

## Ecology Unit

### Book, Video, Internet Resource

### Suggestions

*The number following the author's name is how many copies are in the JMRL Library system.*

*Have fun!*

#### *Easy Reading Books:*

1. Who Eats What? food chains and food webs by Patricia Lauber (9)  
Very interesting title on food chains. Every link in a food chain is important because each living thing depends on others to survive. Great pictures and information. This is a stage #2 reading title.
2. The Magic School Bus Gets Eaten (a book about food chains) by Scholastic Productions. (10) Typical Magic Schoolhouse book. Lots of colorful pictures and information.
3. Deserts by Gail Gibbons (3) Excellent title on ecology of the desert. Very colorful pictures and information.
4. Rachel Carson, Pioneer of Ecology by Kathleen V. Kudlinski (8)  
This title is from the 'Women of our Time' series. A chapter book that would be very interesting to be read aloud as a family. Through Rachel Carson's book, The Sea Around Us, millions of people discovered the beauties and wonders of the sea, and a new concept called ecology. Her next book was even more eye opening. Silent Spring woke people up to the dangers of pesticides and launched a popular movement to control their use. A gifted scientist and writer, Rachel Carson changed the way a world of people looks at their planet. Miss Carson was very dedicated to her family as well as her studies. When her niece died and left her five-year-old son an orphan, Miss Carson took him in. She was always there to care for her mother, who was ill in her old age. Very interesting title!

#### *Step-up readers followed by more in depth reading*

1. The Story of the Earth, Desert by Lionel Bender (1)  
Very interesting information and pictures on the ecology of the desert.
2. Ecology Alert! Farming by Jane Featherstone (8)  
This title covers the many different kinds of farms all around the world, the importance of soil and how to take care of it, the difference between organic farms and factory farming, and how many people can help farming change. Great pictures and interesting reading.
3. The Young Oxford Book of Ecology by Michael Scott (7)  
How does the sun's energy end up as milk on your breakfast table? How does a migrating bird know which way is south? This title answers these and many more interesting questions as it takes us on a journey through the earth's habitats and ecosystems. Written in simple language and has beautiful illustrations.
4. Discovering Ecology by Tim Shreeve (5)  
More in depth reading on areas of ecology such as soil types, nutrient cycles, communities, succession, the ecosystem, man and ecology, etc. Contains a great deal of information.
5. Ecology, Dorling Kindersley Eyewitness Books by Steve Pollock (8)  
Discover how people have changed the world around them; find out how biodiversity is measured, and how the buffalo was saved from extinction. Great full-color photographs. Very in-depth reading on ecology. What is ecology? What are nature's producers? Food webs? Human impact on ecology today. This title is one that you could choose to read a section to your 2/3 grader if there was great interest. It would be too difficult for students to read on their own. Great pictures and information! Parental note\* this title has some evolutionary material (page 36).
6. Janice VanCleave's Ecology for Every Kid by Janice VanCleave (9)  
Great resource for activities related to ecology.
7. The Most Beautiful Roof in the World by Kathryn Lasky (10)  
This is a very unique story of a lady that makes her living by working in a rainforest. It is very interesting to hear how she spends at least five days each month in the tops of the trees researching plant and animal life. It is a very different career that she has chosen and her work is explained in detail. Great photos too!
8. Life Connections, Pioneers in Ecology by Linda Leuzzi. (2)

A very in-depth book on several famous ecologists. Chapters cover information on Alexander von Humbolt, Jacques-Yves Cousteau, E. Lucy Braun, Aldo Leopold, Ann Haven Morgan, Rachel Carson, Eugene Odum, and dF. Sherwood Rowland. This title is advanced for a 2/3 grader, but if details are desired on any of the above ecologists, it would be an excellent source to learn about these ecologists.

9. Chains, Webs & Pyramids, (the flow of energy in nature) by Laurence Pringle (1)  
Very interesting, more in depth reading. Mr. Pringle answers questions such as why dead plant material is so important in the food chain of forests, fields, and marshes. Very readable and full of great information.
10. Sounding the alarm, a biography of Rachel Carson by Judith Harlan (1)  
A more in depth title on Rachel Carson. The back of the book reads, "...this notion, that 'science' is something that belongs in a separate compartment of its own, apart from everyday life, is one that I should like to challenge..... Science...is the what, the how, and the why of everything in our experience.....  
-----Rachel Carson

