

Greater Cleveland Aquarium

I SEE SEA CREATURES

Teacher Guide

Theme: Introduction & Awareness

Grade: Kindergarten

Length of Program: 90 minutes



Overview

Kindergarteners 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 re-tell the story with storyboard cards, match pictures to sight words, 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 will 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. Students match the line drawing of an animal to a photo of the corresponding real animal and identify the real animal when they see it in the aquarium.
4. Students recognize the printed name of an animal by matching it to the corresponding animal picture.
5. When prompted, students identify several living and non-living items.
6. Thorough role play of hermit crab camouflage behavior, students demonstrate how animal behavior effects animal survival.
7. Students generate a list of adjectives to describe key animals in the aquarium.

Standards:

Grade	Strand	Topic	Content Statement
K	Reading Literature	Key Ideas and Details	With prompting and support, ask and answer questions about key details in a text.
K	Reading Literature	Key Ideas and Details	With prompting and support, identify characters, settings, and major events in a story.
K	Reading Literature	Craft and Structure	Ask and answer questions about unknown words in a text.
K	Reading Literature	Integration of Knowledge and Ideas	With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts).
K	Reading Literature	Range of Reading and Level of Text Complexity	Actively engage in group reading activities with purpose and understanding.
K	Language	Vocabulary Acquisition and Use	Use words and phrases acquired through conversations, reading and being read to, and responding to texts.
K	Counting and Cardinality	Count to tell the number of objects	Understand the relationship between numbers and quantities; connect counting to cardinality.
K	Measurement and Data	Describe and compare measurable attributes	Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
K	Life Science	Physical and Behavioral Traits of Living Things	Living things are different from nonliving things.
K	Life Science	Physical and Behavioral Traits of Living Things	Living things have physical traits and behaviors, which influence their survival.
K	Science Inquiry and Application		Observe and ask questions about the natural environment.
K	Science Inquiry and Application		Plan and conduct simple investigations.
K	Science Inquiry and Application		Communicate about observations, investigations and explanations.

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. Watch the I See Sea Creatures Welcome Video:
<https://www.youtube.com/watch?v=7UByCQDfb5M&feature=youtu.be>
2. Have students create their Aquarium Journal. (see journal template)
 - a. Students should color the front of their journal and practice writing their name
 - b. Show students where land and water appear on a globe. Have students complete the page in their journal that says “color the oceans blue.”
 - c. The rest of the journal will be completed during and after the aquarium field trip.
3. Explain to the students that 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.
4. Introduce the concepts of living and non-living things. These concepts will be reinforced through the aquarium field trip.
5. Familiarize the students with the aquarium by viewing the aquarium map and by visiting the Greater Cleveland Aquarium website:
www.greaterclevelandaquarium.com

Post-Activities

Lessons for the classroom to help reinforce concepts from your field trip experience:

6. Have students complete their aquarium journal.
 - a. Students can color the animals on each page. Follow the color scheme of characters from the story, or color the animals to mimic the living organisms found in the aquarium.
 - b. Students can complete the sentence on each journal page. Refer to the list of adjectives generated during the aquarium visit.

Additional Resources

These links offer countless resources and lesson plans for additional pre and post activities:

3 Dinosaurs

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

Scholastic

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

Home School Share

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

Chalk Talk: Teaching Ideas and Tips for Early Childhood Teachers

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

Ocmulgee Regional Library System

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

All Kids Network

<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, coelacelated 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.

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 bushtick, sea stars and the giant Pacific octopus.

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.

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 6' long. Let our Seatube fascinate you as you walk through this wonderful sub-aquatic world, allowing extraordinary viewing access to sharks, moray eels, groupers and more.

Second Floor