

EcoVenture Class: Animal Shapes and Colors Pre-K/Kindergarten

Teacher Guide

Overview and Resource Materials



LOVELAND LIVING PLANET
AQUARIUM

EDUCATION DEPARTMENT

EXPLORE, DISCOVER, LEARN

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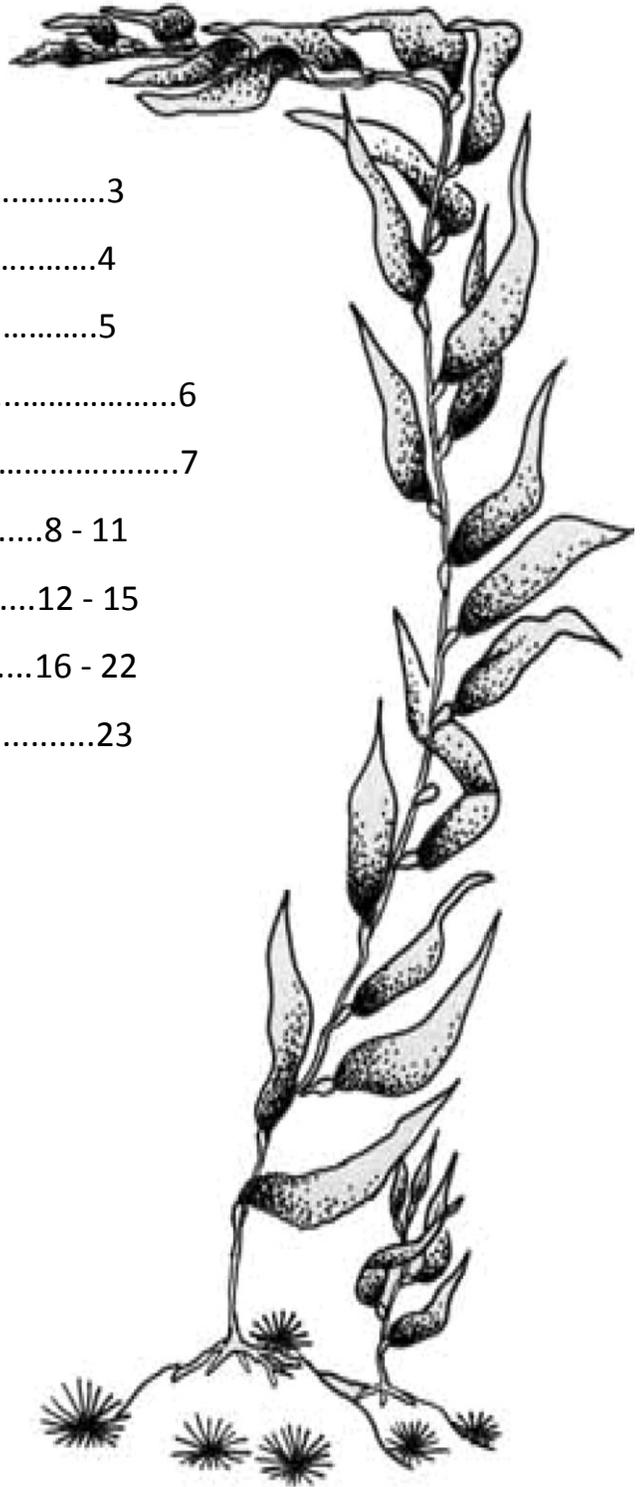
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Why Have an Aquarium in a Desert?

After all, where else in the world is water so valued and respected? It's a precious resource that defines how we live in Utah. Because we're not surrounded by oceans and immense water habitats, we have fewer opportunities to experience, understand and appreciate the water environments that cover more than 70 percent of our planet. Loveland Living Planet Aquarium brings animals to people who might not have the chance to see them or their water-based ecosystems in a natural setting.

Our children are the future custodians of the environment. Yet, the majority of today's young people don't have the opportunity to understand the ocean nor their own water-dependent environments. Loveland Living Planet Aquarium provides a "living classroom," educating us all about our interdependence on the living planet's fragile ecosystems.

