurements, using written language, drawings, and concrete materials (e.g., make accurately labelled drawings showing the life cycle of an animal);

2m105 - collect firsthand data from their environment (e.g., the number of days of sun, rain, snow during the month of November);

2m107 - organize data using graphic organizers (e.g., diagrams, charts, graphs, webs) and various recording methods (e.g., placing stickers, drawing graphs);

2e23 - use words and pictures to create a message;

2e27 - read a variety of simple written materials (e.g., pattern books on specific themes, stories, chart stories, poems, interactive software) for different purposes.

## Considerations

## Notes to Teacher

### **Adaptations:**

The activities in this unit are designed to be as open-ended as possible to allow for many different learning styles and abilities. Teachers will want to choose small group members carefully to ensure that all students' needs will be met. Individual accommodations to the unit should be considered by the classroom teacher.

Some suggested accommodations are:

- provide immediate feedback;
- clarify the expectations at the beginning of each lesson;
- repeat important information or allow students to repeat and rephrase;
- conference, both formally and informally, with students regularly;



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- present instructions orally and in writing;
- use pictures and diagrams whenever possible;
- encourage students to question for clarification and additional information before beginning work.



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#### 1 Living Things and Spaces

Students will recall their study of living things from grades 1 and 2 to assist them in observing and classifying living things.

Through a walk in the schoolyard, students will be given the opportunity to observe and list some of the living things in their schoolyard. Students will record their findings outdoors and discuss their observations in class.

The final activity of this subtask asks the students to complete an original poem.

##### **Catholic Graduate Expectations:**

CGE 4a - demonstrates a confident and positive sense of self and respect for the dignity and welfare of others;

CGE 4e - sets appropriate goals and priorities in school, work, and personal life.

CGE 5e - respects the rights, responsibilities, and contributions of self and others.

#### 2 The Interdependence of Plants and Animals

The purpose of this lesson is to demonstrate ways in which plants and animals depend on each other for survival. Students will examine these basic needs in order to gain a better understanding of how these two groups interact within an ecosystem.

##### **Catholic Graduate Expectations:**

CGE 4b - demonstrates flexibility and adaptability.

CGE 5a - works effectively as an interdependent team member.

CGE 5e - respects the rights, responsibilities, and contributions of self and others.

#### 3 Producers and Consumers

In this subtask, students investigate the source of energy for plants and animals. Students begin by discussing how the sun is the source for all energy. Students identify familiar producers and consumers. They gain an understanding of the three consumers by defining themselves as a consumer and by comparing their food choices to other animals. Students recognize consumers as herbivores, carnivores, and omnivores. Their learning is reinforced through a cloze activity.

##### **Catholic Graduate Expectations:**

CGE 3e - adopts a holistic approach to life by integrating learning from various subject areas and experience.

CGE 4g - examines and reflects on one's personal values, abilities, and aspirations influencing life's choices and opportunities.

CGE 4h - participates in leisure and fitness activities for a balanced and healthy lifestyle.

#### 4 Food Chains

Students will further their knowledge of food sources and energy by building food chains. Through a class discussion, students will trace the origins of their food and relate it back to producers and consumers. Students will work in small groups to create familiar food chains. The final activity of this subtask asks the students to connect their food chains back to the interdependence of plants and animals through a written reflection.

##### **Catholic Graduate Expectations:**

CGE 3c - thinks reflectively and creatively to evaluate situations and solve problems.

CGE 4b - demonstrates flexibility and adaptability.

CGE 4f - applies effective communication, decision-making, problem-solving, time and resource management skills.



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#### 5 Adaptations

Students consider the special features and characteristics that allow plants and animals to survive in their living space. Through an introductory motivator, the class brainstorms and categorizes several plant and animal adaptations. Next, students work in small groups to illustrate and list the adaptations of their plant or animal. In this subtask, grade grouping is recommended in order that each group benefits from their grade-related focus.

**Catholic Graduate Expectations:**

CGE 4b - demonstrates flexibility and adaptability.

CGE 4c - takes initiative and demonstrates Christian leadership.

CGE 5a - works effectively as an interdependent team member.

#### 6 The Human and Natural Effects

Students learn that all living things are connected to one another and their habitats. They recognize that change is a natural process and that humans are sometimes responsible in creating these negative effects on the environment. Through discussion, students develop ways in which humans can contribute to their community in a positive manner.

**Catholic Graduate Expectations:**

CGE 7a - acts morally and legally as a person formed in Catholic traditions.

CGE 7b - accepts accountability for one's own actions.

CGE 7d - promotes the sacredness of life.

CGE 7h - exercises the rights and responsibilities of Canadian citizenship.

#### 7 Design a Habitat

Students work individually to research and create a habitat diorama. Students use the knowledge gained throughout the unit to design the perfect natural habitat for living things. Students demonstrate the interdependence of living things necessary for survival within their habitat display. They present their dioramas and written research to the class in an oral presentation.

Students will receive a written and oral evaluation.

Students will receive an individual grade on:

- diorama display
- written research
- reflection
- oral presentation

There are several blackline masters and rubrics included which can be used to devise and assess the dioramas, written reports, and oral presentations.

**Catholic Graduate Expectations:**

CGE 4a - demonstrates a confident and positive sense of self and respect for the dignity and welfare of others.

CGE 4e - sets appropriate goals and priorities in school, work, and personal life.

CGE 5e - respects the rights, responsibilities, and contributions of self and others.



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#### Description

Students will recall their study of living things from grades 1 and 2 to assist them in observing and classifying living things.

Through a walk in the schoolyard, students will be given the opportunity to observe and list some of the living things in their schoolyard. Students will record their findings outdoors and discuss their observations in class.

The final activity of this subtask asks the students to complete an original poem.

#### Catholic Graduate Expectations:

CGE 4a - demonstrates a confident and positive sense of self and respect for the dignity and welfare of others;

CGE 4e - sets appropriate goals and priorities in school, work, and personal life.

CGE 5e - respects the rights, responsibilities, and contributions of self and others.

#### Expectations

- 3s14 – plan investigations to answer some of these questions or find ways of meeting these needs, and explain the steps involved;
- 3s16 A – record relevant observations, findings, and measurements, using written language, drawings, charts, and graphs (e.g., produce a series of drawings to show a plant at different stages of development);
- 3s17 A – communicate the procedures and results of investigations for specific purposes and to specific audiences, using drawings, demonstrations, simple media works, and oral and written descriptions (e.g., make a graph that shows the number and kinds of trees found in different yards; design and construct a terrarium or garden that reproduces the conditions that they found to be requirements of specific plants).
- 3s24 – compare the requirements of some plants and animals, and identify the requirements that are common to all living things (e.g., the need for water and minerals);
- 3s22 – describe various settings in which plant crops are grown (e.g., farms, orchards, home gardens);
- 3m82 – interpret and draw conclusions from data presented in charts, tables, and graphs;
- 3z39 – recognize a range of features that may be represented by different colours on maps (e.g., pink to represent residential areas, brown to represent relief features);
- 4s4 – identify, through observation, various factors that affect plants and animals in a specific habitat (e.g., availability of water, food sources, light; ground features; weather conditions);
- 4s9 A – classify plants and animals that they have observed in local habitats according to similarities and differences (e.g., in shape, location).
- 3e28 – print legibly and begin to use cursive writing.

#### Groupings

- Students Working As A Whole Class
- Students Working In Pairs
- Students Working Individually

#### Teaching / Learning Strategies

- Buddy System
- Classifying
- Direct Teaching
- Brainstorming
- Field Trip
- Inquiry
- Guided Writing

#### Assessment

Use BLM 1c to check and assess student observations. Use Observation Sheets, BLMs 1e and 1f, as a teacher's anecdotal observational recording instrument for independent and group work.

**BLMs 1e and 1f can be used throughout the unit with the various group and independent activities to help keep track of students' development.**

#### Assessment Strategies

- Observation
- Performance Task
- Essay

#### Assessment Recording Devices

- Checklist



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- 4e25 – label and use pictures and diagrams appropriately;
- 4e20 – introduce vocabulary from other subject areas into their writing;
- 4a45 – identify strengths and areas for improvement in their own work and that of others.
- 3m78 – demonstrate an ability to organize objects into categories, by sorting and classifying objects using two or more attributes simultaneously (Sample problem: Sort a collection of buttons by size, colour, and number of holes.);
- 3m79 – collect data by conducting a simple survey about themselves, their environment, issues in their school or community, or content from another subject;
- 3m80 – collect and organize categorical or discrete primary data and display the data in charts, tables, and graphs (including vertical and horizontal bar graphs), with appropriate titles and labels and with labels ordered appropriately along horizontal axes, as needed, using many-to-one correspondence (e.g., in a pictograph, one car sticker represents 3 cars; on a bar graph, one square represents 2 students) (Sample problem: Graph data related to the eye colour of students in the class, using a vertical bar graph. Why does the scale on the vertical axis include values that are not in the set of data?).

Anecdotal Record
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**Teaching / Learning**

**Initial Assessment of Prior Knowledge**

- 1) Introduce the lesson by providing the students with a chart (refer to BLM 1a Living Things) that asks the students to classify which living things would inhabit a specific environment. This will demonstrate their knowledge of living things and spaces.
- 2) As a class, discuss the students' responses and ask them to explain their choices.
- 3) Ask students what living things live in their own backyards:
  - a. Where can the living things be found?
  - b. What type of living things have they observed?
- 4) **Schoolyard Exploration/Field Trip**  
 This activity requires paired groupings. One student is assigned the task of recorder and the other student is assigned the task of illustrator. The class will go out to the schoolyard/park to observe and record the living things found within an assigned space. Students should understand that their schoolyard/park is a living space. Students record their observations on BLM 1c Habitat  
 Materials needed for field trip:



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- BLM 1c
- clipboard
- pencil
- magnifying glass
- tweezers
- small plastic container

5) When class resumes indoors, each pair will present their collected data to the class. Create a class chart with the data. When all students have presented their findings, the similarities and differences among their observations can be discussed further.

6) Habitat should be introduced before they're given BLM 1c Habitat.

#### 7) Closing Activity

Refer back to the living things they observed and have the students write a poem. This poem can be written as a cooperative or independent activity.

- create an original poem using any style
- recommended styles; haiku or cinquain

#### Extension Activity:

The students will design a cover page for their science unit.

## Adaptations

All accommodations must take into account the student's Individual Education Plan. All of the tasks and activities are designed to accommodate the needs of students at different levels of abilities. For detailed strategies see number 9 in the Notes to Teacher section of the Unit Overview.

## Resources



Parent Letter

1\_Parent letter.cwk



Living Things

1a\_Living Things.cwk



Observation Checklist

1b\_Recording Form.cwk



Habitat

1c\_Habitat.cwk



Habitat Answers

1d\_Habitat.cwk



Observation Sheet

1e\_Observation Check.cwk



Group Observation Sheet

1f\_Group Observation Check.cwk



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### Notes to Teacher

#### Teacher Reflections

Outline potential changes/improvements you would make to the subtask, or raise questions/concerns for future thought.

Record decisions you wish to pass on in the Subtask Notes; contents of this field are not passed along in the published unit.



### Description

The purpose of this lesson is to demonstrate ways in which plants and animals depend on each other for survival. Students will examine these basic needs in order to gain a better understanding of how these two groups interact within an ecosystem.

### Catholic Graduate Expectations:

CGE 4b - demonstrates flexibility and adaptability.

CGE 5a - works effectively as an interdependent team member.

CGE 5e - respects the rights, responsibilities, and contributions of self and others.

### Expectations

- 3s12 – design and conduct a hands-on inquiry into seed germination or plant growth;
- 3s13 – ask questions about and identify some needs of plants, and explore possible answers to these questions and ways of meeting these needs (e.g., predict how long a particular plant could go without water before its leaves started to droop);
- 3s6 – describe, using their observations, the changes that plants undergo in a complete life cycle (e.g., from the germination of a seed to the production of flowers or fruit);
- 4s4 – identify, through observation, various factors that affect plants and animals in a specific habitat (e.g., availability of water, food sources, light; ground features; weather conditions);
- 4s8 – recognize that animals and plants live in specific habitats because they are dependent on those habitats and have adapted to them (e.g., ducks live in marshes because they need marsh plants for food and shelter and water for movement);
- 3m80 – collect and organize categorical or discrete primary data and display the data in charts, tables, and graphs (including vertical and horizontal bar graphs), with appropriate titles and labels and with labels ordered appropriately along horizontal axes, as needed, using many-to-one correspondence (e.g., in a pictograph, one car sticker represents 3 cars; on a bar graph, one square represents 2 students) (Sample problem: Graph data related to the eye colour of students in the class, using a vertical bar graph. Why does the scale on the vertical axis include values that are not in the set of data?).

### Groupings

- Students Working As A Whole Class
- Students Working In Pairs
- Students Working Individually

### Teaching / Learning Strategies

- Directed Reading-thinking Activity
- Brainstorming
- Inquiry

### Assessment

Use BLM 2a Venn Diagram to check and assess student observations.

### Assessment Strategies

- Observation
- Questions And Answers (oral)

### Assessment Recording Devices

- Checklist



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## Teaching / Learning

- 1) Explain to the students the use of the Venn Diagram (BLM 2a) to do a compare and contrast study of the basic needs of plants and animals. Students begin by recording the basic needs of plants and animals in each circular space and then their similarities, where the circles overlap. This is based on what students know.
- 2) Share responses as a class and add other plant and animal needs not recorded on their Venn diagrams.
- 3) Students are now familiar with the needs of these two groups. Students will understand how plants and animals help one another get what they need.
- 4) Discuss with students how a flower is pollinated.
- 5) See BLM 2c Interdependence (student note)
- 6) Investigate (work in small groups)

Materials Needed:

- burrs
  - magnifying lenses
  - tweezers
  - BLM 2d Investigation Observation Sheet
- a) Examine the burr under lens. Safety: a burr should be handled with gloves.
  - b) Draw what you see.
  - c) Take tweezers, open up the burr, and record what you see. (The burr contains seeds.)
  - d) Groups discuss how an animal may help the plant that produces the burr.

After group discussion, students share ideas as a class about how the animals help plants. Student responses can be recorded on chart or blackboard.

Example:

- Animals use plants to build their homes and for food.

## Extension Activity

Grow plants from a seed, observe growth. Change the variables to see if the plant will survive.

## Adaptations

All accommodations must take into account the student's Individual Education Plan. All of the tasks and activities are designed to accommodate the needs of students at different levels of abilities. For detailed strategies see number 9 in the Notes to Teacher section of the Unit Overview.

## Resources



Venn Diagram

2a\_Venn Diagram.cwk



Interdependence

2c\_Interdependence.cwk



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### Notes to Teacher

#### Teacher Reflections

Outline potential changes/improvements you would make to the subtask, or raise questions/concerns for future thought.

Record decisions you wish to pass on in the Subtask Notes; contents of this field are not passed along in the published unit.



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### Plants and Habitat An Integrated Unit for Grade 3/4

#### Description

In this subtask, students investigate the source of energy for plants and animals. Students begin by discussing how the sun is the source for all energy. Students identify familiar producers and consumers. They gain an understanding of the three consumers by defining themselves as a consumer and by comparing their food choices to other animals. Students recognize consumers as herbivores, carnivores, and omnivores. Their learning is reinforced through a cloze activity.

#### Catholic Graduate Expectations:

CGE 3e - adopts a holistic approach to life by integrating learning from various subject areas and experience.

CGE 4g - examines and reflects on one's personal values, abilities, and aspirations influencing life's choices and opportunities.

CGE 4h - participates in leisure and fitness activities for a balanced and healthy lifestyle.

