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SLUGS AT SEA

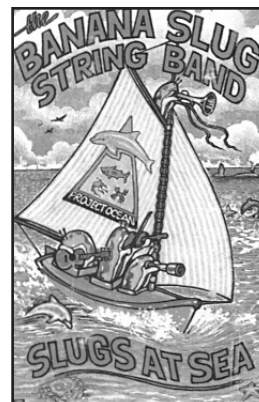


H A W A I I
Workshops
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SLUGS AT SEA

WORKSHOP OUTLINE

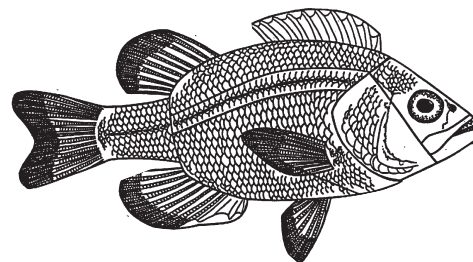
1. Song: Say Hi!
2. Introductions
3. Activity: Mysteries Of Life
4. Song: Sun, Soil, Water, and Air
5. Activity: Sun, Soil, Water, and Air Facts
6. Teaching With Music Across the Curriculum
7. Activity: Fish Lesson/Ocean Study Introduction
8. Activity: Fish Puzzle
8. Song: Fishies
9. Activity: Song Leading
10. Activity: Cycle Frisbee
11. Activity: Water Cycle Lesson
12. Activity: Rain
13. Song: Water Cycle Boogie
14. Activity: Fly Bys
15. Song: Butts Up
16. Song: Finishing Songs
17. Closing: Question Period



LESSON PLANNING GUIDE

The lessons and activities around which these songs, poems, **puppets and role plays** are used generally follow a **progression of concrete to abstract**. The units begin with a **grabber** and a **hands on activity** that has the children manipulating that which is being studied. In these activities experimentation and discovery take place. The units end with creative expression and application of the subject matter. The flow of the activities may be as follows:

1. Grabber
2. Hands on experience
3. Role play
4. Puppet interview
5. Song/poem
6. Art project
7. Language experience
9. Journal writing



Let's Go!



Activity

MYSTERIES OF LIFE

PURPOSE: To introduce sun, soil, water and air as being the building blocks for all living things, everything we eat and everything we wear.

MATERIALS: Three black film containers with lids. One contains soil and one should contain water.

ACTION:

1. "I have in these three jars the four mysteries of life. Without these four mysteries there wouldn't be any food, I wouldn't have this shirt, there wouldn't be anything alive, we wouldn't even be here. Everything on earth depends on these four mysteries."



2. "Who would like to look in mystery jar #1?" Toss the jar to them and instruct them to shake the jar and to think about what is in it and then pour out the contents into their hand so that everyone can see. It's dirt or another name for it is soil.

3. "Who would like to look in jar #2?" Repeat the same procedure only this time instruct the student to fling the contents of the jar into the air.
Water!



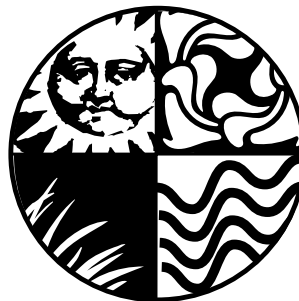
4. "Who would like to look in jar #3? Remember that this jar has two mysteries in it and when you open it you may have to think a little bit about what is in it. Yes! Air is one of the mysteries now quick put the top back on. The last mystery isn't there. Take the top off. It just rushed in. Yes! it's light. Where does our light come from? The sun."



5. Teach the sun, soil, water and air chant. The chant is a call and response with each line.

Sun, soil, water and air (group repeats after each line)

Sun, soil, water and air
Everything we eat
And everything we wear
Everything comes from
Everything comes from





Activity

FACTS ABOUT SUN, SOIL, WATER, AND AIR

The facts on this page refer to the SUN, SOIL, WATER, or AIR. For older children, duplicate the page and ask them to check the proper column, then discuss answers. For smaller children, simply use as discussion.

It is 93 million miles away and its light travels to earth in 8 minutes. _____

It covers 2/3 of the earth's surface. _____

It is the atmosphere. _____

It is the center of the solar system. _____

It is the place where plants sink their toes. _____

An adult uses 12 thousand quarts of it per day. _____

It's called precipitation when it falls from the sky. _____

One inch is lost from the surface every 25 years due to poor farming practices. _____

It is the closest star to earth. _____

Every cubic inch holds a billion beneficial creatures. _____

The higher it goes the colder it gets. _____

Decomposers make a new one inch layer every 100 years. _____

Its molecules are recycled 40 times per year. _____

The higher it goes the thinner it gets. _____

Its energy comes from a fusion reaction. _____

It makes 2/3 of a person's body. _____

Without it people die in 3 minutes. _____

40 million tons of materials are dug out of it every day. _____

It is made of hydrogen and oxygen. _____

Plants turn its energy into sugar. _____

It is lighter as a solid than as a liquid. _____

Its temperature is increasing due to the release of CO₂ by the burning of fossil fuels. _____

It is made of clay, silt, sand, and humus. _____

It moves the seas first by moving the breeze. _____

Every American uses 160 gallons of it a day (except Marin County!). _____

It produces 4 million mega watt hours per day. _____

9 inches of the top layer lie between life and extinction. _____

Fluorocarbons are breaking down its ozone. _____

It contains nitrogen, phosphorus and potassium. _____

Another word for it is soIar. _____

It is mostly made of nitrogen and oxygen. _____

Only 3% of it is fresh and most of that is unusable. _____

It powers the earth. _____

Worms eat an equivalent of their own weight of it each day. _____

Plants breathe oxygen into it. _____

Animals breathe CO₂ into it. _____



TEACHING WITH MUSIC ACROSS THE CURRICULUM



Music, movement and poetry should be incorporated in lessons throughout the curriculum. Recent studies in learning and brain research suggest that students learn best when they have deep emotional experiences. Music has a way of bringing out those important emotional responses that awaken a sense of wonder and motivate students toward gaining a deeper understanding of their world.

