

Here, There, or Anywhere

Read the descriptions and color the pictures below to see how parts of a picture can look close or faraway. Then find the wetland animals and write the answers on the lines.



Front

Color the objects that are the closest to you. Close objects are usually bigger and at the bottom of the picture.



Middle

Color the objects in the middle ground of this picture.



Back

Color the objects that are farthest away from you. Objects that are far away are at the top of the picture and smaller.

Where am I?

Circle and color the 10 wetland animals hidden in this picture. Then write who is in the **front**, **middle**, and **back** of the picture.

Fox _____ Middle _____
 Butterfly _____
 Song Bird _____
 Mallard _____
 Canada Goose _____
 Rabbit _____
 Red-tail Hawk _____
 Tule Elk _____
 Snake _____
 Dragonfly _____



Drawing with Depth

Draw a wetland with depth. First decide what objects you want in your wetlands (animals, plants, water, hills, etc.). What will be in the **front**, **middle**, and **back** of your picture? Remember, when an object is in front of another, it is called **depth**.

Answers: Fox - Middle, Butterfly - Front, Song Bird - Front, Mallard - Middle, Canada Goose - Back, Rabbit - Back, Red-tail Hawk - Back, Tule Elk - Back, Snake - Middle, Dragonfly - Front

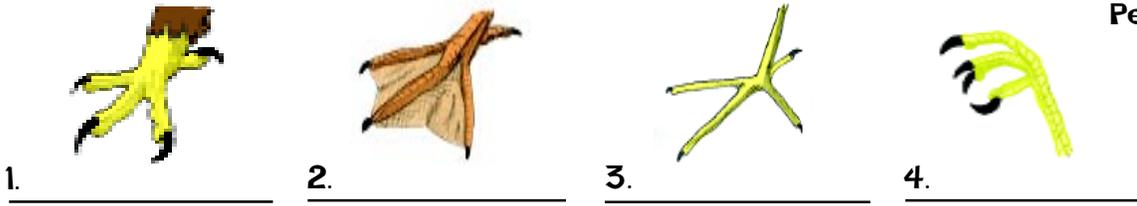
The Right Tool for the Right Job

Read each section below and follow the instructions.

From the top of their heads to the tips of their toes, birds are adapted for life in wetlands. A lot of wetland bird adaptations are specially shaped body parts that help them survive in a certain habitat (area) of a wetland.

Feet

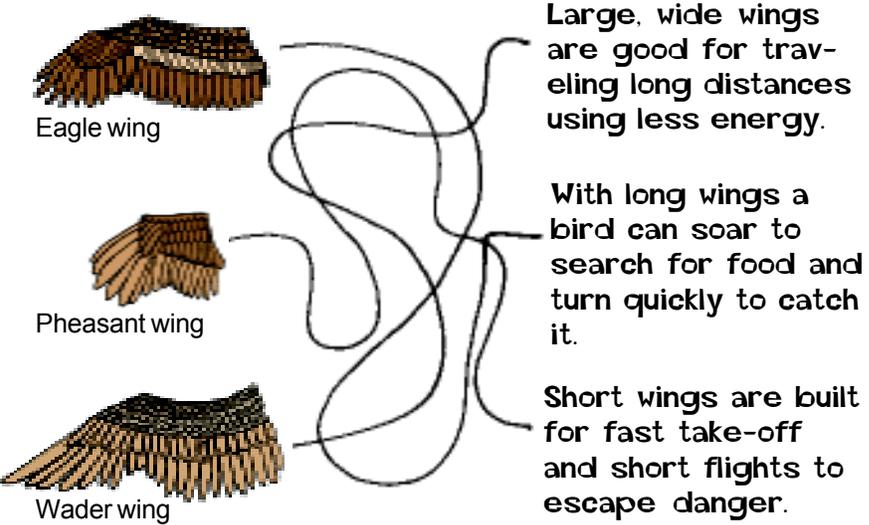
Bird feet match their lifestyle and habitat. For example, eagles have sharp nails and grasping feet useful for hunting. Study the differently shaped feet below and write their uses on the lines.