*Video Suggestions:*

1. Animal Life for Children , All About Food Chains by Schlessinger Media (1)  
An excellent video about food chains. The video is 23 minutes long and answers such questions as where the energy that living things have comes from. How is the energy from the sun passed from one living thing to another? Students will look at examples of various food chains, identifying the difference between producers, consumers, and decomposers while examining the roles that they play.  
This is very well done and one that you will not want to miss!
2. Biomes of the World in Action: Deserts by Schlessinger Media (4)  
An excellent video on desert biomes. The desert is the biome with the highest temperature and the lowest rainfall. Desert soil is very poor in nutrients. There is no cloud cover over the desert which creates a high temperature during the day and a low temperature during the night. Desert animals and their adaptations are also discussed. (23 minutes long)
3. Biomes of the World in Action: Deciduous Forests by Schlessinger Media (4)  
Deciduous forests contain trees that shed their leaves and grow new ones each year. Annual rings and the story they tell, chlorophyll and how it gives color to leaves, and layers of the forest are some of the information given. Excellent video! (23 minutes long)
4. Biomes of the World in Action: Coniferous Forests by Schlessinger Media (4)  
Coniferous forests are the largest biome. Biomes are named for the most dominant plant life that is found there. Coniferous forests contain cone-bearing evergreens. Climate, precipitation, and forest fires are some of the areas covered in this title. Excellent video! (23 minutes long)
5. Biomes of the World in Action: Grasslands by Schlessinger Media (4)  
Grasslands are wide, sweeping expanses of land with many different grasses and few trees. Find out why grasslands are called the transitional biome. This title is geared toward grades 5-8 and is packed with excellent interesting information. (23 minutes long).
6. Biomes of the World in Action: Tundra by Schlessinger Media (4)  
Tundra means 'land of no trees'. This biome is cold and barren. Siberia is one example of a tundra where the temperature gets as cold as -93 degrees F. (23 minutes long)
7. Biomes of the World in Action: Rainforests by Schlessinger Media (4)  
Students will learn what factors make up a rainforest including much rain, and a canopy of evergreen trees. (please note that there is one evolutionary statement about how the earth and continents were formed) Excellent video, 23 minutes long.
8. Ecosystems for Children, all About Deserts and Grasslands by Schlessinger Media (1)  
An excellent video! The video is 23 minutes long. Deserts and grasslands are two of the world's most distinctive ecosystems, both of which have plenty of differences, but also a few things in common. Very excellent production.

(over)

9. [Ecosystems for Children, marine ecosystems by Schlessinger Media \(4\)](#)  
Marine ecosystems include coral reefs, estuaries, salt marshes and oceans and shorelines. Students will learn about the fish, plants, mammals, and insects that depend on each other for survival in this aquatic biome. (Please note that there is one evolutionary statement about how the earth and continents were formed). Excellent video, 23 minutes long.
10. [Ecosystems for Children, All About Forest Ecosystems by Schlessinger Media \(1\)](#)  
An excellent video! This video is 23 minutes long. Kids will explore the ecosystems where trees are the major plant life form. The three different types of forests found around the world (rainforests, deciduous forests and coniferous forests) and explore the plant and animal life found there. A fun, hands-on experiment illustrates why rainforest soil is so poor in nutrients, while a visit with a scientist examines one of the world's most famous predators—the boa constrictor.
11. [Ecosystems for Children, All About Water Ecosystems by Schlessinger Media \(1\)](#)  
An excellent video! This video is 23 minutes long. From a tiny puddle to a neighborhood pond to a huge ocean, there are plenty of different water ecosystems found around the world. In this video, kids will explore freshwater ecosystems such as ponds and rivers, as well as marine ecosystems like coral reefs and the open ocean. They will learn that the animal and plant life found in water ecosystems make up communities that are as complex as they are beautiful. A hands-on experiment demonstrates what happens when pollutants get into ponds and lakes, while a visit with a marine biologist examines the oyster population of the Chesapeake Bay.
12. [Plant Life for Children, All about plant and animal interdependency by Schlessinger Media \(1\)](#)  
Plants provide oxygen, food, shelter, medicine and more for all animals (and people too!). Students will learn how plants and animals interrelate. Excellent video. (23 minutes long)
13. [The Garden of Eden by the Nature Conservancy \(1\)](#)  
What are they calling the 'Garden of Eden'? There is a beautiful area in Florida that they nicknamed 'The Garden of Eden' because it is so beautiful. This is a 28-minute video from 1984 that shows how this area and the many rare species living there were saved from industrial development. I found this video intriguing, although it is a little advanced for 2/3 graders. It was incredible how they develop new antibiotics from bacteria found in soil samples. Also, it was really cool to see how they develop disease-resistant corn and improved insect repellants. There was some discouraging information given about how many species are lost due to poor land management, and the decrease of forest areas caused by building new homes and industries. This film is a little 'dated' as far as the filming goes, but the information is still valid and quite interesting, so I have included it here.

*website suggestions:*

1. <http://www.brainpop.com>  
Occasionally, there are free movies on this website. There are a number of ecology topics.
2. [http://www.ecokids.ca/pub/eco\\_info/topics/frogs/chain\\_reaction/index.cfm#](http://www.ecokids.ca/pub/eco_info/topics/frogs/chain_reaction/index.cfm#)  
This is the 'Eco Kids' website where you can put a food chain together. Very fun!
3. <http://www.vtaide.com/png/foodchains.htmhttp://www.vtaide.com/png/foodchains.htm>  
This website shows a picture and information on food webs and chains.
4. [http://www.bbc.co.uk/schools/revisewise/science/living/03b\\_act.shtml](http://www.bbc.co.uk/schools/revisewise/science/living/03b_act.shtml)  
This is 'revisewise science website'. There is a great animated program to differentiate between producers and consumers and a food chain.
5. [http://www.bbc.co.uk/apps/iftl/schools/gigaquiz?path=ks2revisewise/03b\\_test&infile=03b\\_test](http://www.bbc.co.uk/apps/iftl/schools/gigaquiz?path=ks2revisewise/03b_test&infile=03b_test)  
Excellent test to test student's skills on food chains.