

FOR SEA: Investigating Marine Science - Grade 2

This bibliography has been selected <u>specifically</u> for *The Sea Around Us* - *Grade Two*. A few of the titles listed are out of print, but worthwhile enough for you to check for them in your school and public libraries.

RESOURCES FOR STUDENT INFORMATION

A DAY UNDER WATER. Scholastic. 1989.

Includes pictures and information about the deep sea submersible, ALVIN, and deep sea vent communities.

A FIRST LOOK AT FISH. Millicent E. Selsam and Joyce Hunt. Scholastic. 1972.

Simple black and white illustrations along with simple text introduce students to fish features.

A FIRST LOOK AT SEALS, SEA LIONS & WALRUSES. Millicent E. Selsam and Joyce Hunt. Walker. 1988

The physical characteristics and differences in appearance of a variety of seals, sea lions and walruses are explained in pictures and text.

- A FIRST LOOK AT WHALES. Millicent Selsam and Joyce Hunt. Walker. 1980. Clear-cut text and illustrations help define the characteristics that distinguish whales from fish, as well as the differing characteristics between species of whales.
- A FISH HATCHES. Joanna Cole and Jerome Wexler. Morrow. 1978. Black and white photographs illustrate the life cycle of a trout, from the laying of eggs in a hatchery to maturity. How a fish swims, breathes, and the way its senses work are clearly described in text and photos.

CREATURES OF THE SEA. John Christopher Fine. Atheneum. 1989. Adaptations in appearances and behaviors which help sea creatures hide are described in simple terms with color photographs.

DOWN IN THE SEA: THE JELLYFISH. Patricia Kite. Albert Whitman & Co. 1993.

A simple introduction to the jellyfish describing its physical characteristics, life cycle and eating habits.

FISH Life Cycle Books. Althea. Longman. 1988.

The life cycle of the salmon told in a simple, yet informative way. Fullcolor drawings enhance the text.

FISH DO THE STRANGEST THINGS. Leonora Hornblow. Random House. 1990.

A great assortment of facts and insights into the life of fish.

- FISHES; USBORNE FIRST NATURE. Alwyne Wheeler. EDC Publishing. 1982. An informative picture book with detailed, full-color illustrations. One section covers fish in the deep seas.
- THE FOUR ELEMENTS WATER. Carme Solé Vendrell & J. M. Parramón. Barron's. 1985.

Simple illustrations of where we find water and how we use it. Additional follow-up information for teachers or parents on the water cycle, how water is cleaned, etc.

- HUMPBACK WHALES. Dorothy Patent. Holiday House. 1989. Describes the physical characteristics, habitat, and behavior of the humpback whale.
- I CAN BE AN OCEANOGRAPHER. Paul P. Sipiera. Children's Press. 1987. A brief description of the work of an oceanographer, including requirements for this career. Also provides information on food chains. Color photographs and drawings accompany the text.
- (NOW I KNOW) WHAT IS A FISH? David Eastman. Troll Associates. 1982. Describes and illustrates different kinds of salt water, fresh water, and migratory fish, including how and where they live.
- OCEAN PLANTS. Sue Beauregard and Jill Fairchild. The Children's Book Company Sea Library. 1982.

A brief overview of seaweeds and their importance. Color photographs depict several varieties.

- OCEANS. Katherine Jones Carter. Children's Press. 1982. A brief, simple introduction to oceans, including waves, tides, shorelines, the ocean floor, plants and animals. Color photos.
- PLANTS THAT NEVER EVER BLOOM. Ruth Heller. Grosset & Dunlap. 1984. Full-color, full-page illustrations are the vehicle for a brief, informative, rhyming text about seaweeds and other non-seed bearing plants. The striking illustrations are by the author.
- PLANTS WITHOUT SEEDS. Helen J. Challand. Children's New True. 1986. A brief section on seaweeds and their uses is included. Color photographs show some of the varieties.
- RED TAG COMES BACK. Fred Phleger. Harper Science I CAN READ. 1961. This non-fiction narrative tells the life history of a young salmon as she travels down the river to the ocean and then, four years later, returns up that river. The color illustrations are by Arnold Lobel.
- THE SALMON. Paula Hogan. Raintree. 1979. The life cycle of the salmon in very simple text and pictures.
- THE SEA WORLD BOOK OF SHARKS; book for young readers. Eve Bunting. Sea World. 1979.

