

VITAL INFORMATION

Grade: 1

Subject: Science, Understanding Life Systems

Topic: Needs and Characteristics of Living Things

Suggested Prerequisite Knowledge/Skills: Some basic knowledge of animals and plants, as well as some knowledge of writing.

Time Allotment: 3 class periods, 30 minutes or more per period

Objective:

1. Students will learn that plants and animals, including people are living things.
2. Students will learn that living things need air, water, food and shelter.

Summary: Students will partake in a classroom discussion about the needs of living things using their previous schemata. Students will choose their own animal or plant and identify its basic needs. The students will then dramatize their animal using the knowledge they have of its needs for living.

IMPLEMENTATION

Introduction: A class discussion will take place. Using the students own thoughts on, what living things need, the class will complete a 3 column table (as Figure 1). This can be done in many ways but should be displayed in front of the students (SMART board, white board, chart paper).

1) Ask: What do you as humans/grade 1 students need to live?

* During the discussion, point out that humans need some form of air, water, food and shelter. Make sure to record students ideas in the table.

2) I suggest you play this video <https://www.youtube.com/watch?v=JuBGnfaDLX8>

* for your class so that they may get visual representation as well as auditory stimulation to increase interest in the content.

3) Same as above, ask: What do you think beluga whales need to live?

* Record students' ideas in the table, making sure to point out objective 2.

4) Ask: What do you know about plants, and what do they need to live?

* Record students' ideas in the table.

* I suggest also playing video "The needs of a plant" found on YouTube.

(www.youtube.com/watch?v=dUBIQ1fTRzI)

- 5) Discuss with students if there are any common items that keep coming up between all 3 (humans, belugas whales and plants).
 - 6) Ask: Are humans and plants living things? If so, why?
- * Use the completed 3 column table if needed as a reference.

Procedure: This can be completed during the 2nd classroom period allotted for this lesson.

- 1) Teacher will review the table created from the introduction above.
- 2) Teacher will complete a table of their own as an example for their students.
 - * The teacher may want to have this done before class to save time. An example may be an Orca.
 - * Example: Orcas need to breath air, needs fish as food, needs water to stay alive and to swim in.
- 2) Students will use their schemata to fill out a table of their own. Students will choose an animal and a plant that they recognize to be living (not a human or beluga), and write down what they believe to be things that animal and plant need to live.
 - * Teachers may wish to prepare a fill in the blank style sheet for students to fill out, or even have students work in pairs or groups to complete this step. As well teachers can have students prepare one table for an animal and one for a plant.
 - * Teacher also may want to give their students notice of what the closure activity will be.

Closure: This will be done during the 3rd class room period allotted. Using the tables that students had created on their own choice animals previously in the lesson, they will act out each of the needs that their animals requires to live in front of the class.

* Another way to do this is to have the students act their animals out in small groups to each other, or individually in front of the teacher at another time.

- 1) Using the example of an orca, the teacher will act out that it needs air to breathe (take in a big breath, possibly pointing out that orcas breathe through a blow hole), that it eats fish for food, and that it needs salt water to live in and stay alive.
- 2) Give the students time to prepare themselves. Walk around and help individual students or groups of students with what they will do.
- 3) Use the assessment checklist to make sure that all students have completed the required tasks.

MATERIALS AND RESOURCES

Instructional Materials:

- Figure 1:

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| Human Needs | Beluga Whale Needs | Plant Needs |
|-------------|--------------------|-------------|
| | | |

“The Needs of a Plant” by Harry Kindergarten:

www.youtube.com/watch?v=dUBIQ1fTRzI

Resources:

- The 2007 revised Science and Technology, Ontario curriculum, grades 1-8.
- Sciencesaurus: A student handbook. (2006) By: Great Source education group, A Houghton Mifflin Company.

Technology:

- The use of SMART board technology, or a computer projector system that has access to the internet. This will be used to display information.

EXPECTATIONS & ASSESSMENT

Expectations from the Ontario Science Curriculum Grade 1:

2. Developing Investigation and Communication Skills

- 2.2 Investigate and compare the basic needs of humans and other living things, including the need for air, water, food, warmth, and space, using a variety of methods and resources (e.g., prior knowledge, personal experience, discussion, books, videos/DVDs, CD-ROMs).

- 2.6 Use appropriate science and technology vocabulary, including investigation, explore, needs, space, and food, in oral and written communication.

3. Understanding Basic Concepts

- 3.1 Identify environment as the area in which something or someone exists or lives.

Assessments:

- Rubric Assessment provided