#### Expectations

- 3s21 – describe various plants used in food preparation (e.g., vegetables, fruits, spices, herbs) and identify places where they can be grown;
- 3s24 – compare the requirements of some plants and animals, and identify the requirements that are common to all living things (e.g., the need for water and minerals);
- 4s5 – classify organisms according to their role in a food chain (e.g., producer, consumer);
- 4s15 – describe ways in which humans are dependent on plants and animals (e.g., for food products, medicine, clothing, lumber);
- 3e42 – identify and describe different forms of writing (e.g., poems, stories, plays);
- 3e44 – use their knowledge of word order in oral and written language to determine the meaning of sentences;
- 3e47 – understand frequently used specialized terms in different subject areas (e.g., science, mathematics);
- 4e43 – use their knowledge of the organization and characteristics of different forms of writing to understand and use content;
- 4e27 • read a variety of fiction and non-fiction materials (e.g., short novels, myths, biographies, short articles) for different purposes;
- 4e32 • understand the vocabulary and language structures appropriate for this grade level;
- 3e33 • select material that they need from a variety of sources;
- 3s23 – describe ways in which plants and animals depend on each other (e.g., plants provide food for energy, and animals help distribute pollen and seeds);

#### Groupings

- Students Working As A Whole Class
- Students Working In Small Groups
- Students Working Individually

#### Teaching / Learning Strategies

- Note-making
- Direct Teaching
- Discussion

#### Assessment

Use BLMs 3a, 3b and 3c to assist in the assessment of students' knowledge attained through these activities.

#### Assessment Strategies

#### Assessment Recording Devices

- Checklist



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### Plants and Habitat An Integrated Unit for Grade 3/4

## Teaching / Learning

1) Class Discussion

a) What did you eat yesterday?

b) Where did the food come from - a plant or an animal?

Students will record their food intake on BLM 3a Food Intake. They will place the foods they consumed under the two headings.

From students' list create a cooperative list of food consumed. This demonstrates how humans use plants and animals as their source of energy. How? A discussion should come from the creation and sharing of the lists.

2) Refer to BLM 3b Producer or Consumer? Provide definition for the words "producer," "consumer," and "photosynthesis" have students record this on their worksheet.

Producer - plants take energy from the sun and through the process of photosynthesis create their own food.

Consumer - animals get food energy by eating or consuming other living things.

Students will circle consumers and colour the producers green.

3) In small groups, have students discuss what the food relationship between plants and animals is. Discuss food chains. Create simple food chains with the students based on their investigations. At this time, introduce specific terminology which identifies animals as three different types of consumers. Students copy the definitions in their binders/notebooks, journals.

**Herbivore - plant eater**

**Carnivore - meat eater**

**Omnivore - plant and meat eater**

4) Use BLM 3c Cloze Activity.

This should be used as an assessment activity to determine students' knowledge obtained in this subtask.

## Adaptations

All accommodations must take into account the student's Individual Education Plan. All of the tasks and activities are designed to accommodate the needs of students at different levels of abilities. For detailed strategies see number 9 in the Notes to Teacher section of the Unit Overview.

## Resources



**Food Intake: What I Ate Yesterday**

3a\_What I ate.cwk



**Producer or Consumer**

3b\_prod con picture.cwk



**Cloze Activity: Producers and Consumers**

3c\_Prod Con cloze.cwk



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**Notes to Teacher**

**Teacher Reflections**

Outline potential changes/improvements you would make to the subtask, or raise questions/concerns for future thought.

Record decisions you wish to pass on in the Subtask Notes; contents of this field are not passed along in the published unit.



## Life in an Ecosystem

### Plants and Habitat An Integrated Unit for Grade 3/4

#### Description

Students will further their knowledge of food sources and energy by building food chains. Through a class discussion, students will trace the origins of their food and relate it back to producers and consumers. Students will work in small groups to create familiar food chains. The final activity of this subtask asks the students to connect their food chains back to the interdependence of plants and animals through a written reflection.

#### Catholic Graduate Expectations:

CGE 3c - thinks reflectively and creatively to evaluate situations and solve problems.

CGE 4b - demonstrates flexibility and adaptability.

CGE 4f - applies effective communication, decision-making, problem-solving, time and resource management skills.

#### Expectations

- 3s23 – describe ways in which plants and animals depend on each other (e.g., plants provide food for energy, and animals help distribute pollen and seeds);
- 3s16 A – record relevant observations, findings, and measurements, using written language, drawings, charts, and graphs (e.g., produce a series of drawings to show a plant at different stages of development);
- 3s17 A – communicate the procedures and results of investigations for specific purposes and to specific audiences, using drawings, demonstrations, simple media works, and oral and written descriptions (e.g., make a graph that shows the number and kinds of trees found in different yards; design and construct a terrarium or garden that reproduces the conditions that they found to be requirements of specific plants).
- 3s24 – compare the requirements of some plants and animals, and identify the requirements that are common to all living things (e.g., the need for water and minerals);
- 4s17 A – construct food chains that include different plant and animal species and humans (e.g., grass -> cattle -> humans);
- 4s13 – compile data gathered through investigation in order to record and present results, using tally charts, tables, and labelled graphs produced by hand or with a computer (e.g., display data gathered in a population-simulation exercise, using a labelled graph; classify species of insects in the neighbourhood according to habitat, using a chart or table);
- 4s5 A – classify organisms according to their role in a food chain (e.g., producer, consumer);
- 4s6 A – demonstrate an understanding of a food chain as a system in which energy from the sun is transferred eventually to animals, construct food chains of different plant and animal species (e.g., carrot -> rabbit -> fox), and classify animals as omnivore, carnivore, and herbivore;

#### Groupings

- Students Working As A Whole Class
- Students Working In Small Groups

#### Teaching / Learning Strategies

- Direct Teaching
- Inquiry
- Writing To Learn

#### Assessment

##### Rubric

Use rubrics for Group Work, Food Chain Poster Board, and Food Chain Presentation to assess students' group work, food chains/questions, and oral presentations. Make sure the students are made aware of the levels of performance before the activity.

Observational Checklists (BLMs 1e and 1f) can also be used for this task.

#### Assessment Strategies

- Classroom Presentation
- Performance Task
- Questions And Answers (oral)

#### Assessment Recording Devices

- Rubric



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- 4s14 A – communicate the procedures and results of investigations for specific purposes and to specific audiences, using media works, oral presentations, written notes and descriptions, drawings, and charts (e.g., prepare a poster illustrating the components of a local habitat; trace a food chain in an illustrated chart, using the sun as the starting point).
- 3e9 • use and spell correctly the vocabulary appropriate for this grade level;
- 4e8 • proofread and correct their final drafts, focusing on grammar, punctuation, and spelling;
- 4e9 • use and spell correctly the vocabulary appropriate for this grade level;
- 4e65 A – present information to their peers in a focused and organized form on a topic of mutual interest;
- 4e66 – listen to others and stay on topic in group discussion;
- 4e67 A – use appropriate strategies to organize and carry out group projects (e.g., brainstorming, summarizing, reporting, giving and following instructions);
- 3e63 A – contribute ideas appropriate to the topic in group discussion and listen to the ideas of others;
- 3e61 A – use appropriate volume, tone of voice, gestures, and stance when speaking, making a presentation, or reading aloud;

## Teaching / Learning

Review subtask 3 on producers and consumers. Explain to students that sunlight is important to all living things. Plants require sun for energy. Refer to a chart on overhead on photosynthesis in order to explain how energy is passed through a food chain and in turn to consumers who eat the plants or producers.

Ask a few students to create a food chain that reflects their dinner (blackboard/chart).

2) Create food chains

- a) Predetermine groups of four students
- b) Provide each group with 15 - 20 blank recipe cards or poster board
- c) Group members write the names of familiar plants and animals on each card
- d) Groups create as many food chains as possible using their plant and animal cards
- e) Paste completed food chains on poster board along with the questions:
  - \* How are plants and animals connected?
  - \* How does energy flow through your food chains?
  - \* List the consumers in your food chains.
- f) The students can present their completed food chains and questions mounted on poster board to the class.



## Life in an Ecosystem

### Plants and Habitat An Integrated Unit for Grade 3/4

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3) Provide students with several incomplete food chains to complete independently.

Example:

plant → mouse → weasel → fox

plant → worm → mole → owl

## Adaptations

All accommodations must take into account the student's Individual Education Plan. All of the tasks and activities are designed to accommodate the needs of students at different levels of abilities. For detailed strategies see number 9 in the Notes to Teacher section of the Unit Overview.

## Resources



**Grade 3 Rubric for Group Work**



**Grade 4 Rubric for Food Chain Presentation**



**Grade 4 Rubric – Food Chain Poster Board**

## Notes to Teacher

## Teacher Reflections

Outline potential changes/improvements you would make to the subtask, or raise questions/concerns for future thought.

Record decisions you wish to pass on in the Subtask Notes; contents of this field are not passed along in the published unit.



## Life in an Ecosystem

### Plants and Habitat An Integrated Unit for Grade 3/4

#### Description

Students consider the special features and characteristics that allow plants and animals to survive in their living space. Through an introductory motivator, the class brainstorms and categorizes several plant and animal adaptations. Next, students work in small groups to illustrate and list the adaptations of their plant or animal. In this subtask, grade grouping is recommended in order that each group benefits from their grade-related focus.

#### Catholic Graduate Expectations:

CGE 4b - demonstrates flexibility and adaptability.

CGE 4c - takes initiative and demonstrates Christian leadership.

CGE 5a - works effectively as an interdependent team member.

#### Expectations

- 3s11 A – explain how different features of plants help them survive (e.g., leaf structure, fibrous or tap root systems).
- 3s16 – record relevant observations, findings, and measurements, using written language, drawings, charts, and graphs (e.g., produce a series of drawings to show a plant at different stages of development);
- 3s17 A – communicate the procedures and results of investigations for specific purposes and to specific audiences, using drawings, demonstrations, simple media works, and oral and written descriptions (e.g., make a graph that shows the number and kinds of trees found in different yards; design and construct a terrarium or garden that reproduces the conditions that they found to be requirements of specific plants).
- 3s9 – identify traits that remain constant in some plants as they grow (e.g., leaf shape, leaf size, flower colour);
- 4s7 A – describe structural adaptations of plants and animals that demonstrate a response of the living things to their environment (e.g., the height of a plant depends on the amount of sunlight the plant gets; many animals that live in the Arctic have white fur);
- 4s8 – recognize that animals and plants live in specific habitats because they are dependent on those habitats and have adapted to them (e.g., ducks live in marshes because they need marsh plants for food and shelter and water for movement);
- 4s10 A – formulate questions about and identify the needs of animals and plants in a particular habitat, and explore possible answers to these questions and ways of meeting these needs (e.g., predict the structural adaptations, such as webbed feet, that help aquatic animals live in water);
- 4s12 A – use appropriate vocabulary, including correct science and technology terminology, in describing their investigations, explorations, and observations (e.g., habitat, population, ecological niche, community, food chain);

#### Groupings

Students Working As A Whole Class  
Students Working In Small Groups

#### Teaching / Learning Strategies

Brainstorming  
Collaborative/cooperative Learning

#### Assessment

Use rubrics, Plant Adaptations and Animal Adaptations to assess students' designs and illustrations. Make sure the students are made aware of the levels of performance before the activity.

Observational Checklists (BLMs 1e and 1f) can also be used at teacher's discretion.

#### Assessment Strategies

Performance Task  
Questions And Answers (oral)  
Observation

#### Assessment Recording Devices

Rubric  
Rating Scale



## Life in an Ecosystem

### Plants and Habitat An Integrated Unit for Grade 3/4

- 4s14 A – communicate the procedures and results of investigations for specific purposes and to specific audiences, using media works, oral presentations, written notes and descriptions, drawings, and charts (e.g., prepare a poster illustrating the components of a local habitat; trace a food chain in an illustrated chart, using the sun as the starting point).
- 4e66 – listen to others and stay on topic in group discussion;
- 4e67 – use appropriate strategies to organize and carry out group projects (e.g., brainstorming, summarizing, reporting, giving and following instructions);
- 4e64 – use appropriate tone of voice and gestures in social and classroom activities;
- 4a31 • produce two- and three-dimensional works of art that communicate ideas (thoughts, feelings, experiences) for specific purposes and to specific audiences;
- 3a22 • produce two- and three-dimensional works of art that communicate ideas (thoughts, feelings, experiences) for specific purposes and to familiar audiences;
- 3s14 A – plan investigations to answer some of these questions or find ways of meeting these needs, and explain the steps involved;
- 3s15 A – use appropriate vocabulary in describing their investigations, explorations, and observations (e.g., stem, pistil, stamen, flower);

## Teaching / Learning

- 1) Introduce the lesson in a combined grade-setting. Begin by asking the students how humans adapt to weather by choosing clothes that best suit our cold or warm environment.
- 2) On chart, put the headings COLD WEATHER and WARM WEATHER. Ask the students to list the special things we do to adapt to our weather (type of clothing). (Adaptations are the special methods or features that help us survive better in our environment.)
- 3) It is recommended the teacher divides the grade 3 and 4 students to continue this subtask.

## GRADE GROUPING

### Grade 3 - Adaptation Exploration - Plants

- 1) Provide students with BLM 5a Plant Adaptations, which outlines the parts of a plant and explains how these provide the necessary adaptations for plant survival.
- 2) Materials needed:
  - magnifying glasses
  - samples of different kinds of plants (e.g., rose, cactus, roots, etc.)



## Life in an Ecosystem

### Plants and Habitat An Integrated Unit for Grade 3/4

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- pictures of different kinds of plants

- a) Allow students a few minutes to investigate the various plant samples and pictures. Remind students to look for special features or traits that might help a plant survive.
- b) Ask students to list (board/chart) the adaptations they observed that help the plant survive.
- c) Provide students with BLM 5b How Plants Adapt in Different Habitats. (Different habitats dictate a plant's adaptation.)
- d) Plant Design: Students work in pairs to design, illustrate, and label a plant that could live in a particular habitat (e.g., cold, dry / warm, wet).
- e) Students use labels to show their plant's adaptations and explain how these adaptations help it survive in its habitat.
- f) Students answer the following questions as part of their plant illustration.
  - \* List all of the adaptations you gave your invented plant.
  - \* Explain how your plant's adaptations help it get what it needs to live.

### Grade 4 - Adaptation Exploration - Animals

Provide students with BLM 5c Animal Adaptations, which outlines the two types of adaptations (structural and behavioural).

Materials needed:

- pictures of animals from magazines, etc.
- books with animal pictures

- a) Allow students a few minutes to investigate the various animal pictures. Remind students to look for the special features that may help an animal survive in its habitat.
- b) Select a couple of animals as an example and have the students list (board/chart) the adaptations that help the animal survive.
- c) Animal Design: Students will work in pairs to design, illustrate, and label an animal that could live in a particular habitat (e.g., Arctic, forest, grassland, etc.).
- e) Students use labels to show their animal's adaptations and explain how these adaptations help it survive in its habitat.
- f) Students answer the following questions as part of their animal illustration.
  - \* List all of the adaptations, you gave your invented animal.
  - \* Explain how your animals adaptations help it get what it needs to live.

### Extension Activity

Language:

Oral/Visual - students present their illustrations and plant/animal designs to the class.

Writing - Camouflage Writing (BLM 5d)

## Adaptations

All accommodations must take into account the student's Individual Education Plan. All of the tasks and activities are designed to accommodate the needs of students at different levels of abilities. For detailed strategies see number 9 in the Notes to Teacher section of the Unit Overview.



## Resources



**Grade 3 Plant Adaptations**



**Grade 4 Animal Adaptations**



**Plant Adaptations**

5a\_Plant Adaptations.cwk



**How Plants Adapt**

5b\_How plants adapt.cwk



**Animal Adaptations**

5c\_Animal Adaptations.cwk



**Camouflage Writing**

5d\_Camouflage writing.cwk



**Camouflage Writing Example**

5dd\_Pencil.cwk



**The Ruth Heller Connection**

Will C. Howell

## Notes to Teacher

### Teacher Reflections

Outline potential changes/improvements you would make to the subtask, or raise questions/concerns for future thought.

