



# Parachute Party: “Find A Creature Who Can...”

**GRADE LEVEL:** Pre-k - 2

**TIME:** 35 MIN

## SUMMARY

In this lesson, students will learn about plants and animals that have special adaptations to help them survive on Poplar Island.

## OBJECTIVES

1. Participants will be able to name organisms that live on Poplar Island and their adaptations.

## VOCABULARY

- **Adaptation** - A behavior or physical feature that enables an organism to survive in its habitat.
- **Amphibian** - A cold-blooded vertebrate animal which spends part of its life cycle in the water, and part on land. Amphibians have an aquatic gill-breathing larval stage followed (typically) by a terrestrial lung-breathing adult stage. Examples of amphibians include frogs, toads, newts, and salamanders.
- **Carnivore** - An animal who eats meat.
- **Habitat** - The natural home or environment of an animal, plant, or other organism, which provides food, water, shelter, and space.
- **Herbivore** - An animal who eats plants.
- **Crustacean** - An animal who has a shell (typically a marine animal). Examples of crustaceans include lobsters, crabs, and shrimp.
- **Insect** - A small animal that does not have bones, has many legs and typically has wings. Examples of insects include beetles, bees, and ants.
- **Mammal** - A warm-blooded vertebrate animal. Mammals have fur or hair, produce milk for their young, and (typically) give birth to live young (rather than laying eggs). Examples of mammals include dogs, fox, deer, and humans.
- **Nocturnal** - An animal who sleeps during the day and is active at night. Examples of nocturnal animals included owls, bats and mice.

- **Reptile** - A cold-blooded vertebrate animal. Reptiles have dry, scaly skin and typically lay soft-shelled eggs on land. Examples of reptiles include snakes, lizards, crocodiles, turtles, and tortoises.
- **Wetland** - Ecosystems containing water, specialized soils, and plants adapted to living in water-saturated soils. Marshes, swamps, and bogs are types of wetlands.

## MATERIALS

- Poplar Island Parachute – Show the sun in the center surrounded by sky, then land (Poplar Island), then the water (Chesapeake Bay). The perimeter of the parachute will depict twelve animals found on Poplar Island (see picture for example).
- Nylon parachute
- Paint
- Several short pieces of rope

## BACKGROUND

The Port of Baltimore is an important institution in the state of Maryland because it brings financial prosperity to the state and provides many jobs for Maryland residents. In order to keep the Port open for business, the Port of Baltimore must make sure that shipping channels are deep enough for large ships that typically travel in the ocean. Because the Port of Baltimore performs maintenance dredging each year (see general introduction) to keep the shipping channels deep enough, placements sites for the dredged material removed from shipping channels are constantly used to contain the sediment. The sediment is often used to restore and support habitat at the placement sites. The restored habitat at these placement sites has attracted a wide array of animals by providing thriving habitats. Animals that are attracted to these sites have special adaptations that allow them to live in the restored Chesapeake Bay habitat that is found at dredged material placement sites like Poplar Island.

## ACTIVITY

### 1. Engage/Elicit (5 min):

Spread the parachute onto the floor and have students stand in a large circle around it. To gain focus of the group, have students clasp their hands together and hold them in front of them as you model the motion. This can also be done throughout the lesson to help regain focus if needed. Ask students to quietly look at all of the pictures on the parachute and raise their hand if they recognize any of the animals painted on it.

### 2. Explore (10 min):

Have everyone look at the parachute. Explain that this parachute represents a wetland on Poplar Island and that you are going to tell them the very interesting story of this special place. Use the following questions to frame the story of Poplar Island so students are involved in the storytelling.

- In the center is the big yellow circle that makes the Earth warm, makes plants and trees grow, makes us wear special glasses when we go outside...what is it?
  - a. The Sun.
- Around the Sun is the bright blue sky with some birds flying around. What does the green circle represent?
  - a. The grasses that grow in the wetland on Poplar Island.
  - b. Marsh grasses, cattails, some flowers, bushes, etc.
- What is a wetland?
  - a. A type of habitat that has water and grasses. Wetland often have squishy ground, and they are great homes to different kinds of plants and animals. There are many wetlands on Poplar Island.
- What does the other blue circle represent?
  - a. The water around Poplar Island.
  - b. **Action:** From a seated or kneeling position have the students make small, slow waves with the parachute to represent waves.