- Perching on small branches
- Grabbing animals
- Swimming
- Walking in mud

Wings

Some birds fly long distances and others only fly a few yards at a time. This means birds need different shaped wings. Follow the path of each wing to learn about its flight patterns.



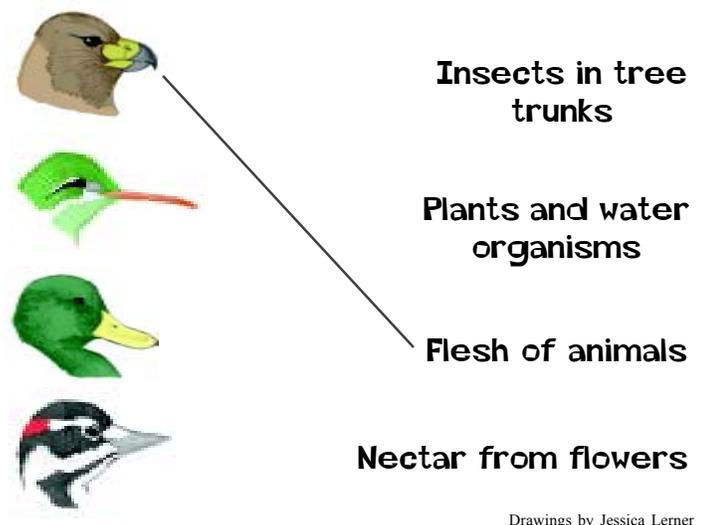
Large, wide wings are good for traveling long distances using less energy.

With long wings a bird can soar to search for food and turn quickly to catch it.

Short wings are built for fast take-off and short flights to escape danger.

Beaks

The shape of a bird's beak tells us what it eats. A sharp curved beak is used to rip flesh of animals. Draw a line to the type of food each bird eats.



- Insects in tree trunks
- Plants and water organisms
- Flesh of animals
- Nectar from flowers

Drawings by Jessica Lerner

Create Your Own Marshbird

Create your own marshbird. Close your eyes and point to a beak, then a foot, and then a wing. Draw your marshbird by combining the body parts. Once you complete your new bird species, write a few sentences describing the type of habitat it lives in, its flight pattern, and what it eats.



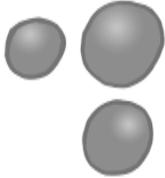
Marsh Muck

Explore the properties of soil and soil particles, then help the water drops **percolate** through different soils by completing the soil mazes.

Soil Properties

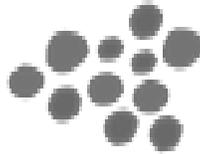
Soil is a mixture of different sized particles. These particles come from the weathering of larger particles, pebbles, and rocks. **Sand** is the largest particle. **Silt** is smaller, and **clay** is the smallest. Mixed together in different amounts, these particles form soils that hold water and air.

Sand



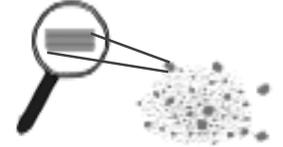
Sand is made up of big particles. The particles fit together loosely leaving a lot of space for air and water to flow between them. This means that sand cannot hold water for long periods of time.

Silt



Silt is made up of medium sized particles that fit together snugly, leaving some space for air and water to move between particles. So silt can hold water longer than sand but less than clay.

Clay

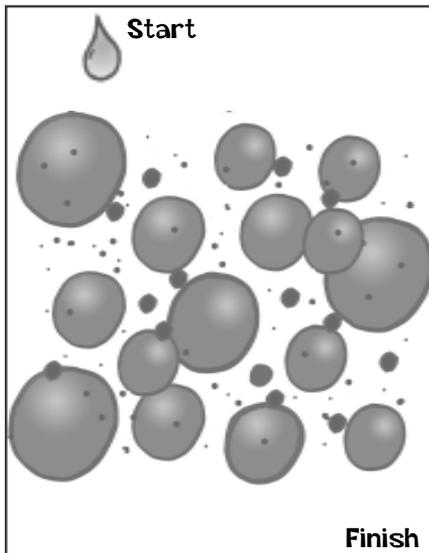


Clay particles are extremely tiny and are stacked in layers like dinner plates. They fit together very tightly, leaving hardly any space for air and water to flow through. This allows clay to hold water for very long periods of time.

