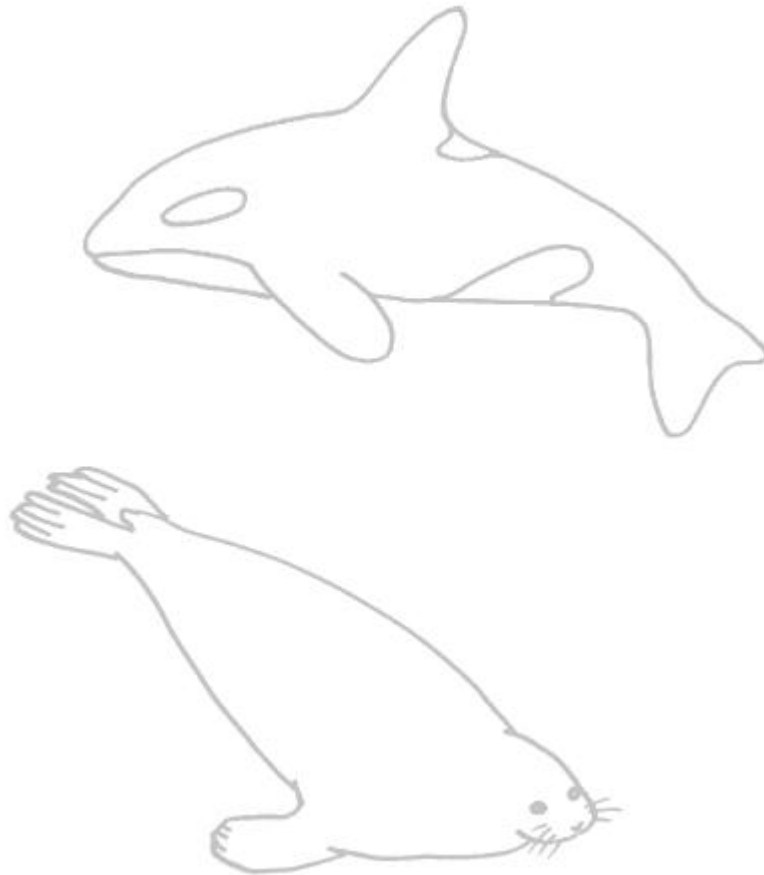


Pre-Visit Activities

These classroom activities will help prepare your students for the upcoming Aquarium visit.

1. Name Tags

Help our Educators get to know your students. Have your students create nametags in preparation for their Aquarium visit. They can colour and cut the arctic animal shapes and write their names on them in large print.



2. A Look at Literacy

Have your class read stories or non-fiction about the Arctic. Discuss any new words, terms or concepts. Have your students use the new terms by reading passages aloud and using the terms descriptively. Examples of terms are echolocation, habitat, ecosystem, adaptation, physical characteristics, camouflage, predator, prey, plankton global warming and endangered.

3. What your class will see and do during their Aquarium visit

Talk about the upcoming Aquarium visit-what your class will do and what they might expect to see.

4. Begin a Project on the Arctic. Students will be excited to see the animals they are studying.

5. High Arctic Weather Report:

May 15th: High scattered clouds. Visibility to 24 km with drifting snow until late in the afternoon when winds pick up from 37 kph to 61 kph, with gusts to 74 kph, causing visibility to drop in blowing snow. Today's highs to -17 degrees C with lows to -23 degrees C.

Describe the weather in your region today.
What do you think it is like in the Arctic?

6. Adapt to the Arctic.

Most humans live in temperate regions of the Earth. Have your class brainstorm about how they could survive in the Arctic region.

Post Visit Activities

After your visit with the Arctic Adventures School Program, try any of these classroom activities to enhance learning.