Loveland Living Planet Aquarium is a world-class organization that enriches lives through education outreach, dynamic exhibits and programs.

Loveland Living Planet Aquarium provides an entertaining learning experience and hands-on educational opportunities to help individuals understand and appreciate the water environments encompassing our planet, leading to an enriched personal life. Having this aquarium provides us with countless opportunities to understand and respect this precious resource and the living habitats it supports, both in Utah and in our planet's oceans.



Explore



Discover



Learn

School Visit Overview

Thank you for choosing Loveland Living Planet Aquarium for a school visit. We look forward to your arrival!

This section of the Teacher Guide provides an overview of your visit and a checklist of things to accomplish before, during and after your experience with us.

Utah State Core Connections

Our on-site programs are designed to be an exciting complement to what you are teaching in the classroom. Our education team examined the Intended Learning Outcomes and Core Standards for each grade and created our presentation and activities to reinforce the ILOs and Standards. You will find a list of related ILOs and Standards later on in this document.

EcoVenture Classes

Each EcoVenture Class lasts approximately 20-35 minutes. While the class is separate from your general aquarium visit, there is not an additional cost for the classes. To provide a quality and interactive experience for your students, we allow a maximum of 35 students per class. This means, we can present the same program several times back-to-back to accommodate larger groups.

The EcoVenture Classes take place in our Education Classrooms with one or two Education Presenters, depending on the class. There are also Education Presenters located throughout the aquarium to answer any questions you or your students may have.

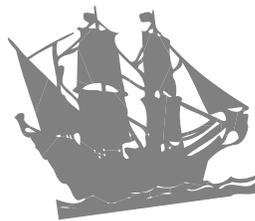
EcoVenture Start Times

The contact teacher will receive an e-mail with a confirmation sheet. This confirmation sheet will list the school's arrival time and each group's EcoVenture Class start time. Please remind the chaperones to arrive promptly to the Education classroom at their designated start time to allow the group to have the full classroom experience.

"Give people facts and you feed their minds for an hour.

Awaken curiosity and they feed their own minds for a lifetime."

(Ian Russell)



School Visit Checklist

Loveland Living Planet Aquarium



Pre-Visit

Download from our website:

_____ This document (Teacher Guide)

_____ Student Research Document(s) for you to copy and bring with you on your visit

Many of our documents are saved in PDF format. They require Adobe Acrobat Reader to open.

If you do not have Acrobat Reader, you can download the program for free at:

<http://www.adobe.com/products/reader/>

Please

_____ Educate the students and chaperones on behavior expectations.

_____ Divide your students into smaller groups and assign each group a chaperone.

_____ Supply each adult chaperone with a Chaperone Guide. This guide includes the rules, tips to facilitate learning and an aquarium map.

Day of

_____ Bring Student Research Documents if you would like your students to use them during their aquarium visit.

_____ Remind the students and chaperones of the behavior expectations.

_____ Remind the chaperones of their EcoVenture Class start time and location.

_____ **All groups must pay in one lump sum.** Bring payment if your school is **not** a sponsored Title 1 or Head Start school. If your visit is **sponsored**, you do not pay for your students, but please remember the chaperone-to-student ratio. Any additional adults will be asked to pay.

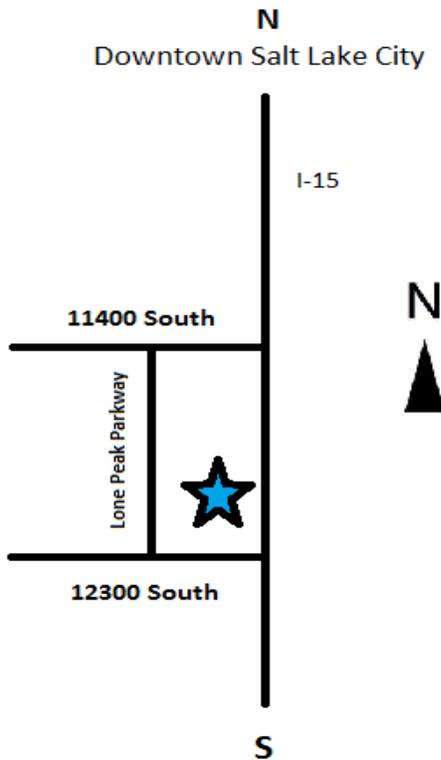
_____ Have FUN and enjoy learning at Loveland Living Planet Aquarium!