Record decisions you wish to pass on in the Subtask Notes; contents of this field are not passed along in the published unit.



## Life in an Ecosystem

### Plants and Habitat An Integrated Unit for Grade 3/4

#### Description

Students learn that all living things are connected to one another and their habitats. They recognize that change is a natural process and that humans are sometimes responsible in creating these negative effects on the environment. Through discussion, students develop ways in which humans can contribute to their community in a positive manner.

#### Catholic Graduate Expectations:

CGE 7a - acts morally and legally as a person formed in Catholic traditions.

CGE 7b - accepts accountability for one's own actions.

CGE 7d - promotes the sacredness of life.

CGE 7h - exercises the rights and responsibilities of Canadian citizenship.

#### Expectations

- 3s19 A – describe ways in which humans can protect natural areas to maintain native plant species (e.g., establishing conservation areas, wildlife reserves, wetland sanctuaries);
- 3s25 – demonstrate awareness of ways of caring for plants properly (e.g., ensure that a plant has sufficient light and water);
- 4s16 A – describe ways in which humans can affect the natural world (e.g., urban development forces some species to go elsewhere and enables other species to multiply too rapidly; conservation areas can be established to protect specific habitats);
- 4s18 – show the effects on plants and animals of the loss of their natural habitat (e.g., nesting sites of ducks may be destroyed when a dam is built);
- 4s19 – investigate ways in which the extinction of a plant or animal species affects the rest of the natural community and humans (e.g., chart the distribution of wolves on a world map and predict the effects if wolves were to become extinct; use a software program that simulates a specific environment to track the effects of the loss of a plant species).
- 3e61 A – use appropriate volume, tone of voice, gestures, and stance when speaking, making a presentation, or reading aloud;
- 3e62 – use pauses and repetition effectively for emphasis in speech;
- 4e64 – use appropriate tone of voice and gestures in social and classroom activities;
- 3e39 – begin to make inferences while reading;
- 3e38 – distinguish between fact and fiction;
- 3e40 – use familiar vocabulary and the context to determine the meaning of a passage containing unfamiliar words;
- 3e41 – begin to develop their own opinions by considering some ideas from various written materials;
- 4e36 – make inferences while reading;
- 4e37 – make judgements about what they read on the basis of evidence;

#### Groupings

- Students Working In Pairs
- Students Working Individually
- Students Working As A Whole Class

#### Teaching / Learning Strategies

- Direct Teaching
- Independent Reading
- Expressing Another Point Of View

#### Assessment

See rubric, human and Natural Effects as well as BLMs 1e and 1f to assess independent and group work.

#### Assessment Strategies

- Performance Task
- Observation
- Classroom Presentation

#### Assessment Recording Devices

- Rubric
- Checklist



## Life in an Ecosystem

### Plants and Habitat An Integrated Unit for Grade 3/4

4e40 – develop their opinions by reading a variety of materials;

## Teaching / Learning

- 1) Group Activity: Ask the student groups to list the ways in which the environment in our neighbourhood may change over the years. Record student responses on chart paper. If possible, have photos on display of the school neighbourhood dating back to what the area was like thirty years ago and a photo of the present day (or use any photos that can be used in a comparative activity). See BLM 6a changes, a chart outlining the natural and human changes to our environment.
- 2) Discuss the changes that have occurred and recorded on BLM 6a.

### Teacher Information

An awareness of the following changes should be evident in their responses:

- Plants and animals grow and adapt to changes in seasons.
- Seeds produced grow in the spring.
- Young trees grow, old trees die.
- Natural areas can be destroyed by disease.
- Humans clear areas for developments that were once homes for plants and animals.
- Industry may produce waste products or create pollution which has an effect on the natural environment.

3) Provide students with a topical article which demonstrates a situation where humans have polluted a natural habitat but have taken responsibility for clean up. Orally recap highlights of the article with students. Or, before the lesson, ask students to find an article that follows the structure above and write a brief summary. Articles can be discussed as a class or in small groups.

4) Students will pair off and discuss ways in which humans can pollute or destroy the environment. Answers can be recorded at teacher's discretion.

5) Share all responses to this activity as a class. Teacher records responses on chart paper. Students share many varied responses from littering to air and water pollution, etc.

6) Create an informal debate setting between small groups of students. Panels should be set up with eight students (four per side).

### Informal Debate

The purpose of the informal debate is to bring about student awareness that humans have specific needs but must take responsibility in order to live in harmony with other living things.

7) Allow the groups time to prepare their arguments.

### Topic idea

\* What do you think would happen if every school adopted a natural environment? Are there natural problems that you could help solve?

## Adaptations

All accommodations must take into account the student's Individual Education Plan. All of the tasks and activities are designed to accommodate the needs of students at different levels of abilities. For detailed strategies see number 9 in the Notes to Teacher section of the Unit Overview.



## Life in an Ecosystem

Plants and Habitat An Integrated Unit for Grade 3/4

### Resources



Grade 3 Human and Natural Effects



Changes

6a\_Changes.cwk

### Notes to Teacher

#### Teacher Reflections

Outline potential changes/improvements you would make to the subtask, or raise questions/concerns for future thought.

Record decisions you wish to pass on in the Subtask Notes; contents of this field are not passed along in the published unit.



## Life in an Ecosystem

### Plants and Habitat An Integrated Unit for Grade 3/4

#### Description

Students work individually to research and create a habitat diorama. Students use the knowledge gained throughout the unit to design the perfect natural habitat for living things. Students demonstrate the interdependence of living things necessary for survival within their habitat display. They present their dioramas and written research to the class in an oral presentation.

Students will receive a written and oral evaluation.

Students will receive an individual grade on:

- diorama display
- written research
- reflection
- oral presentation

There are several blackline masters and rubrics included which can be used to devise and assess the dioramas, written reports, and oral presentations.

#### Catholic Graduate Expectations:

CGE 4a - demonstrates a confident and positive sense of self and respect for the dignity and welfare of others.

CGE 4e - sets appropriate goals and priorities in school, work, and personal life.

CGE 5e - respects the rights, responsibilities, and contributions of self and others.

#### Expectations

- 3s6 – describe, using their observations, the changes that plants undergo in a complete life cycle (e.g., from the germination of a seed to the production of flowers or fruit);
- 3s11 – explain how different features of plants help them survive (e.g., leaf structure, fibrous or tap root systems).
- 3s15 – use appropriate vocabulary in describing their investigations, explorations, and observations (e.g., stem, pistil, stamen, flower);
- 3s16 – record relevant observations, findings, and measurements, using written language, drawings, charts, and graphs (e.g., produce a series of drawings to show a plant at different stages of development);
- 3s17 – communicate the procedures and results of investigations for specific purposes and to specific audiences, using drawings, demonstrations, simple media works, and oral and written descriptions (e.g., make a graph that shows the number and kinds of trees found in different yards; design and construct a terrarium or garden that reproduces the conditions that they found to be requirements of specific plants).
- 3s23 – describe ways in which plants and animals depend on each other (e.g., plants provide food for energy, and animals help distribute pollen and seeds);
- 3s24 – compare the requirements of some plants and animals, and identify the requirements that are common to all living things (e.g., the need for water and minerals);

#### Groupings

Students Working Individually

#### Teaching / Learning Strategies

Inquiry  
Note-making  
Research

#### Assessment

The following have been included for assessment:

Diorama Checklist (BLM 7k)  
Oral Presentation Checklist (BLM 7 h)  
Peer Assessment (BLM 7i)

BLM 7e Design a Habitat Reflection should also be included for assessment purposes.

#### Assessment Strategies

Classroom Presentation  
Response Journal  
Essay

#### Assessment Recording Devices



## Life in an Ecosystem

### Plants and Habitat An Integrated Unit for Grade 3/4

- 4s4 – identify, through observation, various factors that affect plants and animals in a specific habitat (e.g., availability of water, food sources, light; ground features; weather conditions);
- 4s6 – demonstrate an understanding of a food chain as a system in which energy from the sun is transferred eventually to animals, construct food chains of different plant and animal species (e.g., carrot -> rabbit -> fox), and classify animals as omnivore, carnivore, and herbivore;
- 4s7 – describe structural adaptations of plants and animals that demonstrate a response of the living things to their environment (e.g., the height of a plant depends on the amount of sunlight the plant gets; many animals that live in the Arctic have white fur);
- 4s8 – recognize that animals and plants live in specific habitats because they are dependent on those habitats and have adapted to them (e.g., ducks live in marshes because they need marsh plants for food and shelter and water for movement);
- 4s12 – use appropriate vocabulary, including correct science and technology terminology, in describing their investigations, explorations, and observations (e.g., habitat, population, ecological niche, community, food chain);
- 4s14 – communicate the procedures and results of investigations for specific purposes and to specific audiences, using media works, oral presentations, written notes and descriptions, drawings, and charts (e.g., prepare a poster illustrating the components of a local habitat; trace a food chain in an illustrated chart, using the sun as the starting point).
- 4s17 – construct food chains that include different plant and animal species and humans (e.g., grass -> cattle -> humans);
- 4e20 – introduce vocabulary from other subject areas into their writing;
- 4e26 – print legibly and use cursive writing.
- 4e1 • communicate ideas and information for a variety of purposes and to specific audiences (e.g., write a brief research report on a class investigation for classmates);
- 4e5 • produce pieces of writing using a variety of specific forms (e.g., humorous story) and materials from other media (e.g., photo sequence) to enhance their writing;

## Teaching / Learning

The culminating task can be assigned at the beginning of the unit but is probably best introduced near the end of the unit as it better serves to underline the skills and knowledge presented throughout the unit.

Introduce the culminating task to the class and use the blackline masters listed below to explain and reinforce the nature of the assignment and student expectations.

### 1) Written Research

- Students will begin by choosing or being assigned a habitat (e.g., forest, grassland, pond, desert, or Arctic).
- Students will choose either a plant (grade 3) or an animal (grade 4) that will be a part of their habitat diorama



## Life in an Ecosystem

### Plants and Habitat An Integrated Unit for Grade 3/4

display.

- Using the outline provided on BLM 7a Design a Habitat - Science Project, students will answer the questions in paragraph form. The answers/research should be either a minimum of 1.5 pages but no longer than 2 pages, or at the teacher's discretion.

Through written research, students will identify the various characteristics of the plant or animal in their habitat diorama. Similarly, they will explain how plants and animals depend on one another to get what they need to survive. BLM 7b Writing a Report can be used to assist students begin their research.

#### 2) Diorama Display

- Provide students with BLM 7c My Habitat Diorama and BLM 7d Design a Diorama Project Planner. Go over these two blackline masters with students so that, they will understand the basic components of a diorama display and how to go about designing and constructing their diorama.

#### 3) Reflection

- Provide students with BLM 7e Diorama Display Project - Reflection. Students will use the reflection to think back on the process of research and design, as well as their final results.

#### 4) Oral Presentation

Arrange for students' culminating tasks to be presented to the class. Students will be responsible for presenting their written research and dioramas to the class in an oral presentation.

#### 5) Presentation

The written research and reflection can be presented in a duotang format or research can be mounted on poster for display purposes.

#### 6) Evaluation

Several rubrics have been included which can be used for assessment purposes. Assignment of Marks has also been provided and can be used at the teacher's discretion.

## Adaptations

All accommodations must take into account the student's Individual Education Plan. All of the tasks and activities are designed to accommodate the needs of students at different levels of abilities. For detailed strategies see number 9 in the Notes to Teacher section of the Unit Overview.

## Resources



**Design a Habitat**

7a\_Newsletter project.cwk



**Writing a Report**

7b\_Writing a Report.cwk



**My Habitat Diorama**

7c\_My habitat diorama.cwk

**Life in an Ecosystem****Plants and Habitat An Integrated Unit for Grade 3/4**

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**Project Planner**

7d\_Project planner.cwk

**Diorama Display Project - Reflection**

7e\_Reflection.cwk

**Diorama Criteria**

7h\_Diorama rubric.cwk

**Oral Presentation Criteria**

7i\_Oral rubric.cwk

**Notes to Teacher****Teacher Reflections**

Outline potential changes/improvements you would make to the subtask, or raise questions/concerns for future thought.

Record decisions you wish to pass on in the Subtask Notes; contents of this field are not passed along in the published unit.



# **Appendices**

## **Life in an Ecosystem**

### **Plants and Habitat**

**Resource List:**  
**Blackline Masters:**  
**Rubrics:**  
**Unit Expectation List and Expectation Summary:**  
**Unit Analysis:**



# Life in an Ecosystem

## Plants and Habitat An Integrated Unit for Grade 3/4



### Rubric

- Grade 3 Human and Natural Effects** ST 6  
3  
Note: Teachers should consider this rubric as a framework. Criteria column should reflect the task assigned to assist students to meet learning expectations.
- Grade 3 Plant Adaptations** ST 5  
3  
Note: Teachers should consider this rubric as a framework. Criteria column should reflect the task assigned to assist students to meet learning expectations.
- Grade 3 Rubric for Group Work** ST 4  
3  
Note: Teachers should consider this rubric as a framework. Criteria column should reflect the task assigned to assist students to meet learning expectations.
- Grade 4 Animal Adaptations** ST 5  
3  
Note: Teachers should consider this rubric as a framework. Criteria column should reflect the task assigned to assist students to meet learning expectations.
- Grade 4 Rubric – Food Chain Poster Board** ST 4  
3  
Note: Teachers should consider this as a framework. Criteria column should reflect the task assigned to assist students to meet learning expectations.
- Grade 4 Rubric for Food Chain Presentation** ST 4  
3  
Note: Teachers should consider this rubric as a framework. Criteria column should reflect the task assigned to assist students to meet learning expectations.



