

HOORAY FOR HABITATS II!

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Teacher Note: Anytime you teach science, reinforce the scientific method as much as possible! These are the 5 steps: Ask a question. Make a prediction (hypothesis). Experiment. Discuss results. Conclusion.



IDEAS FOR CENTERS

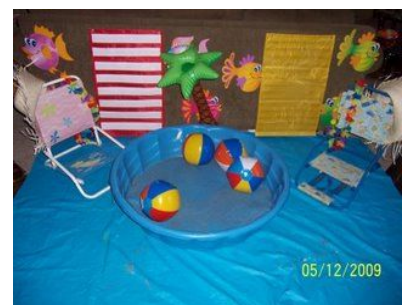
Ocean Fun Center

Partially fill a plastic swimming pool with sand. Add shells, toy fish, and other toy ocean animals; digging tools will add to the fun. Provide flippers, masks, beach towels, goggles, etc. for ocean dress-up fun! Turn on beach music! Make this a reading center by placing ocean-themed books nearby.

Book recommendation: *Where the Ocean Meets the Sand* by Beth Costanzo

Fun song about the beach: <https://www.youtube.com/watch?v=PgvvLNsO5Q8>

Need: child's plastic swimming pool, play sand, tarp to protect floor, shells, toy ocean animals, digging tools, flippers, diving masks, beach towels, goggles, etc.



Shell Imprints

Show your students how to flatten pieces of play dough. Press a seashell against the dough to make imprints! You can also provide toy ocean animals for more imprints.

Book recommendation: *Seashells by the Seashore* by Marianne Berkes

Need: play dough, wax paper or plastic, seashells, plastic ocean animals

Alphabet Seashell Dig

Children love digging for shells. Write letters of the alphabet on the backs of shells with permanent marker. Write lowercase or uppercase letters or do both. Pour sand into a water table or other container and bury the shells.

Other ideas: Include enough letters to spell each child's name. Have a list of sight words so children can dig for the letters to match the words. Put numbers on shells to practice math skills.

Need: small seashells, permanent marker, sand, water table or another container





Shell Math Memory Game

Write numbers 1-10 (or higher) on the shells plus the word for each number. Make two sets.

Arrange the shells face down in random order. One player flips a shell and leaves it face up, then flips another. If they match, the player leaves the shells face up and the other player goes. If they do not match both shells are flipped back over, and that player starts from scratch. It is now the next player's turn. The first player to get the most matches wins!

Note: As players turn the shells, they must say the number on their shells. This is excellent practice for number recognition. This can be played with 1 or 2 players!

Book recommendation: *Fish Eyes: A Book You Can Count On* by Lois Ehlert

Need: small seashells, permanent marker

Fish Eyes Counting Activity

Place the book *Fish Eyes* by Lois Ehlert at this center. (Read the book to nonreaders.) As the child turns each page, they will practice addition and count out pom poms to place on the eye holes that the book has on the fish. This is an engaging way to help children with their math skills!

Need: Fish Eyes by Lois Ehlert, 10 pom poms for eyes



Underwater Zoo!

Children love to learn about animals so sorting activities are a big hit! In addition, classification is an important science process skill.

Gather different types of toy animals and place them on a table. Make two signs, one that says, "ocean animals" and one that says, "land animals." The objective is to separate the ocean animals from the non-ocean animals.

Another fun option is to create an underwater zoo for the animals. Fill the bottom of an aquarium, large bowl, or your water table with aquarium rock or other rocks. Add seashells and water. Encourage the children to sort the toy animals and to place the ocean animals in their water habitat. If you do not want the kids to put their hands in the water, use small fish nets.

Need: small seashells, paper, permanent marker, toy animals (variety of kinds), aquarium, bowl or water table, small fish nets

Ocean Waves in a Bottle

Let's explore ocean waves! Ocean waves are created by energy moving through the ocean water. Most of the time, the energy comes from wind blowing on the surface of the water. The gravitational pull of the sun and the moon also causes waves and tides.

Fill a plastic bottle or jar 1/2 way with water and add as much blue food



coloring as desired. Fill up the rest of the container with baby oil or vegetable oil. Fill the container as full as possible, reducing the amount of airspace that will be left after tightly screwing on the lid or cap. (Option: use hot glue to prevent spills.) For extra fun, add small plastic ocean animals, shells, aquarium rock, a pinch of sand, etc.

To make a wave tilt and gently shake your ocean in a bottle! Watch the wave action caused by the energy moving through the solution to create waves!

Video link: <https://youtu.be/49o2V2TZiow>

Need: mason jar or plastic water bottle, vegetable oil or baby oil, water, blue food coloring, funnel (if needed), plastic ocean animals, shells, sand, etc.

INTRODUCTION TO OCEANS

What is a Habitat?

Use this fun video to introduce habitats! <https://www.youtube.com/watch?v=um0hAdGcZsk>
Food, water, and shelter are the three most important components for plants and animals to survive.



Pass the Earth Ball!

Ask, ***“Who has been to the beach? The water at the beach is called an ocean. Did you know that most of the earth is covered with water?”*** (*Teacher note: About 75% of the earth is covered in water.)

Play a game where the kids close their eyes while they pass the earth ball around the circle. Turn on music or sing an ocean song. When the music or song stops, the child who has the ball puts a finger on the it. At that point, the child opens their eyes to tell the class if they have landed on land or water.

Pass the earth ball around again and again. Your students’ fingers touch water more often than land. Talk about how the earth is mostly covered with water!

Extension: For older children, draw a pie or show them a picture of a pie that has 4 pieces. Just 1 piece of pie represents the amount of land on the earth, and 3 pieces represent the water! Amazing!

