

**Discovering the  
Ocean Habitat**  
By Linda Everhart

**School:** Wilson Junior Academy

**E-Mail Address:** [jimlindaeverhart@alphacomm.net](mailto:jimlindaeverhart@alphacomm.net)

**Subject:** Science

**Intended Grade Levels:** 1 – 4

**Description:**

This is the Study of ocean animals and plants:

- A. To discover their beauty and diversity
- B. To develop an awareness of the sea's contributions and importance to our lives
- C. To understand links in the food chain
- D. To encourage a sense of our God given stewardship of the oceans and responsibility for its protection
- E. To introduce the Life unit in the Science series to be taught following this unit

**Faith Integration:**

**A.** In the presentation of the lessons, appreciation of God's creative and redemptive power will be connected with the content.

**B.** During the time period that the extended lessons on not only the ocean habitat, but also during the following wetland and lake habitats of Michigan, worships will be connected with aquatic plant and animal life. Some of the stories and discussion questions in the books Counting Stars and Talking Trees and Singing Whales will be used. Alternately, the students will keep a scripture notebook where they will copy a sea/water/water creature mentioning text and then write a thought or draw a simple sketch about how this helps them understand or appreciate God better. Then we will spend time as a large group or in small groups sharing the thoughts we got from the text. As the students become more accomplished in this, they will be asked to find their own texts. Text can be found in a concordance under the words: sea, seas, great waters, etc. The Bible I plan on using is the Clear Word for Kids because the students will take turns reading the texts aloud to the group.

## **Curriculum Benchmarks:**

NETS standards to be covered at least in part:

1. #1 Students will learn the use of the computers to at least be able to use Kid Pix and do simple research of Internet sites that the teacher will link on recorded worksheets.
2. #3 Students will be asked to create slides to portray a sea creature or plant as part of a report.
3. #4 Students will be working in small groups to create projects that can be recorded to present to parents at a Home and School meeting.
4. #5 In the Internet searches, students will have to select pertinent information that applies to the questions asked.

## **NAD Science Curriculum: Life**

Grade 1: Plants/Animals –Identify various ecosystems and the organisms that live there

Grade 3: Describe the basic needs of living things.

Describe how related animals have similar characteristics

Explain food chains and food webs and identify producers and consumers in an ecosystem

Classify organisms according to characteristics that are similar and different

## **Materials/Hardware/Software:**

Overhead projector for transparency

Computers connected to the Internet

Printer

Software: Kid Pix and Aquazone (computer generated aquarium and ocean). This can be purchased at Wal-Mart or at [www.aquazoneshop.com](http://www.aquazoneshop.com)

DVD: “Treasures of the Undersea”, by Martin Klein & Steve Arrington, available at the Michigan ABC or from Savannah Pictures ph. 800-823-2496

Books:

Counting Stars by William Coleman, Bethany House Publishers, ISBN # 0-87123-055-0

Talking Trees & Singing Whales by Charles C. Case, Review and Herald Publishing Association, ISBN # 0-8280-0285-1

The Clear Word for Kids by Jack J. Blanco, Review and Herald Publishing Association, ISBN # 0-9748894-3-1

Various books about ocean, lake, or wetland creatures are available at your local school or public library.

Teacher resource books that can be reproduced:

Ocean Life by Linda Milliken, [www.edupressinc.com](http://www.edupressinc.com), ISBN # 1-56472-116-7

Animal Puppets and Folded Paper Projects, by Lathleen Morgan, Jo Ellen Moore, and Joy Evans, Evan-Moor Corp.

Bulletin Board Set:

Sea Life Animals by DeAnn Lubell, Little Folk Visuals, Trend Enterprises, Inc., St. Paul MN 55164 (Available through the ABC)

Worksheets from TrackStar education site, <http://trackstar.org>: #'s 105599, 10223, 247772, 75490, 248539, 9426, 3770, 99518, 241193, 88665, 199891, 191852, 232768, 109759, 161934, 138425, 230058, 237857. These should be obtained from the site and copied to a Word program so that students do not attempt to type in the site addresses. If the computer is on the Internet, when the students click on the address, it should go to it.

### **Teacher Preparation:**

The teacher will have to collect the materials and books needed. Prepare the room to resemble an ocean: sand in a small child's swimming pool with a Plexiglas sea in the bottom where plastic boats can sail (free time learning center), clear plastic shower curtain with sea creature on it around the area where the pool will be located, green plastic table cloths cut into seaweed type shapes hanging from the lights fixtures, place fishing nets and seashells around this area, create bulletin boards with ocean creatures to identify, display collections of sand found in different areas of the world, and start a collection of stuffed animal sea creatures to which students will be asked to make a loaned contribution. Get several books from the library on sea plants and animals for a literature connection. During a story time, read some of these together. Install Aquazone on one of the computers. This is an animated aquarium where the students can pick which fish to swim together, what the background will look like, and they get to feed the fish without the danger of overfeeding them. What's good about this is that you don't have to clean the aquarium or get rid of the fish when you're through with the unit. The fish interact with each other and swim around as if in a real ocean or aquarium.

### **Student Preparation:**

Students will have to have been already introduced to the processes of using the Internet to do some of the assignments. In Kid Pix, students will need to know how to create a slide and/or slide show and save it to a file.

### **Activities/Procedures:**

This unit will take a number of days. The actual number depends on the experience, interest, and learning speed of the students. More activities in the teacher resources can be given or taken away as the teacher sees necessary to keep it moving interestingly along.

Start:

Lesson 1

To create a desire to learn on this topic, show the DVD, "Treasures of the Undersea". This is 40 minutes long. Students would have already at least one worship experience concerning this topic. During worship, prepare the students for what they will see later in the day. Give the students paper, pencils, and crayons to record three ideas from the film that they found of particular interest. After the film or to begin the next day's lesson, discuss and show what they wrote or drew.