Discusses the habits and characteristics of sharks and introduces the many kinds.

SEALS, SEA LIONS, and WALRUSES; A FIRST BOOK. Ellen Rabinowich. Watts. 1980.

Describes the physical characteristics, behaviors, and natural habitat of these mammals which must return to land to mate and give birth.

- SEALS, SEA LIONS, and WALRUSES. Millicent Selsam. Walker. 1988. Compares and contrasts the physical characteristics, habits and natural environment of seals, sea lions, and walruses.
- SEALS AND WALRUSES. Norman Barett. Franklin Watts. 1991. A stimulating, and highly visual, reference book that uses color photographs to illustrate topics of popular interest regarding these marine mammals.

SHARKS. Ann McGovern. Four Winds. 1976. Shark questions are answered. Black and white illustrations accompany the text.

- SURFER THE SEAL. Jane Burton. Gareth Stevens Children's Books. 1989. The story of the development and growth of "Surfer", a harbor seal. Photographs enhance the narrative, which may be challenging for some second graders.
- THE TITANIC, LOST AND FOUND. Judy Donnelly. Random House. 1987. A "Step Into Reading" book which chronicles the sinking and rediscovery of the TITANIC.
- TUNAFISH SANDWICHES. Patty Wolcott. Random House. 1975. Simple illustrations and brief text introduce the concept of a food chain, beginning with the role tiny phytoplankton play in evenutally "providing" tuna for two children's tunafish sandwiches.
- UNDER THE WATER. Harriet Ziefert. Puffin Books, Penguin. 1990. Simple illustrations and descriptions of how water covers the earth and the type of plants and animals that live in the water.
- WHALES. Gail Gibbons. Holiday House. 1991. Exuberant watercolors introduce a wide variety of whales with a brief, accurate text.
- WHALES, THE GENTLE GIANTS. Joyce Milton. Random House. 1989.A "Step Into Reading" book, in which students can read all about whales in an exciting easy-to-read story format.
- WHAT'S UNDER THE SEA? Sophy Tahta. Usborne Publishing. 1993. A very readable text with appealing illustrations covering several of the topics presented in this curriculum.
- THE WONDERFUL WORLD OF SEALS AND WHALES. Sandra Lee Crow. National Geographic Books for Young Explorers. 1984. Text and photographs present information about seals and whales.

THE WORLD BENEATH THE SEA. Susan Harris. Watts Easy-Read Fact. 1979.

Briefly describes the physical features of oceans and the biology of the plants and animals living there. An easy-to-read text accompanied by drawings and photographs in color.

RESOURCES FOR LITERATURE INTEGRATION

Please be aware that in the more fanciful of these titles, the science content may not be accurate.

A SEAL CALLED ANDRE. Harry Goodridge and Lew Dietz. Praeger. 1975.

In-depth study of the 14 year friendship between Harry Goodridge and Andre, a harbor seal who is as comfortable in the Goodridge's home as he is in Maine's Penobscot Bay.

AMOS & BORIS. William Steig. Puffin Books. 1971. When Amos the mouse rolls off the *Rodent* in the middle of the ocean, Boris the whale is there to help his fellow mammal. The two become

devoted friends, and one day the tiny mouse finds a way to repay the great whale.

- BIG AL. Andrew Clements. Scholastic. 1991. The story of how one very, friendly but scary looking fish tries to find friends in the ocean.
- BURT DOW: DEEP WATER MAN. Robert McCloskey. Viking. 1963. In this award winning classic, Burt goes fishing, takes refuge from a storm in a whale's stomach, and decorates a whole school of whale's tails with striped band-aids.