Music and motion is an attractive medium for students with a variety of learning styles. Because any material to be learned should be looked at and manipulated in a variety of ways all students, especially kinesthetic and auditory learners, will benefit from music, motion and poetry.

Below are some ways that teachers have successfully used BSSB songs.

Signaling a lesson or time of day — Music can be used to ritualize a part of the day. If for instance you were teaching a unit about the water cycle then the Water Cycle Boogie could be used to usher in that period of the day.

While drawing or reading — Use quiet music to create a mood and to help students enhance the imaging abilities needed for reading and drawing.

Cleaning the room — Some teachers have put on a BSSB song while the students are cleaning the room. “The Penguin Parade” is a lively tune to get you in the cleaning mood and when it ends clean up is over.

Choral Reading — One of the first success stories of a BSSB song came about 18 years ago when a class won a contest for the best choral reading using their rendition of “Decomposition.” Put the lyrics on an overhead and have students sing along or take turns reading the songs or different parts of the songs. Having the song lyrics shown on a screen as opposed to looking down at a songbook allows students to project their voices. Choral reading can also be done in conjunction with hand motions and role-playing.

Poems For Two Voices — Two wonderful books by Paul Fleischman, “Joyful Noise” and “I Am Pheonix” demonstrate this unique form of poetry. Rewrite songs and poems to fit this method and challenge your students to do the same. Below is an example of a slug song turned into poetry for two voices. One group reads the column on the left while the other reads the column on the right. They read at different times when the lines alternate and at the same time when the lines are on the same line. Experiment with different arrangements. It takes some practice for groups to read it smoothly.

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CYCLE OF LIFE

by S. Van Zandt

Water flowing

Flowing
Water

River

Ocean water rising
Water
Filling up the sky

Rising

Falling

Flowing cycle of
Life

Rising

Falling

Flowing cycle of life

Flowing

Living water

Water
Falling on the mountain
River
Rolling into sea

Water

Filling

Spilling

Life

Filling

Spilling
Flowing cycle of life



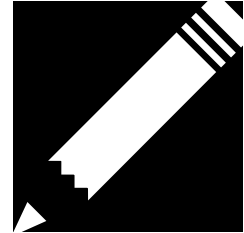
Pocket chart — Put songs on sentence stripes and individual words on cards for pocket chart activities. Words can be scrambled and students challenged to put the song back in order. Some songs lend themselves to replacing the original words with words that the students suggest. See the work done by Marlene & Robert McCracken for more ideas of how to use the pocket chart with music.

Introduce and develop lessons — A song can be a powerful motivational piece and create a common experience by which to introduce a lesson. Some songs are great for capturing the mood of the subject while other songs are suitable for further concept development.

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Some examples of BSSB songs that are mood enhancing might be Black Patches and Bison while “Animals” and “Estuary” are filled with scientific and ecological concepts. Cooperative groups can list the general concepts in a song. These can then be used for further study and research. Several questions and directions for study might arise from analyzing the songs content.

Model Writing — Use a song to point out rhyming structures and patterns. Look for internal rhymes and off rhymes. Compare several songs and discover the “hook” lines. These are the repeating lines, the ones designed to get stuck in your head. Discover how metaphors and imagery are used. Look for “universal” lines. These are often the last lines of a song or poem that restate the ideas in the song in a way that takes those ideas to a new level of meaning. Using the structure of an existing song as a model, challenge students to write a parody of that song. “Moose” is a BSSB song that students have used to write some successful songs of their own.



Morning Message — Use a hook line or chorus line from a song when doing “Morning Message.” As you write the line on the board you are helping students with phonics and decoding.



Movement — Students can make up their own movements and dance steps to the songs. With a song on chart paper the class can analyze the parts that best lend themselves to movement. Allow several ideas to be expressed and experimented with the movements. Suggest a synthesis of some of those ideas. Spend time with this group process by reading, experimenting and deciding before putting on the CD for the final dance. Several BSSB songs lend themselves to this including; “Penguin Parade”, “Animals are Dancing,” “Tidepool Boogie”, “Water Cycle Boogie,” and “I’m a Tree.” Groups of students can be given a song to choreograph and perform for the rest of the class.

Book Illustrations — Lyrics can be written at the bottom of blank pages and each student illustrates a particular section. Reassemble to form a class book. “I’m a Tree” and “Safe at Home” and “Life on the Shore” lend themselves well to this. Some teachers have had students fold their papers into six squares with each square being a lyric and illustration.



Activity

FISH LESSON/OCEAN STUDY INTRODUCTION

KEY CONCEPT: Fish are as diverse as their ocean habitat, yet fish share some common structures and functions.

SYNOPSIS: Students will share what comes to mind when they think about the ocean, make observations about the similarities and differences of fish, learn and review common body structures of fish and how they function, participate in music, art, and language activities to reinforce what they learn.



