

1. **Lesson Title:** Depths of the Ocean
2. **By:** Heidi Cowan (Library Media Specialist)
3. **Overview:** Students will learn how to use a glossary and index to help them find information. They will learn how to properly search for information by the method of categorization.
4. **Grade:** 4th
5. **Duration:** 3 class periods
6. **Materials Needed:**
  - a. Projector or chart paper to record responses for what students know, what they want to know, what they have learned
  - b. Markers or pens
  - c. A selection of non-fiction books to read aloud on ocean animals
  - d. Colored sentence strips
  - e. Index cards (40)
  - f. Tape or magnets
  - g. Cart of books on ocean animals
  - h. Bookmark forms with Name, Animal Name, Page Number, Index, Table of Contents, and Glossary printed on them
  - i. Task card
7. **Rational:** This lesson plan will help students learn to effectively start to learn how to research subjects. The AASL standards for the 21<sup>st</sup> century learner that will be met through this plan are as follows:
  - a. 1.1.2-Use prior knowledge as context for new learning
  - b. 1.1.3- Develop and refine a range of questions to frame the search for new understanding
  - c. 1.1.4-Find, evaluate and select appropriate sources to answer questions
  - d. 1.1.9- Collaborate with others to broaden and deepen understanding
  - e. 2.1.2-Organize knowledge so that it is useful
  - f. 2.1.5-Collaborate with others to exchange ideas, develop new understandings. Make decisions, and solve problems
  - g. 2.2.3- employ a critical stance in drawing conclusions by demonstrating that the patten of evidence leads to a decision or conclusion
  - h. 2.3.1 –Connect understanding to the real world
  - i. 2.4.3-Recognize new knowledge and understanding
  - j. 3.1.3- Use writing and speaking skills to communicate new understandings effectively
  - k. 3.2.3-Demonstrate teamwork by working productivity with others
  - l. 4.4.6- Evaluate own ability to select resources that are engaging and appropriate for personal interests and needs

- 8. Focusing Question:** Now that students know about the ocean in general, can they pick specific animals in the ocean to do research. *Can you research one oceanic animal or ecosystem?*
- 9. Goals:** This lesson will allow students to start to explore nonfiction books as references. They will start to understand how to find information from them while expanding on their prior knowledge of the ocean
- 10. Objectives:**
- a. Students will locate and use indexes and glossaries in non-fiction books
  - b. Students will be able to sort oceanic animals into different categories according to ecosystems and/or classifications
- 11. Standards:**
- a. See above #7
  - b. ISTE NETS Student
    - i. 1.d-Identify trends and forecast possibilities
    - ii. 3.b- Locate, organize, analyze, evaluate, synthesize and ethically use information from a variety of sources and media
    - iii. 4.c-Collect and analyze data to identify solutions and/or make informed decisions
  - c. State Standards
    - i. Standard 1- identify types of information needed and choose from a range of resources
    - ii. Standard 2- Locate resources, locate information within resource, organize information
- 12. Technology Used:** Computers, Internet
- 13. A.-D Collaboration:** This lesson is designed to be taught along with a science teacher
- 14. Anticipatory Set/Object based Learning:** They should know about the ocean from the CT and to expand on their information start off with a general poll. On a large chart paper have three columns titled: What students know, what they want to know and what they learned. This can be done on chart paper or on a projector. The idea is to get the students involved in the activity and have some say in their learning.
- 15. Process Model: Big 6**
- a. Task definition
    - i. Identify information needed for their presentations
  - b. Information seeking strategies
    - i. Become aware of information in nonfiction books and on the internet
  - c. Location and access
    - i. Searching facts about their animals
  - d. Use of information
    - i. I will read aloud a book or two on the first day to get the students started
  - e. Synthesis

- i. Students will create a PowerPoint of their animal
- f. Evaluation
  - i. Evaluated on correct information

## **16. Step by Step:**

### **Day 1:**

The students should have learned about the ocean in class and so to begin class I would have a chart on some big paper or a projector. Instead of studying the ocean, I would have them delve deeper so to say. Pick specific animals in the ocean. Have students popcorn out animals and record student responses on a chart or projector. Once everyone that would like to participate has contributed, lead the class into a discussion about what they would like to know about the various animals listed. Record these responses on the chart. Keep the chart hanging in the room for the duration of the unit.

Then transition from naming animals to how we find information out about them. Popcorn ideas again. Bring up nonfiction books and read aloud one or two. Define and use the Table of Contents, Index, and Glossary. Show several examples. Explain that these tools will come in handy when students are trying to find a book that has information about the ocean animal they have chosen to research

### **Day 2:**

Students should be divided into small groups (three or four). The animals on the chart will be on index cards now and placed in books that have information on that specific animal. Pass out a set of books to each group and have the students remove the index cards. On the board there should be sentence slips with animal classifications on them (Mammal, Fish, Reptile, Amphibian, Crustacean, Mollusk, etc.) Give the student groups a couple of minutes to decide which classification fits each of their animals named on the index cards. Tell the students that they will each be responsible for one animal and that they should be able to support their classification decisions based on prior instruction. Have the group agree on each member's answer. Then have each student, coming to the board with his or her group, post an animal card under the classification heading where he or she feels it belongs.

Then transition from animal classification, to ecosystems. Have a brief discussion on defining ecosystem. Instead of classifications, change the headings to ecosystems (Sunlit Zone, Twilight Zone, Deep Ocean, and Abyss). Ask the students, by group, to take the same animals they posted by class and post them again where they might live in the ocean. Point out to students that knowing about an animal's ecosystem and classification can lead them more quickly to information about a specific animal.

"I will call you up by groups to retrieve your index card. After you get your cards, you will look for this same animal in one of the books I have placed with your group. You will make a short PowerPoint about your animal. At the end of your PowerPoint you should tell me how you found your information. Was it all from the internet? Did you use a glossary or an index?" While

students are making the presentations I would walk around and make sure each student could find information from both sources, and I would like to know what one that they found easier.

**17. Closure:** On the third class period I would have students show me their presentations

**18. Evaluation:** The PowerPoint would be graded on correct information, but their knowledge of using glossaries and indexes would be done informally. While walking around and helping students make their PPs I would learn which students were picking up the skill.

**19. Connection to Other Areas:**

- a. Science Classroom
- b. Could be adapted for them to write a short assignment about the animal for a connection to the Language Arts classroom.

**20. Adaptions:**

- a. **Learning Disabilities**
  - i. Reading aloud books
- b. **Gifted Students**
  - i. Possibility of doing 2 animals
  - ii. PP could be over an entire ecosystem instead of an animal

**21. Resources:** Scholastic