Post-Visit

This document contains post-visit materials. Other materials may become available as separate downloads in the future, so check our website often.

Location of Loveland Living Planet Aquarium

12033 S Lone Peak Parkway
Draper, Utah 84020
Phone: (801) 355-3474



Directions:

- From I-15 S, take exit 291 (West 12300 South)
 - Left at fork towards Riverton (Left onto 12300 South)
 - Turn right onto Lone Peak Parkway
 - Loveland Living Planet Aquarium is on right
- From I-15 N, take exit 292 (West 11400 South)
 - Right at fork (Right onto 11400 South)
 - Turn left onto Lone Peak Parkway
 - Loveland Living Planet Aquarium is on left

Layout of Loving Living Planet Aquarium



Teacher Outline

Animal Shapes and Colors

Duration of School Visit

EcoVenture Classes (35 students max) are scheduled in 30-minute increments unless otherwise noted on your confirmation sheet. Each EcoVenture Class is approximately 25-30 minutes. Please allow your group 2 hours for a three-class visit, or 2 hours and 45 minutes for a four-class visit. Classes for Pre-Kindergarten through 1st grade are typically shorter in length.

At this time, the aquarium does not have lunch space available for field trip groups.

If you are interested in eating sack lunches nearby, we recommend Galena Hills Park which is located at 12500 South Galena Park Blvd (550 west) in Draper. Among other park amenities, there are covered picnic tables, bathrooms and a playground. This park is not within walking distance of the aquarium. If you would prefer to walk to a park, the closest one is Inauguration Park which is located at 326 West Inauguration Road. This is a basic park with a few uncovered picnic tables and a small playground. There is a large grassy area where students can sit to eat lunch. To get there, cross the street at the crosswalk outside the aquarium, then proceed to walk north on Lone Peak Parkway for 0.5 miles. Then take a left on Inauguration Road, and walk for approximately 0.1 miles. The park will be on the left. We realize weather may present a challenge and apologize for any inconvenience.

Background for Teachers

The aquarium is a wonderful environment for practicing color recognition, patterning, counting, relationships and interactions. The students will take a close look at animals and explore how shapes and colors help them survive through camouflage and other traits. The activities are simple yet fun and compliment a variety of learning styles. (i.e. auditory, visual, kinesthetic)

Intended Learning Outcomes/Measurable Objectives

Students will be exposed to the objectives listed from the core curriculum through role play, singing, and various other activities. By the end of the experience they will be able to articulate in oral review an understanding of the concepts taught. Also, through use of a written worksheet and flannel board models, the students will demonstrate having used visual observation, reading and listening skills to have answered questions relating to the CORE curriculum for their grade level.

Connecting \longleftrightarrow to the Core Standards

Here's where your EcoVenture Class connects with the Utah State Core Curriculum.

Pre-Kindergarten

Approaches to Learning:

Guideline II: Child develops abilities and skills that promote learning.

Objective 2: Works collaboratively with others.

- a. Shares materials.
- b. Helps others.
- c. Takes turns.
- d. Follows rules.
- e. Respects others and self.

Language and Literacy

Guideline I: The child develops an understanding of language for the purpose of effectively communicating through listening and viewing.

Objective 1: Listens attentively and comprehends a variety of oral language forms.

- a. Listens to and follows directions or requests.
- c. Responds appropriately to questions.

Guideline II: The child develops an understanding of language for the purpose of effectively communicating through speaking.

Objective 1: Develops expressive language through speaking.

- b. Speaks in simple sentences of varying length.

Objective 2: Increases in vocabulary development.

- a. Connects new vocabulary with known words or experiences.
- c. Understand descriptive words (e.g. color, size, shape).
- e. Understands comparison words (e.g. little/big).

Objective 3: Responds to and asks questions.

- a. Responds appropriately to directions and questions.
- b. Answers simple questions.
- c. Asks questions for clarification or to learn more.