Tell the story of Poplar Island quickly covering the following points:

- Long ago Poplar Island was a very large island. Many plants, animals, and people lived on it.
- When people lived on the island, they used the trees build houses. They decided to make farms by taking plants out of the ground. Does anyone know what part of the plant grows in the ground? Roots. Well the roots on this island helped to keep dirt together to make the land. When the trees and plants were gone, waves and wind and storms started to wash the land away. Guess what happened to the island? Do you think it got bigger or smaller? It got smaller.
- **Action:** Ask students to make waves again with the parachute, then little by little, scoot toward to center of the circle, making the parachute smaller and smaller.
- Explain that the island got smaller and smaller. Before it could fit over 1000 football fields, and after the land began washing away, it could only fit 5.
- **Action:** Have students spread the parachute back out and point to the blue water.



- Explain that something amazing happened. Ask students if they have ever seen big cargo ships in the water. Explain that when the ships came by Poplar Island, that had to go in a special section of the water that was deep enough. The section that was deep enough was dug out by the Port of Baltimore to make sure they could get to Baltimore safely. The dirt that they dug needed to be put somewhere safe, and someone had a great idea. Put the dirt back on Poplar Island and make it big again!
- It was a big and difficult project, and they had to make sure the dirt didn't wash away again. What should they put in the ground? Plants! Now that the island was big enough with plants to hold it together, many animals came to live there. We are going to learn about some of the special animals that now call Poplar Island their home.

ship, they should try to remember that because they come to Baltimore, Poplar Island was given a second chance!

### DIVE DEEPER

If time allows, MES can provide a visit with terrapins from Poplar Island. Have students look for special terrapin adaptations specified by the instructor, one at a time. After explaining that these terrapins will return to Poplar Island, ask students to tell their terrapin something about Poplar Island that they learned.



### 3. Explain (15 min):

Adaptations Preparation: For the next part of the activity explain to the students that they will be seated around the edge of the parachute with their hands clasped together and held in their laps listening to the directions.

One by one, the instructor will choose an animal depicted on the parachute to describe to students allowing them to guess which one it is by pointing to the picture. After the instructor gives several clues and most students seem to have guessed correctly, tell them which animal they were describing and teach the students how to mimic their adaptations in the form of a parachute action (see chart). After each action, they will sit down, clasp their hands together, and hold them in their laps to guess the next animal. The action will represent the special adaptations that the animals have that makes Poplar Island their perfect habitat.

### 4. Evaluate/Wrap-Up (5 min):

1. Ask students if they could be any animal on Poplar Island, which one would they choose and why?
2. Ask students if they were happy Poplar Island did not wash away. Why?
3. Ask students if they remember where the dirt came from that rebuilt Poplar Island.
4. Tell students that if they ever see a big cargo

# What is on Poplar Island?

Name	Description	Action
Wetland grasses	<ul style="list-style-type: none"> <li>• Grow tall up towards the sun</li> <li>• Gently blow in the breeze</li> <li>• Animals hide in them, eat them, and use them to build shelter</li> </ul>	Students start with the parachute at the ground and slowly raise it up above their heads (grasses growing towards the sun). Slowly rock back and forth to represent the grasses bending in the breeze.
Muskrat	<ul style="list-style-type: none"> <li>• Furry, brown, long skinny tail chews down wetland grasses</li> <li>• Big sharp front teeth</li> <li>• Has webbed feet that make it a good swimmer</li> </ul>	Hold the parachute above their heads and slowly lower it to the floor making chewing noises (muskrats eating grasses).
Great Blue Heron	<ul style="list-style-type: none"> <li>• Stands about 3 ft tall</li> <li>• Skinny long legs, long bill, covered in blue feathers,</li> <li>• Eat fish, frogs, and snakes</li> </ul>	Have students stand with the parachute at waist height. Then they stand on one foot and look for a fish in the parachute. When they "see" one they dive down with their face into the parachute and catch a fish in their "bill".
Blue Crab	<ul style="list-style-type: none"> <li>• Can be a dark, olive green color</li> <li>• It is a crustacean</li> <li>• It has a shell and two claws</li> <li>• Their scientific name means "beautiful swimmer" in Greek</li> </ul>	Have students stand sideways with the parachute at waist height. Then they stand with their left hand on the parachute and their right hand up to form their "crab claw." The students will move in a circle as they do their best impression of a crab and you can change directions and hands as many times as you see fit.
Great Horned Owl	<ul style="list-style-type: none"> <li>• Nocturnal</li> <li>• Flies without making a noise</li> <li>• Eat skunks</li> <li>• Goes "whoooo"</li> </ul>	From a seated position, students will put their legs under the parachute and pull themselves under it. The parachute edge will be up by their necks like they are all owls tucked into bed because it is day time.
Tern	<ul style="list-style-type: none"> <li>• Feed on small fish, crustaceans and insects</li> <li>• They hover over the water and dive or skim for prey</li> <li>• They have feathers</li> <li>• Nest in colonies</li> </ul>	Students will leave the chute on the ground and they will become a "hovering" tern looking for food. When students spot the "food" they will quickly "dive" for the food by getting as low to the ground as possible before jumping back up to standing position.

