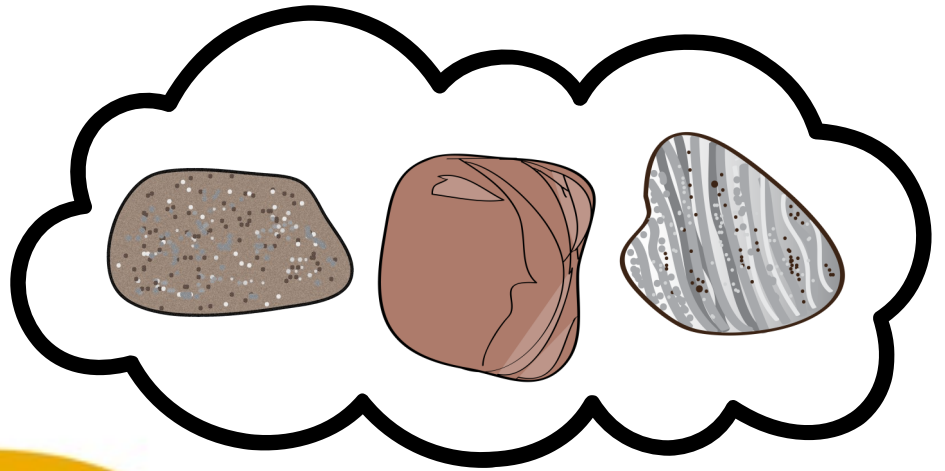


Rocks in His Head



Unit & Lapbook

Rocks in His Head Unit Study & Lapbook

Book by Carol Otis Hurst

Unit study prepared by Celia Hartmann

BIBLE / CHARACTER

Jesus is the ROCK: 1 Corinthians 10:4 tells us that Jesus is our rock. Matthew 7 and Luke 6 talk about the house built upon the rock that was not moved. Why would God, in His Word, choose to compare Jesus to a rock? If we build our lives around Jesus, then we have firm foundation for our lives and it will still be standing after the storms of life. What happens if we don't build our lives on a rock?

✂ Complete Bible Verse Matchbook

Research Ideas: Research gems, minerals, and stones found in the Bible. Some ideas:

The breastplate of Aaron (Exodus 39:10-14)

The gems in the foundation stones of the New Jerusalem (Revelation 21:19-20)

SOCIAL STUDIES

Geography -- Springfield, Massachusetts: The city of Springfield sits on the Connecticut River near the border of Massachusetts and Connecticut. It is the third largest city in Massachusetts. Over 30 states have a place called Springfield. Springfield, Massachusetts has the distinction of being the first to have that name. It was founded in 1636 by William Pynchon, who named it after the village in England where he was born. The town was half-destroyed forty years later during King Philip's War. In 1936, the city was flooded by the Connecticut River, which reached record heights. This was during The Great Depression. The city is known as the birthplace of basketball, as James Naismith invented the sport there in 1891. It was also the birthplace of writer Dr. Seuss (Theodor Seuss Geisel).

[Source](#)

✕ Complete the Massachusetts Fast Facts Flapbook and add it to your lapbook

Hobbies and Collections: A hobby is something that someone enjoys doing in their spare time. Some people collect things (rocks, sea shells, coins, stamps, bells, dolls, etc.), while others pursue a sports activity (golf, horseback riding, etc.) or do something artistic (painting, making crafts, play music). If your student or someone in your family has a hobby or collection, discuss why that person chose that as a hobby. Be sure to discuss if anyone's hobby is related to their career choice.

Occupations: This story allows for discussion of several occupations, including gas/filling station owner, mechanic, janitor, director, mineralogist, curator.

History -- Henry Ford and the Model T: Henry Ford was born July 30, 1863 in Dearborn, Michigan. His family farmed. From early on, he did not care for farm work but instead enjoyed tinkering with the machines. He loved to take apart everything so he could understand how it worked. He became quite good at repairing machines that ran by steam and at repairing watches.

When he was 16, he left home, moved to Detroit, and began work as a machinist apprentice. He apprenticed for three years and returned to Dearborn. After that, he worked on steam engines and his father's farm equipment, supplementing his income by working in a factory in Detroit. In 1888, Henry married Clara Bryant and ran a sawmill to provide a steady income.

In 1891, Henry became an engineer with the Edison Illuminating Company in Detroit. Finally, he was able to pursue what he loved--working with machines. Just two years later, he was promoted to Chief Engineer. At this time, he began experiments on internal combustion engines. (Less than 10 years earlier, the first car with an internal combustion engine had been built, and Henry realized this was the future of automobiles.) This experimenting led to the creation of the Quadricycle. Look up a picture of it. It doesn't look like much of a car does it?! It was called a Quadricycle because it ran on four bicycle-like tires. It was not the first automobile to have been built in the world, but it was Henry's first and it created a desire to make more.

