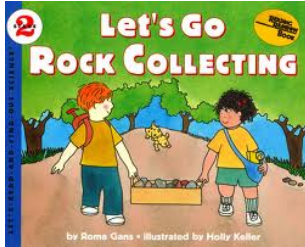


First Grade Rocks and Soil Resource List

Books:

Let's Go Rock Collecting by Roma Gans (1997)

Describes the formation and characteristics of igneous, metamorphic, and sedimentary rocks and how to recognize and collect them. Includes drawings and photographs.

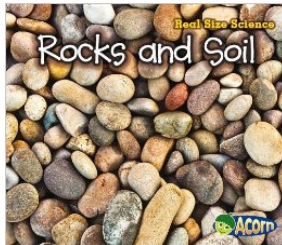


Guided Reading Level: P

32 Pages

Rocks and Soil by Rebecca Rissman (2013)

Utilizes real-size photographs to teach young learners about different types of rocks and soil. Instead of using words alone to explain the appearance and composition of different types of rocks and soil, this book conveys information with accurately-sized photographs. Simple, leveled text helps readers access this information and build vocabulary.

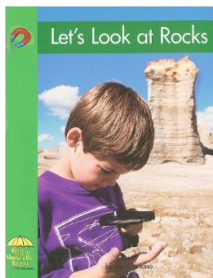


Guided Reading Level: I

24 Pages

Let's Look at Rocks by Jeri Cipriano (2004)

A simple introduction to rocks, where they are found, and how they are used.

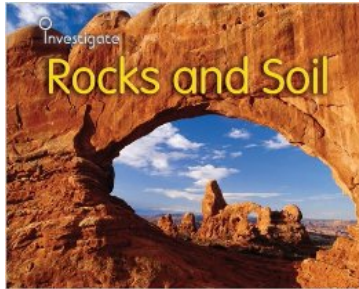


Guided Reading: I

17 Pages

Investigate Rocks and Soil by Charlotte Guillian (2008)

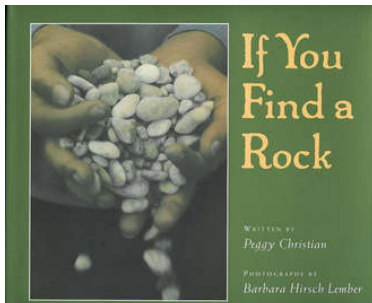
What is sand made of? What is erosion? What is clay used to make? 'Investigate' encourages science enquiry with an interactive, investigative, and visual approach to a wide range of core curriculum topics. The format allows students to use scientific processes such as prediction, hypothesis, and inference in answering a series of questions on important topics throughout the book.



Guided Reading: J
32 Pages

If You Find a Rock by Peggy Christian (2008)

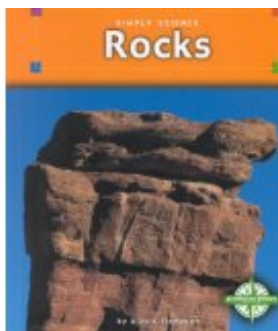
Celebrates a variety of rocks that can be found, including skipping rocks, chalk rocks, and splashing rocks.



Guided Reading Level: O
32 Pages

Simply Science: Rocks by Alice K. Flanagan (2001)

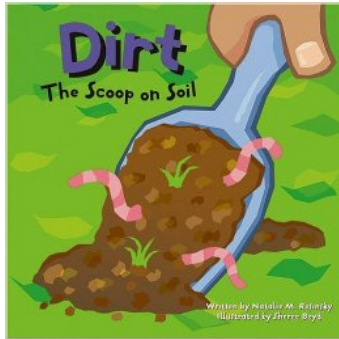
A brief introduction to types of rocks on earth and how they are formed.



Guided Reading: N
32 Pages

Dirt: The Scoop on Soil by Natalie M. Rasinsky (2002)

Discusses the nature, uses, and importance of soil and the many forms of life that it supports.