Need: earth ball or globe, music, picture of a pie



What Kind of Water is in the Ocean?

What is different about the water in the ocean and the water in a pond or lake? (Brainstorm with your class.) ***“The water in the ocean is different than the water we drink or that we find in lakes and ponds. Let’s find out how the water is different.”***

Give each child half a q-tip that has been dipped in salt water and encourage them to touch it to their tongue. ***“What is salt? What does it make water taste like? Does it taste good or bad? If you were a fish, what kind of water would you want to live in?”*** Discuss that many plants and animals live in salt water!

Need: q-tips (cut in half), small amount of salt, water, cup, spoon to mix

Saltwater Sink or Float

Use a permanent marker to draw identical fish on two raw eggs. Fill two clear glasses or jars 3/4s full of water. Let the children watch you add about 3 tbs. of salt to one glass; add more if needed.

Explain that you are going to put a pretend fish into each kind of water. Be sure and explain the difference between the waters. Gently place an egg in the fresh water. What happens? (It sinks to the bottom.) Place the other egg in the salt water. What happens? (It floats.) Why?



Ask your class, ***“Do all water animals live in the same kind of water?”*** Let them brainstorm! ***“Some animals like fish live in fresh water and some fish live in salt water! Living in salt water is different than living in fresh water. Only a few animals can live in both. Ocean fish use their gills and their kidneys to help get rid of excess salt.”***

Book recommendation: *Hooray for Fish* by Lucy Cousins

Need: 2 clear glasses or jars, salt, permanent marker, 2 raw eggs

Salt Crystal Magic!

Set up shallow containers of fresh water and salt water (1 part salt to 8 parts water). Show the children the two containers and ask if they can tell which is which. Place the containers in a sunny spot. Ask for predictions about what will happen to the water.



Check the water daily. What is happening to it? (It is evaporating.) Once all the water is gone, help students draw conclusions. Which sample was salt water? How do you know? Which water may have come from a pond? From an ocean? Why?

Need: 2 clear shallow containers, salt

ANIMALS LIVE IN THE OCEAN

This video is a cute song to introduce animals that live in the ocean.

<https://www.youtube.com/watch?v=AskWKTiyLmU>



Ocean Zones Bottle: Animals Live in Different Parts of the Ocean

There are 3 main zones in the ocean. Each zone is a habitat for different animals and plants!



To start this activity, we put our hands on top of each other to make sure everyone understands what **layers** (zones) are. This video gives great details about the zones: <https://youtu.be/fHVE4B-UjmM>

a. sunlight zone: 0-600 ft., receives a lot of sunlight, 90% of ocean animals live here, Ex.: sharks, sea turtles, seals, jellyfish, dolphins, most fish, coral, sting ray, seaweed, etc.

- b. **twilight zone:** 600-3300 ft., does not get a lot of sunlight, so no plants grow there. The animals that live here like cold water and make their own light, which is called bioluminescence. Ex.: some crabs, squid, eels, some sharks, lobsters
- c. **midnight zone:** 3300-13200 feet, receives no sunlight, is completely dark, and not much food. This area is also very cold with temperatures near freezing. The only light is made from some animals. Ex.: squid, shrimp, octopus, anglerfish, sea cucumber

To make the Ocean Zones Bottle, add about 2-3 inches of dark corn syrup to the bottle first. This represents the deep ocean zone known as the Midnight Zone. Carefully add the blue water on top (do not tint it too dark) until you have about the same thickness as the corn syrup. You should see the 2 distinct layers. This represents the Twilight Zone of the Ocean. The top layer, or Sunlight Zone, is the oil.

Add toy ocean animals to the bottle. See which layer they go to after you move the bottle slowly from side to side to make waves! Is that the best habitat for them?



Another option: Ask your students to help you tape ocean animals to the correct zone on the outside of the bottle. (See printable ocean animals at the end of this handout.) Why is that part of the ocean habitat best suited to be their habitat?



Book recommendation: *Wish for a Fish: All About Sea Creatures* by Bonnie Worth (a Dr. Seuss book)

Need: dark Karo syrup (corn syrup), water tinted light blue with food coloring, vegetable oil, funnel, empty 1-liter plastic bottle, toy ocean animals

You may like this Ocean Zones option instead: Make the layers of the ocean using different shades of construction paper on a poster board. Laminate. Guide the children to determine where ocean animals live by placing toy animals or animal stickers on their correct ocean zone.

Note: We teach only the first three zones to our preschoolers, but you may want to add the final two:

Abyss-near freezing, no light, very few animals, largest part of the ocean, deep sea animals like deep sea jellyfish, deep sea shrimp, Cookie Cutter shark, tripod fish, and abyssal octopus

Trenches-deepest part of ocean, temp barely above freezing, some starfish and eels and Giant Tube Worms

Book Recommendation: *Way Down Deep in the Deep Blue Sea* by Jan Peck

Need: poster board, different shades of construction paper, scissors, tape or glue, printable ocean animals (at end of this document) or toy