At that time in history, automobiles were very expensive to buy, and so only the

very rich could afford one. In 1903, Henry Ford created the Ford Motor Company. He proclaimed "I will build a car for the great multitude." Five years later, in October 1908, his dream came true. He introduced the Model T that was not only reasonably priced, but was also easy to operate, reliable, and efficient. It began a new era of personal transportation: the Motor Age.

In the beginning, the cost of a Model T was \$950. That was a lot of money to folks back then, but it was far less than the price of the other cars. Despite the low cost, Henry Ford strived to produce the car quicker and with standard parts so that the cost could be lowered. Early on it took over 12 hours to make a car, but in just six years he was able to cut the production time down to 1.5 hours. The Model T was produced for 19 years, until May 1927. Before that time period ended, Henry Ford's company was able to make a Model T every 24 seconds and the price of the car was reduced to \$280.

Henry was able to do this by using techniques that allowed for mass production. The Ford Motor Company was the first to use a conveyor belt-based assembly line to make the production process more efficient. This allowed workers to be quicker: each worker put on a section of the car before it moved to the next worker to receive another. Henry paid higher wages to his employees, \$5 per day, which almost double what other car manufacturers paid! Workers who were paid more than average were more loyal to the company and less likely to quit their job. By cutting the work day from 9 to 8 hours, Henry operated his factory 24 hours a day using three shifts of workers.

By 1918, half of all the cars in America were Model Ts.

His ideas for mass production continue today in all areas of business, and the Ford Motor Company continues to make automobiles today. (Sources: TheHenryFord.org and [About.com's Inventors](http://About.com's%20Inventors) and [The Ford Motor Company](http://TheFordMotorCompany.com).)

✂ Help your student write a paragraph or report about Henry Ford, and store it in the pocket provided.

History -- Stock Market Crash & The Great Depression: The Stock Market Crash of October 29, 1929 was one event that helped trigger The Great Depression. A stock exchange is a place where company stocks are bought, sold, or traded.

A company needs money and things to start and to continue operating. One way to get money is to sell "shares of stock" in the company. The company finds people to invest money in it. They give the company money to start/operate and then they own a share of the company. If the company does well, then their share of the company's stock is worth more than what they initially invested. If they sell their share, then they get more money back than they first put into it and they have extra money. But the opposite is also true...if the company does NOT do well, then their share becomes worth less than what they initially invested. If the company continues to not do well, then an investor might sell his stock before it becomes worth very little. This means he will not get back all the money he first put into it.

Most stocks are bought and sold using a stock exchange. During the 1920s, the most important stock exchange was the New York Stock Exchange in Manhattan, New York. During the 1920s, the stock market did very well. Many people purchased stocks and the value of the companies increased. Between 1920 and 1929, the value of stocks quadrupled. That means if a person invested \$1 in 1920, then in 1929 it was worth \$4. People thought this was a great way to make money and so they borrowed from banks so they could invest even more money in the stock market.

Then the stock values began to fall and on October 24, 1929, a day that has become known as Black Thursday, people began to panic that the value would continue to fall and so many of them sold their stocks. Over the weekend, still more people panicked at the thought that their stocks would soon become totally worthless and they decided to sell as soon as the stock exchange opened on Monday, October 28. They did so and the day has become known as Black Monday. Almost 13 million stocks were sold that day. This made the value of the remaining shares in the stock market fall even more. The next day, October 29--Black Tuesday--was even worse--over 16 million shares were sold. One month later, the market had fallen by almost 40%, a value of \$100 billion. Over the next few years, the market continued to decline, though not as quickly as these three "Black" days. By mid-1932, the market had lost almost 90% of its value. It took over 20 years for the stock market to recover.

Many banks went out of business. People who had money in those banks lost it. Those who had lost money in the stock market also lost the money in their bank

accounts and also could not pay back what they had borrowed. People were unable buy as much food or clothing, and they did not have money to buy extras like cars. Because there was less items being purchased, companies began to close and people lost their jobs. Those without jobs could not afford to buy even the necessities. To make matters worse, during the early 1930s, the Midwestern United States experienced a severe drought that become known as the Dust Bowl. Farmers were not able to produce food to sell. Many lost their farms. This time period that followed the stock market crash is known as the Great Depression.

The Great Depression did not just affect America, but much of Europe too. It was a time of no work, little food, etc. Prices of necessities were high and the money families had was low. People learned to make do with whatever they had or to use old things in new ways.