Name	Description	Action
White-tailed Deer	<ul style="list-style-type: none"> <li>• It is a herbivore (feeds on plants)</li> <li>• Has a four-chambered stomach</li> <li>• Sometimes people hunt these</li> <li>• The males have antlers</li> <li>• They enjoy forest-like habitats</li> </ul>	Students will stand with the chute held high above their heads. Take turns calling out months of the year. When a student's birthday month is called, they will hold up their hands on their heads to create their "antlers." They will do their best white-tailed deer leap to a new spot on the other side of the chute.
Rock fish	<ul style="list-style-type: none"> <li>• They feed on fish eggs, insects, worms, and small fish</li> <li>• Live in coastal estuaries or the ocean</li> <li>• They can live roughly 30 years</li> <li>• People sometimes fish them for sport</li> <li>• Also known as the Striped Bass</li> </ul>	Going fishing (Cat and Mouse). Everyone holds the chute stretched out at about 12 inches off the ground. One student becomes a rockfish (mouse) and goes underneath the chute to swim in the wetland. Another student becomes a fisherman (cat) and goes on top after removing his/her shoes. The rest of the group tries to hide the rockfish (mouse) by moving the chute up and down. Select a new rock fish and fisherman as time allows.
Frog	<ul style="list-style-type: none"> <li>• They are amphibians (need to live near water to survive)</li> <li>• They grow from an egg to a tadpole before reaching adult age</li> <li>• They are carnivorous and eat insects</li> <li>• They have webbed feet, they like to jump</li> </ul>	Students will pull the chute tight and crouch to take the stance of a frog while holding the chute to the ground. Students will sit quietly observing their new habitat. The students will listen as you explain that when you say "hop" they will all hop into the middle. While hopping they will raise their arms up and back down as they land their frog hop in the middle, creating a bubble in the middle of the chute.
Periwinkle Snail	<ul style="list-style-type: none"> <li>• They are very small and only about 1.5 inches long</li> <li>• They are a terrapin's favorite snack</li> <li>• They lay 100s of eggs and only a few survive</li> <li>• You can eat these</li> <li>• They have a hard shell.</li> </ul>	Students will stand and hold the parachute in their left hand at waist height. Students will walk around in a circle at snail speed, change directions at snail speed, and go the other direction in a circle at snail speed.

Name	Description	Action
Monarch Butterfly	<ul style="list-style-type: none"> <li>• It is a type of insect</li> <li>• It has beautiful black and orange markings</li> <li>• Females look for a special plant called milkweed</li> <li>• It has 4 stages of life: egg, caterpillar, pupa or chrysalis, and adult</li> </ul>	Students will hold the parachute at waist height when standing. Slowly make butterfly wing flapping motions. Then have them hold the parachute over their heads. On the count of 3 have the girls “migrate” or run across under the parachute to a different spot. Then the boys, the people with brown hair, with birthdays that month, etc.
Snake	<ul style="list-style-type: none"> <li>• Long skinny reptile</li> <li>• It uses its long forked tongue to find food and smell the air</li> <li>• They are very important because they can eat mice and other rodents that can carry disease</li> </ul>	Throw the short pieces of rope onto the middle of the parachute and have the students shake the parachute to move the snakes, but don’t bounce them off!
Terrapin (Do the terrapin last so you can have a secret/ wrap up meeting INSIDE the shell)	<ul style="list-style-type: none"> <li>• Maryland’s state reptile</li> <li>• About 1,000 babies are born on Poplar Island each year</li> <li>• They have hard shells that have a diamond pattern</li> </ul>	Students will raise the parachute up over their heads, step under the parachute, and pull the edge back behind themselves and sit down to make a giant turtle shell with everyone sitting inside. Conduct your wrap up inside the giant turtle shell or a super-secret turtle meeting.