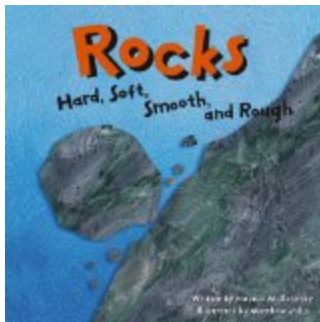


Guided Reading: M

24 Pages

Rocks: Hard, Soft, Smooth and Rough by Natalie M. Rosinsky (2003)

The rocks you see everyday can be grouped into different types, like igneous, sedimentary, or metamorphic. Some rocks are actually minerals, and you can even find fossils in some types of rocks.

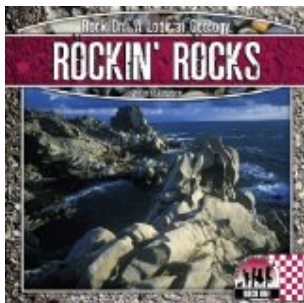


Guided Reading: N

24 Pages

Rockin' Rocks by Christine Peterson (2010)

An introduction to geology that uses full-color photographs and easy-to-read text to describe how rocks are formed, the main components of rocks, rock layers, and the rock cycle; and includes instructions for a related activity.

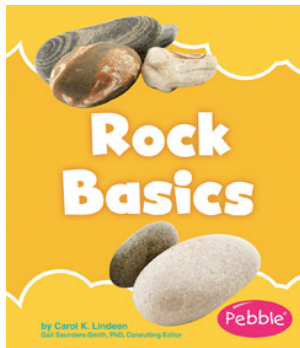


Guided Reading: N

32 Pages

Rock Basics by Carol K. Lindeen (2008)

Text and photographs introduce rocks and some of their sizes, shapes, and uses.

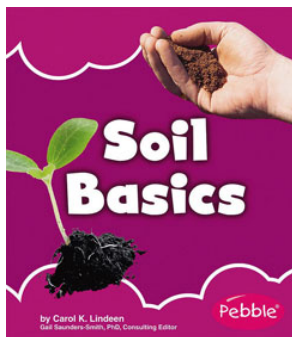


Guided Reading: J

24 Pages

Soil Basics by Carol K. Lindeen (2008)

Text and photographs introduce soil including what it's made of and some of the different types of soil.

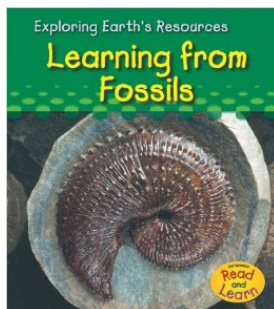


Guided Reading: J

24 Pages

Learning From Fossils by Sharon Katz Cooper (2007)

This book answers the questions: What is a fossil? How are fossils formed? Are all fossils dinosaurs? Where do we find fossils? What can we learn from fossils? Who studies fossils? How do scientists collect fossils? It also includes an activity about fossils.

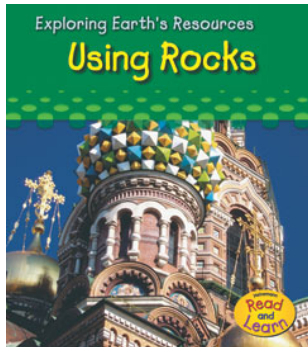


Guided Reading: K

24 Pages

Using Rocks by Sharon Katz Cooper (2007)

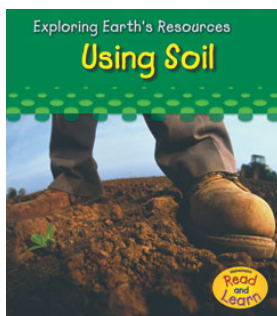
This book answers the questions: What is the Earth made of? Where do rocks come from? What are rocks made of? Where do we find rocks? How do we use rocks? Who studies rocks? It also includes an activity about rocks.



