



Organism Design Project Lessons

Websites

Animals

[FETCH! Draw That Habitat](#)

This fun, interactive website, sponsored by PBS Kids, challenges children to draw a habitat that will meet the needs of an imaginary organism. A new organism is presented every month.
(<http://pbskids.org/fetch/games/habitats/index.html>)

[Scholastic: Funky-Looking Fish](#)

This website features an article about the *Macropinna microstoma*, an interesting looking fish that has bulging green eyes, a transparent head, and lives in the dark. The article describes how scientists at the Monterey Bay Aquarium Research Institute were able to discover how these physical features enable the fish survive in its habitat.
(<http://www.scholastic.com/browse/article.jsp?id=3751548>)

[Endangered Ecosystems: Build Your Own Caterpillar](#)

What does a caterpillar need in order to fit into its environment and survive in the Costa Rican rain forest? Using this website, children can create a specialized caterpillar that fits in a particular habitat and print out their creation!
(http://teacher.scholastic.com/activities/explorer/ecosystems/be_an_explorer/map/form_caterpillars.htm)

[ARKiveEducation](#)

ARKive's free fun-packed teaching resources cover a range of key science and biology subjects including: adaptation, food chains, Darwin and natural selection, classification, identification, conservation and biodiversity.
(<http://www.arkive.org/education/>)

[Animal Survival](#)

Students play a game to try and keep a rare, reptilian lizard alive.
(<http://www.arkive.org/education/games/animal-survival>)



[Design a Habitat](#)

A black-footed ferret family needs a safe new home. Can you design the perfect habitat for these endangered mammals?

(<http://www.arkive.org/education/games/design-a-habitat>)

[Design a Panda Habitat](#)

Children are challenged on this interactive website to design a giant panda habitat for a zoo.

(http://nationalzoo.si.edu/education/conservationcentral/design/daph_broadband.htm)

[WolfQuest](#)

An immersive, 3D wildlife simulation game, WolfQuest challenges players to learn about wolf ecology by living the life of a wild wolf in Yellowstone National Park.

(<http://www.wolfquest.org/>)

[The National Zoo](#)

This web site offers a multitude of resources on animals from the Smithsonian National Zoological Park.

(<http://nationalzoo.si.edu/default.cfm?fonzref=index.htm>)

[Animal Adaptation E-Safaris](#)

This web site on the Family Education Network links five “electronic safaris” to other web sites suitable for children in grades 2-5. It provides an introduction, “think first” questions, and then “wrap up” questions for each e-safari.

(<http://fen.com/studentactivities/CCNet/sciencelab/Animals/AnimalAdapts.html>)

[Utah Education Network- Animal Adaptations- Animal Defense](#)

Use this web site to learn about unique physical and behavioral characteristics that organisms have that help them to survive. Be certain to scroll down the page to see links to a wide variety of organisms.

(http://www.uen.org/?activity_id=3803)

Plants

[Extension Master Gardener](#)

Use this web site to find volunteer Master Gardeners who serve as educators in their communities. The site lists the state partners of the Cooperative State Research, Education, and Extension Service through which Master Gardeners are trained.

(<http://www.extension.org/mastergardener>)



National Audubon Society

Use this website to find contact information on chapters of the Audubon Society both inside and outside of the United States.

(<http://www.audubon.org/locations>)

American Public Gardens Association

This web site can be used to locate Botanical Gardens, Arboreta, Nature centers, Zoos and youth programs in the United States.

(<http://www.publicgardens.org/>)

National Garden Clubs

The National Garden Clubs web site includes a variety of links including one link geared specifically towards youths and how they can be involved in gardening and learning about horticulture.

(<http://ngcdev.org/>)



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Books

All About Owls

By Jim Arnosky. (1995, Scholastic Inc.)

This excellent, age-appropriate book is clearly written and gives readers a glimpse of the owls' night world. The book examines the special features an owl has that help it fit in its environment, as well as highlighting twelve common owls seen in North America.

Backyard Birds (Peterson Field Guides for Young Naturalists)

By Jonathan P. Latimer and Karen Stray Nolting; illustrated by Roger Tory Peterson. (1999, Houghton Mifflin Co.)

This simple guidebook includes a photograph of each bird as well as scientific illustrations to help identify it. Information about the behavior, habitat, and food of each bird are easy to find and read.

Beaks!

By Sneed B. Collard; illustrated by Robin Brickman. (2002, Charlesbridge Publishing)

This book describes and illustrates the special features of more than 20 birds' bills, as they probe, crush, tear, tap, skim, scoop, stab, pry, and dig. An easy-to-read sentence about each bill, set in large type, is supplemented by more lengthy, factual information for confident readers.

