

Autumn Rieger

Team Thematic Unit

Group Members: Adventurous, Jamming, Juicy, Marvelous, and Absolute

School Name: Outback Tree House

Location: Island in the Pacific (off of Australia)

Who does it serve? Population: Private. Small class sizes (25 per grade = 75 total students)

Stakeholder and Relationship: Steve Irwin, Crocodile Hunter, left his will to donate all his money (endowment) to education with the Outback Tree House. The Discovery Channel also provides funding for a monthly filming of educational philosophy and approaches of Outback Tree House.

Mission Statement: Outback Tree House encourages adventure, risk and exploration of the natural world. Students will develop creative solutions and life skills needed and solutions for our natural world. We bring findings to the public through a monthly televised series on the Discovery Channel and the World Wide Web. Teachers are highly trained. Students are taught through a co-teaching environment.

Theme Duration	3 months	3 months	3 months
Theme Topics	Water	Land	Sky
Grades/ Topics			
4 th	Animals		
5 th	Plants		
6 th	Climate		

Thematic Questions:

1. What can you find in the water?
2. How does water affect you?
3. What are uses for water? (transportation, cooking, drinking, etc)

Introductory Lesson/Activity:

Submarine Dive

- Questions and observations
- Illustrate observations (Art)
- 20,000 Leagues Under the Sea (Literature)
- Steve Irwin's Producer (Animals)

Culminating Activity:

Create an Aquarium

- Individual representing different factors of water (ponds, lakes, ocean, rivers)
- Class mural (Art)

Ocean Animals Unit Plan

Purpose: Integrate the Arts (Theater, Music, Dance, and Art) into core subjects (Language Arts, Math, Science, and Social Studies)

Title: Island of the Blue Dolphin **Prim. Subject:** Language Arts **Sec. Subject:** Art
Grade level: 4 **Time:** 2 weeks

Standards:

Language Arts: A.4.1, A.4.2, A.4.3, B.4.1, B.4.3, D.4.1

Art: A.4.2, A.4.6, C.4.4, C.4.10, G.4.1, G.4.2 G.4.4, K.4.1, K.4.3, L.4.1

Objectives: Students will be able to identify animals from the book *Island of the Blue Dolphin* and create a poem about three of the animals.

Materials:

Book: *Island of the Blue Dolphin* by Scott O'Dell

Paper

Pencil

Computer / printer (for researching animal)

Internet

Scissors

Crayons/markers

Procedures:

While reading the book, *The Island of the Blue Dolphins*, students will choose three animals mentioned in the book to do further research about. Some animals that they will find in their reading are:

Cormorant

Pelican

Seal

Whale

Shark

Shellfish

Dolphin

Sea elephant

Crab

Students will then create a poem each of the animals they chose. Students will then draw the animal and write the poem on inside of their paper (animal) that represents the animals they chose to write about.

Resources:

O'Dell, Scott. 1960. Island of the Blue Dolphin.
Randomhouse. New York, NY.

Title: Motion in the Ocean **Prim. Subject:** Language Arts **Sec. Subject:**
Dance/Movement

Grade level: 4

Time: 45 minutes

Standards:

Language Arts:

Movement: A.4.2, A.4.6, A.4.8, B.4.2, D.4.5, F.4.1,

Objectives:

Students will use their prior knowledge of ocean animals and their movement to create a poem. Students will read their poems to the class apply movement to each specific part about ocean animals.

Materials:

Paper

Pencil/pen

Sea Creatures poem handout

Procedures:

As a class, discuss some of the movements that different sea creatures use. Some may be (bobbong, gliding, crawling, snapping, diving, etc)

Students will read popcorn style the poem "Sea Creatures" by Meish Goldish. Students will then break-up into groups of 4-5. Each group will create their own poem about sea creatures, incorporating at least 3 different types. Each group will create a movement to go along with their poem. Each group will say their poem to the class and use movement.

