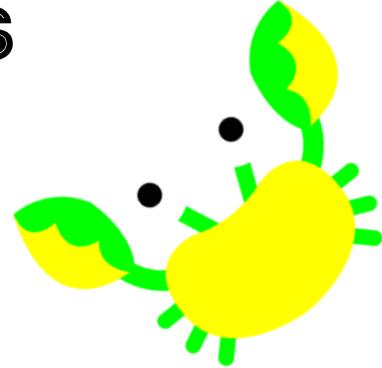


Greater Cleveland Aquarium

I SEE SEA CREATURES

Teacher Guide



Theme: Introduction & Awareness

Grade: PreK

Length of Program: 90 minutes

Overview

Preschoolers begin their aquatic journey with puppets and Eric Carle's story *A House for a Hermit Crab*. Students are introduced to a host of marine animals as they follow hermit crab on his search for a home. Students then re-tell the story with storyboard cards and interact with sea artifacts. Finally, students tour the aquarium to find the animals depicted in the story to reinforce pre-reading, reading, and observation skills.

Goal

By listening to the story *House for a Hermit Crab* the students reinforce reading skills and investigate the behavior of living creatures. Students will discover the diversity of aquatic life and increase their curiosity about life in aquatic biomes.

Objectives

1. After hearing established patterns in the story, students predict what happens next through a series of questions.
2. Students restate the story by sequencing animal pictures in the order that the hermit crab encountered them.
3. When prompted, students identify several living and non-living items.
4. Thorough role play, students demonstrate their understanding of hermit crab behavior; including shell decoration for camouflage and searching for a new shell.
5. Students use observation skills to find real animals in the aquarium that correlate to characters represented in the story.
6. Students demonstrate number sense by counting animals in several aquarium tanks.

Standards:

Grade	Strand	Topic	Content Statement
PreK	Listening and Speaking	Expressive Language	With modeling and support, use words acquired through conversations and shared reading experiences. (Vocabulary)
PreK	Listening and Speaking	Expressive Language	With modeling and support, determine the meanings of unknown words/concepts using the context of conversations, pictures that accompany text or concrete objects. (Vocabulary)
PreK	Reading	Reading Comprehension	Identify characters and major events in a story
PreK	Reading	Reading Comprehension	With modeling and support, describe what part of the story the illustration depicts.
PreK	Reading	Reading Comprehension	Actively engage in group reading with purpose and understanding.
PreK	Number Sense	Number Sense and Counting	Demonstrate one-to-one correspondence when counting objects up to 10.
PreK	Measurement and Data	Describe and Compare Measurable Attributes	Describe and compare objects using measureable attributes (e.g., length, size, capacity and weight).
PreK	Science Inquiry and Application	Inquiry	Explore objects, materials and events in the environment.
PreK	Science Inquiry and Application	Inquiry	Make careful observations.
PreK	Science Inquiry and Application	Inquiry	Engage in simple investigations.
PreK	Science Inquiry and Application	Inquiry	Describe, compare, sort, classify and order.
PreK	Life Science	Explorations of Living Things	With modeling and support, identify physical characteristics and simple behaviors of living things.
PreK	Life Science	Explorations of Living Things	With modeling and support, identify and explore the relationship between living things and their environments (e.g., habitats, food, eating habits, etc.)

Vocabulary

Living

Non-living

Hermit crab

Sea anemone

Starfish

Coral

Sea urchin

Seaweed

Lanternfish

Plain

Decorate

Gingerly

Dim

Murky

Gloomy

Murmured

Tidy

Prickly

Fierce

Gratefully

Pre-Activities

Lessons to help prepare your students and enhance your field trip experience:

1. Explain to the students that upon arrival to the aquarium, they will listen to the story *A House for Hermit Crab* by Eric Carle and that they will meet many animals from the story. Introduce the students to the animals they will encounter. See the "Meet the Animals" page for fun facts.
2. Introduce the concepts of living and non-living things. These concepts will be reinforced through the aquarium field trip program.
3. Introduce students to the vocabulary from the vocabulary word bank.
4. Familiarize the students with the aquarium by viewing the aquarium map and by visiting the Greater Cleveland Aquarium website:

www.greaterclevelandaquarium.com

Post-Activities

The following links contain numerous lessons for the classroom to help reinforce concepts from your field trip experience:

3 Dinosaurs

Activities include: math, patterns, pre-reading, writing, matching, and illustrations.

<http://3dinosaurs.com/printables/packs/hermitcrab.php>

Scholastic

Activities include: puppet patterns

<http://teacher.scholastic.com/lessonrepro/reproducibles/profbooks/houseforhermitcrab.pdf>

Home School Share

Activities include: vocabulary illustrations, story board activity, and more

http://www.homeschoolshare.com/a_house_for_hermit_crab.php

Chalk Talk: Teaching Ideas and Tips for Early Childhood Teachers

Activities include: sequencing, writing, snack, and crafts

<http://larremoreteachertips.blogspot.com/2012/05/house-for-hermit-crab.html>

Ocmulgee Regional Library System

Activities include: music, science, and sequencing

<http://www.orls.org/crctt/first/hermitcrab.pdf>

All Kids Network

Activities include: math and reading

<http://www.allkidsnetwork.com/worksheets/animals/ocean/>

Meet the Animals

Animal descriptions taken from:

Carl, Eric. *A House for Hermit Crab*. Mount Joy, PA: Childcraft Education Corp., 1987. Print.