SCIENCE PROCESS SKILLS: Observation, Comparing, Organizing

SOCIAL SKILLS: Share Ideas, Take Turns, Acceptance and Encouragement

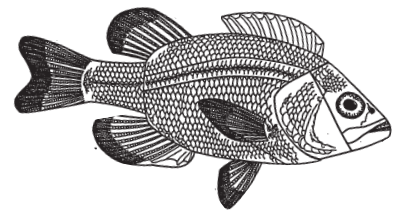


VOCABULARY: Caudal Fin, Pectoral Fin, Dorsal Fin, Lateral Line, Scales, Gills, Structure, Function

MATERIALS

Into:

- Ocean Sounds • *Tape player, ocean sounds tape*
- Down By the Sea Chant • *White board/chart paper*
- Picture Walk • *Photos, books with photos of fish*



Through:

- Build a Fish • *Foam or cardboard fish with removable parts*
- “Fishies” (song) • *Guitar or tape/CD of the album “Penguin Parade” by The Banana Slug String Band*
- Structure and Function Match-up • *Word cards of functions and cards with matching structures; Power = Tail/Caudal fin, Steering= Pectoral Fin, Motion Detector= Lateral Line, Breathing= Gills, Balance=Top/Dorsal Fin*

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MATERIALS

Beyond:

- Fish Puzzle • *Sheet with fish parts to cut, crayons or markers, colored construction paper, glue*
- Fish Puzzle • *The same sheet mounted on card stock so that students can practice putting it together and taking it apart.*
- Observe Gold Fish • *Live fish*
- The Fish Are Talking • *Fish line drawings with word bubbles*
- Stuffed Fish • *White butcher paper, newspaper for stuffing, paint, staples, string for hanging*
- Fish Printing • *Rice paper, printing ink, dead fish*
- Fish Sticks (schooling activity) • *Cut out fish on sticks*
- “Swimmey” • *Book*
- “The Fish With The Deep Sea Smile” • *Poem by Margaret Wise Brown*
- Concentration • *Cards with structures and functions to match*
- Squiggle Fish • *Paper and pencil*
- Research Different kinds of Fish • *Books*
- Continue adding to “Down By the Sea” chant list • *Keep chart up in classroom*

ACTION

Into:

1. **Ocean Sounds:** Play a tape of ocean wave sounds. Have students listen quietly and long enough to form some mental pictures. Have students share with their neighbor what they thought about before sharing with the whole class. (The *Tape Recorder* cooperative technique would also be good at this point.) As students share their ocean images make a list of their words on chart paper.
2. **“Down by the Sea” Chant:** Use this chant as a chorus to allow students to hear back the words from their list. “Down by the ocean, down by the sea I see.” Read the word from the list and students repeat it. Do several words before returning to the chorus.

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3. **Picture Walk:** Introduce the idea that many people think of fish when they think of the ocean. Ask the question; In what ways are fish the same and different from each other? Send students off to observe pictures of fish that have been placed throughout the classroom. This activity can be done as a silent walk or a partner share activity. Call the students back and have them share similarities and differences.

Through:

1. **Build a Fish:** Present the foam fish for students to add essential structures to it. Explain and demonstrate the functions of these structures as the fish is being built.
2. **I'm a Little Fishy (song):** After the students have completed the take apart fish, sing the first verse of the song or play the CD. Play it a second time and do the motions that go with the verse.
3. **Structure and Function Match-up:** Have five students come in front of the class to hold the function word cards. Call on students to make matches with the structure cards.

Beyond:

To help students to practice and apply the information from the lesson the following stations can be set up: The fish puzzle on card stock, the fish puzzle sheets for cutting coloring and pasting on construction paper, concentration cards, live fish for observation, squiggle fish, stuffed fish making (to be hung in the classroom as part of a kelp forest), the fish are talking sheets which can later be dramatized, books and pictures of fish.

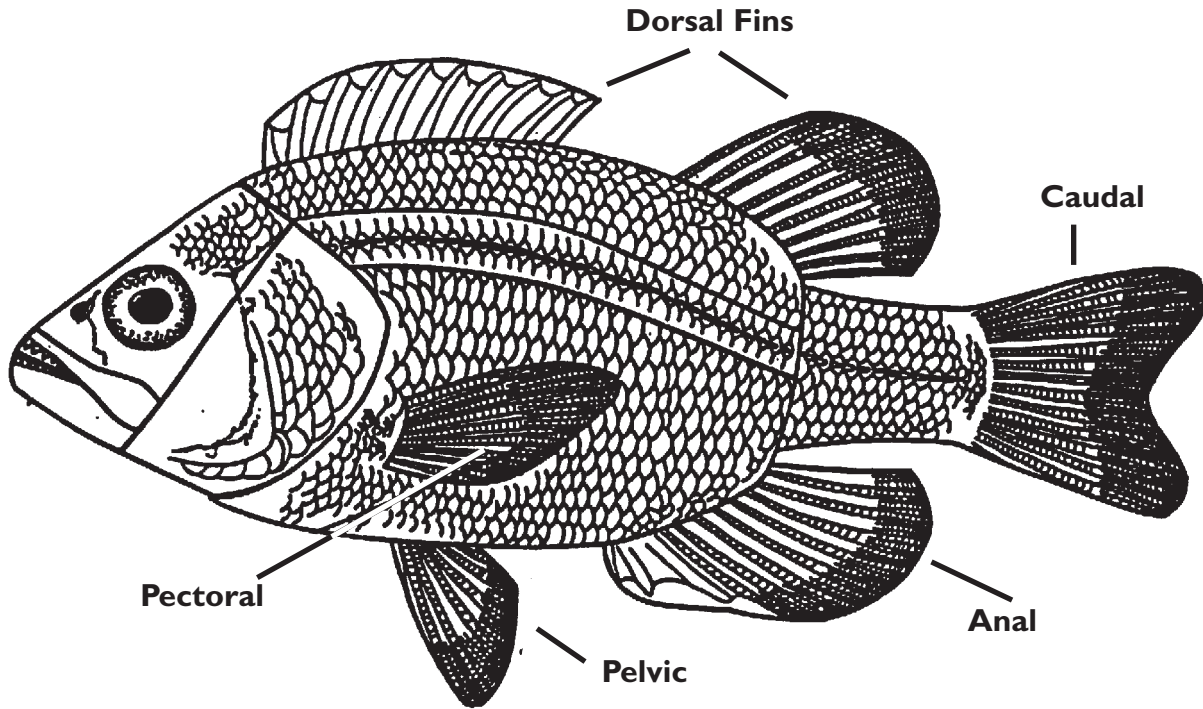
- Research different kinds of fish
- Continue adding to “Down by the Sea” chant list
- Fish Printing
- Fish Sticks (schooling activity)
- Read “Swimmey”
- Read “The Fish With The Deep Sea Smile” by Margaret Wise Brown