Guided Reading: K
24 Pages

Using Soil by Sharon Katz Cooper (2007)

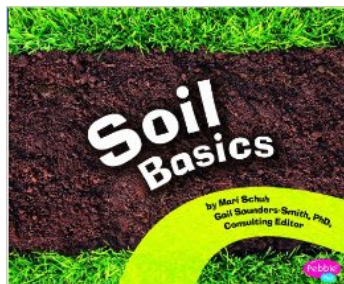
This book answers the questions: What is soil? What is soil made of? Is all soil the same? How do we use soil? Will we ever run out of soil? Who studies soil? It also includes an activity about soil.



Guided Reading: K
24 Pages

Soil Basics by Marie Schuh (2008)

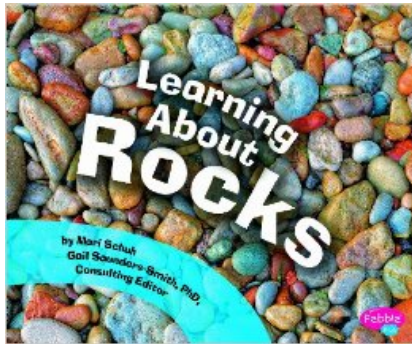
Describes what soil is made of, different kinds of soil, and how things live and grow in soil.



Guided Reading: J
24 Pages

Learning About Rocks by Marie Schuh (2012)

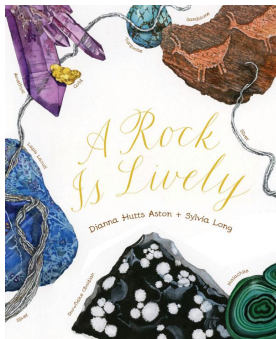
An introduction to rocks that discusses how they form, what the different kinds of rocks are, how rock forms change, and other related topics.



Guided Reading: L
24 Pages

A Rock is Lively by Dianne Hutts Aston (2012)

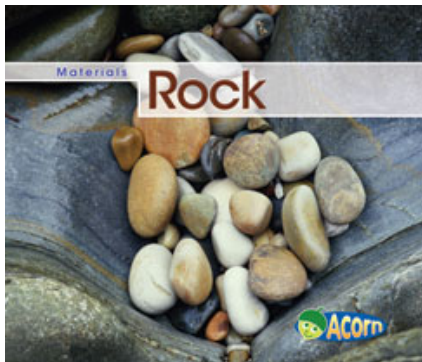
Introduces young readers to rocks and minerals.



Guided Reading: n/a
40 Pages

Rock (Materials Series) by Cassie Mayer (2009)

Learn where rocks can be found, how rocks can look, and the different ways rocks are used.



Guided Reading: E
24 Pages

Soil (Materials Series) by Cassie Mayer (2009)

Learn what soil is, where it is found, and the different things it is made of. Readers also learn about the uses for soil, and the role it plays in nature.



Guided Reading: D

24 Pages

Dirt by Ellen Lawrence (2013)

Includes bibliographical references (p. 24) and index. Contains step-by-step, illustrated instructions for experiments and activities involving principles pertaining to dirt.

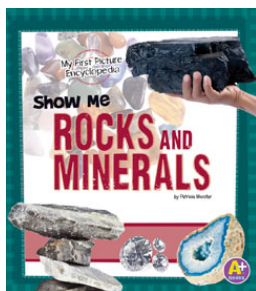


Guided Reading: O

24 Pages

Show Me Rocks and Minerals: A First Picture Encyclopedia by Patricia Wooster (2014)

From molten lava to glittering crystals, there's so much to learn about rocks and minerals. Show Me Rocks and Minerals has more than 100 facts and definitions about these amazing substances.