Sea Anemones: may look like flowers, but they are soft animals (polyps) without bony skeletons. They come in many shapes and colors. With their many arms (tentacles) they catch their prey. Some specialize in attaching themselves to the shell of the hermit crab. Then they protect and camouflage the hermit crab, and, in turn, may share the hermit crab's meals. This arrangement is called symbiosis, meaning that both animals benefit from each other.

Starfish: There are many kinds of starfish. Most have five arms growing from a central disk. The mouth of a starfish is on the underside of this disk, and it has a single, simple eye on the end of each arm. With its powerful arms it can open an oyster, or hold on to a rock during a storm when the waves lash about.

Corals: are somewhat similar to tiny sea anemones that build hard skeletons around themselves. Then hundreds and hundreds of them stick together, forming whole colonies. Some look like branches; others are round or disk-like. Millions upon millions fuse themselves together to build miles-long coral reefs. Some, however, live by themselves.

Snails: There are approximately 80,000 species of snails and slugs. Some live on land, others live in the sea or in lakes. Some carry a shell- their "houses"- on their backs; others have none. The shells come in many colors and shapes.

Sea Urchins: Some are fat and round, others are thin and spindly. Many have long spines (sometimes poisonous) with which they move around and dig into the mud or rocks or other places. Their mouths, with five pointed teeth, are on the underside.

Lanternfish: like fireflies, have luminous, or light-producing, spots on their bodies that light up their dark surroundings. Some lanternfish have a lantern-like organ that dangles in front of their mouths, attracting other fish which become their prey.

For additional information on these aquatic species check out the following web pages:

Hermit crab:

<http://animals.pawnation.com/land-vs-ocean-hermit-crab-2000.html>

http://animaldiversity.org/accounts/Pagurus_bernhardus/

Sea Anemone:

<http://animals.nationalgeographic.com/animals/invertebrates/sea-anemone/>

<http://m.greaterclevelandaquarium.com/fish.php?id=237&tank=16>

http://animaldiversity.org/accounts/Anthopleura_xanthogrammica/

Sea Star:

<http://animals.nationalgeographic.com/animals/invertebrates/starfish/?source=A-to-Z>

Coral:

<http://animals.nationalgeographic.com/animals/invertebrates/coral/?source=A-to-Z>

http://photography.nationalgeographic.com/photography/photos/patterns-coral/#/coral-mushroom-henry_1385_600x450.jpg

Snail:

<http://animals.howstuffworks.com/marine-life/snail-info.htm>

Sea Urchin:

<http://ocean.nationalgeographic.com/ocean/photos/sea-urchins/>

<http://m.greaterclevelandaquarium.com/fish.php?id=306&tank=17>

<http://m.greaterclevelandaquarium.com/fish.php?id=239&tank=10>

Lantern Fish:

<http://www.britannica.com/EBchecked/topic/330050/lantern-fish>

<http://fishesofaustralia.net.au/home/family/332>



Education Department
Greater Cleveland Aquarium
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www.greaterclevelandaquarium.com



OHIO LAKES & RIVERS: Follow the stone path through our forest and check out our bubbling "brook" and our new reptiles and amphibians including salamanders, newts, snakes and turtles.

LAKES & RIVERS OF THE WORLD: Enjoy four individual regions through this gallery: Australia, Asia, South America and Africa. On this journey you meet eastern snake-neck turtles in Australia, archerfish, and one very special giant gourami in Asia, occluded stingrays, and an Amazon river turtle in South America, and spurred tortoises from Africa. Pay

special attention to these tortoises; they are gentle creatures with playful personalities who encourage you to interact with them by touching their shells.

DISCOVERY ZONE: First, discover facts about water pollution and learn about what you can do to help. We must remember that creating awareness is an incredible challenge; our oceans, lakes and rivers are depending on us. Don't forget to look up at what comes next: the base of one of the Powerhouse's original smokestacks is now home to a moon jellyfish exhibit. Learn about their life stages, from polyps to fully grown jellies, and watch as they "glow" in the dark.

COASTAL: Check out our 11,000 gallon Touch Pool, Seahorse exhibit, and live coral exhibit in our Coastal gallery. At our Touch Pool, learn the official "two-finger touch" technique and interact with our friendly stingrays.

PACIFIC: Here you see fish from the Red Sea, Eastern Asia, Indonesia and the northern cold water regions. Of the many, pay close attention to the venomous lionfish, the black and white snowflake eels, the tuftfish, sea stars and the giant Pacific octopus.

EXPLORATION STATION: The Exploration Station is designed as a research vessel and is located on the second floor of the Powerhouse, next to the Cafe. This exhibit features hands-on interactive fun especially for our younger guests. Stop by to meet our most electrifying resident, the electric eel, presented by FirstEnergy.

TROPICAL REEF: This corridor features fish from Fiji and Hawaii including the playful rabbitfish, the burrfish and angelfish.

SHARK SEATUBE: Home to four species of sharks and an amazing variety of aquatic life, this gallery is surely impressive. Elegance and splendor co-exist in the exhibit with sand tiger sharks reaching up to 8' long. Let our Seatube fascinate you as you walk through this wonderful subaquatic world, allowing extraordinary viewing access to sharks, moray eels, groupers and more.

