

**Use full sentences unless otherwise noted. **

Before the Basin

1. If Lake Champlain is a freshwater lake, why have scientists discovered fossils of saltwater animals in the basin?

2. List the animals that are found in the Champlain Sea Tide Pool.

1. _____ 2. _____ 3. _____
4. _____ 5. _____ 6. _____

3. One of the animals in the tide pool is related to spiders. Which one is it and what are some other interesting characteristics it has?

Animal Name _____
Characteristics:

Watershed Way

4. What is a watershed? What are 3 ways people alter the flow of water in a natural watershed?

A watershed is _____.

1. _____ 2. _____
3. _____

Land of Opportunity

5. Look for the red spotted newt. Study and draw a detailed picture and label the newts main body parts.



6. At the *Listening to the Uplands* station. Listen to Warren King and Susan Morse talk about the sounds that certain animals make. Choose one of the animals. Write the sounds *phonetically* (write exactly as it sounds rather than correct spelling, for instance, chickadee song = "chick-a-dee-dee-dee") Next, describe their habitat. Do the sounds they make serve a purpose?

Name _____ Phonetic spelling of sound _____

Habitat Description _____

Songs/Sounds serve the purpose of _____

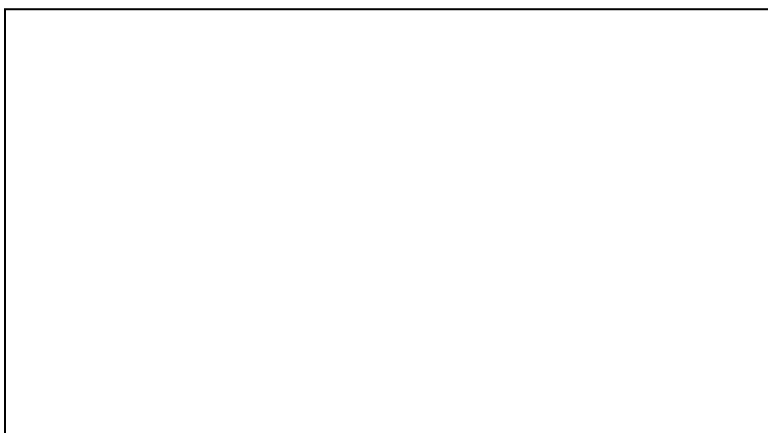
7. Which two organisms work together to form lichens? Where are lichens' natural habitats? Why are lichens important to alpine ecosystems?

Organisms 1. _____ 2. _____

Natural Habitat _____

Lichens are important to the alpine ecosystem because _____.

8. Go to the *What is in the Water* station (by the snapping turtle). Look at all the *macro invertebrates* under the microscope. There is one that is not identified. Study it and draw what you see. Make an educated guess about whether or not it is a predator or a collector. How do you think this animal feeds?



Predator Collector

It feeds by _____

_____.

Into the Lake

9. Notice how most of the baby sturgeon are swimming right along the bottom of the tank. Why do you think they skim the bottom?

_____.

10. Look in the tall, round tank of *schooling fish*. This species is a favorite for bass fisherman as it makes a great fishing lure. What kind of fish is it?

Fish is called _____

11. Find a fish that can be found by day around debris like a shipwreck or submerged logs where it hides from wallyeye and northern pike. What fish is it?

Fish is called _____



ECHO Ecology Trek
Grades 6-8
ANSWERS

1. Lake Champlain was not always a fresh water body; about 13,000 years ago it was a salt water body known as the Champlain Sea. The fossils of saltwater animals that have been found by scientists in the area are left over from the time of the Champlain Sea.
2. Seastars, Green Sea Urchins, Horseshoe Crabs, Hermit Crabs, Periwinkle Crabs, Blue Mussels, and Sea Anemones can all be found in the Champlain Sea tank.
3. The Horseshoe Crab is related to spiders; both are part of the Arachnid family. Some other interesting characteristics of Horseshoe crabs are that they swim upside down and use their tails to right themselves. Their blood is blue and is very useful in testing pharmaceuticals.
4. A watershed is all the land and water within a drainage area, as defined by topographic high points such as mountains. Humans alter the flow of water in natural watersheds by building dams and otherwise blocking streams and rivers, diverting water flow for farming and other purposes, and changing the terrestrial landscape (clear cutting trees, etc.).
5. Each student's drawing will be unique. Students may point out the newt's legs, flat tail, yellow belly, dark spots, and eyes.
6. The Hermit Thrush call may sound similar to human words "oh-holy, holy, holy" or "eeh – sweetly, sweetly, sweetly". The Scarlet Tanager's call sounds like "chip-churr". Each student may have a different interpretation of these sounds. These birds live in deciduous forests and mixed woodlands. Other are the Porcupine and the Bear. Porcupines also enjoy wooded areas, particularly those with plenty of rock cover and small caves. Bears are known to moan, huff, and snort.
7. Lichen is formed through the cooperation of fungi and algae. Lichen will grow on most any sunny and stable surface including trees, rocks, soil, and the tundra. Lichen is very important in an alpine ecosystem for several reasons. First, over time they create small pockets of soil and allow other plants to take root and grow. Second, they are an indicator species – they are sensitive to changes in pollution levels. When lichen are absent from an area, it could indicate high levels of air pollution.
8. This invertebrate looks like a predator with claws that might be used to attack food and bring it to the mouth.
9. Sturgeon swim along the bottom of the tank in order to stir up the sand with their long snouts; they then use their whisker-like barbels to find sources of food. With their siphon-like mouth, they suck up edibles like a vacuum and expel unwanted silt.
10. The schooling fish are Emerald Shiners.
11. This fish is known as the Trout-Perch.