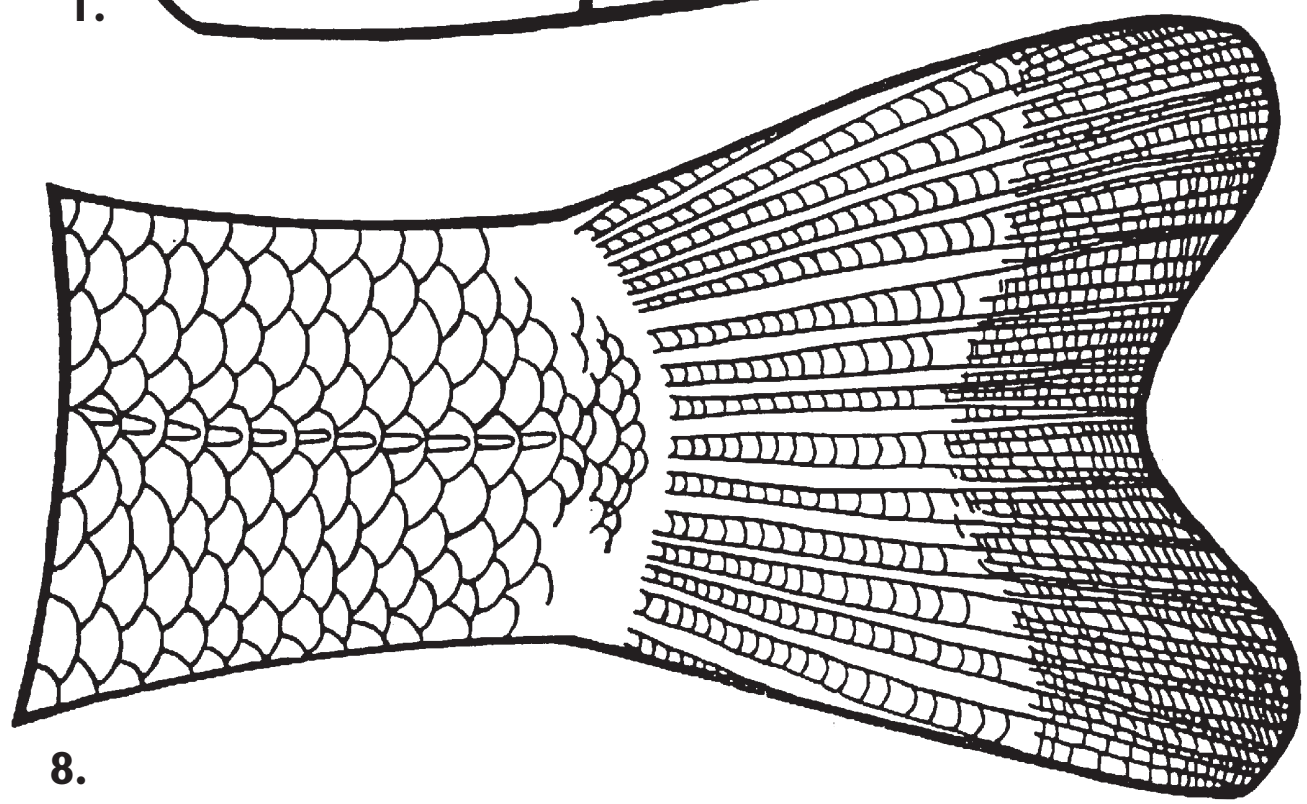
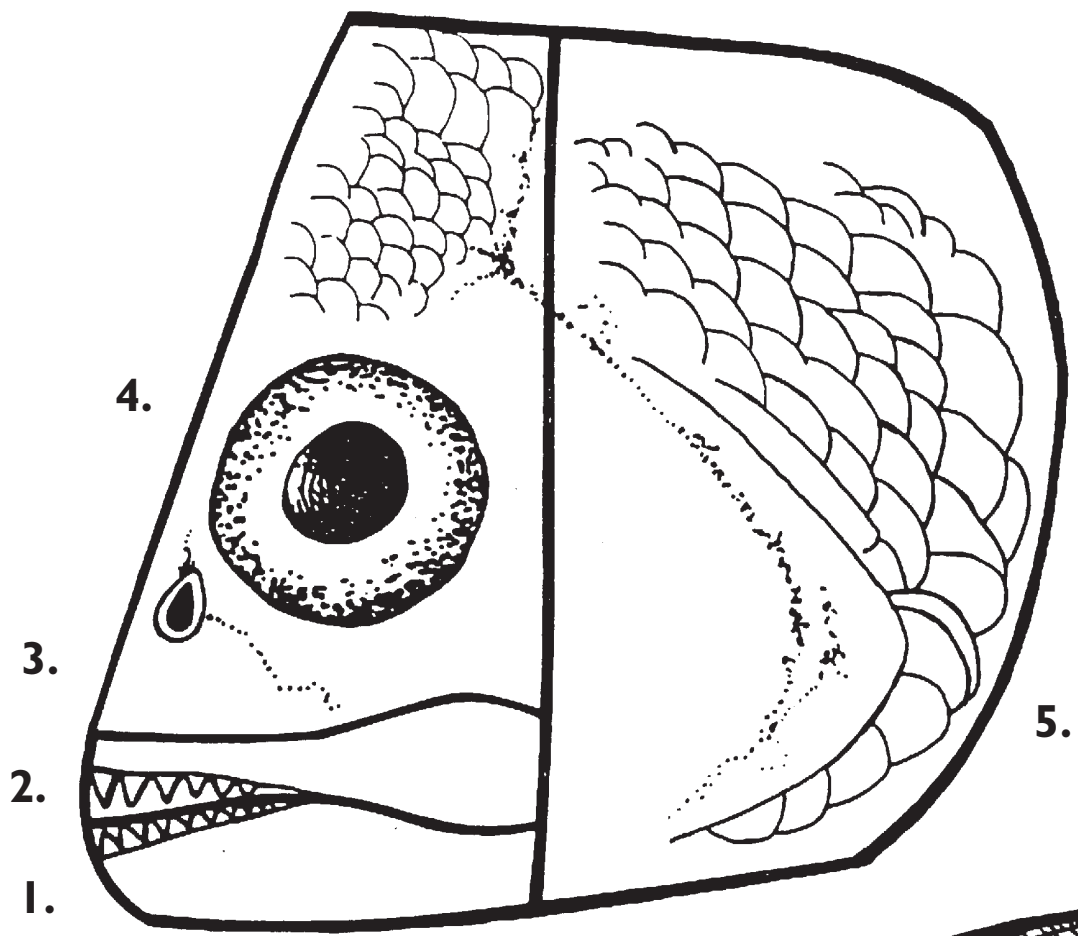
Curriculum written, created and adapted by S. Van Zandt