1. Arctic Food Web

In Lancaster Sound, a very complex food web develops during the six weeks the area is free of ice in the summer. The abundance of animals is astounding. Name animal, plants and physical features that could be present in an ecosystem here: ice, water, sun, man, polar bears, walrus, birds, seals, fish, krill, phytoplankton, belugas, narwhals, bowhead whales, ice algae. Draw these animals on the board and draw arrows between the animals and what it eats.

Objectives

- Describe all organisms in terms of their roles as part of interconnected food webs
- Describe ways in which species interact with each other
- Determine the limiting factors for local ecosystems
- Outline the stages of recovery of a damaged local ecosystem

Materials

- Pencils
- Ball of brightly coloured wool

Procedure

1. Draw the Arctic ecosystem on the board
2. Have students draw arrows between the animals indicating what each eats. Have a discussion
3. Discuss how the Arctic food web works
4. Gather your class in a circle. Have each student to choose to be an element of the Arctic food web-plant, animals, sun or ice.
5. Group students who choose to represent the same organism or factor together. Have them discuss what they add to the food web's energy, and what they take from it to survive.
6. Toss a ball of wool to the algae group. Have members explain to the whole web how they use sunlight and that they are eaten by krill. They toss the wool to the krill. The krill explains...
7. When your web is thickly woven, ask your students which part of the web would be affected if one element were to be removed. To find out have the removed group tug gently on their wool. Which other students can feel a pull on the yarn? How are they affected?

2. Arctic Current Events

The Arctic is often in the news-especially in regards to developments and global warming. Have your class scan the news and report back to the class what they are always learning.

Objectives

- Employing a variety of media resources to research the Arctic: newsprint, TV and internet
- Communication through public speaking and sharing of ideas
- Raise awareness of current events and ideas

Scope

- This activity can have a longer scope for example have students scan news reports once a week for a month.

Materials

- Newspaper
- Newsmagazines
- Internet
- TV

Procedure

1. Set out a longer scope task for your students to do at home. Encourage them to scan news reports from a variety of media on the Arctic. For example one group could scan newspapers, one group TV news and yet another the internet.
2. Have students report back to the class what they have found. Encourage discussion of ideas and foster any interest in knowing more.
3. Repeat this activity every week for a month.

3. Arctic Journal

Have your students embark on an imaginary journey through the Arctic, discovering the flora and fauna of this habitat, and the culture of people who have lived there for thousands of years. Draw pictures and record your observations in a daily log that tells how it really happened.

Objectives

- Identify living resources in the environment
- Devise a strategy for sustaining a living resource
- Describe all organisms in terms of their roles as part of interconnected food web
- Determine the limiting factors for local ecosystems
- Outline the stages of recovery of a damaged local ecosystem

Materials

- Pencils
- Paper
- Reference Books

Procedure

1. Have your students create their own daily log books based on an imaginary trip to the far North
2. Ask them what they think they might see? How are the plants and animals interrelated? How have the Inuit lived so successfully in this environment for so long? What equipment will they need to pack and bring on their expedition to survive the elements?

4. Watching my Waste-Line

In this activity, students will record how much daily waste is produced in the classroom and work towards reducing their impact on the environment.

Overview of Activity:

1. After lunch, empty the garbage can in the classroom, and make a list of the types of garbage (e.g. plastics, juice box, paper, food, etc.) and the amounts of each type of garbage. Chart and total this amount.
2. Discuss where the garbage will go (to the dump? to a landfill?) and how garbage can affect the environment. Ideas that should come up include:
 - Animals eat it and get sick
 - Animals get caught in it and die
 - Chemicals get into the environment
 - It takes up space and habitat
3. Look at your immediate area, too. Are there enough garbage bins in the schoolyard? How does the garbage get removed? Is the movement of the garbage a source of pollution that needs attention? Does schoolyard garbage get into local streams?
4. Discuss how we can reduce the waste we produce. Ideas might include:
 - Recycle material
 - Reuse plastic bags (or use cloth bags)
 - Buy items with less packaging
 - Use reusable containers
5. Take out any recyclable material (paper, cans, juice boxes, etc.) and arrange to have them recycled. Total the remaining amount of waste. Compare this to the original amount. How much waste could have been reduced?
6. Challenge the class (or the entire school) to reduce their waste by having a Litterless Lunch (see following lesson plan). Check every week and chart their progress. Make a sign that shows the amount of waste that has been reduced. For example, "Since September 6th, we've reduced our waste by 42%!!"
7. As an extension, consider looking at the community as a whole and methods to reduce waste as a community. How can students encourage the community to reduce waste, reuse and recycle?