Beaver At Long Pond

By William T. George and Lindsey Barrett George; illustrated by Lindsey Barrett George. (2000, HarperCollins Publishing)

Easy-to-read text is combined with beautiful illustrations to give children a detailed look at how a beaver interacts in its pond environment.



Box Turtle at Long Pond

By William T. George; illustrated by Lindsay Barrett George. (1989, Greenwillow Books)

This beautifully illustrated book follows a box turtle through a day of foraging, basking, and finding shelter. The turtle and the plants and animals that share its habitat are all painted in loving detail.

Cactus Hotel

By Brenda Z. Guiberson; illustrated by Megan Lloyd. (1993, Henry Holt and Company)

This “biography” tells the story of a giant saguaro cactus that grows to a height of fifty feet and a weight of eight tons. Over its lifetime of 200 years, it houses a rotating population of insects, mammals, reptiles, and birds. Even after it falls, it shelters a new set of living things. The book’s simple text and vivid pictures portray a desert full of colorful and active life.

Claws, Coats, and Camouflage: The Ways Animals Fit into Their Worlds

By Susan E. Goodman; photographs by Michael J. Doolittle. (2001, Millbrook Press)

This excellent book about animals is a companion to *Seeds, Stems, and Stamens* about plants. It discusses how animals fit into their environments, stay safe, get food, and make a new generation. Each right-hand page gives a brief statement, a color photo, and the question “What’s this animal’s adaptation?” The following page answers the question with careful descriptions and more photos.

Desert Giant

By Barbara Bash. (2002, Gibbs Smith Publishing)

This account of the life cycle of a saguaro cactus teaches children about the animals that are sheltered and fed by the cactus, and tells how humans use the cactus.

Fly Traps! Plants that Bite Back

By Martin Jenkins; illustrated by David Parkins. (1996, Candlewick Press)

This is an easy to read book that introduces children to carnivorous plants. It talks specifically about bladderworts, sundews, Venus fly traps, cobra lilies, and pitcher plants.



Microhabitats series: Life in a Tide Pool; Life in a Pond; Life in a Flowerbed; Life in a Cave; Life in a Tree

By Clare Oliver. (2002, Raintree Publishers)

A series of books with full-color photographs and large type, written at an upper-elementary reading level. A brief introduction to the “microhabitat” of each title is followed by a description of its physical conditions, its inhabitants, and its ecological importance.

My Favorite Tree: Terrific Trees of North America

By Diane Iverson. (1999, Dawn Publications)

This is a terrific, age appropriate reference book that not only describes 26 native trees of North America, but also identifies organisms that depend on each tree for survival. Listed next to each beautiful tree illustration is a description of the tree’s traits, such as habitat, height, bark, leaves, flowers and seeds, as well as interesting facts about historical uses of the tree. Although this book is no longer in print, you might look for it at your local library.

Prairie Dogs

By Emery Bernhard; illustrated by Durga Bernhard. (1997, Harcourt Brace & Company)

This is an engaging, age-appropriate book that examines the life of prairie dogs, their burrowing system, and their place in the landscape. This is a great book for learning about habitats within the American Prairie.

Seeds, Stems, and Stamens: The Ways Plants Fit into Their World

By Susan E. Goodman; photographs by Michael J. Doolittle. (2001, Millbrook Press)

This excellent book about plants is a companion to *Claws, Coats, and Camouflage* about animals. It discusses how plants fit into their environments, use sunlight, get water and nutrients, stay safe, make new plants, and protect themselves. Each righthand page gives a brief statement (such as “All living things need water to survive. In some regions, however, water is very scarce”), a color photo (such as a cactus), and the question “What’s this plant’s adaptation?” The following page answers the question with careful descriptions and more photos.



Small Worlds series: A Coral Reef, A Dead Log, A Freshwater Pond, A Rainforest Tree, A Saguaro Cactus, A Tidal Pool, In a Backyard, On the Tundra, Under a Stone.

By Jen Green, Adam Hibbert, or Philip Steele. (1999 or 2002, Crabtree Publishing)

This series of books provide facts and photographs about how plants and animals live together in a small environment and share their habitats. These books can be used as references for the children's biomes research.

The Salamander Room

By Anne Mazer; illustrated by Steve Johnson & Lou Fancher. (1994, Dragonfly Books)

A boy brings a salamander home. As the boy answers his mother's gentle questions ("Where will the salamander sleep?" "What will it eat?"), his bedroom is transformed into a forest habitat with no ceiling and plenty of room for birds to fly and trees to grow. Consider asking children to read this book to promote thinking about the differences between the mini-habitat in the Science Center and natural habitats.

Urban Roosts: Where Birds Nest in the City

By Barbara Bash. (1992, Little, Brown and Company, in conjunction with Sierra Club Books)

This book describes the sometime unexpected ways that birds— ranging from pigeons to peregrines, house finches to owls— have found habitats for themselves in cities. The illustrations are detailed watercolors.