### Blackline Master / File

- Animal Adaptations** ST 5  
5c\_Animal Adaptations.cwk  
Student note
- Camouflage Writing** ST 5  
5d\_Camouflage writing.cwk  
Writing Activity
- Camouflage Writing Example** ST 5  
5dd\_Pencil.cwk  
Example of writing style to share with students
- Changes** ST 6  
6a\_Changes.cwk  
Student chart
- Cloze Activity: Producers and Consumers** ST 3  
3c\_Prod Con cloze.cwk  
Cloze note
- Design a Habitat** ST 7  
7a\_Newsletter project.cwk  
Student project letter
- Diorama Criteria** ST 7  
7h\_Diorama rubric.cwk  
Diorama checklist
- Diorama Display Project - Reflection** ST 7  
7e\_Reflection.cwk  
Student reflection sheet
- Food Intake: What I Ate Yesterday** ST 3  
3a\_What I ate.cwk  
Chart
- Group Observation Sheet** ST 1  
1f\_Group Observation Check.cwk  
Teacher Checklist
- Habitat** ST 1  
1c\_Habitat.cwk  
note
- Habitat Answers** ST 1  
1d\_Habitat.cwk  
answer sheet
- How Plants Adapt** ST 5  
5b\_How plants adapt.cwk  
Student note
- Interdependence** ST 2  
2c\_Interdependence.cwk  
Experiment form
- Living Things** ST 1  
1a\_Living Things.cwk  
Graphic organizer



# Life in an Ecosystem

## Plants and Habitat An Integrated Unit for Grade 3/4

<input type="checkbox"/> <b>My Habitat Diorama</b> 7c_My habitat diorama.cwk Student guidelines for designing diorama	ST 7		<b>Print</b>	
<input type="checkbox"/> <b>Observation Checklist</b> 1b_Recording Form.cwk Recording Checklist	ST 1			
<input type="checkbox"/> <b>Observation Sheet</b> 1e_Observation Check.cwk Teacher Sheet	ST 1			
<input type="checkbox"/> <b>Oral Presentation Criteria</b> 7i_Oral rubric.cwk Oral Presentation Checklist	ST 7			
<input type="checkbox"/> <b>Parent Letter</b> 1_Parent letter.cwk Intro letter	ST 1			
<input type="checkbox"/> <b>Plant Adaptations</b> 5a_Plant Adaptations.cwk Student note	ST 5			
<input type="checkbox"/> <b>Producer or Consumer</b> 3b_prod con picture.cwk Circle corresponding pictures	ST 3			
<input type="checkbox"/> <b>Project Planner</b> 7d_Project planner.cwk Outline for project	ST 7			
<input type="checkbox"/> <b>Venn Diagram</b> 2a_Venn Diagram.cwk Plants and Animals	ST 2			
<input type="checkbox"/> <b>Writing a Report</b> 7b_Writing a Report.cwk Student note	ST 7			
		<input type="checkbox"/> <b>Exploring Science Through Literature</b>		<b>Unit</b>
		Jo Ellen Moore and Thomas Camilli 1-55799-203-7 Science resource manual		
		<input type="checkbox"/> <b>Focus on Science</b>		<b>Unit</b>
		Frank J. Flanagan, Alexander Teliatnik, and Jack H. Christopher 0-669-95066-1 Science text.		
		<input type="checkbox"/> <b>Habitat</b>		<b>Unit</b>
		Steve Campbell, Douglas Hayhoe, Doug Herridge, Lionel Sandner, Jim Weise, Beverly Williams and Ricki Wortzman 0-201-61406-5		
		<input type="checkbox"/> <b>Hands on Science Activities</b>		<b>Unit</b>
		Christine Economos 0-8167-2591-8 Science Resouce manual		
		<input type="checkbox"/> <b>Innovations in Science</b>		<b>Unit</b>
		Mary Johns and Ron Mutton 0-03-922273-x Science text.		
		<input type="checkbox"/> <b>Innovations in Science</b>		<b>Unit</b>
		Valerie Steif and Peter Williams 0-03-922274-8 Science text.		
		<input type="checkbox"/> <b>Innovations in Science</b>		<b>Unit</b>
		Dennis Cooke and Barbara Purkis 0-03-922276-4 Science text.		
		<input type="checkbox"/> <b>Plant Growth</b>		<b>Unit</b>
		Doug Herridge 0-201-64976-4 Science and technology text.		
		<input type="checkbox"/> <b>Plants</b>		<b>Unit</b>
		Sandra Ford Grove and Dr. Judi Hechtman 1-57471-164-4 Science resouce manual.		
		<input type="checkbox"/> <b>Science Everywhere</b>		<b>Unit</b>
		Les Asselstine and Rod Peturson 0-7747-0557-4 Science text.		
		<input type="checkbox"/> <b>The Ruth Heller Connection</b>		<b>ST 5</b>
		Will C. Howell 0-8224-1635-2 A Resource book highlighting various language skills and parts of speech.		

Name: \_\_\_\_\_

## LIVING THINGS

List the living things you would find in the following places.

**FOREST:**

**POND:**

**DESERT:**

**MEADOW:**

**OCEAN:**

## OBSERVATION CHECKLIST

Use the following guidelines to assist you in your observations:

- \* locate your observational space;
- \* take a few minutes to experience and observe your surroundings;
- \* use the chart below to record your findings;
- \* one partner records observations in written form and the other partner illustrates your findings;
- \* when you return to class, compare your chart with you classmates.

### LIVING THINGS AND SPACES

#### RECORDING FORM

<b>WHAT I OBSERVED</b>	<b>WHAT IT LOOKED LIKE</b>
-	-
-	-
-	-
-	-
-	-

# HABITAT

The place where an organism \_\_\_\_\_ and where you expect to find it is called \_\_\_\_\_. \_\_\_\_\_ and \_\_\_\_\_ find all the different things they need to survive in their habitats.

\* The habitat of a fox is in the burrow it digs under the roots of a tree.

\* The habitat of a cactus is in the dry, hot desert.

\* The habitat of a humpback whale is in the open ocean.

The group of plants and animals that live in a habitat form a \_\_\_\_\_. Populations that live together and influence one another are called \_\_\_\_\_. Habitats provide \_\_\_\_\_ for communities of \_\_\_\_\_.

The community of \_\_\_\_\_ and \_\_\_\_\_ things form an \_\_\_\_\_. An ecosystem can include a number of habitats, both small and large.



**Word Bank:**

- |             |         |               |
|-------------|---------|---------------|
| plants      | habitat | ecosystem     |
| shelter     | living  | community     |
| non-living  | animals | living things |
| communities | lives   |               |

## HABITAT - ANSWERS

The place where an organism lives and where you expect to find it is called habitat . Plants and animals find all the different things they need to survive in their habitat.

- \* The habitat of a fox is in the burrow it digs under the roots of a tree.
- \* The habitat of a cactus is in the dry, hot desert.
- \* The habitat of a humpback whale is in the open ocean.

The group of plants and animals that live in a habitat form a community . Populations that live together and influence one another are called communities . Habitats provide shelter for communities of living things .