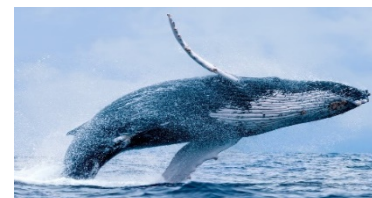




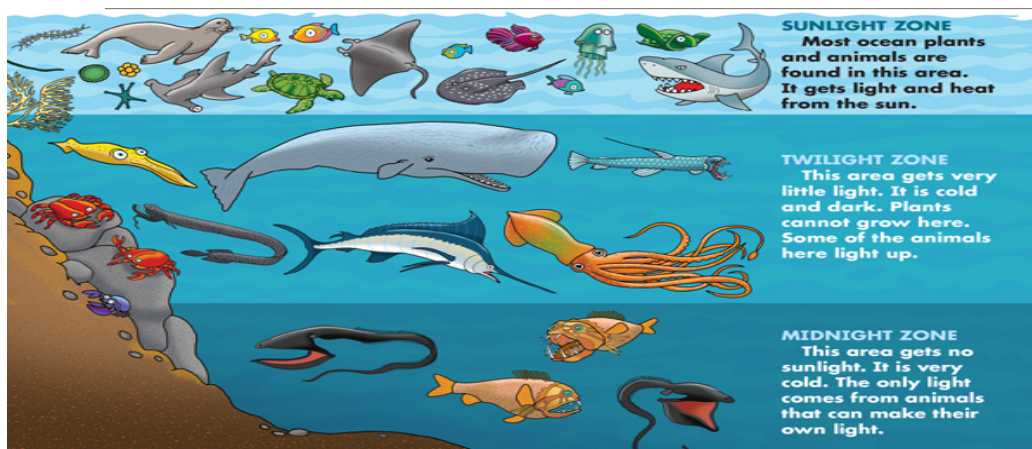
“I Live in the Zone!” Sing to the tune of “The Farmer in the Dell.”
As the children sing, can they pretend to swim or move like the animal in that verse!

**The sunlight zone for me,
The sunlight zone for me!
I live in the sunlight zone,
Because I am a SHARK!** (repeat for other animals)

**The twilight zone for me,
The twilight zone for me!
I live in the twilight zone,
Because I am a WHALE!** (repeat for other animals)



**The midnight zone for me,
The midnight zone for me!
I live in the midnight zone,
Because I am an OCTOPUS!** (repeat for other animals)



Ocean Sensory Bag

https://youtu.be/8L6VUW8oj_A Watch the video to see the directions.



This is a fun activity especially if you let your students help you make the sensory baggie. Add the shells and toys. Other options: small amount of sand, green tissue paper for seaweed, glitter for sparkles

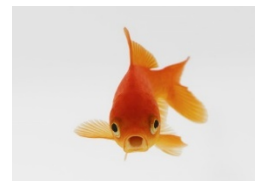
Add the hair gel and zip the baggie tightly. As an extra precaution, seal the baggie securely with the clear packing tape.

Encourage the children to touch and feel the baggie and how the “ocean” moves around as they squeeze it! Challenge the students to find the “blue starfish” or the “yellow seahorse,” etc. Work on math skills by counting the number of fish, shells, and other items.

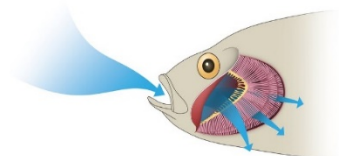
Need: quart or gallon Ziploc baggie, large bottle of blue hair gel (or clear hair gel and blue food coloring), clear packing tape, seashells, plastic ocean animals; options: small amount of sand, strips of green tissue paper or Easter grass, glitter

How Do Ocean Animals Breathe Underwater?

If possible, purchase a goldfish from Walmart or a pet store. If this is not an option, show your class this video of a goldfish: <https://www.shutterstock.com/video/clip-6985441-adult-goldfish-close-breathing-slow-motion-underwater> This video goes into more detail about how fish breathe underwater: <https://youtu.be/zj5v3n6Nlm8> Most ocean animals breathe underwater, however there are many like whales, dolphins, and seals that breathe air above the water with lungs just like we do! Now we will learn about animals that use gills to breathe underwater.



“Who has a fish at home? Do you ever take your fish for a walk? No way! Why not?” Show the class the live goldfish or the video. Encourage the children to watch the mouth of the fish. Do you see how its mouth opens and closes? That is how it breathes in the water just like we breathe in air. The water goes in the mouth and then over its gills to get oxygen. What do we use to get oxygen? (LUNGS!)



Count the number of times the fish opens and closes its mouth in 10 or 15 seconds. Add a flake or two of fish food, then count its breaths after it eats. What happens to its breathing rate? Amazing!

Need: a live goldfish in a fishbowl, fish food flakes OR use the video link above

Paper Towel Tube Fish

Provide a variety of paint colors for children to paint paper towel tubes, cut in varying lengths. Glitter adds to the fun for sparkly fish! Once the tubes are dry, push in the sides of one end of the tube to make a point. Next, cut the other end of the tube to make the fish tail. Help the children glue on googly eyes or pom poms.

Book recommendations: *Fish is Fish* by Leo Lionni

Need: empty paper towel tubes, scissors, Tempera paint, paintbrushes, googly eyes or pom poms, glue, optional: glitter, glow-in-the-dark paint



Outrageous Octopus!

Show these fun videos to your students to introduce octopuses. The first one will get your students up and moving! <https://youtu.be/JhEbbiVxH9o> The second video gives more facts about octopuses. <https://youtu.be/uG8uI1WGkO8>

Octopuses are some of the most amazing ocean animals!

Cool facts:

- no bones and can squeeze into very tight places
- 8 arms with suction cups on them
- blue blood and three hearts
- excellent sense of touch
- parrot-like beak to eat crabs, clams, starfish, snails, small fish
- dark ink can be squirted to scare predators away
- ability to change color to camouflage themselves



To make an octopus, give children time to color a piece of paper towel tube with paint, crayons, or markers. When dry, cut the tubes so they have 8 arms. Children may then glue Cheerios on the arms to learn about the suction cups on an octopus. Add googly eyes and a magic marker smile! Fill the top hole of the tube with a small piece of tissue paper to round it off.

Option: Use sticky page reinforcers instead of Cheerios.