Guideline III: The child develops an understanding of how printed language works.

Objective 2: Develops alphabet knowledge.

- a. Recognizes the difference between letters, numbers, and other symbols.
- c. Understands that letters represent sounds.

Mathematics

Guideline I: The child will understand simple number concepts and operations.

Objective 1: Develops counting skills.

- a. Recites numbers in order from 1-10 (rote counting).

Guideline II: The child will identify and use patterns to represent mathematical situations.

Objective 1: Identifies and sorts objects according to common attributes.

- a. Identifies attributes of objects.

Objective 2: Identifies and uses patterns.

- a. Identifies patterns in daily routines and environment.

Guideline III: The child will identify attributes of and create simple geometric shapes and describe spatial relationships.

Objective 1: Creates and identifies simple geometric shapes.

- a. Identifies attributes of concrete 2-D and 3-D shapes.
- c. Recognizes that some shapes have specific names.

Guideline V: The child will collect data, draw conclusions, and make predictions from data.

Objective 1: Collects data.

- a. Uses objects and pictures to collect data.

Objective 2: Draws conclusions and makes predictions from data with adult guidance.

- a. Counts and compares data to draw conclusions with adult guidance and questioning.

Kindergarten

Content Core:

STANDARD I: Students will develop a sense of self.

Objective 2: Develop skills in gross and fine motor movement.

- d. Maintain personal space and boundaries while moving.

Objective 3: Develop and use skills to communicate ideas, information, and feelings.

- a. Identify and express ideas, information, and feelings in a variety of ways (e.g., draw, paint, tell stories, play, make believe, dance, sing).

Science Core:

STANDARD I: The Processes of Science, Communication of Science, and the Nature of Science. Students will be able to apply scientific processes, communicate scientific ideas effectively, and understand the nature of science.

Objective 1: Generating Evidence: Using the processes of scientific investigation (i.e. framing questions, designing investigations, conducting investigations, collecting data, drawing conclusions).

- c. Conducting investigations: Observe, manipulate, measure, describe.
- d. Collecting data: Deciding what data to collect and how to organize, record, and manipulate the data.
- e. Drawing conclusions: Analyzing data, making conclusions connected to the data or the evidence gathered, identifying limitations or conclusions, identifying future questions to investigate.

Objective 2: Communicating Science: Communicating effectively using science language and reasoning.

- a. Developing social interaction skills with peers.
- b. Sharing ideas with peers.
- c. Connecting ideas with reasons (evidence).
- d. Using multiple methods of communicating reasons/evidence (verbal, charts, graphs).

STANDARD IV: Life Science. Students will gain an understanding of Life Science through the study of changes in organisms over time and the nature of living things.

Objective 1: Investigate living things.

- a. Construct questions, give reasons, and share findings about all living things.

Objective 2: Describe the parts of living things.

- a. Differentiate between the five senses and related body parts.
- c. Compare the parts of different animals, e.g., skin, fur,

feathers, scales; hand, wing, flipper, fin.

Language Arts Core:

STANDARD I: Oral Language: Students develop language for the purpose of effectively communicating through listening, speaking, viewing, and presenting.

Objective 1: Develop language through listening and speaking.

- a. Listen attentively.
- b. Listen and demonstrate understanding by responding appropriately (e.g., follow two-step directions).
- c. Speak clearly and audibly with expression in communicating ideas.
- d. Speak in complete sentences.

STANDARD VI: Vocabulary: Students learn and use grade level vocabulary to increase understanding and read fluently.

Objective 1: Learn new words through listening and reading widely.

- a. Use new vocabulary learned by listening, reading, and discussing a variety of genres.
- b. Learn the meaning of a variety of grade level words (e.g., words from literature, social studies, science, math).

Mathematics Core:

STANDARD I: Students will understand simple number concepts and relationships.

Objective 1: Identify and use whole numbers up to 30.

- a. Represent whole numbers using concrete, pictorial, and symbolic representations.
- c. Use one-to-one correspondence when counting a set of objects and develop a strategy for keeping track of counted and uncounted objects.

STANDARD II: Students will sort and classify objects as well as recognize and create simple patterns.