## Lesson 2

1. After reviewing the last lesson, discuss the felt set, "See Life Animals" set up on the bulletin board. Have the students identify as many as they can. Present the name and initial information on the remaining creatures. Then using the bulletin board set, "The Living Sea" present the information concerning what creatures live in which layers of the ocean. Make transparencies of p. 14, 40, and 41 from "Ocean Life" to use on the overhead projector to aid in the discussion. Three classifications of creatures according to what levels they live in are Zooplankton, Nekton, and Benthos. Ask the students to write down on a slip of paper three creatures plant or animal for which they would like to create Kid Pix slides. They may change one to a different creature if later they find something of particular interest. Students will enjoy the site: [www.seasky.org](http://www.seasky.org) for games and researching their chosen creature.

Lesson 3 and beyond are clumped together because the students will be taking turns on one computer to create Kid Pix slides and three computers to work on the internet. There will be basically four activities that the students will cycle through.

2. Sand pool to discover what is hidden in the sand, use imagination with the sail boats, and try to identify shells in the sand from the identification books and cards that are left near them. It would be good to softly play water/ocean sounds in that area.
3. An art/paper creative activity center will be equipped with materials to make three dimensional ocean creatures. From the book, Animal Puppets have photocopied sheets page #'s: 4,5,7,18,19,22,32,35,38; and from Folded Paper Projects page #'s: 3,4,8,15,21,28,29,30,31,32. Basically all that is needed is the sheets and scissors and crayons or markers to construct them. It would be good to copy some sheets on colored paper.

4. Small groups of students, two being the most desirable (older experienced student with a younger or less experienced one) creating Kid Pix slides on one of the computers. Students should be given time to format a design on paper of what they would like to do before sitting down to the computer program. They should also be given the rubric that will be given at the end of this unit under Assessment/Evaluation.
5. Two sets of two students (with the above make up plan of experience) will be asked to complete one sheet each from the above list of worksheets from TrackStar given under Materials. The worksheets need to be grouped by ability to suit your students. I would recommend that no one be allowed to do the same sheet as another student. Students should copy down their answers on photocopied sheets that have the questions on them. Then later in class discussion, the individual students (older ones can help their partners recall the answers) can present his/her research. Students could bookmark or copy pictures that would help in their presentations.
6. As time allows, on some days pull the whole class together to do the experiments and instructional activities found in Ocean Life resource teacher's workbook. Students will get tired of several days of working in small groups and need this time together.

### **Assessment/Evaluation**

Give a grade for each of the art projects basing the grade on the maturity level of the student, how they followed directions, and neatness.

Give a grade on how well they answered the questions for TrackStar and how knowledgeable they seemed to be in their presentation to the class, again based on grade level.

Give a grade for participation in the experiments and active involvement when doing Ocean Life group work.

Give a grade for their Kid Pix slides/slide shows following the below rubric:

## Storyboard- multimedia : Kid Pix Program

Teacher Name: **Linda Everhart**

Student Name: \_\_\_\_\_

CATEGORY	4	3	2	1
<b>Clarity and Neatness</b>	Storyboard is easy to read and all elements are so clearly written, labeled, or drawn that another student could create the presentation if necessary.	Storyboard is easy to read and most elements are clearly written, labeled, or drawn. Another person might be able to create the presentation after asking one or two questions.	Storyboard is hard to read with rough drawings and labels. It would be hard for another person to create this presentation without asking lots of questions.	Storyboard is hard to read and one cannot tell what goes where. It would be impossible for another person to create this presentation without asking lots of questions.
<b>Cooperation</b>	Worked cooperatively with partner all the time with no need for adult intervention.	Worked cooperatively with partner most of time but had a few problems that the team resolved themselves.	Worked cooperatively with partner most of the time, but had one problem that required adult intervention.	Worked cooperatively with partners some of the time but had several problems that required adult intervention.
<b>Spelling &amp; Grammar</b>	No spelling or grammatical mistakes on a storyboard with lots of text.	No spelling or grammatical mistakes on a storyboard with little text.	One spelling or grammatical error on the storyboard.	Several spelling and/or grammatical errors on the storyboard.
<b>Content</b>	All content is in the students' own words and is accurate.	Almost all content is in the students' own words and is accurate.	At least half of the content is in the students' own words and is accurate.	Less than half of the content is in the students' own words and/or is accurate.
<b>Use of Time</b>	Used time well during each class period (as shown by observation by teacher, and documentation of progress in journal) with no adult reminders.	Used time well during most class periods (as shown by observation by teacher, and documentation of progress in journal) with no adult reminders.	Used time well (as shown by observation by teacher and documentation of progress in journal), but required adult reminders on one or more occasions to do so.	Used time poorly (as shown by observation by teacher and/or documentation of progress in journal) in spite of several adult reminders to do so.
<b>Required Elements</b>	Storyboard included all required elements as well as a few additional elements.	Storyboard included all required elements and one additional element.	Storyboard included all required elements.	One or more required elements were missing from the storyboard.

**Follow-up Activities:**

The class will be asked to show their Kid Pix slides and display any of the other created material from this unit at a Home & School program.

We will be expanding our study of water creatures by studying into the wetlands and Lakes around Michigan.

Field trips will be planned to visit the lighthouses and have a guided tour at Escanaba and Marquette.

Plans are being made to arrange a visit to a Michigan Lake State Park where the ranger will give more information about how the students can help protect the waterway's habitat.

There will be on going recesses where the actions are based on how water creatures survive the obstacles that humans put in their way. These activities come from the books: Project Wild and Aquatic Project Wild that are available from: Project Wild, PO Box 18060, Boulder, CO 80308-8060 or ph. 303444-2390.