The community of living and non-living things form an ecosystem . An ecosystem can include a number of habitats, both small and large.

~~~~~

### Word Bank:

|             |         |               |
|-------------|---------|---------------|
| plants      | habitat | ecosystem     |
| shelter     | living  | community     |
| non-living  | animals | living things |
| communities | lives   |               |

# OBSERVATION SHEET

BLM 1e

| <b>Criteria</b>                                                          | <b>Comments</b> |
|--------------------------------------------------------------------------|-----------------|
| 1) Participates in class and group activities.                           |                 |
| 2) Uses equipment, evidence, and discussion to gather information.       |                 |
| 3) Integrates learning from various subjects and areas.                  |                 |
| 4) Demonstrates creativity in assessing information and ideas.           |                 |
| 5) Effectively interprets and synthesizes information.                   |                 |
| 6) Carries out the plan.                                                 |                 |
| 7) Organizes time effectively.                                           |                 |
| 8) Solves problems independently.                                        |                 |
| 9) Works well without supervision and follows routines and instructions. |                 |
| 10) Generates questions for further inquiry.                             |                 |

## GROUP OBSERVATION SHEET

| <b>Criteria</b>                                                      | <b>Comments</b> |
|----------------------------------------------------------------------|-----------------|
| 1) Willingly works with others and participates in group activities. |                 |
| 2) Accepts various roles within a group, including leadership.       |                 |
| 3) Communicates well with group members.                             |                 |
| 4) Takes responsibility for own share of work to be done.            |                 |
| 5) Demonstrates creativity in assessing information and ideas.       |                 |
| 6) Listens to, acknowledges, and considers differing opinions.       |                 |
| 7) Seeks positive resolutions to conflicts.                          |                 |
| 8) Seeks consensus before making decisions.                          |                 |
| 9) Works well without supervision and follows routines.              |                 |

Date: \_\_\_\_\_

Dear Parents / Guardians,

Your child will be studying plants and habitat for the next few weeks in science. The unit, "Life in an Ecosystem" will help your child gain an understanding of the interdependence of plants and animals in their habitat.

You can help motivate your child's interest in the topic by:

- \* visiting the library and helping your child find books about plant and animal habitats;
- \* gathering information from computer resources (CD Roms and Internet);
- \* viewing educational videos;
- \* asking your child to share what he/she has learned at school.

At the end of the unit, your child will be working on a research and diorama project. To facilitate the understanding of the unit concepts and skills, a field trip to \_\_\_\_\_ has been planned. Further information regarding the trip and research project will follow.

Your suggestions and support are appreciated during this unit of study.

Sincerely,

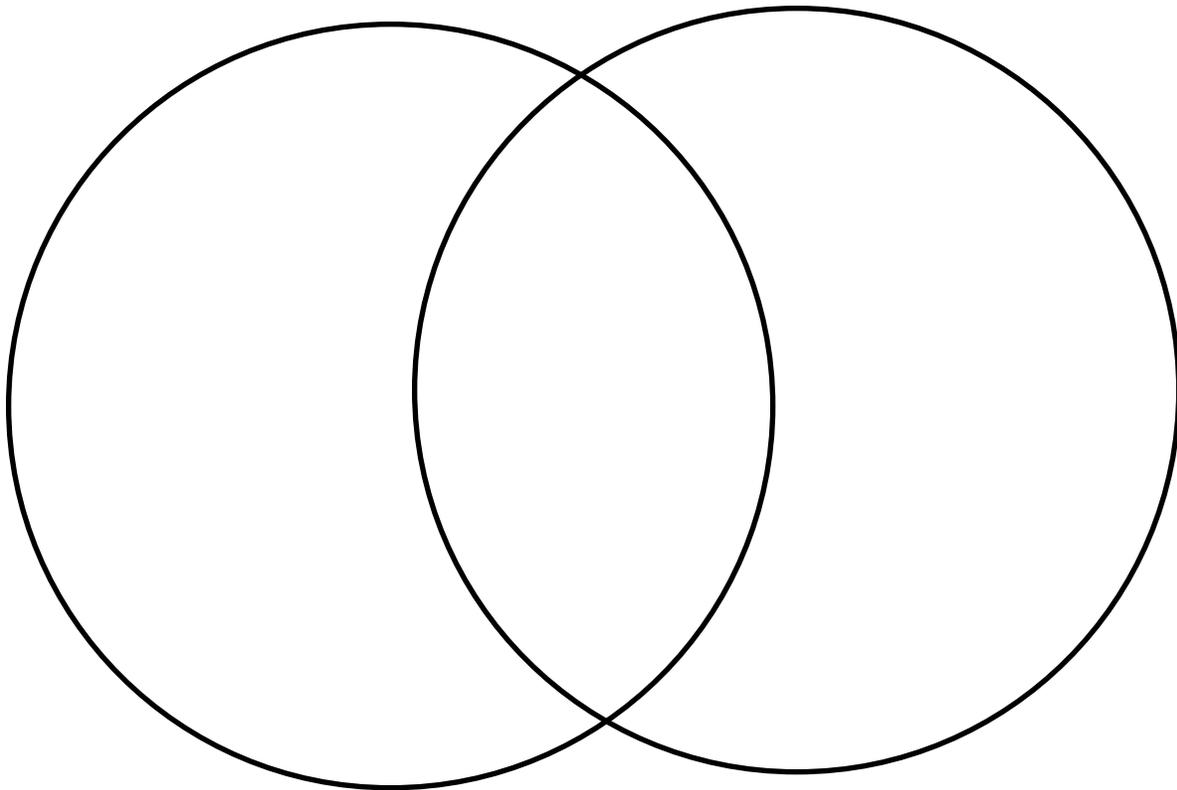
Name: \_\_\_\_\_

## BASIC NEEDS OF PLANTS AND ANIMALS

### VENN DIAGRAM

PLANTS

ANIMALS



**INTERDEPENDENCE OF PLANTS AND ANIMALS**  
**INVESTIGATION**

Materials needed: burrs, magnifying lenses, tweezers, thin rubber gloves.  
As a group examine a burr under a lens and draw what you see.



Take tweezers, open up the burr, and record what you see.

---

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Discuss within your group how an animal might help the plant that produces the burr.

---

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---

Brainstorm and record ways in which animals help plants.

---

---

---

---

Name: \_\_\_\_\_

**WHAT I ATE YESTERDAY**

**FOOD INTAKE**

**FOOD from PLANTS**

**FOOD from ANIMALS**

|  |  |
|--|--|
|  |  |
|--|--|

Name: \_\_\_\_\_

## **PRODUCER OR CONSUMER?**

**Producer: Plants take energy from the sun and through the process of photosynthesis create their own food.**

**Consumer: Animals get food energy by eating or consuming other living things.**

---

Find or draw pictures of producers and consumers.

Producers

Consumers

Name: \_\_\_\_\_

### Producers and Consumers

Plants are called \_\_\_\_\_ because they produce their own food. They use the sun's energy in a process called \_\_\_\_\_ to produce food. Animals are called \_\_\_\_\_. Animals get their energy from eating other living things. There are three types of consumers \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

The deer is a \_\_\_\_\_. The deer eats only plants. The raccoon is an example of a \_\_\_\_\_ because it eats both plants and animals. The third group is the \_\_\_\_\_. This group eats other animals. The food relationship between plants and animals is a very important connection.

---

#### WORD BANK

omnivore

producer

carnivore

photosynthesis

consumer

herbivore

carnivore

herbivore

omnivore

## PLANT ADAPTATIONS

Plants, like humans, have adaptations for surviving in their habitats. Many kinds of plants share 3 main types of adaptations. The adaptations include leaves, stem, and roots. These adaptations let plants get the sunlight, water, and nutrients they need.

Plants require sunlight to make the food they need to survive. Leaves are their adaptation for collecting sunlight and making food.

Stems are adaptations that give plants support so they stand up. The stem serves as a “pipeline” which carries the water and nutrients to the leaves and food to the rest of the plant.

Roots are adaptations that help hold the plant in place. The roots collect water and nutrients from the soil. The roots send the nutrients to the stems and leaves.

Name: \_\_\_\_\_

**HOW PLANTS ADAPT IN DIFFERENT HABITATS**

Plants are found in many different habitats. Therefore, a plant's main parts are adapted differently, depending on its habitat.

Dry habitat: - roots spread over a large area

- a large stem enables the plant to store water and nutrients for a long period of time

Wet Habitat: - small root system

- no difficulty in getting water

Cold/Windy Habitat: - stem grows low to the ground

- effects of cold and wind are less severe to the plant

## ANIMAL ADAPTATIONS

There are many different features that help living things survive in their habitats. They are divided into two main groups: structural and behavioural adaptations.

Structural adaptations are the parts of the body that help animals survive in their habitats. Fur, eyes, ears, teeth, paws, legs, tails, and noses are all examples of structural adaptations.

Behavioural adaptations are the ways in which animals act or behave to help them survive in their habitats. Shivering to stay warm, making a particular sound, or attracting mates are all examples of behavioural adaptations.

Adaptations are one of the reason living things are found in some habitats and not in others. Can you think of any animals whose adaptations allow it to survive in one particular habitat?

## **CAMOUFLAGE WRITING**

This writing activity provides students with an opportunity to enhance their descriptive writing skills. The writer tells about a person, place, or object without revealing its identity. Suggest that the students think of someone or something in the room, a person, or place in their reading books. Encourage students to make a list of their subjects attributes. Students use this list to write a descriptive paragraph(s) about their subject.

Remind writers to begin with the most subtle descriptions and save the most obvious for the end of the story. Ask students to share their writing with the class. Challenge the class to identify the subject.

## Camouflage Writing

Example:

Standing alone against a far wall, little and gray, I might appear unimportant and unimpressive to all of you. You laugh at my bloated stomach and my strange appetite for wood. Still, I notice that you cannot resist my one crooked arm. None of you can keep from touching it and twirling it. Chuckle as you may about my unusual diet, all of you like to feed me. I have noticed that some of you have sampled my food for yourselves! For some of you, your fascination goes beyond my eating habits. Besides testing how quickly I can grind up my food, you often feel the need to examine the contents of my stomach before emptying it. Yes, you ignore me hanging over here out of the way until your curiosity gets the best of you. Or until you need a sharper pencil.



**DESIGN A HABITAT - SCIENCE TECHNOLOGY PROJECT****Project due date:**

Date:

Dear Parents / Guardians,

As we prepare to conclude our unit “Life in an Ecosystem,” the students will be working on a research and diorama display project. The project will allow your child to use and build on what they have learned about the interdependence of plants and animals to research a plant (grade 3) or animal (grade 4) and create a diorama displaying its habitat.

Your child will choose one of the following habitats; grassland, forest, pond, desert, or Arctic, and design and build a diorama display based on the living things which would be found in this particular habitat. Similarly, your child will select a plant (grade 3) or animal (grade 4) found in his/her diorama display and complete research based on the criteria listed on the next page. An oral presentation of the research and dioramas will be presented \_\_\_\_\_.

We have discussed this project in class and appreciate your support.

Sincerely,

**DESIGN A HABITAT - SCIENCE TECHNOLOGY PROJECT**

1) Select a plant found in your habitat diorama and answer the following questions.

PLANT: \_\_\_\_\_

**Plant****Physical Characteristics**

- a) What colour is your plant?
- b) Height:
- c) List all of its adaptations.

**Habitat**

- a) In what places does your plant grow?
- b) Does your plant grow near humans?

**Life Cycle**

- a) What are the stages of your plant's life cycle?
- b) Draw a picture of your plant's life cycle.
- c) What does your plant need to survive in its habitat?

**2) Diorama questions**

- a) What other living things does your habitat include (producers / consumers)?
- b) List at least two food chains that exist in your diorama.

3) How do the plants and animals in your habitat depend on one another to get what they need?

Your answer (research) should be a minimum of 1.5 pages and no more than 2.

4) Create your habitat diorama.

5) Reflection

6) Oral presentation

**DESIGN A HABITAT - SCIENCE TECHNOLOGY PROJECT**

1) Select an animal found in your habitat diorama and answer the following questions.

ANIMAL: \_\_\_\_\_

**Animal****Physical Characteristics**

- a) What colour is the animal?
- b) Height / weight:
- c) Lists all of its adaptations.

**Habitat**

- a) What places can you find an animal like this?
- b) Does the animal live near humans?

**Food**

- a) Is the animal a herbivore, carnivore, or omnivore?
- b) How does the animal get its food?
- c) Does the animal hunt in packs or by itself?

**2) Diorama questions**

- a) What other living things does your habitat include (producers / consumers)?
- b) List at least two food chains that exist in your diorama.

3) How do the plants and animals in your habitat depend on one another to get what they need?

Your answer (research) should be a minimum of 1.5 pages and no more than 2.

4) Create your habitat diorama.

5) Reflection

6) Oral Presentation

# WRITING A REPORT

## Research Reporting

Research means reading and learning about new things and then sharing that new knowledge with others. Here are a few tips to get started:

### **1. PLAN**

Learn about your topic.

Gather the important facts.

Find sources of information.

\* library            \*CD ROMS\* Internet

### **2. WRITE**

Use your list of important facts to help you write. Choose the facts that are important

and answer the questions your research is asking.

### **3. REVISE**

Read it aloud. Does it sound right? Has all your information been tied together?

Make changes.

### **4. CHECK**

Capitals, punctuation, and spelling.

### **5. PUBLISH**

Make a neat copy. Add pictures, photos, or drawings.

# MY HABITAT DIORAMA

A DIORAMA is a fun and creative way of giving information about a book, a person, or a scene from real life. After you chose a habitat for your written research, you will be recreating a habitat where plants and animals “co-exist.”

## MATERIALS

- \* shoe box
- \* construction paper
- \* cardboard
- \* pebbles, twigs, or other objects to make scenery
- \* foil
- \* modelling clay
- \* craft sticks
- \* cotton batting
- \* plastic or homemade figurines of plants or animals
- \* glue
- \* sand
- \* crayons, colour pencils, or markers

## DIRECTIONS

- 1) Think about the habitat you want to create and sketch your ideas on paper.
- 2) Cover the inside and outside of the shoebox with different colours of paper.
- 3) Include as many details of your habitat as possible. Be creative!

**DESIGN A DIORAMA - PROJECT PLANNER**

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**HABITAT:**

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**WHAT LIVING THINGS WILL I INCLUDE IN MY DIORAMA - PRODUCERS/  
CONSUMERS?**

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**BRAINSTORMING IDEAS:**

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**MATERIALS LIST:**

---

**A PLAN FOR MY DIORAMA: WHAT WILL MY DIORAMA SHOW?**

**PICTURE:**

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**CONSTRUCTION STEPS:**

- 1)
  - 2)
  - 3)
  - 4)
  - 5)
  - 6)
- 

**PROJECT DUE DATE:**

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**ORAL PRESENTATION DATE:**

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**COMMENTS:**

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## DIORAMA DISPLAY PROJECT - REFLECTION

1) Write about 3 new things you learned while working on your research topic.

\*

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\*

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\*

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2) What activity did you enjoy most? Why?

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3) What did you find as the most challenging part of the project? Why?

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4) Other comments:

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## DIORAMA CRITERIA

| Criteria                                                                                                                                                                                                 | Comments |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| <ul style="list-style-type: none"><li>• The diorama is:<ul style="list-style-type: none"><li>- original,</li><li>- visually appealing,</li><li>- well-constructed.</li></ul></li></ul>                   |          |
| <ul style="list-style-type: none"><li>• The background drawings and stand-up figures convey important information about the subject (e.g., appearance, food, and shelter) and its environment.</li></ul> |          |

## ORAL PRESENTATION CRITERIA

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Subject: \_\_\_\_\_

### **LEVEL 4**

- \* The subject is clearly addressed;
- \* Speech is loud enough;
- \* Does not read notes;
- \* Visual aid(s) used effectively; and
- \* Well-organized.

### **LEVEL 3**

- \* Subject is addressed adequately;
- \* Speech has appropriate volume;
- \* Some reliance on notes;
- \* Visual aid(s) used intermittently; and
- \* Good organization.

### **LEVEL 2**

- \* Subject is addressed adequately;
- \* Speech volume is erratic;
- \* Read notes for the majority of the presentation;
- \* Visual aid(s) do(es) not enhance speech; and
- \* Speech gets “off track” in places.

### **LEVEL 1**

- \* Speech needs more explanation;
- \* Speech is difficult to hear;
- \* Reads notes;
- \* Poor visual aid(s); and
- \* Lack of organization.

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**General Comments (strengths and areas for improvement):**

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**Grade 3 Rubric for Group Work**  
**for use with Subtask 4 : Food Chains**  
 from the Grade 3/4 Unit: **Life in an Ecosystem**



Student Name: \_\_\_\_\_  
 Date: \_\_\_\_\_

**Expectations for this Subtask to Assess with this Rubric:**

- 3e63** – contribute ideas appropriate to the topic in group discussion and listen to the ideas of others;
- 3s16** – record relevant observations, findings, and measurements, using written language, drawings, charts, and graphs (e.g., produce a series of drawings to show a plant at different stages of development);

| Category/Criteria    | Level 1                                                                                                                                                               | Level 2                                                                                                                                                                      | Level 3                                                                                                                                       | Level 4                                                                                                                                                                       |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reasoning</b>     | <ul style="list-style-type: none"> <li>– using a few simple ideas</li> <li>– inconsistently and with limited understanding</li> </ul>                                 | <ul style="list-style-type: none"> <li>– using a variety of simple and related ideas</li> <li>– consistently and with limited understanding</li> </ul>                       | <ul style="list-style-type: none"> <li>– using ideas of some complexity</li> <li>– consistently and with general understanding</li> </ul>     | <ul style="list-style-type: none"> <li>– using complex ideas</li> <li>– consistently and with thorough understanding</li> </ul>                                               |
| <b>Communication</b> | <ul style="list-style-type: none"> <li>– limited clarity</li> <li>– for a limited range of simple purposes</li> <li>– with a limited range of simple forms</li> </ul> | <ul style="list-style-type: none"> <li>– with some clarity and some precision</li> <li>– for a variety of simple purposes</li> <li>– with several different forms</li> </ul> | <ul style="list-style-type: none"> <li>– clearly and precisely</li> <li>– for specific purposes</li> <li>– with a variety of forms</li> </ul> | <ul style="list-style-type: none"> <li>– clearly, precisely, and confidently</li> <li>– for a wide variety of purposes and in a wide variety of contexts</li> </ul>           |
| <b>Organization</b>  | <ul style="list-style-type: none"> <li>- shows limited organization and logic</li> <li>– for a limited range of simple purposes</li> </ul>                            | <ul style="list-style-type: none"> <li>– shows some organization and logic</li> <li>– for a variety of simple purposes</li> </ul>                                            | <ul style="list-style-type: none"> <li>- shows considerable organization and logic</li> <li>– for specific purposes</li> </ul>                | <ul style="list-style-type: none"> <li>- shows a high degree of organization and logic</li> <li>– for a wide variety of purposes and in a wide variety of contexts</li> </ul> |

**Grade 4 Rubric for Food Chain Presentation**  
**for use with Subtask 4 : Food Chains**  
 from the Grade 3/4 Unit: **Life in an Ecosystem**



Student Name: \_\_\_\_\_  
 Date: \_\_\_\_\_

**Expectations for this Subtask to Assess with this Rubric:**

- 4e65** – present information to their peers in a focused and organized form on a topic of mutual interest;
- 4s6** – demonstrate an understanding of a food chain as a system in which energy from the sun is transferred eventually to animals, construct food chains of different plant and animal species (e.g., carrot -> rabbit -> fox), and classify animals as omnivore, carnivore, and herbivore;

| Category/Criteria                          | Level 1                                                                                                                                                                                                                            | Level 2                                                                                                                                                                                            | Level 3                                                                                                                                                                                                                       | Level 4                                                                                                                                                                                                           |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Communication</b>                       | <ul style="list-style-type: none"> <li>– limited clarity</li> <li>– for a limited range of simple purposes</li> <li>– with a limited range of simple forms</li> </ul>                                                              | <ul style="list-style-type: none"> <li>– with some clarity and some precision</li> <li>– for a variety of simple purposes</li> <li>– with several different forms</li> </ul>                       | <ul style="list-style-type: none"> <li>– clearly and precisely</li> <li>– for specific purposes</li> <li>– with a variety of forms</li> </ul>                                                                                 | <ul style="list-style-type: none"> <li>– clearly, precisely, and confidently</li> <li>– for a wide variety of purposes and in a wide variety of contexts</li> <li>– with a wide range of complex forms</li> </ul> |