Resources

Poem: Goldish, Meish. Sea Creatures. Retrieved at

<http://www.canteach.ca/elementary/songspoems21.html> on April 4, 2009

Autumn Rieger

Title: *Underwater Web of Life* **Prim. Subject:** Language Arts **Sec. Subject** Theater
Grade level: 4 **Time:** 2 days (Day 1 introduce/practice skit Day 2 perform)

Standards:

Language Arts: B.4.1, B.4.3, C.4.1, C.4.2, C.4.3, D.4.2
Theater: C.4.1,

Objectives: Students will use their knowledge of basic concepts of food webs in the ocean and use the vocabulary accordingly in a poetic performance, where they will present how an undersea food web works.

Materials:

Vocabulary list
Character skit
Posters of each of the characters

Procedures:

Students will be introduced and discuss vocabulary of undersea creatures from plankton to majestic killer whales and how they play a part in the cycle of life. Students will then create posters that represent each character in the food web. Students will use their posters and character skits to present a poetic performance that demonstrates how undersea creatures are connected in a complex web of life.

Resources:

Chaney, M. & Firek, M. 2003. Reader's Theater. Grade 4.
Pages 44-49. Evan-Moor Corp. Monterey, CA.

Autumn Rieger

Title: Play a Penguin Song **Prim. Subject** Language Arts **Sec. Subject:** Music
Grade level: 4 **Time:** 45 minutes

Standards:

Language Arts: A.4.1, A.4.2, A.4.3, A.4.4, C.4.1, C.4.2, C.4.3,
Music: B.4.1, E.4.1,

Objectives: Students will learn about penguins by reading a book about their characteristics and then play a song about penguins on their recorder.

Materials:

The Penguin; Animal Close-ups by Beatrice Fontanel

The Penguin Song sheet music

Recorder

Procedures:

The teacher will read *The Penguin; Animal Close-ups* to the class. As a class, we will discuss what was read. Students will use their recorders and sheet music to learn how to play The Penguin Song. The class will discuss each note on the sheet music. Students will practice the song individually. The class will play the song on their recorders as a large group after everyone has had time to practice.

Resources:

The Penguin Animal Close-ups by Beatrice Fontanel

The Penguin Song sheet music retrieved at http://www.dltk-teach.com/t.asp?b=m&t=http://www.dltk-teach.com/rhymes/penguin/penguinsong_sheetmusic.gif

Autumn Rieger

Title: On the Trail of the Blue Crab **Prim. Subject:** Math **Sec. Subject:** Theatre
Grade level: 4 **Time:** 2 days

Standards:

Math: A.4.1, A.4.2, A.4.3, A.4.4, A.4.5, B.4.1, D.4.4
Theater: C.4.1, C.4.2, C.4.3,

Objectives:

Students will understand migration of the blue crab while identifying whole numbers and measuring distances. Students will use this knowledge to develop a story about a crab to present to the class.

Materials:

Worksheet: On the Trail of the Blue Crab

Hudson River Miles map - legal size paper.

Pencil

Procedures:

Day 1:

Have students do the Readings in Hudson River Natural History lesson titled "Blue Claw!" Discuss the concept of migration and how it fits into the life cycle of the blue crab. Introduce the Hudson River Miles system; show students the Hudson River Miles map. Students will Use whole numbers to identify locations and measure distances. They will subtract two digit whole numbers while applying mathematics in real world settings.

Day 2:

Students will use their knowledge of the blue crab to tell a story about migration to the class in small groups. Each group will present their performance to the entire class.

Resources:

Worksheet: On the Trail of the Blue Crab.