CURIOUS CLOWNFISH. Eric Maddern. Little, Brown. 1990. The timid clownfish never dare to leave the protection of their anemones, until one day a clownfish who has a bit more curiosity that the others is born.

FISH EYES - A BOOK YOU CAN COUNT ON. Lois Ehlert. Harcourt Brace Jovanovich. 1990.

A counting book depicting the colorful fish that might be seen if a child was turned into a fish.

FISH IS FISH. Leo Lionni. Pantheon. 1970

The friendship of a young fish and a tadpole is strained when the tadpole becomes a frog and ventures onto land. The fish, wishing to follow, learns that "fish is fish and that's that!" The illustrations are Lionni's full-page, full-color works of art.

FISH OUT OF SCHOOL. Evelyn Shaw. Harper Science I CAN READ. 1970. A story about a small herring separated from her school. Explains why fish school and describes some of the characteristics of schooling behavior. Watercolor illustrations. FISHES. Brian Wildsmith. Watts. 1968.

In full-color, full-page paintings, Wildsmith portrays schools of fish, calling each group by a collective noun. An interesting lead-in to language and art experiences.

THE FISHERMAN AND HIS WIFE: A TALE FROM THE BROTHERS GRIMM. Randall Jarren, trans. Farrar. 1980.

The folktale of the fisherman, a magical flounder and the fisherman's greedy wife is wonderfully portrayed in Margot Zemach's humorous and colorful illustrations.

- THE HOLE IN THE OCEAN. Jasper Tompkins. Green Tiger Press. 1984. A fanciful tale about a journey to the hole in the ocean where everything goes.
- HUMPHREY, THE WRONG WAY WHALE. Kathryn A. Goldner and Carole Garbuny Vogel. Dillon. 1987.

Introduces information on the behavior and current situation of humpback whales through the story of an individual whale off the coast of California.

- I AM THE OCEAN. Suzanna Marshak. Little, Brown and Co. 1991. Beautiful, full-color illustrations complement a lovely, lyrical narrative. The ocean sings of itself, enabling children to think of it as a living organism.
- I WONDER IF I'LL SEE A WHALE. Frances Ward Weller. Philomel. 1991 The story of a young girl who hopes to see a humpback on a whalewatching trip off the New England coast. Ted Lewin's watercolor illustrations are very effective.
- THE MAGIC SCHOOL BUS ON THE OCEAN FLOOR. Joanna Cole. Scholastic. 1992.

Ms. Frizzle takes her students on a tour of the ocean floor, including a visit to a vent community.

THE MER-CHILD: A LEGEND FOR CHILDREN AND OTHER ADULTS. Robin Morgan. Feminist Press. 1991.

A thought provoking story of the life of a "mer-child".

THE OCEAN ALPHABET BOOK. Jerry Pallotta. Charlesbridge. 1986. An ocean creature or feature is introduced for each letter of the alphabet. Full-page, colored illustrations enhance the narrative.

- OCEAN PARADE: A COUNTING BOOK. Patricia MacCarthy. Dial. 1990. Concepts of color, shape and size are introduced with the numbers one through one hundred in MacCarthy's beautiful silk batik paintings of fishes.
- PEARSON: A HARBOR SEAL PUP. Susan Meyers. Dutton. 1981. Five months in the life of an orphaned harbor seal pup are detailed in this illustrated work.
- PLENTY OF FISH. Millicent Selsam. Harper Science I CAN READ. 1960. In this easy-to-read story with color illustrations, a young boy learns about fish and how they breathe by having a pet goldfish.
- PRINCE WILLIAM. Gloria Rand. Holt. 1992.

A story about one of the seals rescued from the 1989 oil spill in Prince William Sound, Alaska. Provides insight into the volunteers' work caring for animals after the disaster. Watercolors illustrate the story.

SHARK LADY; TRUE ADVENTURES OF EUGENIE CLARK. Ann McGovern. Scholastic. 1978.

A short, chapter book about the adventures of Eugenie Clark, a famous scientist who has explored the underwater world of many seas.

STERLING: THE RESCUE OF A BABY HARBOR SEAL. Sandra White and Michael Filisky. Crown. 1989.