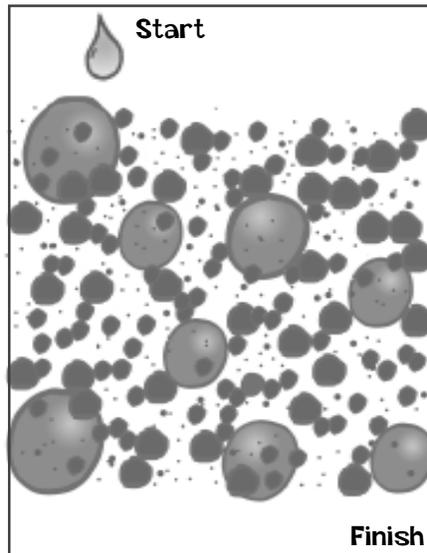
Soil Types

Soil is classified by the amounts of sand, silt, and clay mixed together. Draw a line to help the water drop percolate (travel downwards) through the different soil mazed to discover how each soil type holds water.

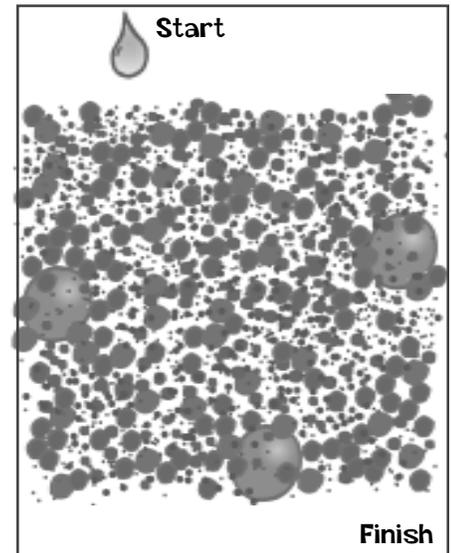
Sandy Soil



Silt Soil



Clay Soil



What type of soil do you think you would find in a wetland and why? _____

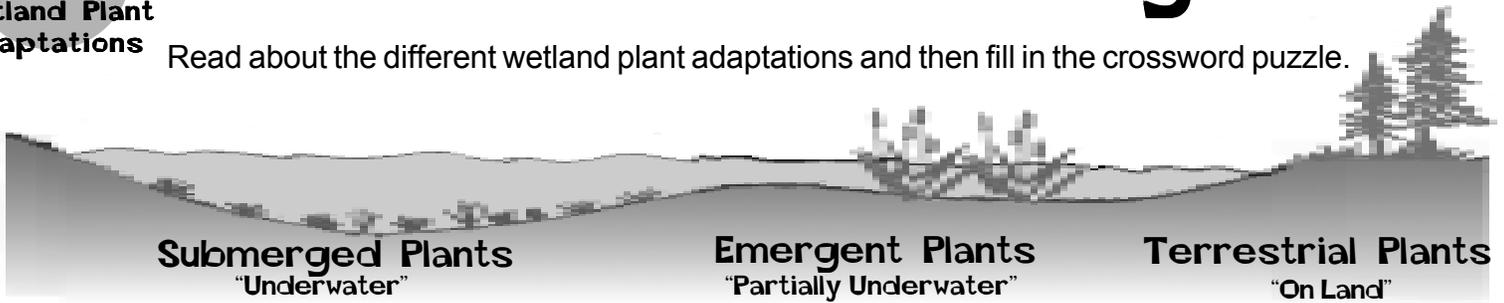
Drawing with Soil

In addition to their water and air holding capabilities, soils are also valued for their many colors. Collect soils from several different locations. Add some water and make a picture using the different colored soils.

Where do We Belong?