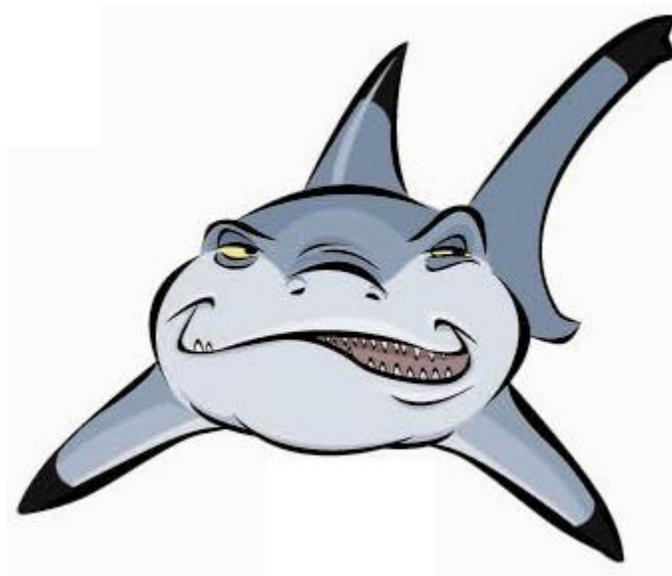
Objective 2: Identify, duplicate, describe and extend simple repeating and growing patterns.

- a. Identify and describe simple repeating patterns with numbers and shapes.
- d. Identify simple patterns in the environment.

STANDARD III: Students will understand basic geometry and measurement concepts as well as collect and organize data.

Objective 1: Identify and create simple geometric shapes and describe simple spatial relationships.

- a. Identify, name, describe, and draw circles, triangles, rectangles, and squares in various sizes and orientations.



Pre-Visit Resources

The following pages offer pre-visit information you can use in the classroom before your visit to Loveland Living Planet Aquarium. These resources correlate with material that will be covered in your EcoVenture Class or in post-visit materials. There may also be links to UEN's website for additional information. As a suggestion, if you have internet access for your class, you can visit our website to let the children investigate what we have to offer. Here is the link: <http://www.thelivingplanet.com>

Kindergarten: Can You Do It? I Can Do It!

Author: [Utah Lesson Plans](#)

Curriculum Tie:

- Kindergarten Language Arts
Standard I, Objective 1
- Kindergarten Mathematics
Standard II, Objective 1
- Kindergarten Content
Standard III, Objective 2

Summary:

This activity focuses on physical movements. Students will make the same movements that different animals would make.

Main Curriculum Tie:

- Kindergarten - Content
[Standard 1 Objective 2](#)
Develop skills in gross and fine motor movement.

Materials:

- [Pictures of Animals](#) (pdf)
- [Pictures of Actions](#) (pdf)
- From Head to Toe, by Eric Carle

Additional Resources

Books

- From Head to Toe, by Eric Carle; ISBN 0694013013
- Clap Your Hands, by Lorinda Bryan Cauley; ISBN 0399237100
- How Can You Dance, by Rick Walton; ISBN 039923229X
- I Can Do It Too!, by Karen Baicker; ISBN 1929766831
- Silly Sally, by Audrey Wood; ISBN 015019901

Web Sites

- [Games Kids Play](#)

Background for Teachers:

We can make all kinds of movements with our bodies. We can make some movements like animals.

Intended Learning Outcomes:

4. Develop physical skills and personal hygiene.
6. Communicate clearly in oral, artistic, written, and nonverbal form.

Instructional Procedures:

Invitation to Learn

Place Pictures of Animals and Pictures of Actions around the room or on a table. Ask how these items go together. This activity focuses on physical movements. Students will make the same movements that different animals would make.

1. Read From Head to Toe.
2. Recall the story by asking questions about what actions the animals do.
3. Reread the story, imitating the actions.
4. Ask students their favorite actions and why.
5. Students can make up a pattern by performing the different actions.