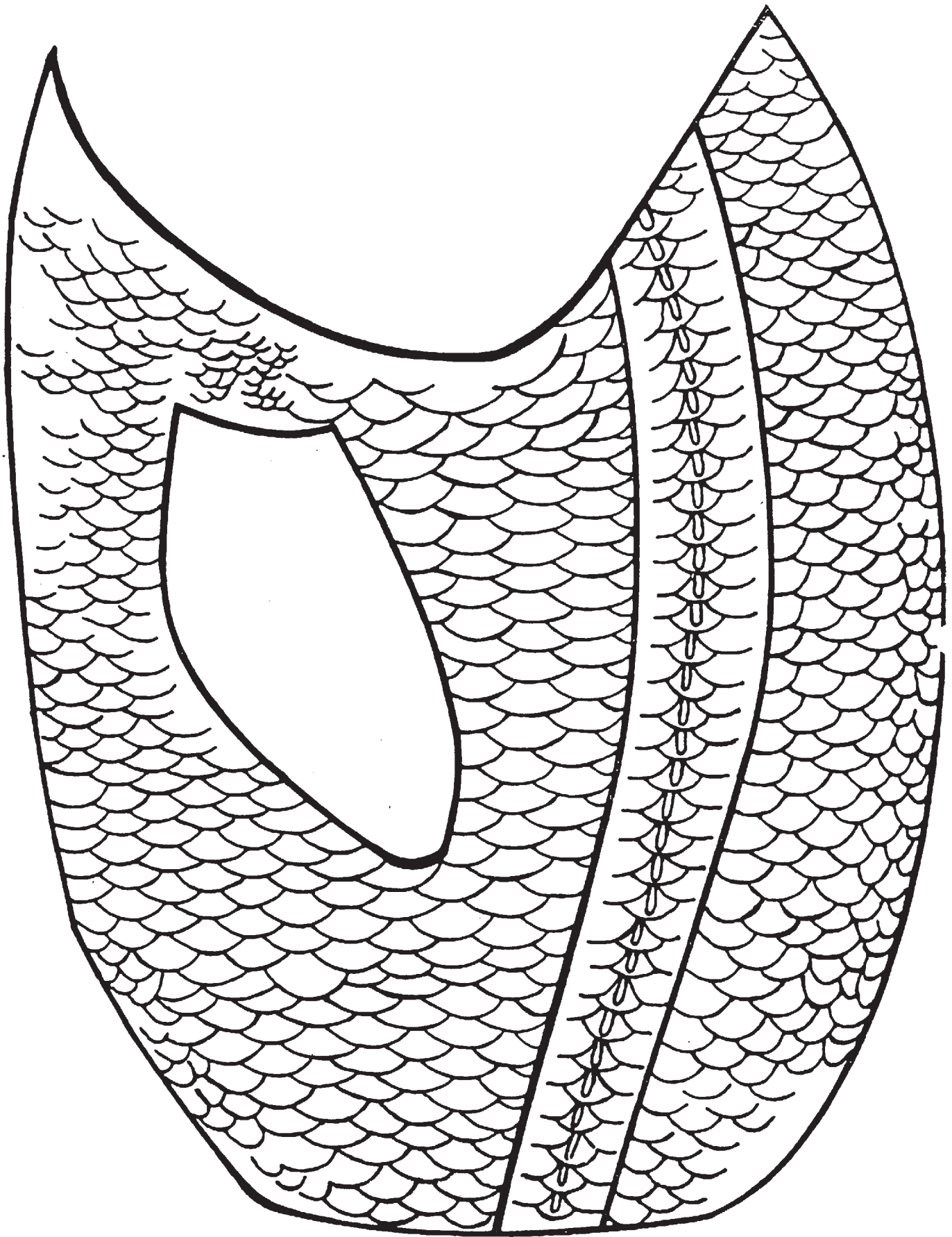


FISH PUZZLE



The take-apart fish puzzle was developed at the Helen Shedd Keith Aquatic Science Center of the John G. Shedd Aquarium, 1200 S. Lake Shore Drive, Chicago, Ill. 60605