| <b>Communication of required knowledge</b> | <ul style="list-style-type: none"> <li>– communicates with little clarity and precision</li> <li>– rarely uses appropriate science and technology terminology and units of measurement</li> </ul>                                  | <ul style="list-style-type: none"> <li>– communicates with some clarity and precision</li> <li>– sometimes uses appropriate science and technology terminology and units of measurement</li> </ul> | <ul style="list-style-type: none"> <li>– generally communicates with clarity and precision</li> <li>– usually uses appropriate science and technology terminology and units of measurement</li> </ul>                         | <ul style="list-style-type: none"> <li>– consistently communicates with clarity and precision</li> <li>– consistently uses appropriate science and technology terminology and units of measurement</li> </ul>     |
| <b>Understanding of basic concepts</b>     | <ul style="list-style-type: none"> <li>– shows understanding of few of the basic concepts</li> <li>– demonstrates significant misconception</li> <li>– gives explanations showing limited understanding of the concepts</li> </ul> | <ul style="list-style-type: none"> <li>– shows understanding of some of the basic concepts</li> <li>– demonstrates minor misconceptions</li> <li>– gives partial explanations</li> </ul>           | <ul style="list-style-type: none"> <li>– shows understanding of most of the basic concepts</li> <li>– demonstrates no significant misconceptions</li> <li>– usually gives complete or nearly complete explanations</li> </ul> | <ul style="list-style-type: none"> <li>– shows understanding of all of the basic concepts</li> <li>– demonstrates no misconceptions</li> <li>– always gives complete explanations</li> </ul>                      |

**Grade 4 Rubric – Food Chain Poster Board**  
**for use with Subtask 4 : Food Chains**  
 from the Grade 3/4 Unit: **Life in an Ecosystem**



Student Name: \_\_\_\_\_  
 Date: \_\_\_\_\_

**Expectations for this Subtask to Assess with this Rubric:**

- 4s5** – classify organisms according to their role in a food chain (e.g., producer, consumer);
- 4s17** – construct food chains that include different plant and animal species and humans (e.g., grass -> cattle -> humans);

| <b>Category/Criteria</b>                                                                    | <b>Level 1</b>                                                                                                                                                                                                                                                         | <b>Level 2</b>                                                                                                                                                                                                                                                     | <b>Level 3</b>                                                                                                                                                                                                                                           | <b>Level 4</b>                                                                                                                                                                                                                                                                                          |
|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Understanding of basic concepts</b>                                                      | <ul style="list-style-type: none"> <li>– shows understanding of few of the basic concepts</li> <li>– demonstrates significant misconception</li> <li>– gives explanations showing limited understanding of the concepts</li> </ul>                                     | <ul style="list-style-type: none"> <li>– shows understanding of some of the basic concepts</li> <li>– demonstrates minor misconceptions</li> <li>– gives partial explanations</li> </ul>                                                                           | <ul style="list-style-type: none"> <li>– shows understanding of most of the basic concepts</li> <li>– demonstrates no significant misconceptions</li> <li>– usually gives complete or nearly complete explanations</li> </ul>                            | <ul style="list-style-type: none"> <li>– shows understanding of all of the basic concepts</li> <li>– demonstrates no misconceptions</li> <li>– always gives complete explanations</li> </ul>                                                                                                            |
| <b>Communication of required knowledge</b>                                                  | <ul style="list-style-type: none"> <li>– communicates with little clarity and precision</li> <li>– rarely uses appropriate science and technology terminology and units of measurement</li> </ul>                                                                      | <ul style="list-style-type: none"> <li>– communicates with some clarity and precision</li> <li>– sometimes uses appropriate science and technology terminology and units of measurement</li> </ul>                                                                 | <ul style="list-style-type: none"> <li>– generally communicates with clarity and precision</li> <li>– usually uses appropriate science and technology terminology and units of measurement</li> </ul>                                                    | <ul style="list-style-type: none"> <li>– consistently communicates with clarity and precision</li> <li>– consistently uses appropriate science and technology terminology and units of measurement</li> </ul>                                                                                           |
| <b>Relating of science and technology to each other and to the world outside the school</b> | <ul style="list-style-type: none"> <li>– shows little understanding of connections between science and technology in familiar contexts</li> <li>– shows little understanding of connections between science and technology and the world outside the school</li> </ul> | <ul style="list-style-type: none"> <li>– shows some understanding of connections between science and technology in familiar contexts</li> <li>– shows some understanding of connections between science and technology and the world outside the school</li> </ul> | <ul style="list-style-type: none"> <li>– shows understanding of connections between science and technology in familiar contexts</li> <li>– shows understanding of connections between science and technology and the world outside the school</li> </ul> | <ul style="list-style-type: none"> <li>– shows understanding of connections between science and technology in both familiar and unfamiliar contexts</li> <li>– shows understanding of connections between science technology and the world outside the school, as well as their implications</li> </ul> |

**Grade 3 Plant Adaptations**  
**for use with Subtask 5 : Adaptations**  
 from the Grade 3/4 Unit: **Life in an Ecosystem**



Student Name: \_\_\_\_\_  
 Date: \_\_\_\_\_

**Expectations for this Subtask to Assess with this Rubric:**

- 3s11** – explain how different features of plants help them survive (e.g., leaf structure, fibrous or tap root systems).
- 3s14** – plan investigations to answer some of these questions or find ways of meeting these needs, and explain the steps involved;
- 3s15** – use appropriate vocabulary in describing their investigations, explorations, and observations (e.g., stem, pistil, stamen, flower);
- 3s17** – communicate the procedures and results of investigations for specific purposes and to specific audiences, using drawings, demonstrations, simple media works, and oral and written descriptions (e.g., make a graph that shows the number and kinds of trees found in different yards; design and construct a terrarium or garden that reproduces...)

| Category/Criteria                          | Level 1                                                                                                                                                                                                                            | Level 2                                                                                                                                                                                            | Level 3                                                                                                                                                                                                                       | Level 4                                                                                                                                                                                                                    |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Understanding of basic concepts</b>     | <ul style="list-style-type: none"> <li>– shows understanding of few of the basic concepts</li> <li>– demonstrates significant misconception</li> <li>– gives explanations showing limited understanding of the concepts</li> </ul> | <ul style="list-style-type: none"> <li>– shows understanding of some of the basic concepts</li> <li>– demonstrates minor misconceptions</li> <li>– gives partial explanations</li> </ul>           | <ul style="list-style-type: none"> <li>– shows understanding of most of the basic concepts</li> <li>– demonstrates no significant misconceptions</li> <li>– usually gives complete or nearly complete explanations</li> </ul> | <ul style="list-style-type: none"> <li>– shows understanding of all of the basic concepts</li> <li>– demonstrates no misconceptions</li> <li>– always gives complete explanations</li> </ul>                               |
| <b>Inquiry and design skills</b>           | <ul style="list-style-type: none"> <li>– applies few of the required skills and strategies</li> <li>– shows a limited awareness of the safety procedures when using tools, equipment, and materials</li> </ul>                     | <ul style="list-style-type: none"> <li>– applies some of the required skills and strategies</li> <li>– shows some awareness of safety procedures when using equipment, and materials</li> </ul>    | <ul style="list-style-type: none"> <li>– applies most of the required skills and strategies</li> <li>– shows a considerable awareness of safety procedures when using tools, equipment, and materials</li> </ul>              | <ul style="list-style-type: none"> <li>– applies all (or almost all) of the required skills and strategies</li> <li>– show a thorough awareness of safety procedures when using tools, equipment, and materials</li> </ul> |
| <b>Communication of required knowledge</b> | <ul style="list-style-type: none"> <li>– communicates with little clarity and precision</li> <li>– rarely uses appropriate science and technology terminology and units of measurement</li> </ul>                                  | <ul style="list-style-type: none"> <li>– communicates with some clarity and precision</li> <li>– sometimes uses appropriate science and technology terminology and units of measurement</li> </ul> | <ul style="list-style-type: none"> <li>– generally communicates with clarity and precision</li> <li>– usually uses appropriate science and technology terminology and units of measurement</li> </ul>                         | <ul style="list-style-type: none"> <li>– consistently communicates with clarity and precision</li> <li>– consistently uses appropriate science and technology terminology and units of measurement</li> </ul>              |

**Grade 4 Animal Adaptations**  
**for use with Subtask 5 : Adaptations**  
 from the Grade 3/4 Unit: **Life in an Ecosystem**



Student Name: \_\_\_\_\_  
 Date: \_\_\_\_\_

**Expectations for this Subtask to Assess with this Rubric:**

- 4s7** – describe structural adaptations of plants and animals that demonstrate a response of the living things to their environment (e.g., the height of a plant depends on the amount of sunlight the plant gets; many animals that live in the Arctic have white fur);
- 4s10** – formulate questions about and identify the needs of animals and plants in a particular habitat, and explore possible answers to these questions and ways of meeting these needs (e.g., predict the structural adaptations, such as webbed feet, that help aquatic animals live in water);
- 4s12** – use appropriate vocabulary, including correct science and technology terminology, in describing their investigations, explorations, and observations (e.g., habitat, population, ecological niche, community, food chain);
- 4s14** – communicate the procedures and results of investigations for specific purposes and to specific audiences, using media works, oral presentations, written notes and descriptions, drawings, and charts (e.g., prepare a poster illustrating the components of a local habitat; trace a food chain in an illustrated chart, using the sun as the ...

| Category/Criteria                          | Level 1                                                                                                                                                                                                                            | Level 2                                                                                                                                                                                                | Level 3                                                                                                                                                                                                                       | Level 4                                                                                                                                                                                                                     |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Understanding of basic concepts</b>     | <ul style="list-style-type: none"> <li>– shows understanding of few of the basic concepts</li> <li>– demonstrates significant misconception</li> <li>– gives explanations showing limited understanding of the concepts</li> </ul> | <ul style="list-style-type: none"> <li>– shows understanding of some of the basic concepts</li> <li>– demonstrates minor misconceptions</li> <li>– gives partial explanations</li> </ul>               | <ul style="list-style-type: none"> <li>– shows understanding of most of the basic concepts</li> <li>– demonstrates no significant misconceptions</li> <li>– usually gives complete or nearly complete explanations</li> </ul> | <ul style="list-style-type: none"> <li>– shows understanding of all of the basic concepts</li> <li>– demonstrates no misconceptions</li> <li>– always gives complete explanations</li> </ul>                                |
| <b>Inquiry and design skills</b>           | <ul style="list-style-type: none"> <li>– applies few of the required skills and strategies</li> <li>– shows a limited awareness of the safety procedures when using tools, equipment and materials</li> </ul>                      | <ul style="list-style-type: none"> <li>– applies some of the required skills and strategies</li> <li>– shows some awareness of safety procedures when using tools, equipment, and materials</li> </ul> | <ul style="list-style-type: none"> <li>– applies most of the required skills and strategies</li> <li>– shows considerable awareness of safety procedures when using tools, equipment, and materials</li> </ul>                | <ul style="list-style-type: none"> <li>– applies all (or almost all) of the required skills and strategies</li> <li>– shows a thorough awareness of safety procedures when using tools, equipment, and materials</li> </ul> |
| <b>Communication of required knowledge</b> | <ul style="list-style-type: none"> <li>– communicates with little clarity and precision</li> <li>– rarely uses appropriate science and technology terminology and units of measurement</li> </ul>                                  | <ul style="list-style-type: none"> <li>– communicates with some clarity and precision</li> <li>– sometimes uses appropriate science and technology terminology and units of measurement</li> </ul>     | <ul style="list-style-type: none"> <li>– generally communicates with clarity and precision</li> <li>– usually uses appropriate science and technology terminology and units of measurement</li> </ul>                         | <ul style="list-style-type: none"> <li>– consistently communicates with clarity and precision</li> <li>– consistently uses appropriate science and technology terminology and units of measurement</li> </ul>               |

**Grade 3 Human and Natural Effects**  
**for use with Subtask 6 : The Human and Natural Effects**  
 from the Grade 3/4 Unit: **Life in an Ecosystem**



Student Name: \_\_\_\_\_  
 Date: \_\_\_\_\_

**Expectations for this Subtask to Assess with this Rubric:**

- 3e61** – use appropriate volume, tone of voice, gestures, and stance when speaking, making a presentation, or reading aloud;
- 3s19** – describe ways in which humans can protect natural areas to maintain native plant species (e.g., establishing conservation areas, wildlife reserves, wetland sanctuaries);

| Category/Criteria                                                                           | Level 1                                                                                                                                                                                                                                                                | Level 2                                                                                                                                                                                                                                                            | Level 3                                                                                                                                                                                                                                                  | Level 4                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Communication</b>                                                                        | <ul style="list-style-type: none"> <li>– with limited clarity and precision</li> <li>– for a limited range of simple purposes</li> <li>– with a limited range of simple forms</li> </ul>                                                                               | <ul style="list-style-type: none"> <li>– with some clarity and some precision</li> <li>– for a variety of simple purposes</li> <li>– with several different forms</li> </ul>                                                                                       | <ul style="list-style-type: none"> <li>– clearly and precisely</li> <li>– for specific purposes</li> <li>– with a variety of forms</li> </ul>                                                                                                            | <ul style="list-style-type: none"> <li>– clearly, precisely, and confidently</li> <li>– for a wide variety of purposes and in a wide variety of contexts</li> <li>– with a wide range of complex forms</li> </ul>                                                                                           |
| <b>Understanding of basic concepts</b>                                                      | <ul style="list-style-type: none"> <li>– shows understanding of few of the basic concepts</li> <li>– demonstrates significant misconception</li> <li>– gives explanations showing limited understanding of the concepts</li> </ul>                                     | <ul style="list-style-type: none"> <li>– shows understanding of some of the basic concepts</li> <li>– demonstrates minor misconceptions</li> <li>– gives partial explanations</li> </ul>                                                                           | <ul style="list-style-type: none"> <li>– shows understanding of most of the basic concepts</li> <li>– demonstrates no significant misconceptions</li> <li>– usually gives complete or nearly complete explanations</li> </ul>                            | <ul style="list-style-type: none"> <li>– shows understanding of all of the basic concepts</li> <li>– demonstrates no misconceptions</li> <li>– always gives complete explanations</li> </ul>                                                                                                                |
| <b>Relating of science and technology to each other and to the world outside the school</b> | <ul style="list-style-type: none"> <li>– shows little understanding of connections between science and technology in familiar contexts</li> <li>– shows little understanding of connections between science and technology and the world outside the school</li> </ul> | <ul style="list-style-type: none"> <li>– shows some understanding of connections between science and technology in familiar contexts</li> <li>– shows some understanding of connections between science and technology and the world outside the school</li> </ul> | <ul style="list-style-type: none"> <li>– shows understanding of connections between science and technology in familiar contexts</li> <li>– shows understanding of connections between science and technology and the world outside the school</li> </ul> | <ul style="list-style-type: none"> <li>– shows understanding of connections between science and technology in both familiar and unfamiliar contexts</li> <li>– shows understanding of connections between science and technology and the world outside the school, as well as their implications</li> </ul> |



# Life in an Ecosystem

## Plants and Habitat An Integrated Unit for Grade 3/4

Selected **Assessed**

### English Language---Writing

|                               |                                                                                                                                                                            |   |  |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--|
| <input type="checkbox"/> 3e1  | • communicate ideas and information for specific purposes and to specific audiences (e.g., write a notice for a community newspaper advertising an upcoming school event); | 1 |  |
| <input type="checkbox"/> 3e3  | • organize information into short paragraphs that contain a main idea and related details;                                                                                 | 1 |  |
| <input type="checkbox"/> 3e5  | • produce pieces of writing using a variety of forms (e.g., simple research reports, letters, stories, poems);                                                             | 1 |  |