Extensions:

- Sing I Can Do It! (Tune: "Where is Thumbkin")
I can do it!
I can do it!
Yes, I can!
Yes, I can!
Everyone can do it!
Everyone can do it!
Yes, we can!
Yes, we can!
- Imitate their favorite animal movements.
- Draw a self portrait and identify the different body parts.
- Sing Head, Shoulders, Knees, and Toes.
- Graph the favorite actions of the students.
- Make pencil streamers.

Family Connections:

- Send home matching game.
- Sing Head, Shoulders, Knees, and Toes.

Assessment Plan:

- Match animal to the correct action.
- Identify different body parts.

Author:

[Utah LessonPlans](http://www.uen.org/)

Created Date:

Sep 08 2004 15:23 PM

<http://www.uen.org/>

A service of the [Utah Education Network](http://www.uen.org/)

Comments, e-mail: resources@uen.org



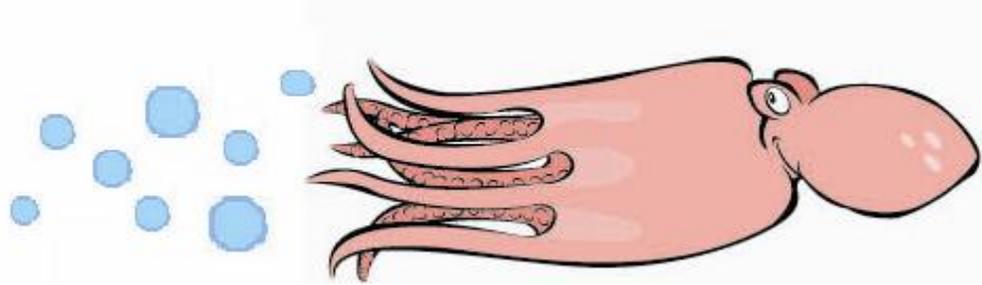
Tangram Fish and other ideas that teachers have used.

<http://kindergarten2.homestead.com/Ocean.html>



Here is a link to resources for lesson plans associated with Rainbow Fish books.

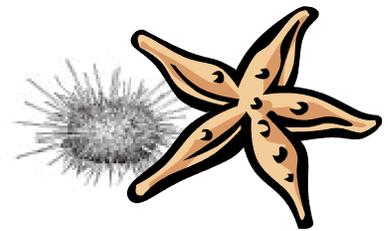
http://www.lessonplanz.com/Lesson_Plans/Literature_Activities/The_Rainbow_Fish/



Now, you're off to Loveland Living Planet Aquarium

Remember to use your checklist to help you on this day.

You should take some time to share copies of the Chaperone page with each adult leader as well as the aquarium layout map. Remember that teachers are free and you get one additional adult free for every 5 students. Any adults above this 1:5 ratio will need to pay a fee upon arrival.



Post-Visit Resources

- Review research sheets and draw favorite creature that they saw and share why it is their favorite.
- Visit website www.enchantedlearning.com for more fun ocean resources.
- Sing song

To the tune "The Wheels on the Bus"

The sharks in the sea go chomp, chomp, chomp!
chomp, chomp, chomp! chomp, chomp, chomp!
The sharks in the sea go chomp, chomp, chomp!
All through the day!

Have the children make up some of their own , perhaps like these

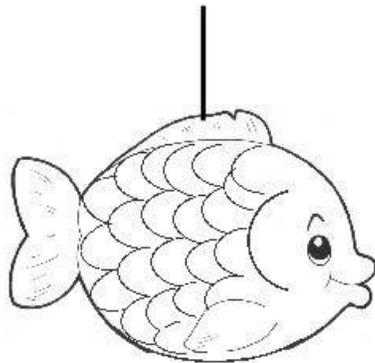
The fish in the sea go swim, swim, swim...
The lobsters in the sea go pinch, pinch, pinch...
The octopus in the sea go wiggle wiggle wiggle...
The sea horse in the sea rocks back and forth...
The whale in the sea goes squirt squirt squirt...
The clam in the sea goes open and shut...
The crabs in the sea go click click click...
The jellyfish in the sea go "bloop bloop bloop"!