Book recommendation: *Octopus Alone* by Divya Srinivasan

Need: empty paper towel tube, scissors, Tempera paint and paintbrushes, crayons or markers, Cheerios (or sticky page reinforcers), googly eyes, glue, small pieces tissue paper, permanent marker

Let's Chow Down!

- a. Eat Like a Whale:** Add ground pepper (to be “krill” – see picture to the left) to a bowl of water. (Do not add the pepper until the children are ready to scoop - it sinks after a few seconds.) Challenge the children to try to scoop it out with their finger, a comb, and with a toothbrush. Which is easiest? Which one catches the most krill and is most like a whale's mouth?

Your finger cannot get very much pepper. The comb works a little better. But the toothbrush works great!

The mouth of a whale works in much the same way. They have mouths with baleen that can strain out the water to catch tiny crustaceans called krill. This food is so tiny it is hard for us to even see it! Remember whales are NOT fish--they are mammals! Show this video to your class of whales eating krill. Amazing! <https://youtu.be/YARe1etnNZE>



This is a picture of baleen. Note how it looks like the bristles of a toothbrush!



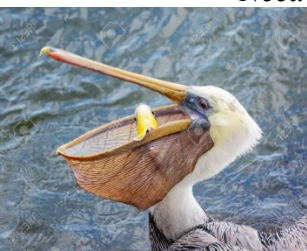
Book recommendation: *A Whale of a Tale!: All About Porpoises, Dolphins, and Whales* by Bonnie Worth (a Dr. Seuss book)

Need: bowl, pepper, comb, toothbrush, pictures of whales (especially ones that show baleen)

- b. Eat like an Ocean Water Bird:** Many birds live in the cold waters of oceans. Most of them eat fish. They have mouths that are shaped like big spoons to help them scoop up the fish! This video shows pelicans dive bombing for food!

<https://youtu.be/wfLl26yzpk8>

Partially fill a water table or other container partially with water. Add pony beads and small pieces of sponge to be the fish. The tools for the students are plastic knives, spoons, and small kitchen strainer. Which tool works best? (strainer) That is why birds like pelicans have mouths shaped like a spoon! *Need: container for water, pony beads, plastic knife, spoon, small kitchen strainer, pictures of water birds showing their beaks*





c. Eat Like a Shark: Cut up little pieces of sponge in small pieces. Add these to the container of water. The video teaches cool facts about sharks: <https://youtu.be/ZFk0xhqT5fQ>

Carnivores (meat-eaters) like killer whales and sharks use their powerful jaws to grab their prey. The campers will use the tongs or grabbers to hunt and catch the sponge fish like sharks and killer whales do. Add in math skills by counting how

many “fish” you catch!

Need: aquarium or rubber tub, small pieces of sponge, scissors, grabbers or tongs, pictures of killer whales and sharks showing their mouths

d. Feed the Shark! This is the link to the free printable for this activity:

<https://mommymadethat.com/feed-the-shark-game-printable/>

Cut out the sharks and laminate them (if not using card stock). Attach a Dixie cup to the back of each shark mouth. Cut out the fish, 5-10 of each. Laminate.

Now it's time to feed those hungry sharks! Encourage the students to feed the sharks with fish that match its color. A fun option would be to use toy fish instead of paper fish to feed the sharks.



Other options: Write letters or numbers on the smaller fish. Now feed a hungry shark the letters of your name or feed a shark 2 numbers that add up to 4. Think of other fun challenges you can give your students with letters and numbers!

Book recommendation: *Little Shark* by Anne Rockwell

Need: colored sharks and fish (from the free printable or make your own), scissors, Dixie cups, glue or tape, option: toy fish



Yummy Ocean Snacks!

Follow the directions to make blue Jell-O and refrigerate it.

Once it is set, divide the Jell-O into clear plastic cups. Give each child some sweet Goldfish crackers. Encourage them to count out a certain number of fish to fill their ocean habitat. The best part is they get to eat it when done!

Another idea: Press graham cracker crumbs in the bottom of clear cups and freeze. Add blue Jell-O and shark gummies or Swedish fish for a different ocean snack! Want to add dollops of whipped cream on top for ocean waves?

Need: blue Jell-O, bowl, spoon, clear plastic cups, sweet Goldfish crackers, graham cracker crumbs, Swedish fish, or shark gummies



Ocean Animals Relay Race

Get the “wiggles” out of your students with a relay race!

Divide the class into teams. For younger children, hand out ocean animal necklaces made with the Ocean Animal Movement cards (at the end of this document). With older children you can call out the name of an animal for each leg of the race or give assignments ahead of time.

Extensions: Child crawls and pushes a ball with their head like a dolphin playing with kelp bulbs. Child picks up a seashell with seal “flipper hands” to drop in a bucket. Two kids run together inside a Hula hoop like a whale and its baby. Child runs with a plastic egg in a spoon like an octopus trying to guard its eggs.

Need: Ocean Animals Movement cards, scissors, yarn or string, For extensions: balls, seashells, bucket, Hula hoops, plastic eggs, spoons

PLANTS LIVE IN THE OCEAN

What is Seaweed?

“Do you have weeds in your yard? The ocean has plants in it called seaweed! There are many kinds of seaweed. Some kinds are very small but some like giant kelp grow to over 200 feet long! Just like plants in your yard, ocean plants must have sunlight to live.” (Show some real seaweed and pictures of different types of seaweed.) ***“Ocean animals like seaweed to either eat it or to hide in it to stay safe. People use seaweed in a lot of ways! Let’s learn about seaweed.”***

A cute mermaid teaches kids about seaweed: <https://youtu.be/e2n1jZSelt8>



***Teacher information:** Seaweed is rich in vitamins and minerals. Brown seaweed contains a gummy substance called algin and red seaweeds contain substances similar to jelly called agar and carrageenin. Look for these words on the product labels like the word “carrageenin” on the ice cream container.