Guided Reading: K

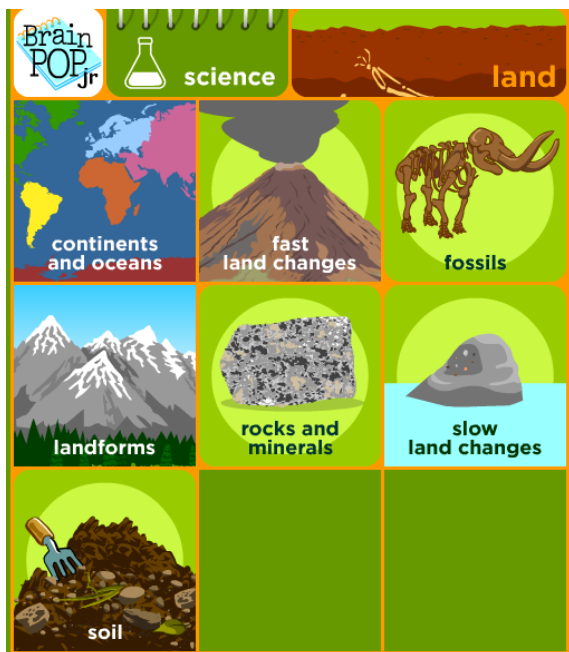
32 Pages

Electronic Resources

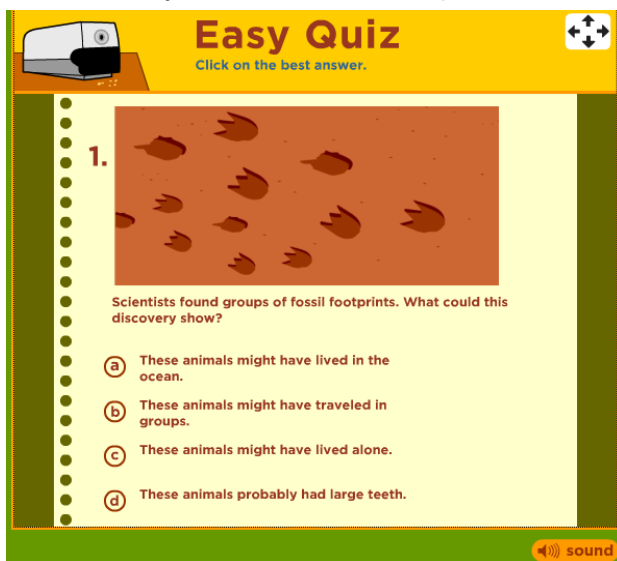
Databases: (To access these databases remotely, ask your librarian for your school's username and password.)

Brainpop Jr.: *Brainpop, Jr. is a database that provides a 3-6 minute video on informational topics followed by a comprehension quiz. The database includes activities and lesson plans as well. It is geared towards grades K-3.*

This selection of videos is offered which align with first grade science standards:

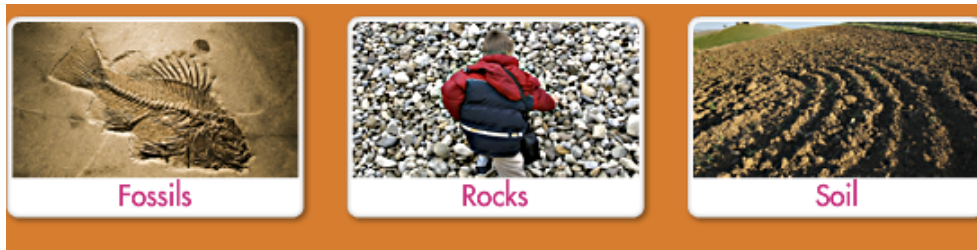


Two different online quizzes are offered after each video to check for understanding. They are entitled “Easy” and “Hard” with 5 questions each.



Pebble Go! *Pebble Go is a database that includes non-fiction books, videos and activities. The target audience for Pebble Go is Kindergarten through 3rd grade, however Pebble Go can be a great way to pique interest in a topic for 4th and 5th graders. Each book is 5 pages long and includes a read-aloud button that highlights each word as it reads aloud. There are often one or two very short videos on the topic embedded within each book.*

Pebble Go offers these books on Rocks and Soil:



You can find Fossils, Rocks and Soil by Clicking on “Earth and Space,” “Earth Science,” and “Earth Features.”