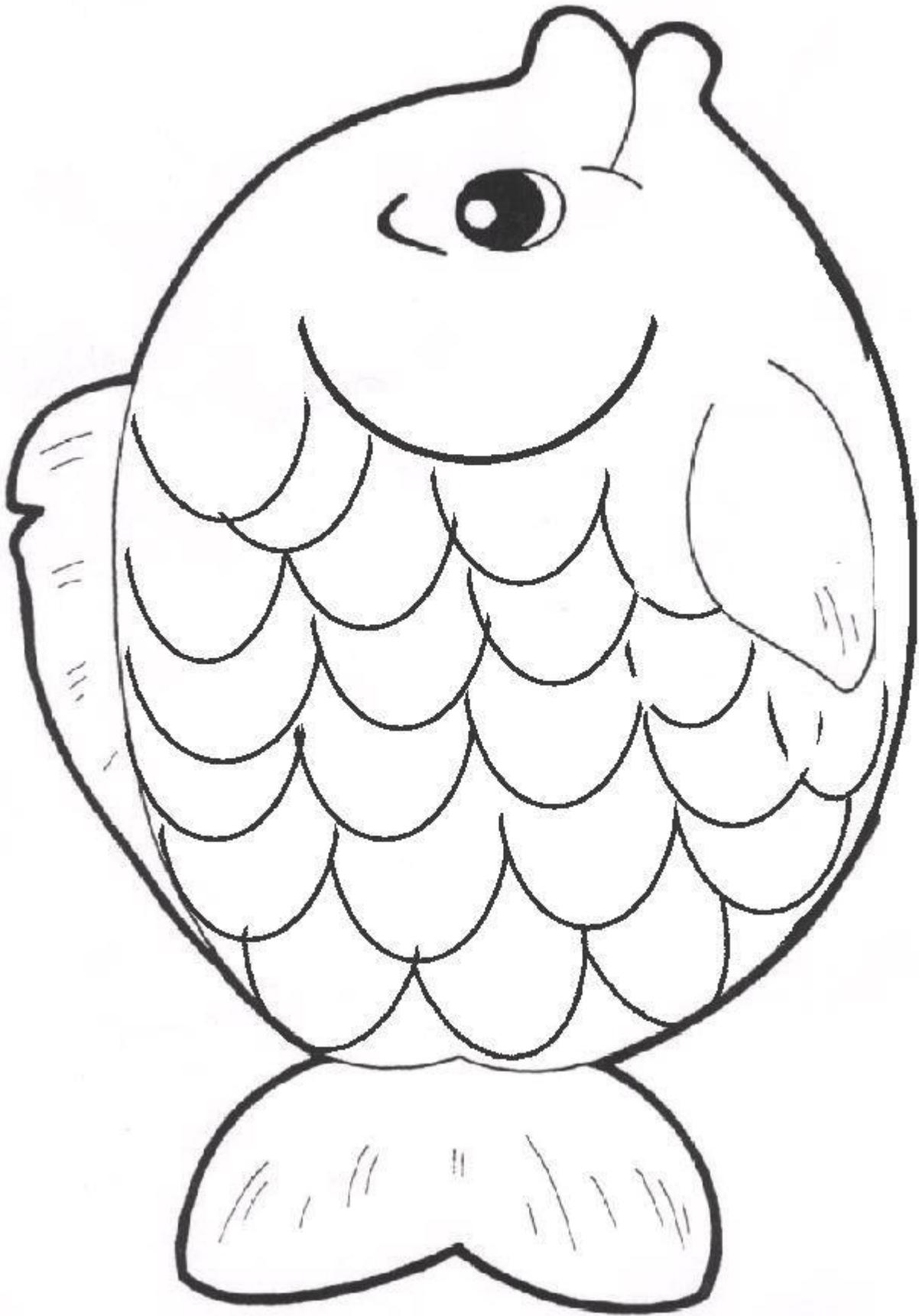
"I'm a Little Fishy"

Tune of "I'm a little tea pot"
I'm a little fishy, watch me swim
Here is my tail and here is my fin,
When I want to have fun with my friends,
I wiggle my tail and dive right in!

Puffy Fish Craft

The next two pages contain the front and back halves of a fish that your students can color, cut out and either staple together, tape or glue. Leave a spot open for them to stuff the waste paper into the fish to make it puffy, then close up. Hang your "school" of fish around the room!