Put these items in a bag to show the children. Discuss why they contain seaweed.



Item

Salad dressing
 Pudding
 Lotion (Squirt a little into willing hands.)
 Shampoo
 Toothpaste
 Ice cream (empty Blue Bell container OR treat the kids to an ice cream seaweed tasting!)

Seaweed used for:

makes it thicker and creamier
 thickens the pudding
 provides healthy benefits for skin
 makes it creamier and thicker
 helps thicken the toothpaste
 helps thicken and gel



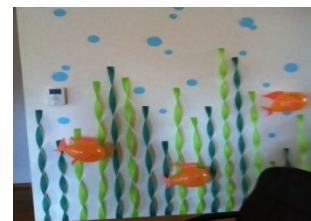
Need: empty containers of products that contain algin, agar, or carrageenin: salad dressing, pudding, lotion, shampoo, toothpaste, ice cream

Ocean Plant Decorations

- Paint a large paper bowl green. Make a hole in the bowl and push twisted pipe cleaners through it. Green pom poms can be added, too.
- Twist green streamers and attach them to a wall in your classroom. Add toy ocean animals who are living in the kelp.



- Use blue butcher paper to make a mural. Children dip fingers in green paint to add seaweed along the bottom. For more fun, children make handprint fish!





- Use pool noodles to make kelp and coral – love the bright colors!
- Guide your students in cutting green paper into strips to make a border of seaweed and kelp. Children tape the strips of paper together. Add animal stickers or toy animals. These makes great classroom displays and teaching tools!



I'm a Little Seaweed

Children stand in a circle waving 2-4 green streamers (kelp). Provide an assortment of toy ocean animals in the middle of the circle.

Sing the song with the class and call on a few children to pick an animal to “hide” in their seaweed. Sing again until everyone has had a turn. It’s fun taking care of ocean animals!

Sing to the tune of “I’m a Little Teapot.”

**I’m a little seaweed,
Nice and strong.
I float in the ocean all day long!
When a little animal comes to hide,
I wiggle my leaves and let it come inside!**



Extension: Assign 2-3 children to be predators, and 2-3 will be fish! Make shark headbands or the predators may hold toy animals that like to eat fish like sharks, Killer whales, seals, dolphins, etc. Do the same for children who are the fish.

Fish hide from predators in kelp forests, so the kids playing the fish “swim” in and out of the children waving the streamers. When a predator tries to tag them, they must huddle up close to a friend with streamers (kelp) to be safe. If tagged, they become kelp, too!

Need: rolls of green streamer, toy ocean animals, For extension: predator headbands or toy ocean animals, fish headbands or toy fish



Seaweed Chips

Have your students ever tasted an ocean plant? Try this recipe!

- Preheat an oven to 250 degrees.
- After washing hands, invite the children to help cut seaweed paper into small squares.
- Encourage them to sort the seaweed into small and large squares on a baking tray.
- Brush sesame oil on both sides of each square. (Older children can do this step!)
- Model how to sprinkle a little salt on the squares.
- Bake for 15-20 minutes, eat, and enjoy!

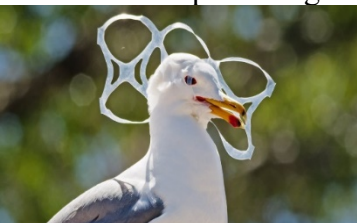
*Option: Buy premade seaweed chips.

Need: seaweed paper, sesame oil, salt, baking tray, clean scissors, pastry brushes

Help Clean Up the Ocean!

Children will learn about keeping our oceans clean.

For younger children: Make an “ocean” in a child’s plastic swimming pool. Put sand and pieces of safe trash (at least 1-2 per child) in it. Add toy ocean animals, including some that are “trapped” in plastic or six-pack rings.



Ask the children to help you clean up the ocean and discuss why that is important. For example, trash is not healthy for the ocean’s plants or animals. Many animals think plastic bags are jellyfish and try to eat them. Also, animals get tangled in trash and cannot get out. Plants need sunlight and if covered in trash, they cannot get it to make their food.



Tell your class they may only do this with an adult because some trash is not safe to touch. Today, they are only picking up “safe” trash. They may choose one piece of trash at a time to pick up and put in a trash bag.

Sing the Barney song with these changes:

**Clean up, clean up,
Dirty oceans are no fun!
Clean up, clean up,
To make them safe for everyone!**

Extensions: a. Add in a recycling lesson! Provide containers where the children may sort recyclables such as plastics, paper, and aluminum cans.

b. For older children, make this a **relay race**! Mark off an area to be the ocean and place pieces of safe trash in it. Add a few toy ocean animals for an ocean effect. Divide the children into relay teams. Each team member will run to the “ocean,” pick up one piece of trash, and run back to their starting point to put it in a trash bag.



Options: Assign different types of trash to each runner. For example, the first runners on each team must pick up a piece of plastic, the second runners must find paper, the third runners must pick up a soda can, etc.

Need: a large trash bag, pieces of “safe” trash: paper, plastic bags, six-pack rings, empty food containers, plastic bottles, cardboard, soda cans, etc.; For extension: containers for recyclables



IDEAS FOR CENTERS

Grassland Play Center

Partially fill a water table or other container with dirt, grasses, seeds, leaves, and sticks. Place toy digging tools and toy grassland animals (such as deer, rabbits, insects, birds, snakes, lizards,

worms, mice, etc.) in the center for creative play.