| <input type="checkbox"/> 3e7  | • revise and edit their work, using feedback from the teacher and their peers;                                                                                             | 1 |  |
| <input type="checkbox"/> 3e8  | • proofread and correct their final drafts;                                                                                                                                | 1 |  |
| <input type="checkbox"/> 3e9  | • use and spell correctly the vocabulary appropriate for this grade level;                                                                                                 | 2 |  |
| <input type="checkbox"/> 3e28 | – print legibly and begin to use cursive writing.                                                                                                                          | 1 |  |

### English Language---Reading

|                               |                                                                                                                                                                       |   |  |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--|
| <input type="checkbox"/> 3e33 | • select material that they need from a variety of sources;                                                                                                           | 2 |  |
| <input type="checkbox"/> 3e38 | – distinguish between fact and fiction;                                                                                                                               | 1 |  |
| <input type="checkbox"/> 3e39 | – begin to make inferences while reading;                                                                                                                             | 1 |  |
| <input type="checkbox"/> 3e40 | – use familiar vocabulary and the context to determine the meaning of a passage containing unfamiliar words;                                                          | 1 |  |
| <input type="checkbox"/> 3e41 | – begin to develop their own opinions by considering some ideas from various written materials;                                                                       | 1 |  |
| <input type="checkbox"/> 3e42 | – identify and describe different forms of writing (e.g., poems, stories, plays);                                                                                     | 1 |  |
| <input type="checkbox"/> 3e44 | – use their knowledge of word order in oral and written language to determine the meaning of sentences;                                                               | 1 |  |
| <input type="checkbox"/> 3e47 | – understand frequently used specialized terms in different subject areas (e.g., science, mathematics);                                                               | 2 |  |
| <input type="checkbox"/> 3e49 | – identify various conventions of formal texts and use them to find information (e.g., table of contents, chapter titles, headings, index, glossary, charts, graphs). | 1 |  |

### English Language---Oral and Visual Communication

|                               |                                                                                                                                                                                     |   |          |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------|
| <input type="checkbox"/> 3e60 | - speak on a variety of topics in classroom discussions using some specialized language (e.g., metres in measurement), and select words carefully to convey their intended meaning; |   |          |
| <input type="checkbox"/> 3e61 | – use appropriate volume, tone of voice, gestures, and stance when speaking, making a presentation, or reading aloud;                                                               | 1 | <b>2</b> |
| <input type="checkbox"/> 3e62 | – use pauses and repetition effectively for emphasis in speech;                                                                                                                     | 2 |          |
| <input type="checkbox"/> 3e63 | – contribute ideas appropriate to the topic in group discussion and listen to the ideas of others;                                                                                  |   | <b>1</b> |

### Mathematics---Data Management and Probability

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |   |  |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--|
| <input type="checkbox"/> 3m78 | – demonstrate an ability to organize objects into categories, by sorting and classifying objects using two or more attributes simultaneously (Sample problem: Sort a collection of buttons by size, colour, and number of holes.);                                                                                                                                                                                                                                                                                                                                                                                            | 1 |  |
| <input type="checkbox"/> 3m79 | – collect data by conducting a simple survey about themselves, their environment, issues in their school or community, or content from another subject;                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1 |  |
| <input type="checkbox"/> 3m80 | – collect and organize categorical or discrete primary data and display the data in charts, tables, and graphs (including vertical and horizontal bar graphs), with appropriate titles and labels and with labels ordered appropriately along horizontal axes, as needed, using many-to-one correspondence (e.g., in a pictograph, one car sticker represents 3 cars; on a bar graph, one square represents 2 students) (Sample problem: Graph data related to the eye colour of students in the class, using a vertical bar graph. Why does the scale on the vertical axis include values that are not in the set of data?). | 2 |  |
| <input type="checkbox"/> 3m82 | – interpret and draw conclusions from data presented in charts, tables, and graphs;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1 |  |

### Science and Technology---Life Systems

|                               |                                                                                                                                                                                                                                                 |   |          |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------|
| <input type="checkbox"/> 3s6  | – describe, using their observations, the changes that plants undergo in a complete life cycle (e.g., from the germination of a seed to the production of flowers or fruit);                                                                    |   |          |
| <input type="checkbox"/> 3s9  | – identify traits that remain constant in some plants as they grow (e.g., leaf shape, leaf size, flower colour);                                                                                                                                | 1 |          |
| <input type="checkbox"/> 3s11 | – explain how different features of plants help them survive (e.g., leaf structure, fibrous or tap root systems).                                                                                                                               | 1 | <b>1</b> |
| <input type="checkbox"/> 3s12 | – design and conduct a hands-on inquiry into seed germination or plant growth;                                                                                                                                                                  | 1 |          |
| <input type="checkbox"/> 3s13 | – ask questions about and identify some needs of plants, and explore possible answers to these questions and ways of meeting these needs (e.g., predict how long a particular plant could go without water before its leaves started to droop); | 1 |          |
| <input type="checkbox"/> 3s14 | – plan investigations to answer some of these questions or find ways of meeting these needs, and explain the steps involved;                                                                                                                    |   | <b>1</b> |
| <input type="checkbox"/> 3s15 | – use appropriate vocabulary in describing their investigations, explorations, and observations (e.g., stem, pistil, stamen, flower);                                                                                                           | 1 | <b>1</b> |
| <input type="checkbox"/> 3s16 | – record relevant observations, findings, and measurements, using written language, drawings, charts, and graphs (e.g., produce a series of drawings to show a plant at different stages of development);                                       | 2 | <b>2</b> |



## Life in an Ecosystem

### Plants and Habitat An Integrated Unit for Grade 3/4

|                               | Selected                                                                                                                                                                                                                                                                                                                                                                                                                     | Assessed |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| <input type="checkbox"/> 3s17 | – communicate the procedures and results of investigations for specific purposes and to specific audiences, using drawings, 1 demonstrations, simple media works, and oral and written descriptions (e.g., make a graph that shows the number and kinds of trees found in different yards; design and construct a terrarium or garden that reproduces the conditions that they found to be requirements of specific plants). | 3        |
| <input type="checkbox"/> 3s19 | – describe ways in which humans can protect natural areas to maintain native plant species (e.g., establishing conservation areas, wildlife reserves, wetland sanctuaries);                                                                                                                                                                                                                                                  | 1        |
| <input type="checkbox"/> 3s21 | – describe various plants used in food preparation (e.g., vegetables, fruits, spices, herbs) and identify places where they can be grown;                                                                                                                                                                                                                                                                                    |          |
| <input type="checkbox"/> 3s22 | – describe various settings in which plant crops are grown (e.g., farms, orchards, home gardens);                                                                                                                                                                                                                                                                                                                            | 1        |
| <input type="checkbox"/> 3s23 | – describe ways in which plants and animals depend on each other (e.g., plants provide food for energy, and animals help distribute pollen and seeds);                                                                                                                                                                                                                                                                       | 3        |
| <input type="checkbox"/> 3s24 | – compare the requirements of some plants and animals, and identify the requirements that are common to all living things (e.g., the need for water and minerals);                                                                                                                                                                                                                                                           | 4        |
| <input type="checkbox"/> 3s25 | – demonstrate awareness of ways of caring for plants properly (e.g., ensure that a plant has sufficient light and water);                                                                                                                                                                                                                                                                                                    | 1        |

### The Arts---Visual Arts

|                               |                                                                                                                                                                                                                                                                                                                                |   |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <input type="checkbox"/> 3a22 | • produce two- and three-dimensional works of art that communicate ideas (thoughts, feelings, experiences) for specific purposes and to familiar audiences;                                                                                                                                                                    | 1 |
| <input type="checkbox"/> 3a32 | – use art tools, materials, and techniques correctly to create different effects (e.g., paint with a sponge to create an open, airy feeling in a work; apply paint thickly with a brush to suggest heaviness).                                                                                                                 |   |
| <input type="checkbox"/> 3a34 | – produce two- and three-dimensional works of art (i.e., works involving media and techniques used in drawing, painting, sculpting, printmaking) that communicate their thoughts and feelings about specific topics or themes (e.g., produce a mural in a group interpreting a Native legend through colour, shape, and line); | 1 |
| <input type="checkbox"/> 3a35 | – identify and explain the specific choices they made in planning, producing, and displaying their own art work (e.g., the choices of subject matter, colours, location for display);                                                                                                                                          | 1 |

### Social Studies---CWC: Urban and Rural Communities

|                               |                                                                                                                                                                       |   |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <input type="checkbox"/> 3z39 | – recognize a range of features that may be represented by different colours on maps (e.g., pink to represent residential areas, brown to represent relief features); | 1 |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|

### English Language---Writing

|                               |                                                                                                                                                                        |   |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <input type="checkbox"/> 4e1  | • communicate ideas and information for a variety of purposes and to specific audiences (e.g., write a brief research report on a class investigation for classmates); | 1 |
| <input type="checkbox"/> 4e5  | • produce pieces of writing using a variety of specific forms (e.g., humorous story) and materials from other media (e.g., photo sequence) to enhance their writing;   | 1 |
| <input type="checkbox"/> 4e7  | • revise and edit their work, using feedback from the teacher and their peers;                                                                                         | 1 |
| <input type="checkbox"/> 4e8  | • proofread and correct their final drafts, focusing on grammar, punctuation, and spelling;                                                                            | 2 |
| <input type="checkbox"/> 4e9  | • use and spell correctly the vocabulary appropriate for this grade level;                                                                                             | 1 |
| <input type="checkbox"/> 4e20 | – introduce vocabulary from other subject areas into their writing;                                                                                                    | 2 |
| <input type="checkbox"/> 4e25 | – label and use pictures and diagrams appropriately;                                                                                                                   | 1 |
| <input type="checkbox"/> 4e26 | – print legibly and use cursive writing.                                                                                                                               | 1 |

### English Language---Reading

|                               |                                                                                                                                                    |   |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <input type="checkbox"/> 4e27 | • read a variety of fiction and non-fiction materials (e.g., short novels, myths, biographies, short articles) for different purposes;             | 1 |
| <input type="checkbox"/> 4e32 | • understand the vocabulary and language structures appropriate for this grade level;                                                              | 1 |
| <input type="checkbox"/> 4e36 | – make inferences while reading;                                                                                                                   | 1 |
| <input type="checkbox"/> 4e37 | – make judgements about what they read on the basis of evidence;                                                                                   | 1 |
| <input type="checkbox"/> 4e40 | – develop their opinions by reading a variety of materials;                                                                                        | 1 |
| <input type="checkbox"/> 4e41 | – begin to develop research skills (e.g., formulate questions, locate information, clarify their understanding of information through discussion); | 1 |
| <input type="checkbox"/> 4e43 | – use their knowledge of the organization and characteristics of different forms of writing to understand and use content;                         | 1 |
| <input type="checkbox"/> 4e49 | – understand specialized terms in different subject areas (e.g., science, technology);                                                             | 1 |



## Life in an Ecosystem

### Plants and Habitat An Integrated Unit for Grade 3/4

|                               |                                                                                                                                            | Selected | Assessed |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|
| <input type="checkbox"/> 4e51 | – use various conventions of formal texts to reinforce understanding of ideas (e.g., charts, illustrations, glossary, diagrams, captions). |          | 1        |

#### English Language---Oral and Visual Communication

|                               |                                                                                                                                                         |   |   |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|
| <input type="checkbox"/> 4e63 | – use effective openings and closings in oral presentations (e.g., begin by asking questions of listeners; conclude by summarizing key points);         |   | 1 |
| <input type="checkbox"/> 4e64 | – use appropriate tone of voice and gestures in social and classroom activities;                                                                        |   | 3 |
| <input type="checkbox"/> 4e65 | – present information to their peers in a focused and organized form on a topic of mutual interest;                                                     | 1 | 1 |
| <input type="checkbox"/> 4e66 | – listen to others and stay on topic in group discussion;                                                                                               |   | 3 |
| <input type="checkbox"/> 4e67 | – use appropriate strategies to organize and carry out group projects (e.g., brainstorming, summarizing, reporting, giving and following instructions); |   | 1 |

#### Science and Technology---Life Systems

|                               |                                                                                                                                                                                                                                                                                                                                                                     |   |   |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|
| <input type="checkbox"/> 4s4  | – identify, through observation, various factors that affect plants and animals in a specific habitat (e.g., availability of water, food sources, light; ground features; weather conditions);                                                                                                                                                                      |   | 3 |
| <input type="checkbox"/> 4s5  | – classify organisms according to their role in a food chain (e.g., producer, consumer);                                                                                                                                                                                                                                                                            | 1 | 1 |
| <input type="checkbox"/> 4s6  | – demonstrate an understanding of a food chain as a system in which energy from the sun is transferred eventually to animals, construct food chains of different plant and animal species (e.g., carrot -> rabbit -> fox), and classify animals as omnivore, carnivore, and herbivore;                                                                              | 1 | 1 |
| <input type="checkbox"/> 4s7  | – describe structural adaptations of plants and animals that demonstrate a response of the living things to their environment (e.g., the height of a plant depends on the amount of sunlight the plant gets; many animals that live in the Arctic have white fur);                                                                                                  |   | 1 |