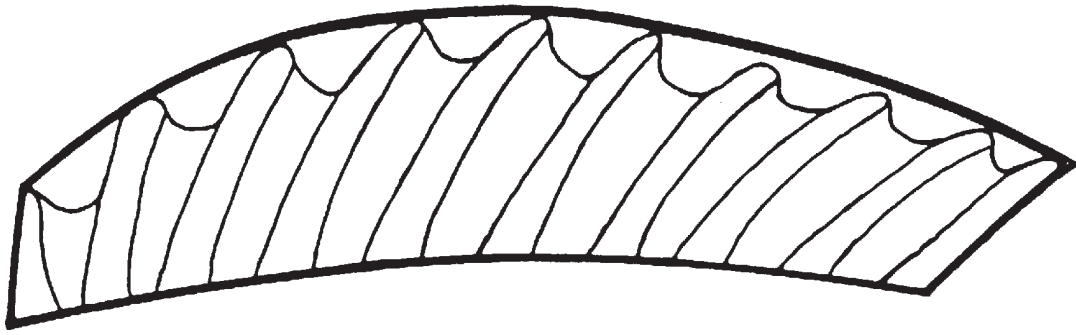




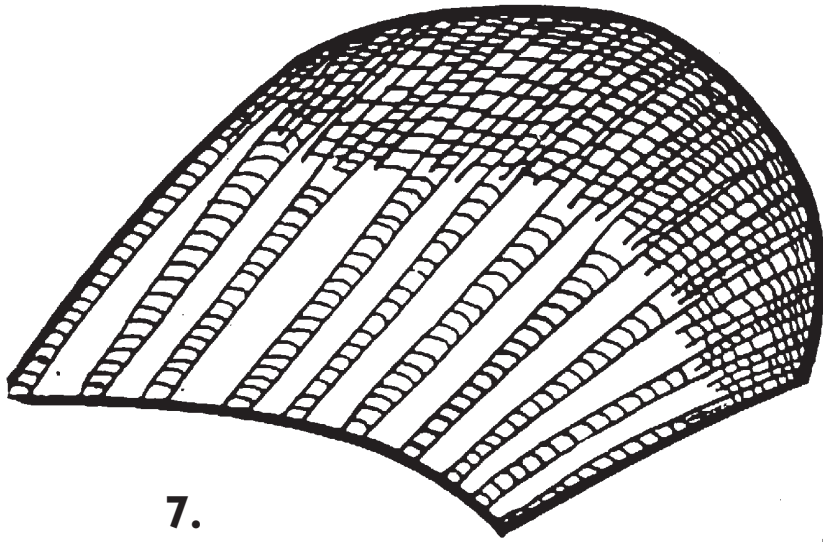
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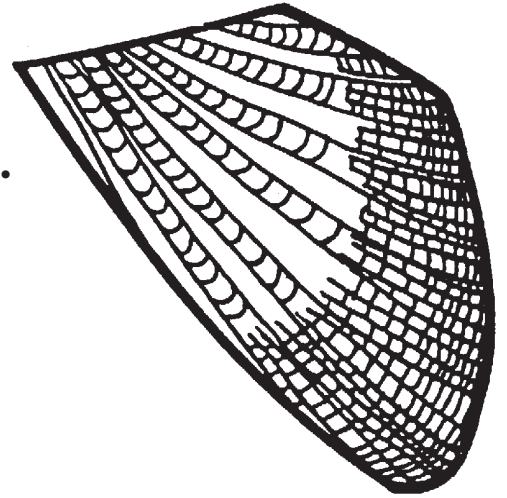
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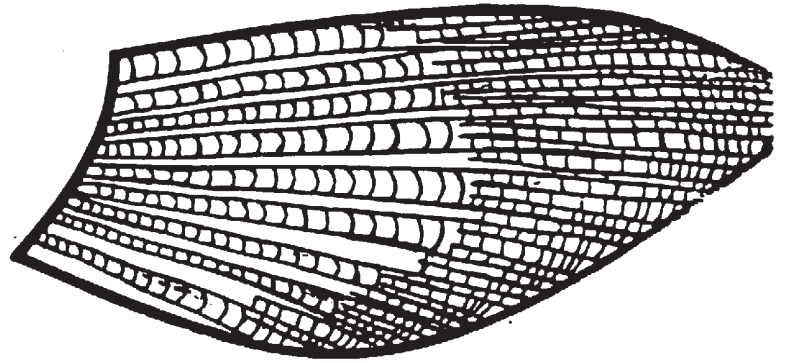
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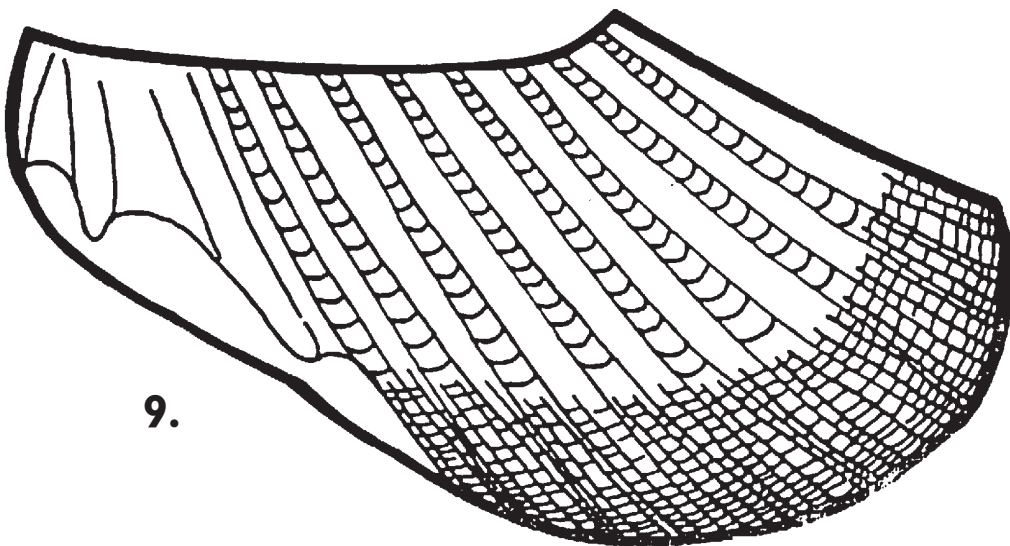
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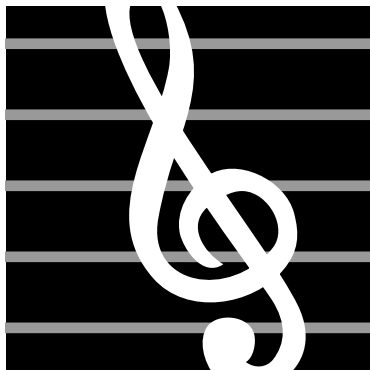
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Activity

