



Secrets of the Seashore

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Before Reading

- Ask, "What is a secret?" "How can the seashore have secrets?"
- Look at the cover of the book and ask the children what they see. Ask if those could be the seashore's secrets.

Salt Water or Freshwater?

- **Taste:** Explain that freshwater is found in lakes, rivers, ponds, streams, and underground, while most of the water on Earth (97%) is salt water found in oceans and seas. Make salt water by using about 1/4 cup table salt to a gallon of water and offer the children a sample to taste along with a sample of freshwater. Ask them to describe how each taste. Ask if they can tell you why people can't drink sea water. Explain that salt water takes water out of your body in a process called *dehydration*.
- **Density:** Fill one bowl with the saltwater solution and another with freshwater. Ask the children to predict what will happen when you put a fresh egg in each one. Explain that the egg floats in the salt water because salt water is denser than fresh water. The more salt, the denser the water.

Fun with Octopus

- **Math:** Explain that *octo* means eight and the octopus has 8 legs.
 - Count by 8s.
 - During daily routines, see how many numeral 8s you can spot, or how many things there are 8 of.
 - Make an 8-inch ruler and measure how many 8-inch units are in various things around the room.
 - If our arms were tentacles, how many of us would it take to have 8? What if our arms *and* feet were tentacles?
- **Taste:** Many people around the world eat octopus. Bring in octopus to taste.
- **Music/Large Motor Skills:**
 - Share the Beatles song "Octopus's Garden."
 - Explain that the octopus moves using rows of suction cups along the edges of its tentacles and swims using jet-propulsion. Let the children walk on all fours as though they had suction cups, and then "swim" to the song. Ask which way of movement is faster?
- **Memory Skills:**
 - As an invertebrate the octopus has no skeleton so it can squeeze through tight places. The octopus is very smart with both short-term and long-term memory.
 - Provide a memory card game for the children to play in small groups to test their memories.



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- **Math:**

- Octopus eggs are very tiny, about the size of a grain of rice. The female octopus lays about 1,000 eggs at a time and cares for them in a nest under a rock. Once the eggs hatch, the mother dies.
- Give each child 2 small containers, one of which is filled with raw rice. Divide 1,000 by the number of children to determine how many grains of rice each should count out and place in their empty container. Once they've done so, put them all together to show what 1,000 "octopus eggs" looks like. Discuss.

- **Science: Camouflage**

- Explain that the octopus has color cells that allow it to change colors: white, grey, orange, red, or brown. The bright colors help it lure and capture the other sea animals it eats.
- When in danger, an octopus squirts a cloud of black ink then quickly swims away, but changing colors to blend in or resemble different objects in its environment also helps it hide from predators.
- Ask the children to think of other animals that use camouflage for protection or to attract prey. Collect photos and illustrations over the course of many days.

Art

- **Sand Drawing/Painting:** Squirt glue on construction paper, then sprinkle sand on the paper, shaking off the excess to create a 3-dimensional picture.
- **Sand Painting:** Add sand to tempera paint.
- **Sand Fingerpainting:** Have the children fingerpaint in damp sand on a tray.
- **The Ocean Blue:** Offer blue paper, blue crayons and markers, blue tissue paper, blue ribbon, blue yarn, blue pompoms, etc. for creative art projects.

Creative writing

Ask the children to write a story. Younger children can tell or dictate to you for recording. Encourage them to illustrate their story.

- What would you see, and what would it feel like if you were on the seashore?
- If you met a sea otter or a hermit crab in person, what would happen, and how would you feel?
- If you could breathe underwater, what would you do, and where would you go?

Guided Independent Study for Older children.

- Have each child choose a creature or plant from the book and provide resources for them to use to find out as much as they can about it.
- Ask them to write several sentences or paragraphs about what they've learned.
- This project might also include

Drawings and photos	Video	Script for a skit
Diagrams	Posters/display boards	Sound effects
Diorama	Models (figures)	Costumes/masks*
Maps	Songs	Sculpture