A screenshot of the Pebble Go interface for the 'Soil' book. At the top, there is a navigation bar with a 'Back' button, a 'Earth Science' button, and an 'Earth Features' button. The main title 'Soil' is prominently displayed. Below the title, there are four yellow buttons: 'What Is It?', 'How Soil Forms', 'Soil Layers', and 'What Soil Does', with 'Fun Soil Facts' also visible. A speaker icon indicates an audio feature. To the right, there are two 'Video' buttons labeled '1' and '2'. The main text area contains the following text: 'Soil covers much of the land on Earth. It is made of air, water, minerals, and waste from plants and animals. Some soil minerals are sand, clay, and silt. Soil is also called dirt or earth.' To the right of the text is a photograph of two carrots growing in dark soil. A 'Print This' button is located at the bottom right of the text area.

These two books on Earth Scientists also apply:

A screenshot of the Pebble Go interface for the 'Earth Scientists' book. At the top, there is a navigation bar with a 'Back' button, a 'Earth Science' button, and the main title 'Earth Scientists'. Below the title, there are two book covers. The first cover shows a geologist in a blue jacket kneeling and examining rocks, labeled 'Geologists'. The second cover shows a paleontologist in a green jacket and white gloves examining a fossil, labeled 'Paleontologists'.

TrueFlix: Trueflix is a database that includes non-fiction electronic books. Within each selected book you will find a 3-6 minute informational video on the subject, and a list of recommended websites.

Click on Earth Science Section -
E-Book "Geology: The Study of Rocks"

- *Explore More* Section leads you to articles on rocks within Grolier Encyclopedia including: Erosion, Plate Tectonics, Rock Layers, and Rocks, Minerals and Fossils
- *Activity* Section includes a Word Match activity with key words from the text

World Book Web:

The World Book Web is a suite of online research tools that includes encyclopedia articles, primary source collections, educator tools, student activities, pictures, audio, and video, complemented by current periodicals and related Web sites. Most all of these World Book Web research tools include options where text can be read aloud to the user. All Ithaca elementary school libraries currently subscribe to **Worldbook Kids**, **Worldbook Student**, **Worldbook Discover**, **Worldbook Timelines** and **Worldbook Classroom: Early World of Learning**. For specific training in how to use these amazing tools consult Worldbook's training website or ask your school's librarian. <http://www.worldbookonline.com/training/>

Worldbook Kids has an article called "Rock" which aligns with Next Generation Science Standards for 1st Grade. You can use this link to access the article on rock: <http://www.worldbookonline.com/kids/article?id=ar831857> OR you can simply type "rocks" in World Book Kids and choose the first article.

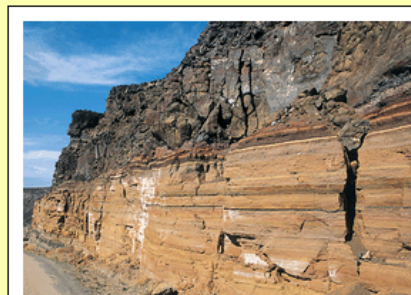
Rock

Rock is a hard, solid material that makes up part of Earth. In many places, the rock is covered by a layer of soil in which plants or trees may grow. Soil is made up of tiny bits of rocks mixed with materials from dead plants and animals. Rock also lies under the oceans.

Where highways cut through hills, you can often see layers of rock in the hillsides. Many rivers cut through rock to form canyons. Great cliffs of rock line the seashore in such places as the state of Maine and the country of Norway. In desert regions, cliffs and towers of rock may rise high above the sandy plains.

Types of rocks

Most rocks are made up of one or more minerals. The three main kinds of rocks are *igneous* <<IHG nee uhs>> rocks, *sedimentary* <<SEHD uh MEHN tuh ree>> rocks, and *metamorphic* <<meht uh MAWRF ihk>> rocks.