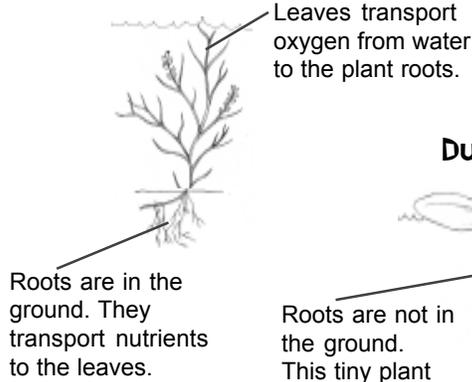
5th Grade Wetland Plant Adaptations

Read about the different wetland plant adaptations and then fill in the crossword puzzle.

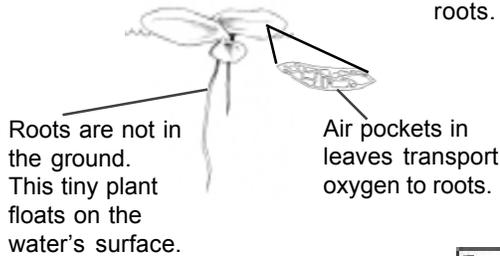


Many wetland plants have adaptations to help them live with water. One of the most important adaptations is specialized tubes that transport (move) oxygen around the plant. By studying wetland plant adaptations you can figure out where a specific wetland plant lives.

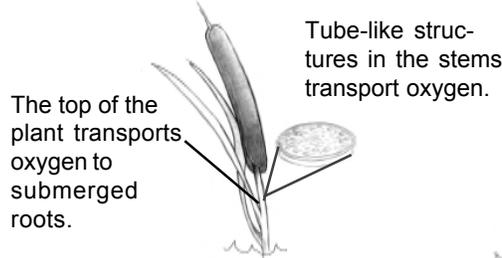
Pondweed



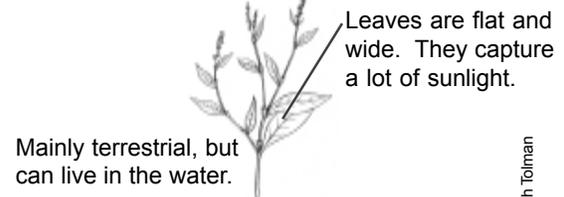
Duckweed



Cattail

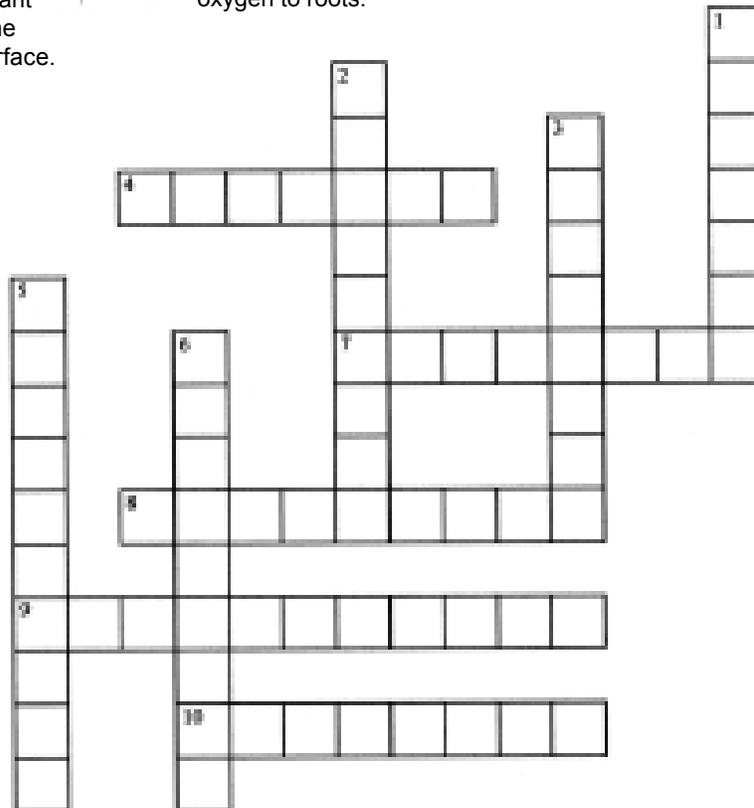


Smartweed



Across

4. My submerged roots get oxygen from my emergent leaves. Who am I?
7. My leaves are adapted for me to live and breathe underwater.
8. I am a terrestrial plant that does not mind getting my "feet" wet.
9. I include all plants that live on land.
10. I include plants that are rooted under water, but breathe in the air.