SONG LEADING

1. **Teaching A Song:** Use the whole-part-whole method. Sing the part of the song to be learned first. If the words are difficult, then talk the song through. Teach one or two lines at a time by singing them and having your group repeat after you. A little history or introduction for a song is nice, but long monologues (with some exceptions) can take away from the spirit of the song.
2. **Eye Contact:** Look at your audience, not through them. There's more to a song than words and music, there's an attitude that comes through the singers face and eyes.
3. **Keep Time:** You can help the group stay together by using your hand to keep time. You may want to raise and lower your hand with the high and low notes without stiffly following every note of the song.
4. **Getting the Group to Sing Louder:** Say, "Sing it out, everybody," or have your group sing it with a country accent by saying, "sing it country,." Use hand motions or put your hand up to your ear to draw their voices out. Try lowering your voice so the group can hear their voices better. Remind them of the upcoming words by fitting them in between the lines. Say, "I'll sing it to you," "You sing it to me," "Sing it to each other," "Sing it so the trees can hear you."
5. **Stopping the Song:** If you begin a song and you find yourself singing off key, or you suspect that the group could sing better in a higher or lower key, then stop and start over the right way. If you forget a line or make a mistake, it's alright to say "let's sing that line again." Sometimes an effective technique is to stop singing part way through a song and tell a short anecdote or ask a question.
6. **Leave Off A Word:** When the last work in the verse ends in an obvious rhyme, I like to stop singing and let the group fill it in.



Created by Steve Van Zandt



Activity

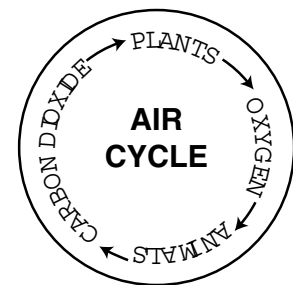
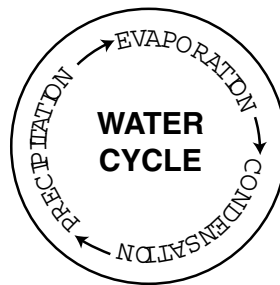
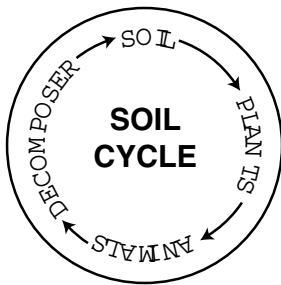
CYCLE FRISBEE

BACKGROUND: Through the energy of the sun, the raw materials of life: air, soil, and water do not run out because of inherent natural recycling.

PURPOSE: To demonstrate the components of the soil, air, and water cycle by playing catch with a Frisbee.

MATERIALS: Three Frisbees, permanent marking pen.

Draw the following cycles on the Frisbees:



ACTION:

1. Define cycle - a series of events that recur regularly and lead back to the starting point.
2. Have students give examples of cycles.
3. Demonstrate a cycle by rotating the frisbee once.
4. Using the frisbee, explain the cycle, i.e. In the soil cycle, plants use the soil, animals eat plants, decomposers eat dead plants and animals, turning them into soil.
5. Have the students stand in a circle.
6. Have the students pass the frisbee around the circle saying what part of the cycle he/she is and what he/she will be next in the cycle. i.e. Student 1: "I am soil. Plants will use me." Student 2: "I am a plant. Animals will eat me."
7. Play the game. The student holding the frisbee says what part of the cycle he/she is. The student who can name what is next in the cycle gets to catch the frisbee. That student announces what part of the cycle he/she is. The student who can name what comes next in the cycle gets to catch the frisbee, etc.

DISCUSSION:

1. Why don't we run out of water, soil, and air?
2. What is the energy source for the cycles?
3. Why isn't there a sun cycle?



Activity

WATER CYCLE LESSON

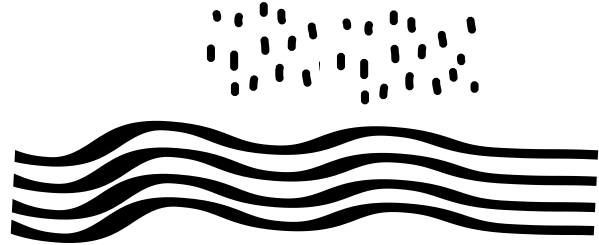
FOCUS: This is a language arts/science lesson to introduce first grade students to the water cycle.

