



STEM Collaborative Cataloging Project

Oceans Pre-K Discovery Kit Lesson Plan

Context (InTASC 1,2,3)

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Lesson Topic: Exploring all aspects of oceans including animals, plants, and related objects

Grade Level: Preschool

Duration: 5 lessons; each 25-30 minutes

Kit Contents: http://odin-primo.hosted.exlibrisgroup.com/nmy:NMY_ALEPH:ODIN_ALEPH007735852

Desired Results (InTASC 4)

Purpose: The purpose of this lesson is to give students an introduction to what goes on in an ocean learn about what they can do at an ocean as well as what lives within oceans. Students will explore the sights and sounds of the ocean and investigate with real ocean objects.

North Dakota English Language Arts & Literacy Content Standards:

- Writing Standards: Text Types and Purposes
 - W.1 (Kindergarten) Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.

North Dakota Library and Technology Content Standards

- Personal Learning and Growth: Reading, Listening, and Viewing for Life-Long Learning
 - K-5.PLG.7 Make connections between current knowledge and new learning

North Dakota Mathematics Content Standards

- Count to tell the number of objects
 - K.CC.5: Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects.

Objectives:

- 1. Students will create a drawing or art project showing an animal in its ocean habitat.
- **2.** Students will sort shells by color, shape, size, or design, graph shells by this attribute, and answer questions about the graph data.

Assessment Evidence (InTASC 6)

Evidence of meeting desired results: When students complete their art project at the end of the lesson, have them present their finished project to the group. When they explain what they created, listen for elements of the ocean unit including animal, habitat, other life, other sounds, waves, etc. If they can explain and have used at least two elements from the unit in their picture, they are meeting expectations.

Learning Plan (InTASC 4,5,7,8)							
Instructional Strategy: (Check all that apply)							
✓ Direct	☐ Indirect	☐ Independent	☐ Experiential	✓ Interactive			









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Technology Use(s): (Check all that apply)						
\square Student Interaction \square Align Goals	☐ Differentiate Instruction	▼ Enhance Lesson				
□ Collect Data ▼ N/A						

Hook and Hold:

Set up a puppet show area and use Clambake Seal and Chopper Lobster to give kids a little background for the ocean unit. Have them swim by and talk to each other about life in the ocean and all the neat ocean animals and plants they get to see. Have them point out the ocean discovery table in the classroom that holds books about oceans, shells, dried kelp, a poster of an ocean, and any other ocean materials the teacher has on hand. Ask the kids to share with the puppets what they already know about oceans and what they are excited to learn about during this unit.

Materials:

- Clambake Seal and Chopper Lobster puppets
- Puppet Show Stage
- Ocean Books
- Shells, kelp, sea star, poster from kit
- Large white construction paper-1 per student
- Ocean sponges
- Ocean stencils
- Markers and Crayons
- Tissue paper or other art supplies
- Day at the Beach Note
- Oceans CD
- Plastic bottle-1 per student OR 1 large for the group
- Funnel
- Water
- Blue Food Coloring
- Mineral Oil
- Duct Tape
- "A House for a Hermit Crab" by Eric Carle or "Is This a House for a Hermit Crab" by Megan McDonald
- Cotton balls with two wiggly eyes glued on-8-10 total
- Examples of ocean animal habitats
- Shells

Procedures:

Day 1:

- 1. Send home a note about a "day at the beach" activity for the Indoor Beach Party on page 11. Have students come to school with things they would wear or use on the beach, such as bathing suits, beach toys, sunglasses, stuffed ocean animals, and beach towels. Decorate the room with ocean objects and use this activity to discuss ocean activities.
 - a. Have you ever been to a beach or an ocean? What did it look like? What did you do there? What things did you see there?
 - b. Play a few movement games related to oceans such as Seal Says on page 29 and Crab Walk on page 30.







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Day 2: Wave in a Bottle on page 13

- 1. Discuss waves with students by discussing in partners. Have you ever seen waves before? Where? What makes waves in the ocean (wind)?
- 2. Listen to breaking waves and rolling waves on the Oceans CD. Have children use their arms to show what they think the waves are doing during the sounds. Ask if students would want to be on a boat in each kind of wave.
- 3. Give each student a clear plastic bottle and help them use a funnel to fill the bottle half full of water. Add a few drops of blue food coloring, put the cap on, and shake to mix together. Then fill the rest of the bottle with mineral oil and secure the cap with duct tape.
- 4. Model how to hold the bottle sideways and gently tip it to make waves. If there are not adults to aid in this process, you can make one in a large plastic bottle as a class or in small groups.
- 5. Use the Oceans CD to play other sounds that can be heard at the ocean including sea gulls, dolphin clicks and whistles, and a fog horn.

Day 3: Animal Habitats

- 1. Read "A House for a Hermit Crab" by Eric Carle or "Is This a House for a Hermit Crab" by Megan McDonald.
- 2. Use Animal Homes on page 14 to discuss different animal habitats in the ocean. Show students a cotton ball with wiggly eyes glued on and ask them to pretend it is a hermit crab. Where in the ocean might this creature want to live? Show how it uses a shell as a home. Have students name other creatures that live in or near the ocean and show where they would want to live, discussing why they make that place their home (safety, close to food, etc.).
- 3. Use Did You Ever See a... on page 20 to sing a silly rhyme about ocean creatures. Change the words each time to be a different ocean creature in the silly rhyme.

Day 4: Shell

- 1. Use the shells from the kit to allow students to get a closer look at what the shells look like and how they are similar and different. Ask other teachers or students to bring in other shells and use Shell Graphs on page 17 to graph the shells you have. Start by having students sort the shells by size, shape, color, or design. Then make a graph of the shells using the sorting rule students used and discuss the data. Repeat using a different sorting rule.
- 2. Use Ocean Patterns on page 18 to create patterns of real shells together as a group. Then give each student a piece of construction paper and ocean stickers or the ocean sponges and have them create their own ocean pattern.

Summary: Give each student a large white piece of construction paper and an assortment of craft materials, including the ocean sponges, paint, ocean stencils, markers, crayons, tissue paper, etc. and let students create an ocean scene with plants and animals that they have learned about during the unit. Use the drawing and a dictated sentence or two to assess learning from the unit on what kinds of animals and plants live in the ocean.

Reflection (InTASC 9)

Reflect On:

- Preparation
- Planning
- Teaching









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• Student Engagement and Participation

Evidence of Student Learning

Standards

Council of Chief School Officers. (2011, April) Interstate Teacher Assessment and Support Consortium (InTASC) model core teaching standards: a resource for state dialogue. Washington DC. Retrieved from http://www.ccsso.org/documents/2011/intasc_model_core_teaching_standards_2011.pdf

North Dakota Department of Public Instruction. (2011) *North Dakota English language arts & literacy content standards*. Bismarck, ND. Retrieved from https://www.nd.gov/dpi/uploads/87/ELA_JUN0811.pdf

North Dakota Department of Public Instruction. (2011) *North Dakota mathematic content standards*. Bismarck, ND. Retrieved from https://www.nd.gov/dpi/uploads/87/math.pdf

North Dakota Department of Public Instruction. (2012) *North Dakota library and technology content standards.*Bismarck, ND. Retrieved from https://www.nd.gov/dpi/uploads/87/lib tech.pdf

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