

Warm-Up/Wrap-Up Activities

1. A Change Over Time

By comparing altered pictures of the same habitat, students will discuss how habitats can change over time and what the changes and influences for change are.

2. Fridge Fiasco

By considering their own experience with food, students will engage in a discussion that introduces them to the concept of a disturbed food chain and its impacts on those that rely on it.

3. The Preventable Problem

This comparison activity featuring problems and their preventions encourages students to recognize that seemingly innocent actions can have great impact on habitats and communities.

4. Songs for an Ecosystem

Students will create a song to describe how humans can protect aquatic habitats. (Note: This is best used as a wrap-up activity.)

W1. A Change Over Time

PURPOSE: By comparing altered pictures of the same habitat, students will discuss the influences and changes that can alter habitats over time.

TIME: 20 minutes

PROCEDURE: Photocopy the Blackline Masters: Habitat Transition (3 pages in all), depicting the same habitat under three different scenarios. Hang the pictures up for students to see (or pass out sets of photocopies). Ask the students to determine what the pictures represent and to discuss what is occurring in each picture. (This can be done in groups or in a Think, Pair, Share format.)

- What do you think is happening in each picture?
- What signs do you see that show a healthy/unhealthy habitat?
- Looking at each picture, what do you think occurred to make this habitat change?
- In each picture, what is the effect on the animals and plants?
- In each picture, what is the effect on humans?
- Discuss the human role in the habitat transition.
- Can you make any predictions based on this series of pictures?

EXTENSION: Choosing a habitat of their choice, students could draw a series of pictures that show the transition of a local habitat (schoolyard, forest, classroom, pond, downtown – not home or neighbourhood) from healthy to unhealthy or vice versa.

ENSURING UNDERSTANDINGS: Understanding concepts related to healthy habitats; recognizing our role in maintaining healthy habitats (stewardship).

EXPECTATIONS: For the full expectations listing, please see page 75.

NOTE TO TEACHER: This activity could be delivered as a wrap-up activity to ensure students have an understanding of the main concepts of the Science – Understanding Life Systems unit.

W2. Fridge Fiasco

PURPOSE: By considering their own experience with food, students will engage in a discussion that introduces them to the concept of a disturbed food chain and how it impacts those that rely on it.

TIME: 15 minutes

MATERIALS: 10 slips of scrap paper

PROCEDURE:

1. Tell students that “today” is grocery shopping day. Ask them to generate a list of their 10 favourite food items covering all four food groups. As suggestions are made, print them on the blackboard and each on a slip of paper. Place the slips of paper in a container.
2. Explain: A family of greedy gluttons has moved into the neighbourhood. They have a huge appetite and wads of cash. They get to the grocery store ahead of you and buy out all but three of the food items.
3. Have students draw seven of the food items from the container of slips and cross these items off of your blackboard grocery list. As the items generated are student favourites, have fun and make a big deal out of removing the items from the list.
4. Explain: As the greedy glutton family have moved in for good, it looks as though these 3 items will be all that you can eat from now on. (Note: There are no other grocery stores in your community!) You buy the items that are left.
5. Ask students: How do you feel about eating the food that remains? How would you feel in two weeks? One year?
6. Explain: The grocery store runs out of two items and you are now left with only one.
7. Draw two more items from the container and scratch them off the list. You are now left with only one item. What could happen to your body over time if you ate only this one item? Remind students about the 4 food groups, if necessary (unbalanced diet and poor nutrition, hunger, lethargy and starvation, for example). How would this diet affect your schoolwork? Relationships? Family and school life?
8. Explain: Two new members are added to your family, however, the amount and type of food available from the store remains the same. Ask: How does this impact you and your relatives?
9. Explain: This situation is one that native species can experience when new, stronger, invasive species enter the food chain and devour their food. The impact on the native species, its community and habitat can be severe.

ENSURING UNDERSTANDINGS: Understanding concepts related to healthy habitats.

EXPECTATIONS: For the full expectations listing, please see page 75.

NOTE TO TEACHERS: Ensure you phrase this activity in a manner that does not highlight students who may have limited access to appropriate quantities of food on a daily basis. Do not ask for example: What do you have in your fridge? What did you have for lunch?

W3. The Preventable Problem

PURPOSE: This comparison activity, featuring problems and their preventions, encourages students to recognize that seemingly innocent actions can have great impact on habitats and communities. Students will demonstrate this understanding verbally and through the use of drama.

TIME: 25 minutes

PROCEDURE: Cut Blackline Master: *Healthy Habitats – Problems and Preventions* into slips for distribution. Put students into pairs and provide them with either a problem or a prevention. Ask students to find their match and discuss amongst themselves how following the prevention ensures they will have no problem.

If we did this (prevention)... then this wouldn't happen (problem). Have groups share their discussion with the class. Ask them to predict what would happen if they didn't apply the prevention (**prediction**). Ask them for examples from their own lives (**connection**) that demonstrate how they can impact their habitat through the choices and actions they make.

EXTENSION: Students could dramatize their problem and solution.

ENSURING UNDERSTANDINGS: Understanding concepts related to healthy habitats; recognizing our role in maintaining a healthy environment (**stewardship**); learn of tools for maintaining healthy habitats and communities, and protecting against invasive species.

EXPECTATIONS: For the full expectations listing, please see page 75.

W4. Songs for an Ecosystem

PURPOSE: Students will create a song to describe how humans can protect aquatic habitats. This activity will allow students to communicate their understanding of the roles humans play in protecting habitats and communities.

TIME: 30 minutes

PROCEDURE: In small groups, students will change the words to a familiar tune to describe how invasive species introduced by humans can affect habitats or what can be done to prevent invasive species from entering habitats. Words can be written and performed from the point-of-view of a native species, invasive species or a human.

Songs like, “When the Saints Go Marching In”, “Oh Susanna”, “When You’re Happy and You Know It” or even tunes from contemporary songs can become memorable odes to being responsible to our aquatic habitats. Encourage students to remember their new ditties by performing them for each other, their family, another class or the school.

Example: (This is one verse of a song that is sung to the tune from “American Woman” by the Guess Who and the full version can be found in the Blackline Masters on page 57.)

Invading species, stay away from me;
Invading species, you spiny water flea;
Don’t come hangin’ around my shore;
I don’t want to see your hooks no more;
I got more important things to do;
Than spend my time cleaning boats of you;
Now mussel, I said stay away;
Gobies, listen to what I say.

EXTENSION: Consider extending this warm-up into a drama lesson by introducing actions, costumes and props.

ENSURING UNDERSTANDINGS: Understanding concepts related to healthy habitats; recognizing our role in maintaining healthy habitats (stewardship); learn of tools for maintaining healthy habitats and communities, and protecting against invasive species.

EXPECTATIONS: For the full expectations listing, please see page 75.

NOTES TO TEACHER: *Songs for an Ecosystem* is best used as a wrap-up activity.