Need: water table or other container, dirt, grasses, seeds, leaves, sticks, toy digging tools, toy grassland animals



Painting with Nature

Let children pick their own paintbrushes from nature! If possible, take them to a grassy or wooded area to pick long grasses, leaves, and discarded flowers off the ground. If not, bring some to class. <https://youtu.be/dJmTv3nopi8>

Need: Tempera paint, paper, long grasses, leaves, flowers, etc.

Earthworm Hotel

Earthworms are important for the soil. Not only do they fertilize it, but they keep soil aerated so plants grow better. There are over 2,000 types of earthworms! Some like to burrow deep in the soil, while others stay near the surface.



Cut off the top of a 2-liter bottle and cover the cut edges with tape. Fill a smaller plastic bottle with warm water, screw on the cap, and put it inside the 2-liter bottle. (This should push the worms to the outside of the habitat for easier observation.)

Fill the larger bottle with alternating layers of sand and soil. The soil should be damp but not wet. Add some dry leaves for food to each layer. Stop adding layers when the bottle is about 3/4s full.

Add 3-4 worms; most sporting goods and some pet stores sell them. Add a few more leaves to the bottle. Wrap a piece of dark construction paper around the bottle. Worms are used to darkness so this will make them more comfortable moving around!

Let the hotel sit for a day and then check on it. Children can use magnifying glasses to see the worms up close. Keep the worms for a few days and then take your class outside to release them into a new wild habitat. Discuss why it is better for them to back in their natural habitat with their friends!

Need: 2-liter plastic bottle, 1-liter plastic bottle, scissors, masking or packing tape, soil, sand, dry leaves, piece of dark construction paper, magnifying glass

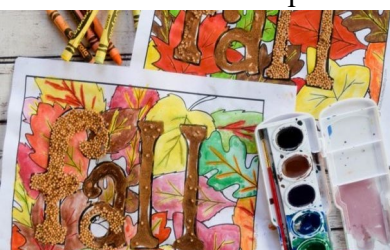


Grass Seed Fun

- a. Place grass seed in a rubber tub or other container. Provide spoons, measuring cups, plastic salt and pepper shakers, funnels, etc. Encourage children to feel, measure, and pour the seeds. What do they feel like?

Need: grass seeds, container, spoons, measuring cups, plastic salt and pepper shakers, funnels

- b. Make art with grass seed! Supervise children as they add glue to pieces of paper. Gently sprinkle grass seeds on top of the glue. Can they write their initials with the glue? Numbers? Other shapes? Option: Use paint instead of glue. *Need: grass seed, container, construction paper, glue*



- c. Help children plant their own grass hair garden! Children glue wiggly eyes on small plastic cups or simply draw them on. The teacher can use permanent marker to add a nose and smile!

Guide children as they fill their cup with a little soil, then add grass seeds and water. Keep the cups in a sunny spot in your classroom, and hopefully they will get grass “hair” in a few days! *Do not overwater these.

Need: small plastic cups, soil, grass seed, permanent marker, optional: wiggly eyes, glue



Seed Sort

Grasslands have a wide variety of plants that produce a lot of interesting seeds. Gather an assortment of seeds and mix them together in a container. If you purchase seeds, keep the packages, and use glue or tape to attach a sample seed on each one.

Provide tweezers for your students to practice their fine motor skills. Encourage students to pick up seeds and to sort them by type, color, shape, or from largest to smallest. Classification skills are an important science process skill!

Need: various kinds of seeds plus their packages, glue, containers for seeds, tweezers

INTRODUCTION TO GRASSLANDS

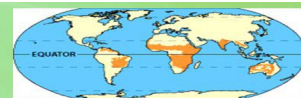
What Are Grasslands?

There are two main types of grasslands, temperate and tropical. We will focus on temperate grasslands because we have that type in Texas!

https://youtu.be/q_ThdlV9dH4 This video introduces grasslands.

https://youtu.be/k1KRjOlvj_w This *Over in the Meadow* video is an engaging way to introduce grasslands!

Two Types of Grasslands



■ Temperate Grassland

- Means the environment has a mild climate and four seasons.
- Have soil that is rich in humus.



■ Tropical Grassland

- Means the environment is near the equator and is warm all year round.
- Have a rainy season and a dry season.
- Have more trees and poorer soil.



<http://www.youtube.com/watch?v=Tuk-JW2-wng>

Key facts about grasslands:

- lots of grass and few trees
- average 20-25 inches of rain per year
- may have droughts or fire
- very fertile soil
- many kinds of animals
- two types: prairies (tall grasses, in the U.S.) and steppes (short grasses, in Central Europe/Asia)

- called savannas in Africa and pampas in So. America

Read *In the Tall, Tall Grass* by Denise Fleming to your class. The book helps children capture the sounds and sights of a meadow (grassland) habitat. Many insects, birds, and other animals live there and thrive in this habitat filled with grasses, weeds, and wildflowers.

Pass out a blade of grass and a magnifying glass to each child. Examine the grass and ask the



children for their observations. *“What does it feel like? Look like? Smell like? Do you see lines in the leaf? Those are veins that carry the grass’s food and water! Why do you think so many animals live in grasslands?”* Discuss that grassland plants have roots, stems, leaves, and flowers.

Need: In the Tall, Tall Grass by Denise Fleming, blades of grass, magnifying glasses

“I’m a Grass Plant” Song

Sing this to the tune of “Row, Row, Row Your Boat.” March with the children in a circle. Wave your arms like leaves of grass in a meadow. The teacher holds a toy rabbit.

Look, look at me,

I am turning GREEN!

I’m a grass plant in a meadow,

Waiting to be seen!

Look, look at me,

I am standing tall!

Then a bunny hops on me,

Oh, now I must fall! (Teacher hops the toy rabbit to touch a child who then falls to the floor. Make sure everyone has a turn!)