In the cold ocean off the coast of New England, a newborn harbor seal is abandoned by her mother. Days pass, before the animal is rescued and brought to the New England Aquarium, where specialists care for her and nurse her back to health.

SWIMMY. Leo Lionni. Pantheon. 1963.

A fantasy story of little fish escaping from the danger of a big fish by schooling. Lionni's beautiful and colorful illustrations may inspire some spectacular classroom art.

- WAITING FOR THE WHALES. Sheryl McFarlane. Philomel. 1993. A tale of an old man's love for whales and the beautiful relationship he has with his granddaughter.
- WHALE SONG. Tony Johnston. Putnam. 1987.The text to this dramatically illustrated book imagines that whale songs are about counting. Ed Young's illustrations are stunning.
- WHEN THE WHALE CAME TO MY TOWN. Jim Young. Knopf. 1974. The true story of a whale washed ashore on Cape Cod, as experienced by a young boy.

WINTER WHALE. Joanne Ryder. Morrow. 1991

A child's imagination allows the reader to follow a humpback whale's journey south to winter in warm tropical waters, and its return north to spend the summer feeding in the cold-water seas, rich with food.

POETRY

A CHILD'S TREASURY OF SEASIDE VERSE. Mark Daniel, (comp.). Dial. 1991.

A collection of verses about the sea from Byron, Shakespeare, Whitman and other British and American writers of the 19th and early 20th centuries.

ALL THE SMALL POEMS. Natalie Worth. Farrar. 1987.

These small poems of familiar, ordinary subjects are perfectly complemented by Natalie Babbitt's small black and white drawings.

PIPING DOWN THE VALLEYS WILD. Nancy Larrick. Dell. 1968. A wonderful collection of poems including many relating to the sea and shore.

THE RANDOM HOUSE BOOK OF POETRY. Jack Prelutsky, (comp.). Illustrated by Arnold Lobel. Random House. 1983.

A treasury of 572 poems, many with a marine theme.

THE SEA IS CALLING ME. Poems selected by Lee Bennett Hopkins. Harcourt. 1986.

A collection of poems pertaining to the sea and seashores. Each poem is appropriately illustrated in soft colors.

RESOURCES FOR TEACHERS & STUDENTS

Included are books, curricula, media resources, equipment, posters, etc. The books in this list present further information in a more difficult text; even so, many of them will be enjoyed by children for the illustrations and photographs.

BOOKS

ALL ABOUT WHALES. Dorothy Hinshaw Patent. Holiday House. 1987 An introduction to the biggest animals that have ever lived, discussing what they eat, how they communicate, and the various kinds of whales. CHAINS, WEBS AND PYRAMIDS: THE FLOW OF ENERGY IN NATURE. Laurence Pringle. Crowell. 1975.

Food chain dynamics are described. Includes discussion of marine and salt marsh chains in easy to understand text. Clear illustrations and charts are by Jan Adkins.

COMMON SEAWEEDS OF THE PACIFIC COAST. Robert J. Waaland. Pacific Search. 1977.

Introduces many seaweeds, from the intertidal algae to the subtidal kelp forests. Includes discussions of seaweed culture, conservation and human uses; as well as many color photographs, black and white diagrams, and drawings.

CREATURES THAT GLOW. Joanne Barkan. Doubleday. 1991. A lively introduction to bioluminescent creatures. Illustrated with fullcolor photographs printed with glow-in-the-dark inks which lets the creatures "light up", just as they would in their own environment.

DO FISHES GET THIRSTY? QUESTIONS ANSWERED. Dr. Les Kaufman and staff. New England Aquarium. 1991.

The New England Aquarium staff answers 26 frequently asked questions about the aquatic world. The lively, accurate text is combined with full-color photographs.

EXPLORING THE SEA: OCEANOGRAPHY TODAY. Carvel Hall Blair. Random House. 1986.

An overview of oceanography, including descriptions of oceans, plate tectonics, currents, waves, plant and animal life, ocean exploration and ocean products. Full-color illustrations on every page.