Retrieved at

http://www.dec.ny.gov/docs/remediation_hudson_pdf/hrlpbluecrabmath.pdf

Map of Hudson River Miles: Retrieved at

http://www.dec.ny.gov/docs/remediation_hudson_pdf/hrmilesmap.pdf

Readings: Blue Claw

Retrieved at

http://www.dec.ny.gov/docs/remediation_hudson_pdf/hrlpblueclaw.pdf

Autumn Rieger

Title: Music to the Beat **Prim. Subject:** Math **Sec. Subject:** Music

Grade level: 4 **Time:** 2 days

Standards:

Math: A.4.1, A.4.4, B.4.1,

Music: B.4.2, B.4.6, E.4.1, E.4.6

Objectives: Students will demonstrate what they have learned by being able to clap and count, walk and count, and play on the recorder whole, half, or quarter notes individually and as a group, while other individuals or groups play the other notes.

Materials:

Recorder

Music Cards representing notes

Procedures:

Review concepts of whole, half and quarter. Introduce symbols for whole note, half note, and quarter note. Discuss how the relationship between music notes is the same as dividing the dollar or pizza into halves and quarters. Use paper music notes for students to show relationships (whole note = 4 beats, half note = 2 beats, quarter note = 1 beat). Clap and count whole notes, half notes, and quarter notes. Play whole notes, half notes, and quarter notes on recorder.

Resources:

Bolster, Sandra. Understanding Fractions Through Music. Gr. 4.

San Francisco Symphony. Retrieved on April 5, 2009 at

http://www.keepingscore.org/education/downloads/KS_Lesson_Bolster_Fractions.pdf

Autumn Rieger

Title: Whale Measurement **Prim. Sub. Math**

Sec. Subject:
Movement/Dance

Grade level: 4

Time: 45 minutes

Standards:

Math: A.4.1, A.4.3, A.4.4, D.4.2, D.4.3,

Movement: A.4.2, A.4.11, B.4.3, D.4.5, D.4.6,

Objectives: Students will be able to sort pictures of whales by size. Using a rope marked with the lengths of several whales, students will kinesthetically compare different whale lengths to each other and themselves

Materials:

four 30-meter (about 100-ft.) pieces of rope

four measuring tapes

paper

10 labeled whale pictures and their lengths on separate pieces of paper (make four copies of each)

Whale size handout –

Dwarf Sperm Whale – 9 feet or 2.7 m Beluga Whale – 15 feet or 4.6 m Pilot Whale – 20 feet or 6 m Killer Whale – 27 feet or 8 m Minke Whale – 30 feet or 9 m	Gray Whale – 45 feet or 14 m Right Whale – 50 feet or 15.2 m Humpback Whale – 52 feet or 16 m Sperm Whale – 60 feet or 18.5 m Blue Whale – 110 feet or 34 m
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Procedures:

Inform students that they will investigate how large whales really are. Divide the class into four groups. Each group will receive whale cards (need to be created by the teacher). As a group the students should place these in order from largest to smallest, numbering the backs of the cards. Move students to a gym or other large space. Students will need to bring a pencil, clip board, and a piece of paper. Once at the destination, each group is given a 30-m piece of rope, previously color-coded. Two students unroll the rope. Whenever they come to a colored marking they are to stop and measure it, writing the color and measurement down. Then they decide which whale fits that size. Students then compare their height to the whale length, recording their findings. Students lay down to see how many group members it takes to measure-up with each whale. Students continue the exercise until the rope is fully extended.

Resources:

Brown, Stacy J. 2003. Whale Measurement.

An Educators Desk Reference Lesson Plan. Lesson Plan #: AELP-MEA0211.

Birmingham, AL. Retrieved at

<http://www.eduref.org/Virtual/Lessons/Mathematics/Measurement/MEA0211.html> Retrieved on April 3, 2009

Autumn Rieger**Title:** Sea Turtles**Prim. Subject:** Math **Sec. Subject:** Art**Grade level:** 4**Time:** 45 minutes**Standards:**

Math: A.4.1, A.4.3, A.4.4, D.4.1, D.4.3, D.4.4, D.4.5,

Art: B.4.3, C.4.4, E.4.5, G.4.4, I.4.7, J.4.6, K.4.1, K.4.3, L.4.1,

Objectives: Students will use estimation and determine greater than or less than as it relates to a sea turtles shell. Students will use measurement to make their own sea turtle/loggerhead shell.