Save the Plant!

A grassland is usually next to another type of habitat like a forest, desert, or mountains. Grassland plants need water to survive. What else do plants need to survive? Brainstorm. (sunlight, soil)

Watered Coleus

Unwatered Coleus



Show the children a wilted plant. Poor plant! *“What can we do to help it?”* Listen to answers. Then water the plant and place it in a sunny spot. What do your students **predict** will happen?

Remember to check the plant throughout class. Discuss what happens!

Need: a potted plant like Coleus (allow it to wilt), water

ANIMALS LIVE IN THE GRASSLANDS

What Animals Live in the Grasslands?

Many animals eat the plants, seeds, and nuts found in a grassland habitat. Can you think of grassland animals that eat these? Prompt brainstorming for deer, mice, skunks, insects, rabbits, etc.

Some grassland animals eat other animals. Use pictures or toy animals to show a fox, coyote, wolf, bobcat, or other predator. Hmmmm, who looks yummy today? Hold the toy and tickle a child like you want him/her for a snack – of course give hugs instead!

Book recommendation: *Bedtime in the Meadow* by Stephanie Shaw

Need: grassland toy animals or pictures of them



Squirmin' Worms!

Earthworm facts:

- Do not have bones and are called invertebrates
- No eyes, legs, or lungs (take in oxygen through their skin)
- Eat dirt
- Plow through soil and help air and water to reach plant roots
- Add fertilizer to soil



Show the class an earthworm. Place it on a piece of wax paper or a damp paper towel. Do this simple experiment to see what earthworms will crawl over.

1. Test 1 item at a time. Use pieces of sandpaper, aluminum foil, small twigs, and leaves.
2. Predict whether the worm will crawl over the item.
3. Place the worm in front of the item.
4. Does the worm crawl over the items? Around them? Do nothing?

Animated earthworm video: <https://www.youtube.com/watch?v=kWb6HlBhkfQ>

Book recommendations: *Diary of a Worm* by Doreen Cronin, *Wiggling Worms at Work* by Wendy Pfeffer

Need: earthworm, pieces of wax paper, sandpaper, aluminum foil, small twigs and leaves

Cheerio Worms!

Give each child a pipe cleaner. Show them how to make a loop at one end. String cheerios on the pipe cleaner. Practice math skills by counting how many Cheerios it takes to make your worm!

Once the Cheerios are added, twist off the other end. Add eyes to the loop on the other end, either wiggly eyes, pom poms, or cardboard.

The best part is that this worm is edible!



Beautiful Butterflies!

Butterflies have a long feeding tube instead of a tongue. It has a funny name - proboscis. It rolls out of the butterfly's mouth like this. Demonstrate a butterfly tongue with a party blower.

When a butterfly lands on a flower, it uncoils its proboscis and stretches it deep into the flower slurp up nectar. Show this butterfly video to your class:

<https://youtu.be/eC2pIUzLdfU>

Slurp Like a Butterfly: Cut out flower shapes using sturdy paper and ask your students to color them. Cut or poke a hole in the center of each flower. Pour a flavored drink into cups and place each child's flower on top of a cup. Give each child a straw (cut in half) and encourage them to find their flower so they can eat its "nectar." Now act like a butterfly and stick your proboscis into the flower to get the yummy nectar!

Book recommendations: *The Very Hungry Caterpillar* by Eric Carle, *My, Oh My - A Butterfly* by Tish Rabe (a Dr. Seuss book)

Need: party blower, sturdy paper, scissors, flavored drink, cups, straws





Frisky Foxes!

Many animals in a grassland habitat have backbones and are called vertebrates. Foxes are an example. If you have a toy fox or puppet, use that as a visual to teach the lesson. Show the video of a fox stalking and pouncing on its prey when it snows in a grassland.

<https://youtu.be/dP15zlyra3c>

Check for understanding of the word “stalking.” Good stalkers are good listeners!

Stand in a circle with your class. The teacher is holding a toy mouse. After the children practice their fox moves, ask if anyone wants to pounce on a mouse. Place the mouse on the floor and call on children, one at a time, to be the pouncing fox who finds its dinner. Sing this song to the tune of “Mary Had a Little Lamb.” While singing, act like foxes by stalking and pouncing.

*The designated pouncer holds the toy fox or wears predator ears. Option: Hide the mouse under a blanket so the fox has to dig for it!

**Merrily I stalk and POUNCE,
Stalk and POUNCE,
Stalk and POUNCE,
Merrily I stalk and POUNCE,
‘Cause I’m a hungry FOX! (Make slurping, eating noises.)**



Book recommendation: *My Little Fox* by Rick Chrustowski

Need: toy fox, predator ears headband, toy mouse; option: blanket

Where’s the Stinky Skunk?

Another interesting animal is the skunk! They live in grasslands and woodlands, too. Skunks can be striped or spotted and will eat almost anything like earthworms, insects, nuts, mice, eggs, berries, and garbage. When frightened or threatened, a skunk will spray its scent from a gland under its tail.

Make a skunk mask: Use cardstock to print masks. Give children time to color their mask. Attach the mask to a craft stick for easy holding. Option: Cut out the eye holes.

For the “Where’s the Stinky Skunk” activity, place a toy skunk (or picture of one) in a hiding place outside. Children hold their skunk masks during the search. When they find the skunk, the child who found it then hides it again. Kids love Hide-n-Seek!



Sing this for added fun: (to the tune of Where, Oh Where is My Little Lost Dog”)

Where, oh where is that stinky skunk?

Where, oh where can it be?

With its black and white stripes and its great big tail,

Where, oh where can it be?