- EXPLORING THE TITANIC. Robert D. Ballard. Scholastic. 1988. Describes the large luxury liner which sank in 1912 and the discovery and exploration of its underwater wreckage.
- FISH. Steve Parker. Knopf Eyewitness. 1990. A wealth of information revealing almost all you ever wanted to know about fish is in this colorful photo essay.
- JELLYFISH and OTHER SEA CREATURES. Oxford Scientific Films. Putnam. 1982.

Extraordinary photographs are featured in this beginner's book.

THE KELP FORESTS. Howard Hall. Blake Publishing. 1990. Detailed information, including discussions about human interactions, is organized by three different habitats of the kelp forest: canopy, rocky reef, and sandy clearings. Includes numerous color photographs. KELP FORESTS. Judith Connor and Charles Baxter. Monterey Bay Aquarium Natural History. 1989.

The natural history of kelp forests with their complex community of inhabitants is presented in readable text and striking color photographs. Includes a comparison of a kelp forest with a terrestrial forest.

LOOK INSIDE THE OCEAN. Laura Crema. Pole & Look Learning Books, Putnam & Grosset. 1993.

Simple die-cut illustrations lead the reader into deeper levels of the ocean. Provides information on the creatures that live in each level.

THE MARINE BIOLOGY COLORING BOOK. Thomas M. Niesen. Barnes & Noble. 1982.

An introduction to the inhabitants of the major marine environments. Coloring plates illustrate the organisms in detail and the text explains their life cycle and interactions.

MONSTER SEAWEEDS: THE STORY OF THE GIANT KELPS. Mary Daegling. Dillon. 1986.

A discussion of a kelp ecosystem including its place in the ocean food chain, its value as a habitat and the harvesting of kelp for commercial uses. Color photographs enrich the informative text.

- PLANKTON: DRIFTING LIFE OF THE WATERS. Julian May. Holiday. 1972. Simple descriptions of plant and animal plankton in their various forms with emphasis on their role in the food chain. The color illustrations extend the text.
- THE SEA WORLD BOOK OF SEALS and SEA LIONS. Phyllis Roberts Evans. Harcourt, Brace & Jovanovich. 1986.

Describes the physical characteristics, habits and behavior of various species of seals and sea lions.

SEALS & SEA LIONS An Affectionate Portrait. Vicki Leon. Blake Publishing. 1988.

The informative text is greatly enhanced by the colored photographs of these marine mammals.

SEALS, SEA LIONS and WALRUSES. Dorothy Hinshaw. Holiday House. 1990.

Discusses the characteristics and habits of these animals which live both on land and in water. Good resource book for pinniped research. UNDERWATER LIFE: THE OCEANS. Dean Morris. Raintree Read About. 1988.

Describes some of the plant and animal life found in the ocean, as well as some of the technology used in deep sea exploration.

WHAT'S UNDER THE SEA? Solveig Paulson Russell. Abingdon. 1982. An introduction to the various layers of the ocean and how we find out about them.

WONDERS OF THE SEA. Louis Sabin. Troll. 1982. Describes how plants and animals interact in the ocean. Illustrated with beautiful watercolor and wash drawings.

CURRICULUM

GET THE DRIFT: Project WILD. P.O. Box 18060, Boulder, CO. 80308-8060.

RANGER RICK'S NATURESCOPE; DIVING INTO OCEAN Activity Guide. National Wildlife Federation. 1988.

More ideas about building a kelp forest, including additional ideas about how to make a variety of kelp forest animals.

RIPPLES: A BIG SWEEP ELEMENTARY ACTIVITY GUIDE. Contact: University of North Carolina Sea Grant College Program, Box 8605, North Carolina State University, Raleigh, N.C. 27695-8605.

POSTERS

MARINE MAMMALS of the WESTERN HEMISPHERE Poster. Available from: Government Bookstore, 915 Second Ave., Rm. 194, Seattle, WA 98174 (206) 442-4270.

PINNIPEDS OF NORTH AMERICA NOAA Poster. Contact: Superintendent of Documents, Government Printing Office, Washington DC 20402-9325.