5. Litterless Lunch

Parents often pack lunches with disposable plastic bags, aluminum foil, or wax paper, or they purchase single-serving items, such as fruit cups or juice boxes. Much of the trash we generate comes from food packaging, and lunch foods are no exception.

In fact, it is estimated that on average a school-age child using a disposable lunch generates 67 pounds of waste per school year (www.wastefreelunches.org). An old-fashioned "brown bagger" can conceivably dispose of over 14, 000 paper lunch bags in their lifetime (www.saveonfoods.com).

A litter-less lunch is one where nothing needs to be thrown away. For example, a student could pack a lunch in a reusable lunch box or cloth bag with re-usable plastic containers.

Activity

1. Eat lunch in the classroom on a rainy day, and ask students to measure the amount of waste.
2. Discuss what it means to create a lunch with no waste. Why is it important?
3. Brainstorm with the class what a litterless lunch looks like?

Avoid:

- × Brown paper bags
- × Plastic sandwich bags
- × Disposable single servings
- × Styrofoam cups
- × Individually packaged snacks

Instead choose:

- √ Reusable lunch kits or bags
- √ Reusable plastic containers: Divide a larger batch of snacks or a large container of yogurt into your own single servings.
- √ Reusable drink bottles: Buy larger sizes or concentrated forms of beverages and dispense them into your own refillable thermos or drink container.
- √ Snacks in minimal wrapping
- √ Recycling: Return your deposit container at a redemption centre. Place your clean metal, rigid plastic, plastic bags, paper, and cardboard in the blue bins at Recycling Depots around the region.
- √ Pack a cloth napkin instead of a paper napkin.
- √ Pack stainless-steel utensils instead of using disposable plastics.
- √ Compost your fruit and vegetable scraps. Take them home or consider setting up a worm composting bin at school.

4. Select a day to have a litterless lunch in the classroom. Send a letter home informing parents about the day and possible lunch alternatives.

Arctic Adventures School Program
Class Room Activities

5. Measure the waste, and compare it to the lunch waste before the class discussed the importance of a litterless lunch.

Follow up activities:

- Ask students to create a collage of things that create a litterless lunch.
- Have the students set a personal goal regarding their lunches, and create a chart so they can track it for a period of time.
- Compose a litterless lunch song or story about how they can make a difference.
- Write about how students can help reduce the litter in their lunches at home.

Arctic Adventures School Program
Class Room Activities

6. Dear Aquarium Volunteer

Have your students write letters, with pictures, to the Aquarium Volunteer Educators who teach the Arctic Adventures School Program. Your students can tell the Volunteers what they like most about what they saw, touched or heard during their program. Aquarium Volunteers love to receive mail.

Objectives

- Practice general language arts written skills
- Learn about the physical characteristics and behaviour of a variety of animals
- Teach the value of direct observations
- Reinforce what the students learned during their Aquarium program

Materials

- Story books
- Pencils, crayons
- Paper
- Large envelope for all the letters and pictures
- Postage

Procedure

1. Discuss your students' visit to the Vancouver Aquarium. What did your students learn? What did they learn that they didn't know before? What surprised them the most? What animal inspired them to learn more about?
2. Have the class read about the ocean.
3. Ask your students to write letters and/or draw pictures to the Volunteers. What did the students like most? What did they learn?

Address:

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