Materials:

Measuring tape

Butcher paper (no smaller than 5 x 5 feet)

Pencil

Paint (brown, green, yellow, black, white)

Procedures:

Explain that a full grown loggerhead's shell is 3 to 3 1/2 feet in diameter. Have students estimate how large they are. Measure the height of children to determine if they are smaller than, the same as, or larger in height than the diameter of a loggerhead's shell. By how much? Have students make their own turtle/loggerhead with the correct measurements of a real loggerhead shell.

Resources:

Autumn Rieger

Title: Circle of Life **Prim. Subject:** Science **Sec. Subject:** Art
Grade level: 4 **Time:** 45 minutes

Standards:

Science: C.4.1

Art: A.4.1, C.4.4, E.4.5, G.4.1, K.4.1, L.4.1,

Objectives: Students will learn new vocabulary words of underwater creatures/animals and use their vocabulary to create a viewer that demonstrates underwater web of life.

Materials:

Circle of life pictures handout

Heavy card stock

Paper Fastener

Crayons or markers

List of vocabulary words - (nutrients, diatoms, zooplankton, krill, herring, squid, codfish, seal, orca)

Procedures:

Introduce and discuss the following words: diatoms, zooplankton, krill, herring, squid, codfish, seal, orca, and nutrients. Explain how every living thing in the mysterious depths of the sea must eat in order to live, just like the creatures on the land. By giving them its life, each creature helps sustain other life forms in the sea, as underwater animals are connected in a wondrous web of life. Some animals get their energy from plants, while others get their energy by eating other animals. Give each student a Circle of Life handout, 2 sheets of heavy card stock and a paper fastener. Students will use these materials to create a viewer of underwater web of life.

Resources:

Smith, R. 2007. [Exploring Ocean Life](#)

Grades 4-6. Teacher Created resources, Inc. Westminster, CA

Autumn Rieger

Title: Habitat Sweet Habitat **Prim. Subject:** Science **Sec. Subject:** Theater

Grade level: 4 **Time:** 50 minutes

Standards:

Science: C.4.1, F.4.1, F.4.4

Theater: B.4.3, B.4.4, D.4.1, D.4.4

Objectives: Students will be able to describe the general habitats of seals, sea lions, and walruses to the class. Students will present their habitats to the class and explain their choice for materials.

Materials:

Natural materials from outside (rocks, petals, grass, dirt, bark, sand)

Provide salt to represent snow

Small brown bag

Glue

Crayons/markers

White construction paper

Procedures:

Lead a discussion about different habitats around the different animals. Encourage them to think about their own habitats. Describe the habitats of a California sea lion, a harbor seal, and a Pacific walrus. Pinnipeds live in many different habitats around the world. California sea lions favor rocky shorelines often exposed to high surf. Harbor seals prefer the calmer waters of bays or estuaries. Pacific walruses haul out onto pack ice. Have students find natural objects from outside. What do they need? What would they use to represent them? Have students fold paper into three sections. Have students create habitats for 3 animals. Students will present their habitats to the class explaining their one thing they learned and why their choice for materials.

Resources

Habitat Sweet Habitat. Teacher Guide. Retrieved at <http://www.seaworld.org/just-for-teachers/classroom-activities/k-3/pdf/Habitat%20Sweet%20Habitat.pdf> on April 2, 2009.

Autumn Rieger

Title: Whale Rap
Grade level: 4

Prim. Subject: Science
Time: 45 minutes

Sec. Subject: Music

Standards:

Science: A.4.4, F.4.1, F.4.4,

Music: A.4.1, A.4.2, D.4.2, H.4.2, I.4.1

Objectives: Students will understand the two main types of whales and how to create a rap about whales.