Down

1. A wet area that starts with "W."
2. I am another term for "move."
3. I am an emergent plant and my roots are not in the ground.
5. Unscramble dptataonia (*Hint: This helps a plant to live in wetlands.*)
6. I include all plants that live underwater.

Drawings by Josh Tolman

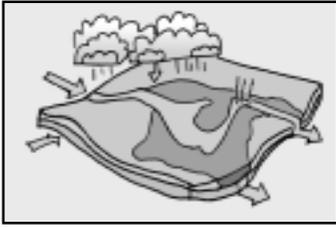
Create your own Wetland

Draw a wetland. Include all of the plant species above. Be sure to place submerged plants underwater, emergent plants in shallow water, and terrestrial plants on dry land. Label each plant species, and write a few sentences explaining the location of each one.

Answers: Down 1. Wetland 2. Transport 3. Duckweed 5. Adaptation 6. Submerged 7. Pondweed 8. Smartweed 9. Terrestrial 10. Emergent

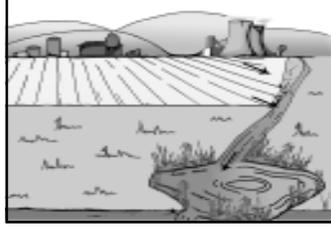
Wetlands With A Mission

Read about the important functions of wetlands, and then complete the wetland metaphors.



Water Control

With rain and snow there is always the danger of flooding. Wetlands reduce this danger by providing a place for flood waters to go. The water of flooding rivers spreads out and **slows down** upon entering a wetland. The water is then **absorbed** by the soil and the plants, preventing it from going over the riverbanks. During the dry season, the water is released, to provide nearby rivers with a water source.



Sediment/Pollution Removal

As water flows over the earth's surface it picks up sediments and pollutants. Wetlands **filter** water, by removing harmful sediments and pollutants. Wetland plants **adsorb** some of the pollutants and **slow** the speed of water. As the water slows, sediment and pollutants settle out, leaving cleaner water to travel downstream.

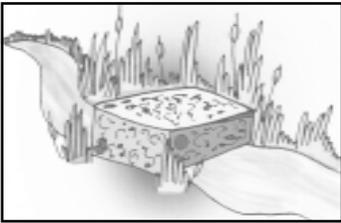


Habitat

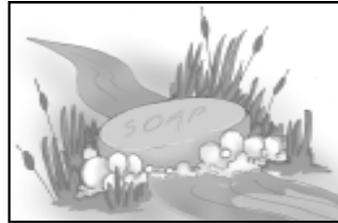
Wetlands provide habitat for a variety of species to make **homes**. Along with these homes comes **food** and **shelter**, as well as a place for animals to **rest** during migration. Wetlands are also a great place for plants and animals to **reproduce**, making them among the most productive habitats on earth.

Wetland Metaphors

Working in small groups, determine how these everyday objects represent the functions of a wetland. For each object answer these questions: **1)** What does the object do? **2)** How is a wetland like this object? **3)** Why is it important for a wetland to function this way? Write your answers on the back.



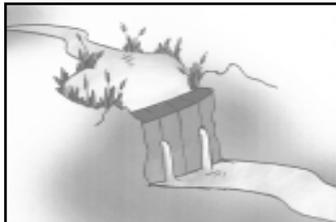
Sponge



Soap



Cereal



Dam



House



Strainer

Backyard Wetlands

Explore the wetlands in your community. How are the conditions of these wetlands affected by humans? Also how would the destruction of these wetlands affect their natural functions? Discuss these issues with your classmates. Then write your personal thoughts in a journal.