Jaws

Building Blocks, level: Kindergarten

Posted Tue Sep 23 19:22:10 PDT 2003 by Brooke

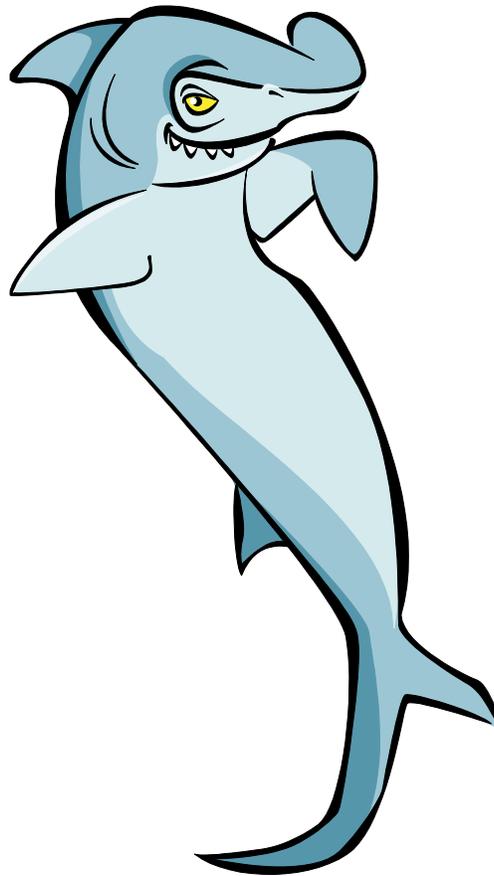
Dayton Ohio

Concepts Taught: Alphabet

Jaws! To play jaws, cut out 26 large fish or sharks with their mouths open and 26 small fish. On the large sharks (about 3 inches) write an uppercase letter. Do this for every letter of the alphabet. Then, do the same with the small fish but put lowercase letters on the small fish. To play the game, students must match up which large fish or shark wants to eat which small fish. The shark with "A" on it will eat the small fish with "a" on it.

Found at:

<http://www.teachers.net/lessons/posts/2941.html>



Web Sites for Fun

All links are suggested resources only. Loveland Living Planet Aquarium does not specifically endorse any of the following sites or organizations. If a link does not work you can try copying and pasting the URL into your web browser.

NOAA Year of the Ocean Web site

<http://www.yoto98.noaa.gov/kids.htm>

Planet Ocean

<http://school.discoveryeducation.com/schooladventures/planetocean/index.html>

Discover what it takes for amazing ocean animals to survive this underwater world.

Ocean Themed Lesson Plans

<http://atozteacherstuff.com/go/search.cgi?query=ocean&grade=&bool=OR>

On-line resources for lesson plans. There are many others like this.

Jason Project

<http://www.jasonproject.org/>

Visit this site to explore ocean facts.

From the makers of the Blue Planet series of videos

<http://www.bbc.co.uk/sn/>

Wide array of resources not only on the ocean but on all areas of science. Also offers fun educational online games.

Kindergarten Lesson Ideas and links

<http://kindergarten2.homestead.com/Ocean.html>

Steve Spangler Science

<http://www.stevespanglerscience.com/>

This site has a large number of hands-on science experiments and materials for students and teachers. There are videos, tutorials and products that can be purchased for activities and science fair projects.

Sheppard Software

<http://www.sheppardsoftware.com/>

Lots of games, activities, and articles for elementary school students.

References

The following resources were used in the development of these materials and or field trip presentations and were not among those cited in the text body.

Smithsonian Institution Press (1996) Sea Life – A Complete Guide to the Marine Environment

Duxbury and Duxbury (1994) An introduction to the World's Oceans, Wm. C. Brown Publishers, 4th edition: Dubuque: Iowa.

Pinet, Paul (1998) Invitation to Oceanography, Jones and Bartlett Publishers: Sudbury, Massachusetts.

<http://www.mbayaq.org/cr/seafoodwatch.asp>

Thank you for bringing your class.
We look forward to serving you again!