| <input type="checkbox"/> 4s8  | – recognize that animals and plants live in specific habitats because they are dependent on those habitats and have adapted to them (e.g., ducks live in marshes because they need marsh plants for food and shelter and water for movement);                                                                                                                       |   | 3 |
| <input type="checkbox"/> 4s9  | – classify plants and animals that they have observed in local habitats according to similarities and differences (e.g., in shape, location).                                                                                                                                                                                                                       |   | 1 |
| <input type="checkbox"/> 4s10 | – formulate questions about and identify the needs of animals and plants in a particular habitat, and explore possible answers to these questions and ways of meeting these needs (e.g., predict the structural adaptations, such as webbed feet, that help aquatic animals live in water);                                                                         |   | 1 |
| <input type="checkbox"/> 4s12 | – use appropriate vocabulary, including correct science and technology terminology, in describing their investigations, explorations, and observations (e.g., habitat, population, ecological niche, community, food chain);                                                                                                                                        | 1 | 1 |
| <input type="checkbox"/> 4s13 | – compile data gathered through investigation in order to record and present results, using tally charts, tables, and labelled graphs produced by hand or with a computer (e.g., display data gathered in a population-simulation exercise, using a labelled graph; classify species of insects in the neighbourhood according to habitat, using a chart or table); |   | 1 |
| <input type="checkbox"/> 4s14 | – communicate the procedures and results of investigations for specific purposes and to specific audiences, using media works, oral presentations, written notes and descriptions, drawings, and charts (e.g., prepare a poster illustrating the components of a local habitat; trace a food chain in an illustrated chart, using the sun as the starting point).   | 1 | 2 |
| <input type="checkbox"/> 4s15 | – describe ways in which humans are dependent on plants and animals (e.g., for food products, medicine, clothing, lumber);                                                                                                                                                                                                                                          |   | 1 |
| <input type="checkbox"/> 4s16 | – describe ways in which humans can affect the natural world (e.g., urban development forces some species to go elsewhere and enables other species to multiply too rapidly; conservation areas can be established to protect specific habitats);                                                                                                                   |   | 1 |
| <input type="checkbox"/> 4s17 | – construct food chains that include different plant and animal species and humans (e.g., grass -> cattle -> humans);                                                                                                                                                                                                                                               | 1 | 1 |
| <input type="checkbox"/> 4s18 | – show the effects on plants and animals of the loss of their natural habitat (e.g., nesting sites of ducks may be destroyed when a dam is built);                                                                                                                                                                                                                  |   | 1 |
| <input type="checkbox"/> 4s19 | – investigate ways in which the extinction of a plant or animal species affects the rest of the natural community and humans (e.g., chart the distribution of wolves on a world map and predict the effects if wolves were to become extinct; use a software program that simulates a specific environment to track the effects of the loss of a plant species).    |   | 1 |

#### The Arts---Visual Arts

|                               |                                                                                                                                                                                                                                                                                      |  |   |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---|
| <input type="checkbox"/> 4a31 | • produce two- and three-dimensional works of art that communicate ideas (thoughts, feelings, experiences) for specific purposes and to specific audiences;                                                                                                                          |  | 1 |
| <input type="checkbox"/> 4a41 | – demonstrate understanding of the proper and controlled use of art tools, materials, and techniques singly and in combination (e.g., outline shapes, create shading, or colour a surface using both the point and the side of pencil crayons; create texture using cross-hatching). |  | 1 |
| <input type="checkbox"/> 4a42 | – solve artistic problems in their art work, using the elements of design specified for this grade (e.g., create a self-portrait and defend their colour choices);                                                                                                                   |  | 1 |



**Life in an Ecosystem**  
**Plants and Habitat An Integrated Unit for Grade 3/4**

|                                                                                                                                                                                                                                                                                                                                                                                                                         | Selected | Assessed |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|
| <input type="checkbox"/> 4a43 – produce two- and three-dimensional works of art (i.e., works involving media and techniques used in drawing, painting, sculpting, printmaking) that communicate thoughts, feelings, and ideas for specific purposes and to specific audiences (e.g., create a poster for display in the school library to commemorate a personal literary hero, using an additive form of printmaking); |          | 1        |
| <input type="checkbox"/> 4a45 – identify strengths and areas for improvement in their own work and that of others.                                                                                                                                                                                                                                                                                                      |          | 1        |
| <b>---Measurement</b>                                                                                                                                                                                                                                                                                                                                                                                                   |          |          |
| <input type="checkbox"/> 3m36-OLD • solve problems related to their day-to-day environment using measurement and estimation (e.g., in finding the height of the school fence);-REMOVED 2005                                                                                                                                                                                                                             |          |          |
| <b>---Measurement</b>                                                                                                                                                                                                                                                                                                                                                                                                   |          |          |
| <input type="checkbox"/> 4m36-OLD • solve problems related to their day-to-day environment using measurement and estimation;-REMOVED 2005                                                                                                                                                                                                                                                                               |          | 1        |



## Life in an Ecosystem

### Plants and Habitat An Integrated Unit for Grade 3/4

#### English Language

|      |   |      |      |      |      |      |      |      |      |   |      |   |      |   |      |   |
|------|---|------|------|------|------|------|------|------|------|---|------|---|------|---|------|---|
| 3e1  | 1 | 3e2  | 3e3  | 1    | 3e4  | 3e5  | 1    | 3e6  | 3e7  | 1 | 3e8  | 1 | 3e9  | 2 | 3e10 |   |
| 3e11 |   | 3e12 | 3e13 |      | 3e14 | 3e15 |      | 3e16 | 3e17 |   | 3e18 |   | 3e19 |   | 3e20 |   |
| 3e21 |   | 3e22 | 3e23 |      | 3e24 | 3e25 |      | 3e26 | 3e27 |   | 3e28 | 1 | 3e29 |   | 3e30 |   |
| 3e31 |   | 3e32 | 3e33 | 2    | 3e34 | 3e35 |      | 3e36 | 3e37 |   | 3e38 | 1 | 3e39 | 1 | 3e40 | 1 |
| 3e41 | 1 | 3e42 | 1    | 3e43 | 3e44 | 1    | 3e45 | 3e46 | 3e47 | 2 | 3e48 |   | 3e49 | 1 | 3e50 |   |
| 3e51 |   | 3e52 |      | 3e53 | 3e54 |      | 3e55 | 3e56 | 3e57 |   | 3e58 |   | 3e59 |   | 3e60 | 1 |
| 3e61 | 1 | 2    | 3e62 | 2    | 3e63 | 1    | 3e64 | 3e65 | 3e66 |   |      |   |      |   |      |   |

#### Mathematics

|      |  |      |      |      |      |      |      |      |      |      |      |      |   |  |  |
|------|--|------|------|------|------|------|------|------|------|------|------|------|---|--|--|
| 3m1  |  | 3m2  | 3m3  | 3m4  | 3m5  | 3m6  | 3m7  | 3m8  | 3m9  |      | 3m10 |      |   |  |  |
| 3m11 |  | 3m12 | 3m13 | 3m14 | 3m15 | 3m16 | 3m17 | 3m18 | 3m19 |      | 3m20 |      |   |  |  |
| 3m21 |  | 3m22 | 3m23 | 3m24 | 3m25 | 3m26 | 3m27 | 3m28 | 3m29 |      | 3m30 |      |   |  |  |
| 3m31 |  | 3m32 | 3m33 | 3m34 | 3m35 | 3m36 | 3m37 | 3m38 | 3m39 |      | 3m40 |      |   |  |  |
| 3m41 |  | 3m42 | 3m43 | 3m44 | 3m45 | 3m46 | 3m47 | 3m48 | 3m49 |      | 3m50 |      |   |  |  |
| 3m51 |  | 3m52 | 3m53 | 3m54 | 3m55 | 3m56 | 3m57 | 3m58 | 3m59 |      | 3m60 |      |   |  |  |
| 3m61 |  | 3m62 | 3m63 | 3m64 | 3m65 | 3m66 | 3m67 | 3m68 | 3m69 |      | 3m70 |      |   |  |  |
| 3m71 |  | 3m72 | 3m73 | 3m74 | 3m75 | 3m76 | 3m77 | 3m78 | 1    | 3m79 | 1    | 3m80 | 2 |  |  |
| 3m81 |  | 3m82 | 1    | 3m83 | 3m84 | 3m85 |      |      |      |      |      |      |   |  |  |

#### Science and Technology

|       |   |       |       |       |       |       |       |       |       |       |      |      |      |      |   |      |   |   |      |      |   |      |
|-------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|---|------|---|---|------|------|---|------|
| 3s1   |   | 3s2   | 3s3   | 3s4   | 3s5   | 3s6   | 3s7   | 3s8   | 3s9   | 1     | 3s10 |      |      |      |   |      |   |   |      |      |   |      |
| 3s11  | 1 | 1     | 3s12  | 1     | 3s13  | 1     | 3s14  | 1     | 1     | 3s15  | 1    | 1    | 3s16 | 2    | 2 | 3s17 | 1 | 3 | 3s18 | 3s19 | 1 | 3s20 |
| 3s21  | 1 | 3s22  | 1     | 3s23  | 3     | 3s24  | 4     | 3s25  | 1     | 3s26  | 3s27 | 3s28 | 3s29 | 3s30 |   |      |   |   |      |      |   |      |
| 3s31  |   | 3s32  | 3s33  | 3s34  | 3s35  | 3s36  | 3s37  | 3s38  | 3s39  | 3s40  |      |      |      |      |   |      |   |   |      |      |   |      |
| 3s41  |   | 3s42  | 3s43  | 3s44  | 3s45  | 3s46  | 3s47  | 3s48  | 3s49  | 3s50  |      |      |      |      |   |      |   |   |      |      |   |      |
| 3s51  |   | 3s52  | 3s53  | 3s54  | 3s55  | 3s56  | 3s57  | 3s58  | 3s59  | 3s60  |      |      |      |      |   |      |   |   |      |      |   |      |
| 3s61  |   | 3s62  | 3s63  | 3s64  | 3s65  | 3s66  | 3s67  | 3s68  | 3s69  | 3s70  |      |      |      |      |   |      |   |   |      |      |   |      |
| 3s71  |   | 3s72  | 3s73  | 3s74  | 3s75  | 3s76  | 3s77  | 3s78  | 3s79  | 3s80  |      |      |      |      |   |      |   |   |      |      |   |      |
| 3s81  |   | 3s82  | 3s83  | 3s84  | 3s85  | 3s86  | 3s87  | 3s88  | 3s89  | 3s90  |      |      |      |      |   |      |   |   |      |      |   |      |
| 3s91  |   | 3s92  | 3s93  | 3s94  | 3s95  | 3s96  | 3s97  | 3s98  | 3s99  | 3s100 |      |      |      |      |   |      |   |   |      |      |   |      |
| 3s101 |   | 3s102 | 3s103 | 3s104 | 3s105 | 3s106 | 3s107 | 3s108 | 3s109 | 3s110 |      |      |      |      |   |      |   |   |      |      |   |      |
| 3s111 |   | 3s112 | 3s113 | 3s114 |       |       |       |       |       |       |      |      |      |      |   |      |   |   |      |      |   |      |

#### Social Studies

|      |  |      |      |      |      |      |      |      |      |      |      |
|------|--|------|------|------|------|------|------|------|------|------|------|
| 3z1  |  | 3z2  | 3z3  | 3z4  | 3z5  | 3z6  | 3z7  | 3z8  | 3z9  | 3z10 |      |
| 3z11 |  | 3z12 | 3z13 | 3z14 | 3z15 | 3z16 | 3z17 | 3z18 | 3z19 | 3z20 |      |
| 3z21 |  | 3z22 | 3z23 | 3z24 | 3z25 | 3z26 | 3z27 | 3z28 | 3z29 | 3z30 |      |
| 3z31 |  | 3z32 | 3z33 | 3z34 | 3z35 | 3z36 | 3z37 | 3z38 | 3z39 | 1    | 3z40 |
| 3z41 |  | 3z42 | 3z43 |      |      |      |      |      |      |      |      |

#### Health and Physical Education

|      |  |      |      |      |      |      |      |      |      |      |
|------|--|------|------|------|------|------|------|------|------|------|
| 3p1  |  | 3p2  | 3p3  | 3p4  | 3p5  | 3p6  | 3p7  | 3p8  | 3p9  | 3p10 |
| 3p11 |  | 3p12 | 3p13 | 3p14 | 3p15 | 3p16 | 3p17 | 3p18 | 3p19 | 3p20 |
| 3p21 |  | 3p22 | 3p23 | 3p24 | 3p25 | 3p26 | 3p27 | 3p28 | 3p29 | 3p30 |
| 3p31 |  | 3p32 | 3p33 | 3p34 | 3p35 | 3p36 | 3p37 | 3p38 | 3p39 |      |

#### The Arts

|      |  |      |      |      |      |      |      |      |      |      |      |      |      |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|
| 3a1  |  | 3a2  | 3a3  | 3a4  | 3a5  | 3a6  | 3a7  | 3a8  | 3a9  | 3a10 |      |      |      |
| 3a11 |  | 3a12 | 3a13 | 3a14 | 3a15 | 3a16 | 3a17 | 3a18 | 3a19 | 3a20 |      |      |      |
| 3a21 |  | 3a22 | 1    | 3a23 | 3a24 | 3a25 | 3a26 | 3a27 | 3a28 | 3a29 | 3a30 |      |      |
| 3a31 |  | 3a32 | 1    | 3a33 | 3a34 | 1    | 3a35 | 1    | 3a36 | 3a37 | 3a38 | 3a39 | 3a40 |
| 3a41 |  | 3a42 |      | 3a43 | 3a44 | 3a45 | 3a46 | 3a47 | 3a48 | 3a49 | 3a50 |      |      |
| 3a51 |  | 3a52 |      | 3a53 | 3a54 | 3a55 | 3a56 | 3a57 | 3a58 | 3a59 | 3a60 |      |      |
| 3a61 |  | 3a62 |      |      |      |      |      |      |      |      |      |      |      |



## Life in an Ecosystem

### Plants and Habitat An Integrated Unit for Grade 3/4

#### English Language

|      |   |      |      |      |      |   |      |      |      |      |      |      |      |      |      |      |      |
|------|---|------|------|------|------|---|------|------|------|------|------|------|------|------|------|------|------|
| 4e1  | 1 | 4e2  | 4e3  | 4e4  | 4e5  | 1 | 4e6  | 4e7  | 1    | 4e8  | 2    | 4e9  | 1    | 4e10 |      |      |      |
| 4e11 |   | 4e12 | 4e13 | 4e14 | 4e15 |   | 4e16 | 4e17 |      | 4e18 |      | 4e19 |      | 4e20 | 2    |      |      |
| 4e21 |   | 4e22 | 4e23 | 4e24 | 4e25 | 1 | 4e26 | 1    | 4e27 | 1    | 4e28 | 4e29 |      | 4e30 |      |      |      |
| 4e31 |   | 4e32 | 1    | 4e33 | 4e34 |   | 4e35 | 4e36 | 1    | 4e37 | 1    | 4e38 | 4e39 | 4e40 | 1    |      |      |
| 4e41 | 1 | 4e42 | 4e43 | 1    | 4e44 |   | 4e45 | 4e46 | 4e47 | 4e48 | 4e49 | 1    | 4e50 |      |      |      |      |
| 4e51 | 1 | 4e52 | 4e53 |      | 4e54 |   | 4e55 | 4e56 | 4e57 | 4e58 | 4e59 |      | 4e60 |      |      |      |      |
| 4e61 |   | 4e62 | 4e63 | 1    | 4e64 | 3 | 4e65 | 1    | 1    | 4e66 | 3    | 4e67 | 1    | 1    | 4e68 | 4e69 | 4e70 |

#### Core French

|      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|
| 4f1  | 4f2  | 4f3  | 4f4  | 4f5  | 4f6  | 4f7  | 4f8  | 4f9  | 4f10 |
| 4f11 | 4f12 | 4f13 | 4f14 | 4f15 | 4f16 | 4f17 | 4f18 | 4f19 | 4f20 |

#### Mathematics

|      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|
| 4m1  | 4m2  | 4m3  | 4m4  | 4m5  | 4m6  | 4m7  | 4m8  | 4m9  | 4m10 |
| 4m11 | 4m12 | 4m13 | 4m14 | 4m15 | 4m16 | 4m17 | 4m18 | 4m19 | 4m20 |
| 4m21 | 4m22 | 4m23 | 4m24 | 4m25 | 4m26 | 4m27 | 4m28 | 4m29 | 4m30 |
| 4m31 | 4m32 | 4m33 | 4m34 | 4m35 | 4m36 | 4m37 | 4m38 | 4m39 | 4m40 |
| 4m41 | 4m42 | 4m43 | 4m44 | 4m45 | 4m46 | 4m47 | 4m48 | 4m49 | 4m50 |
| 4m51 | 4m52 | 4m53 | 4m54 | 4m55 | 4m56 | 4m57 | 4m58 | 4m59 | 4m60 |
| 4m61 | 4m62 | 4m63 | 4m64 | 4m65 | 4m66 | 4m67 | 4m68 | 4m69 | 4m70 |
| 4m71 | 4m72 | 4m73 | 4m74 | 4m75 | 4m76 | 4m77 | 4m78 | 4m79 | 4m80 |
| 4m81 | 4m82 | 4m83 | 4m84 | 4m85 | 4m86 | 4m87 | 4m88 | 4m89 | 4m90 |
| 4m91 | 4m92 | 4m93 | 4m94 | 4m95 |      |      |      |      |      |

#### Science and Technology

|       |       |       |       |       |       |       |       |       |       |   |      |   |   |      |   |     |      |      |      |   |      |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|------|---|---|------|---|-----|------|------|------|---|------|
| 4s1   | 4s2   | 4s3   | 4s4   | 3     | 4s5   | 1     | 1     | 4s6   | 1     | 1 | 4s7  | 1 | 1 | 4s8  | 3 | 4s9 | 1    | 4s10 | 1    |   |      |
| 4s11  | 4s12  | 1     | 1     | 4s13  | 1     | 4s14  | 1     | 2     | 4s15  | 1 | 4s16 | 1 | 1 | 4s17 | 1 | 1   | 4s18 | 1    | 4s19 | 1 | 4s20 |
| 4s21  | 4s22  | 4s23  | 4s24  | 4s25  | 4s26  | 4s27  | 4s28  | 4s29  | 4s30  |   |      |   |   |      |   |     |      |      |      |   |      |
| 4s31  | 4s32  | 4s33  | 4s34  | 4s35  | 4s36  | 4s37  | 4s38  | 4s39  | 4s40  |   |      |   |   |      |   |     |      |      |      |   |      |
| 4s41  | 4s42  | 4s43  | 4s44  | 4s45  | 4s46  | 4s47  | 4s48  | 4s49  | 4s50  |   |      |   |   |      |   |     |      |      |      |   |      |
| 4s51  | 4s52  | 4s53  | 4s54  | 4s55  | 4s56  | 4s57  | 4s58  | 4s59  | 4s60  |   |      |   |   |      |   |     |      |      |      |   |      |
| 4s61  | 4s62  | 4s63  | 4s64  | 4s65  | 4s66  | 4s67  | 4s68  | 4s69  | 4s70  |   |      |   |   |      |   |     |      |      |      |   |      |
| 4s71  | 4s72  | 4s73  | 4s74  | 4s75  | 4s76  | 4s77  | 4s78  | 4s79  | 4s80  |   |      |   |   |      |   |     |      |      |      |   |      |
| 4s81  | 4s82  | 4s83  | 4s84  | 4s85  | 4s86  | 4s87  | 4s88  | 4s89  | 4s90  |   |      |   |   |      |   |     |      |      |      |   |      |
| 4s91  | 4s92  | 4s93  | 4s94  | 4s95  | 4s96  | 4s97  | 4s98  | 4s99  | 4s100 |   |      |   |   |      |   |     |      |      |      |   |      |
| 4s101 | 4s102 | 4s103 | 4s104 | 4s105 | 4s106 | 4s107 | 4s108 | 4s109 | 4s110 |   |      |   |   |      |   |     |      |      |      |   |      |
| 4s111 | 4s112 | 4s113 | 4s114 | 4s115 | 4s116 | 4s117 | 4s118 | 4s119 | 4s120 |   |      |   |   |      |   |     |      |      |      |   |      |
| 4s121 | 4s122 | 4s123 |       |       |       |       |       |       |       |   |      |   |   |      |   |     |      |      |      |   |      |

#### Social Studies

|      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|
| 4z1  | 4z2  | 4z3  | 4z4  | 4z5  | 4z6  | 4z7  | 4z8  | 4z9  | 4z10 |
| 4z11 | 4z12 | 4z13 | 4z14 | 4z15 | 4z16 | 4z17 | 4z18 | 4z19 | 4z20 |
| 4z21 | 4z22 | 4z23 | 4z24 | 4z25 | 4z26 | 4z27 | 4z28 | 4z29 | 4z30 |
| 4z31 | 4z32 | 4z33 | 4z34 | 4z35 | 4z36 | 4z37 | 4z38 | 4z39 | 4z40 |
| 4z41 | 4z42 | 4z43 | 4z44 | 4z45 | 4z46 | 4z47 | 4z48 | 4z49 | 4z50 |
| 4z51 |      |      |      |      |      |      |      |      |      |

#### Health and Physical Education

|      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|
| 4p1  | 4p2  | 4p3  | 4p4  | 4p5  | 4p6  | 4p7  | 4p8  | 4p9  | 4p10 |
| 4p11 | 4p12 | 4p13 | 4p14 | 4p15 | 4p16 | 4p17 | 4p18 | 4p19 | 4p20 |
| 4p21 | 4p22 | 4p23 | 4p24 | 4p25 | 4p26 | 4p27 | 4p28 | 4p29 | 4p30 |
| 4p31 | 4p32 | 4p33 | 4p34 | 4p35 | 4p36 |      |      |      |      |

#### The Arts

|      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 4a1  | 4a2  | 4a3  | 4a4  | 4a5  | 4a6  | 4a7  | 4a8  | 4a9  | 4a10 |      |      |      |
| 4a11 | 4a12 | 4a13 | 4a14 | 4a15 | 4a16 | 4a17 | 4a18 | 4a19 | 4a20 |      |      |      |
| 4a21 | 4a22 | 4a23 | 4a24 | 4a25 | 4a26 | 4a27 | 4a28 | 4a29 | 4a30 |      |      |      |
| 4a31 | 1    | 4a32 | 4a33 | 4a34 | 4a35 | 4a36 | 4a37 | 4a38 | 4a39 | 4a40 |      |      |
| 4a41 | 1    | 4a42 | 1    | 4a43 | 1    | 4a44 | 4a45 | 4a46 | 4a47 | 4a48 | 4a49 | 4a50 |
| 4a51 |      | 4a52 | 4a53 | 4a54 | 4a55 | 4a56 | 4a57 | 4a58 | 4a59 | 4a60 |      |      |
| 4a61 |      | 4a62 | 4a63 | 4a64 | 4a65 | 4a66 | 4a67 | 4a68 | 4a69 | 4a70 |      |      |



## Life in an Ecosystem

### Plants and Habitat An Integrated Unit for Grade 3/4

#### Analysis Of Unit Components

- 7 Subtasks
- 129 Expectations
- 42 Resources
- 67 Strategies & Groupings
- Unique Expectations --
- 42 Language Expectations
- 6 Mathematics Expectations
- 30 Science And Tech Expectations
- 9 Arts Expectations
- 1 Social Studies Expectations

#### Resource Types

- 6 Rubrics
- 25 Blackline Masters
- 0 Licensed Software
- 11 Print Resources
- 0 Media Resources
- 0 Websites
- 0 Material Resources
- 0 Equipment / Manipulatives
- 0 Sample Graphics
- 0 Other Resources
- 0 Parent / Community
- 0 Companion Bookmarks

#### Groupings

- 6 Students Working As A Whole Class
- 3 Students Working In Pairs
- 3 Students Working In Small Groups
- 5 Students Working Individually

#### Assessment Recording Devices

- 1 Anecdotal Record
- 4 Checklist
- 1 Rating Scale
- 3 Rubric

#### Teaching / Learning Strategies

- 3 Brainstorming
- 1 Buddy System
- 1 Classifying
- 1 Collaborative/cooperative Learning
- 4 Direct Teaching
- 1 Directed Reading-thinking Activity
- 1 Discussion
- 1 Expressing Another Point Of View
- 1 Field Trip
- 1 Guided Writing
- 1 Independent Reading
- 4 Inquiry
- 2 Note-making
- 1 Research
- 1 Writing To Learn

#### Assessment Strategies

- 3 Classroom Presentation
- 2 Essay
- 4 Observation
- 4 Performance Task
- 3 Questions And Answers (oral)
- 1 Response Journal