Materials:

Paper

Pencil

Venn diagram handout

Pictures of the two whales

Procedures:

Discuss the two main types of whales with students: Baleen and toothed. Discuss the differences and similarities between them using the Venn diagram handout.

Students will then divide into groups and create a whale rap that they will sing to the class.

Resources:

Whale Rap: retrieved at <http://www.buschgardens.org/fun-zone/song-books/whale-rap.htm>

******Full lesson Plan Attached**

Autumn Rieger

Title: How They Move

Prim. Subject : Science

Sec. Subject:

Movement/Dance

Grade level: 4

Time: 45 minutes

Standards:

Science: C.4.1, C.4.2, F.4.1, F.4.4

Movement: A.4.2, A.4.3, A.4.4, A.4.5, A.4.6, A.4.7, A.4.8, A.4.11, B.4.2, B.4.3, B.4.5, F.4.1,

Objectives: Students will be able to identify specific characteristics between Land/Ocean animals and ocean animals that allow them to move according to their surroundings. Students will also be able to demonstrate this movement.

Materials:

Chart/Tablet (KWL chart)

Pictures of land/ocean animals (polar bear, seal, sea turtle, and crab)

Pictures of ocean animals (jelly fish, octopus, eel, and dolphin)

Procedures:

Using a KWL chart, students will identify the difference characteristics between land/ocean animals and ocean animals. Land/ocean animals have feet, claws and flippers. Ocean animals that cannot leave the ocean have fins or tentacles. Students will then practice the movement of each animal. Students will then participate in a relay race using only the movements of land/ocean animals and sea animals.

Resources:

Photos: Google Images

Autumn Rieger

Title: Penguin Exploration **Prim. Subject:** Social Studies **Sec. Subject:**
Movement/Dance
Grade level: 4 **Time:** 2 days (Day 1: Research & Map
Day 2: Finish Map & Activity)

Standards:

Social Studies: A.4.2, A.4.4, E.4.13
Movement: A.4.2, A.4.3, A.4.6, A.4.6, A.4.11,

Objectives: Students will be able to identify on a globe or map the location of the Southern Hemisphere, Antarctica, the Southern Ocean, and several areas inhabited by penguins. Students will be able to move like a penguin while identifying the penguin species in each location.

Materials:

Map of the southern Hemisphere handout
Map pins, flags, or stickers
Butcher paper
Colored pencils
Pencil/pen
Loose leaf paper

Procedures:

Assign each student group an island or continent where penguins live. Allow the group's time to research their region. They should include habitat, animal inhabitants, human inhabitants and cultures, and food sources for animals and humans. Have students label maps, create a legend, and identify areas where penguins inhabit. Groups will display their maps in different areas. Each group will be required to walk like a penguin when they visit each groups map and taking notes. Students will be quizzed on each location.

Resources:

Penguin Exploration. Sea World Teacher's Guide. Retrieved at
<http://www.seaworld.org/just-for-teachers/classroom-activities/4-8/pdf/Penguin%20Exploration.pdf> on April 1, 2009.

Autumn Rieger

Title: Make out the Sound **Prim. Subject:** Social Studies **Sec. Subject:** Music
Grade level: 4 **Time:** 45 minutes

Standards:

Social Studies:A.4.2, B.4.9, E.4.9, E.4.11
Music: B.4.4, C.4.5, F.4.1, H.4.4,

Objectives:

Students will use a map of the world to determine where whales and dolphins are found geologically. Students will be able to decipher between a dolphin sound and a whale sound.

Materials:

Various Sounds (MP3 required)

Procedures:

Explain how dolphins can be found in nearly every ocean. They live in warm water and close to land. Some live in the Pacific Ocean, Atlantic Ocean and the Red Sea. Whales are located in warmer deeper waters. Some live in the Pacific Ocean, Indian Ocean, Atlantic Ocean...almost ALL oceans. Have students locate the oceans on the map. Listen to sounds of dolphins and whales. See if students can echo/mimic the sounds.