OBJECTIVES: Children will be given the opportunity to:

1. Listen to tape recorded sounds of water and identify them.
2. Orally express water related words.
3. Role play the water cycle.
4. Identify parts of the water cycle (ocean evaporation, cloud, rain, river) on a diagram.

MATERIALS:

1. Tape and tape recorder with water sounds
2. Paper and pencil
3. Water cycle diagram
4. Colors for each student



GRABBER:

1. Play tape of water sounds. Children listen and guess what the sounds are.
2. Say the word “water” and children respond with words that come to mind.
3. Record their words on paper and read them back to the class. Explain that the reason water is in different places is by the way it moves.

OBJECTIVE:

1. Explain that we are going to see how water moves.
2. Everyone draws a circle in the air with their fingers.
3. Explain that a cycle is like a circle and that water moves in a water cycle.
4. Draw a circle on the board and write “water cycle”

INSTRUCTION:

1. Role play the water cycle. One child is the sun while others are water drops who rise out of the ocean (rest of the class) when the sun says “Boogie woogie, evaporation.” The water drops rise, form a cloud, blow over the mountain, rain, fall into a river, and flow into the ocean (return to seats).
2. Children try it again on their own.
3. Write the cycle on the board by filling in the correct places on the circle.
4. Teach the water cycle boogie dance.

CLOSURE:

1. Sing the water cycle song.
2. Pass out the water cycle diagram to each child.

FOLLOW-UP:

1. Set up an experiment to see if water will evaporate. Place two cups of water outside the classroom. Cups should have markers and one is covered with plastic as a control.



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TEACHER WORKSHOPS

Music is an effective teaching tool to introduce and reinforce concepts, as well as to motivate and inspire students. In this whole language approach to teaching science, we integrate music, poetry, drama, and movement with hands on science. Participants will learn strategies for creating thematic science units, and gain ideas to energize and supplement their existing units. These fast-paced, interactive workshops, open to K-6 classroom teachers and outdoor educators, are presented in a variety of formats:



DIRT MADE MY LUNCH

This action-packed workshop is a complete unit about, well, *dirt* — find out how dirt is made and how it makes all of our food. We'll be singing with a puppet known as "Mr. Dirt", doing the *Roots, Stems, Leaves, Flowers, Fruits and Seeds Dance*, and gettin' on down with decomposition. (Time: 60 - 90 minutes)



SUN, SOIL WATER, AND AIR This full-day workshop includes the *Dirt* Unit, and goes on to include strategies that teach about the other three "mysteries of life": sun, water, and air. We also cover plants cycles and food chains. Be ready to dance the *Water Cycle Boogie*, transform into a tree, and throw a cycle frisbee. (Time: 6 hours)



FEATHERS, FUR, SCALES, AND SKIN • This workshop includes songs, poems, and activities that teach about the different animal groups, their habitats, and their inter-relationships. A mini-unit on the ocean is presented with songs from our award winning recording, "Slugs at Sea." Come ready to do the *Tide Pool Boogie*, build a fish, and talk like an insect! (Time: 60 - 90 minutes)



YOUR OWN DESIGN • We will collaborate with you to develop a workshop that fits your needs by combining concepts, songs, and strategies from our wide range of material. After all, our Earth is a unique design too!

Note: For outdoor educators, we have a workshop geared specifically for teaching in an outdoor setting.

General information and products:

Banana Slug String Band
P.O. Box 2262
Santa Cruz, CA 95063
(831) 425-7584 ph/fx
Toll Free: (888) 327-5847
bananaslugstringband.com



B.S.S.B. Keynote Presentations

National Science Teacher Association

National Marine Educators Association

National Association of Interpretation

"I wholeheartedly endorse their innovative approach to learning. I have observed both teachers and students respond with great excitement to Slug performances. I only wish that my own education had included such an experience as the Banana Slug String Band offers.
Gary Appel
Director—
Life Lab
Science Program
Capitola, California

"Wow! There is so much to say about the effects of the workshop/performance you did for us. I have heard many stories from beleaguered school principals, wondering about the sanity of their staff singing songs of dirt making their food. You received an all time high review of 9.97 out of 10."
Daniel Morse
Consortium for Instructional Improvement, Riverside, California

"The Slugs are by far the best educational children's performance group/teacher workshop presenters that I've ever seen. They were a tremendous hit at the National Marine Educators Association's annual conference where they led workshops for teachers on integrating music into the environmental education curriculum."
Craig Strang
Assoc. Director —
Lawrence Hall of Science
Director —
Project M.A.R.E



**BANANA
SLUG
STRING BAND**

RECORDINGS AND SUPPORT MATERIALS FOR EDUCATORS



NEW! Goin' Wild!

Our brand new album takes you on a musical journey through the natural worlds of Yellowstone and The Tetons. Come along, as we celebrate the wonders of these two great national treasures, with songs about beaver, bear, and bison; fire, geysers, and starry skies. Let's Go Wild!

CD or Cassette / Songbook



DIRT MADE MY LUNCH

Kids love learning that everything we eat comes from sun, soil, water, and air. In addition to the popular title track, this tape includes "Decomposition," "River Song," and "Banana Slug."

CD or Cassette / Songbook



PENGUIN PARADE

This Parents Choice Award Winner features diverse musical styles, from Dixieland to Calypso, Boogie Woogie to A cappella. Includes "Ants" and "Moose."

CD or Cassette / Songbook



SLUGS AT SEA

Sail with the Slugs as they sing about ocean habitats. Includes "Butts Up," "Ocean Rap," and "Water Cycle Boogie."

CD or Cassette / Songbook



DANCING WITH THE EARTH VIDEO

Join the Slugs in concert, and follow them on a rollicking musical journey through ancient redwood forests and awesome coastal tidepools.

Video: appx. 40 minutes



NEW!

GOIN' WILD T SHIRTS

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