SOFTWARE

A FIELD TRIP INTO THE SEA Software. Sunburst.

Students explore the kelp forest and rocky shore habitat as they click on any plant or animal to find its name, zoom in for a closer look, or link to an animal in another setting.

VIDEOTAPES and SLIDES

MARINE DEBRIS slide show available from UNC Sea Grant, NCSU, Box 8605, Raleigh, NC 27695-8605 ph. (919) 737-2454.

THE MONTEREY BAY AQUARIUM VIDEO TREASURY. Monterey Bay Aquarium, 886 Cannery Row, Monterey, CA 93940-1085 ph. (408) 648-4850.

Segments in the 69 minute long video tape include: Feeding on the Rocky Shore, Reproduction on the Rocky Shore, The Kelp Forest, Marine Mammal Introduction, Flukes and Flippers, Voices in the Sea, Seasons of the Squid, Plankton, Behind-the-Scenes: Collecting, and Dive into Monterey Canyon.

OCEANS ALIVE! Video. Available from Environmental Media, P.O. Box 1016, Chapel Hill, NC 27514 1-800-368-3382.

A series of 5 minute programs. Part Two, available in both English and Spanish, contains several good fish segments and is most relevant to this curriculum.

TRASHING THE OCEANS Videotape available from Center for Marine Conservation, 1725 DeSales Street, NW, Washington, DC 20036. (202) 429-5609.

THE WORLD'S BELOW videotape. Sea Studios, Monterey, CA. 1988. Available from Monterey Bay Aquarium, 886 Cannery Row, Monterey, CA 93940-1085 ph. (408) 648-4850.

A visual journey through six undersea habitats of California's Monterey Bay includes: The Shallow Water World, Kelp Forest, The Soft Plains, Time-Lapse Ballet, Pelagia, and Midnight Waters. The first journey through each habitat is accompanied by music only. Dr. Sylvia Earle narrates a return trip to each "undersea world".

OTHER RESOURCES

Center for Shark Research, Mote Marine Laboratory, 1600 Thompson Parkway, Sarasota, FL 34236

Good resource for information and activity ideas.

PLASTIC DEBRIS TEACHING KIT. Contact: OSU Extension Sea Grant, Hatfield Marine science Center, Newport, OR 97365.

DISCOVERY SCOPES. Available from: Discovery Scope, Inc., P.O. Box 607, Green Valley, AZ 85622 (602) 648-1401.

This usable and highly versatile hand-held, wide-field microscope includes an adaptor to hold clear view chambers which can serve as tiny aquariums. HUMPBACK WHALE Bulletin Board Kit available from Kit Cache, Box 691, Wasilla, Alaska, 99687.

A reusable bulletin board kit focusing on the humpback whale.

MAC's FIELD GUIDES. 2321 -34th Ave. S. Seattle, WA 98144. Available for all kinds of marine and terrestrial organisms, Mac's guides are heavy plastic cards with detailed drawings for identification.

MARINE EDUCATION; A BIBLIOGRAPHY OF EDUCATIONAL MATERIALS AVAILABLE FROM THE NATION'S SEA GRANT COLLEGE PROGRAMS. July 1988. Available from: Marine Information Service, Sea Grant College Program, Texas A & M University, College Station, TX 77843-4115. A highly recommended free resource that includes a state-by-state listing of regional resources, as well as curriculum and other materials of general interest.

THE MONTEREY BAY AQUARIUM ANIMAL SETS and ECOSYSTEM SETS. Monterey Bay Aquarium, 886 Cannery Row, Monterey, CA 93940-1085 ph. (408) 648-4850.

Animal sets include: Marine Mammals (Gr. K-12) and Sharks/Fishes (Gr. 3-12). Ecosystem sets include: Rocky Shore (Gr. K-5), Sandy Seashore (Gr. K-8), Kelp Forest (Gr. K-12), Deep Sea (Gr. 6-12) and Ecology/ Conservation (Gr. K-12). Each set includes materials and activities developed by the aquarium staff.