Resources

Sounds: David's Dolphin and Whale Watch website.
Sounds of Whales and Dolphins. Retrieved on April 4, 2009

- Bottlenose Dolphins: [.mp3 file \(64 kb\)](#)
- Spottet Dolphins: [.mp3 file \(57 kb\)](#)
- Common Dolphin: [.mp3 file \(59 kb\)](#)
- Common Dolphin (lots of sonar): [.mp3 file \(101 kb\)](#)
- False Killer Whale: [.mp3 file \(83 kb\)](#)
- Pilot Whale: [.mp3 file \(103 kb\)](#)
- Risso's Dolphin (whistle and sonar): [.mp3 file \(93 kb\)](#)
- Risso's Dolphin (just the "whistle"): [.mp3 file \(27 kb\)](#)

- Sperm Whale: [.mp3 file \(72 kb\)](#)

Autumn Rieger

Title: Save the Sharks **Prim. Subject:** Social Studies **Sec. Subject:** Theater
Grade level: 4 **Time:** 55 minutes

Standards:

Social Studies: B.4.9, C.4.3, D.4.7, E.4.1, E.4.4, E.4.7, E.4.14
Theater: B.4.1, B.4.3, B.4.4, C.4.2, D.4.4E.4.1

Objectives: Students will view an episode about the great white shark and create a public service announcement promoting whether the protection of humans from sharks or the protection of sharks from humans.

Materials:

Poster board
Markers
Pen/pencil
Video: [Great White Shark vs. Man](#)

Procedures:

The teacher will discuss what an NGO (non government organization) is and the purpose. Students will view a video about great whites and some of the dangers to humans and the dangers that great whites face because of humans. Discuss how certain cultures rely on shark fins for their economy (Asia).

Students will work in groups and discuss what they have learned. Students will create their own NGO and create a public service announcement (PSA) promoting either the protection of humans from sharks or the protection of sharks from humans.

Students will present their BGO and PSA to the class.

Resources:

Tipple, L. 2009. Great White Shark vs. Man.

Read, Watch, and Learn. Journal. Retrieved at

<http://www.luketipple.com/journal/?p=62> on April 1, 2009.

Autumn Rieger

Title:Arctic Animals of Alaska
Grade level: 4

Prim. Subject: Social Studies **Sec. Subject:** Art
Time: 2 days

Standards:

Social Studies:A.4.2, E.4.3,E.4.13,

Art: C.4.5, E.4.1, E.4.2, E.4.5, G.4.2, H.4.1, H.4.3, K.4.1, K.4.3, L.4.1,

Objectives: Students will be able to locate Alaska and the Arctic Circle on a globe.
Students will be able to identify arctic animals of Alaska and create a 3D animal.

Materials:

Construction Paper – various colors: grey, white, black , brown

Glue

Paint – various colors: grey, white, black, brown

Paper Plates

Various books about Arctic animals – harbor seals, polar bears, humpback whales, seal lions, sea otter, etc.

Procedures:

Tell students The Arctic is covered with ice and snow for most of the year. Animals that live in Alaska's Arctic region must be able to survive long winters and very cold temperatures. These animals have bodies that are designed to live in this world of ice and snow. Surprisingly, many animals live in this cold, harsh climate. Let's learn about these animals of the Far North. Show students where Alaska is located on the globe/map. Show students where the Arctic Circle is located. Read about Alaska's Arctic Animals that live in the ocean.

Resources

Map of Alaska: <http://plasma.nationalgeographic.com/mapmachine/index.html>

Arctic Animals of Alaska. Retrieved on April 4, 2009 at

<http://score.rims.k12.ca.us/activity/alaska/>

Matthews, Downs. Polar Bear Paperback