Picture

Layers of basalt, a kind of rock, can be seen where a road was cut through the side of a hill.

Igneous rocks start out as melted rock, called magma, deep

Other related articles include:

For more information, see these articles:

- [Aluminum](#)
- [Chalk](#)
- [Coal](#)
- [Copper](#)
- [Coral](#)
- [Fossil](#)
- [Gem](#)
- [Geology](#)
- [Gold](#)
- [Iron and steel](#)
- [Lead](#)
- [Marble](#)
- [Silver](#)
- [Soil](#)
- [Tin](#)

The “Fossil” article contains a 2 minute video entitled “How is a Fossil Formed?”

Fossil

A fossil is the remains of a living thing that died long ago. A fossil can be thousands or millions of years old. Fossils help scientists learn about plants and animals that lived in the past. Most of those living things became *extinct*—that is, they died off completely—long ago. Fossils are one of the main ways that scientists learn about prehistoric life.



Some fossils are the skeletons of animals. The skeletons were preserved because they were turned to stone. Fossils form in this way when stony substances called *minerals* are carried into the bones by water. The minerals slowly replace the bone. Stony fossils can survive for many millions of years. Some stony fossils are more than 500 million years old.



Picture

[Fossil in rock](#)

Fossils of wood and plant matter can form in a similar way. The minerals slowly replace the wood. Large areas of fossilized trees are known as *petrified forests*. Some petrified forests are more than 200 million years old.

Other fossils are marks called *impressions*. These fossils preserve the outline of a living thing. Impressions form after a living thing dies in mud and is covered. Over



Websites:

Kids Love Rocks

This educational site is a resource for young rock and mineral collectors and hobbyists. Learn about rocks, minerals, and everything related to the earth.

<http://www.kidsloverocks.com>

Find Earth Minerals Activity

Look around the picture and find eight things made of Earth minerals.

<http://archive.fossweb.com/modulesK-2/PebblesSandandSilt/activities/findearthmaterials.swf>

How Fossils Form

E-Book discussing the formation of fossils by Harcourt School Publishers.

http://www.harcourtschool.com/activity/science_up_close/207/deploy/interface.swf

The Rock Cycle

E-Book discussing the rock cycle by Harcourt School Publishers.

http://www.harcourtschool.com/activity/science_up_close/506/deploy/interface.swf

Different Textures

E-Book discussing different textures of rocks by Harcourt School Publishers.

http://www.harcourtschool.com/activity/science_up_close/201/deploy/interface.swf

Interactives Rock Cycle

Discover rock secrets through these activities. Create a rock collection as you learn about the three main types of rock, find out how to tell the different rock types apart, and see how rocks change from one type into another.

<http://www.learner.org/interactives/rockcycle/index.html>

Exploring Fossils and the Fossil Record

<http://www.e-learningforkids.org/science/lesson/exploring-fossils-and-fossil-records/>

Fossil Facts and Finds

<http://www.fossils-facts-and-finds.com/>

This Web site inspires teachers, homeschoolers, and students to find out about fossils, the remains of extinct animals and plants. It offers teaching tips and lesson plans, articles, definitions, fun activities, tips on collecting fossils, and resources

iPad apps:

easyLearn Rocks and Minerals - by Anu Vasuki

Cost: \$2.99

An interactive app for kids to learn about various rocks and minerals found on Earth. Real photographs, simple facts and quizzes.

Rocks HD - by Sprout Labs, LLC

Cost: \$2.99

A multi-sensory exploration of topics such as the rock cycle, various types of rocks and their geology, minerals and excavation, soil types and horizons, weathering and erosion, formation of fossils and various types of fossils.

Dino Digger - by TegTap, LLC

Cost: \$1.99

Dig up dinosaur bones, build them into interactive 3D skeletons and even bring your dino bones to life. Includes 18 different dinosaur skeletons to dig up with facts and info about each dinosaur.

DinosaurDays - by Distant Train

Cost: Free

An animated look at dinosaurs, fossils and the study of paleontology.