Book recommendation: *Skunk’s Spring Surprise* by Leslea Newman

Need: cardstock, template for skunk mask (scroll down), crayons or washable markers, craft stick



Put the Tail on the Bunny

Rabbits are found in grassland habitats. A female is called a doe and the male is a buck. They have great ears for listening for predators. Most rabbits live underground in holes called burrows.

Print the bunny template in your handout. Children can color their bunny. Laminate if possible. Add a Velcro dot to the tail area of their bunny and the other dot to a pom

pom. Put the tail on your bunny! Children can work in small groups to trade tails, match colors, go from a small tail to a large one, etc.

“Funny Bunny”

Here is a bunny (Raise 2 fingers like bunny ears.)

With ears so funny

And here is a hole in the ground. (Make hole with fingers of other hand.)

At the first sound it hears

She pricks up her ears (Straighten fingers.)

And pops right in the ground! (Put fingers in hole.)



What’s a lesson about rabbits without doing The Bunny Hop song? <https://youtu.be/DjFd-Wj0OSs>

Book recommendation: *Home for a Bunny* by Margaret Wise Brown

Need: bunny print-outs, crayons or washable markers, Velcro dots, pom poms

Grasslands Scavenger Hunt

Scavenger Hunts are a great way to get children outside and using their observation skills!

Items to find:

- blade of grass
- seeds
- root
- flower (Warning: Tell the kids not to pick any!)
- squirrel
- bird
- insects
- plant that needs sunshine
- rock



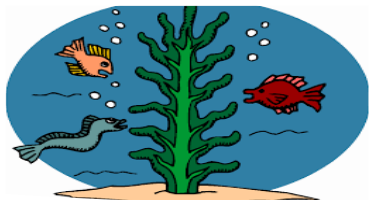
What else can you think of?

*It is fun to hide toy animals for younger children and make this into Animal Hide-n-Seek!

Need: bags to collect items (optional)

Thank you for joining me for Hooray for Habitats II!

You are appreciated... keep loving
your students and
investing your life in them
through teaching!



Name: _____

Match the Sea Shells

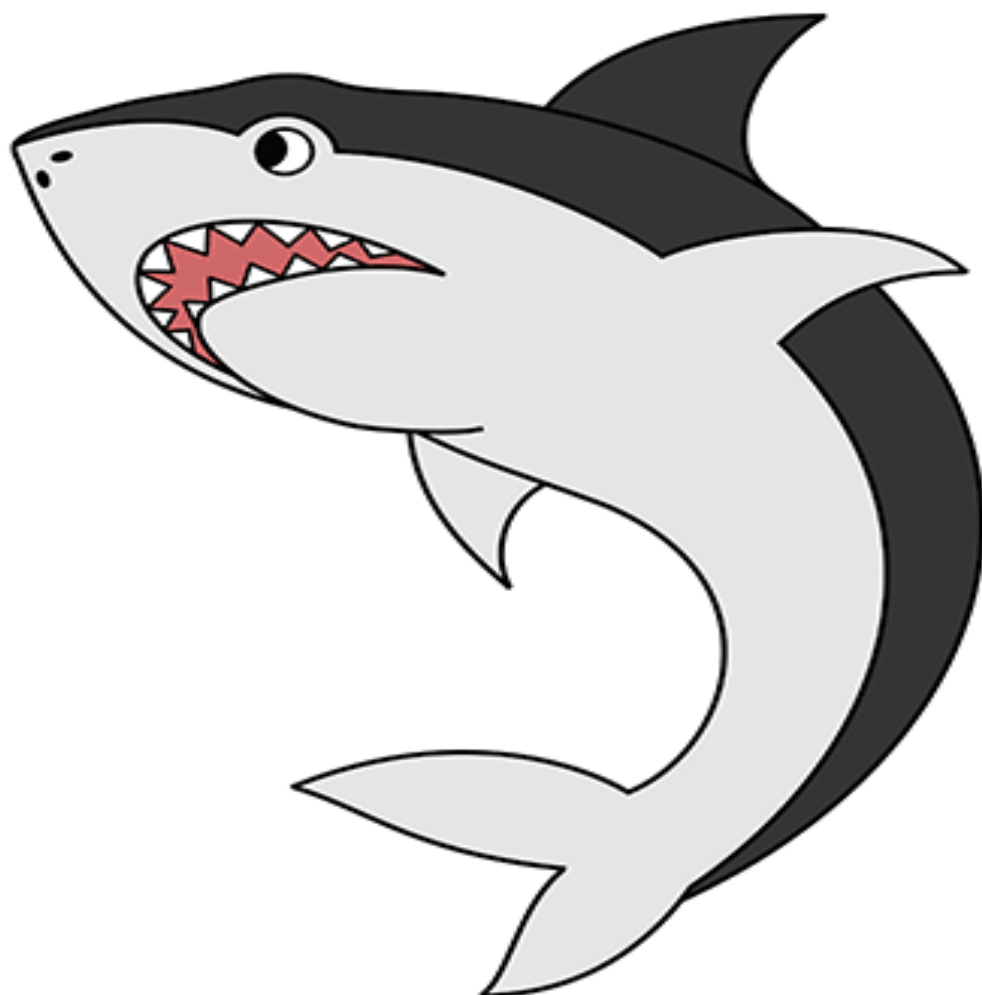
Draw a line to connect the small and large matching sea shells.





WADDLE like a  PENGUIN	JUMP like a  SEA HORSE
CRAWL like a  CRAB	BARK like a  SEAL
TWIRL like a  DOLPHIN	ROLL like a  SEA URCHIN
SWIM like a  FISH	CHOMP like a  SHARK
BODYSURF like a  MANATEE	POKE YOUR HEAD like a  TURTLE

GREAT WHITE SHARK



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