It was not until the United States entered WWII at the end of 1941 that the Depression ended in America.

Sources: [PBS' Stock Market Crash](#) [About.com 1929 Stock Market Crash](#)

✂ Add important information to the Stock Market Crash simple fold book

History -- Chess: No one is sure where or when the game of chess originated. Many centuries ago, it was played in China, India, and Persia. When the Moors (Arabs) invaded Persia, they learned the game. Later the Moors invaded Spain, and then the Spaniards began playing it as well. From Spain, it spread throughout Europe. The Europeans changed some of the rules of the game and also changed the pieces to reflect their life. If your child has already studied Medieval Europe, he may recognize: pawns represented the serfs, the rooks are castles, the bishop represents the church, and then of course there are knights, queens, and kings.

[Source](#)

LANGUAGE ARTS

Idioms: The phrase "rocks in his head" is an idiom. An idiom is an expression or phrase that does not mean exactly what it says. All cultures use idioms. Explain to your student that to say that someone has rocks in their head, does not literally

mean that there are rocks inside of his head. It means that someone thinks the other person (the one with "rocks in their head") must be really dumb.

Repetition: A few phrases in this book are repeated several times. After a reading (or two) can your student tell you what they are?

1. When someone comments on the fact that he must have "rocks in his head," the man replies, "Maybe I have."
2. Sometimes after the above comment, and other times, he pulls a rock out of his pocket and says, "Take a look at this one."

Discuss with your student why the author would use these repetitive phrases. What is she trying to tell us/show us about the main character? What can we infer?

If you've completed the lesson on idioms, remind your student what it meant when someone said, "You've got rocks in your head!" Instead of being offended, this rock-loving character responded with, "Maybe I have." We learn that he was always thinking about rocks.

We also learn (by repetition of the second phrase-- "Take a look at this one.") that he always had rocks in his pockets! He loved rocks. I mean he really loved rocks, and he was excited to show others his precious rocks. Relate this to your student by talking about things that we carry around with us (photos in a wallet, a wedding ring, etc.). Does your student carry something around that he loves?

These phrases become a familiar and integral part of the story. They help develop the character. At the climax of the story, these phrases are brought back into play. Mrs. Johnson and the board of directors realize that they don't need someone to work at the museum who has a college degree. They need someone who has rocks in his head and rocks in his pockets...someone who LOVES rocks! Then, for one final hurrah, the writer pulls the end of the story together by using a form of the repetition again-- "Maybe I am....maybe I am." and "Take a look at this one."

✕ Complete the Repetition Pull-tab book

Careful Labeling: A couple times in the story, it mentions how the man carefully

labeled the rocks. Why is it important to label things carefully and correctly? It makes things easier to find. It makes it easier to remember details. Discuss any of your child's reasoning. Discuss too the labeling of things that are not rocks and what happens if it is not labeled correctly. What happens if a pharmacist labels things wrong? Or a doctor puts the wrong name on a chart? What if the salt gets labeled as pepper?

If you do not have a rock collection that you can carefully label this week, gather up some of your student's small toys. Sort them into groups, give him small containers to put them in, and have him label them: cars, balls, blocks, etc. Arrange them on a shelf and point out how easy it is to find just what you want--and how easy it will be for him to put his toys away.

Synonyms: Ask your student to write down synonyms for the word *rock*. Boulder, stone, pebble, gravel, sand, etc. are possible answers. Have him illustrate each one. Note that although all are words that mean rock, they conjure up different images. Discuss how using a more precise synonym instead of a basic word can help give the reader a more precise image.

✂ Complete the Synonyms Window book

Vocabulary: Review any words from the story that your student may not already know. These might include:

quarries (singular=quarry): A large open-air pit where sandstone, marble, slate is made, often by cutting or blasting the rock material to the shape desired.

slag: Metal is often mixed in with non-metal material in a rock. Slag is the non-metal material left after being separated from the metal. Slag is can be used in road paving material and cement.

garnet: a hard, glassy mineral that is used as gemstone. Usually a deep red in color, but comes in a multitude of colors. In the past it was said that garnets come in all colors, except blue. That changed in 1990 when blue garnets were discovered in Madagascar. They have since been discovered other places as well, but the blue garnet is extremely rare and very valuable.

stock market: Defined in the history lesson.

mineral: Defined in the science lesson.

attic: the part of the house or building that is directly under the roof.

mineralogist: a person who studies minerals.

janitor: the caretaker of a building who cleans and makes small repairs; a custodian.

curator: a person who manages or oversees a collection at a museum.

mineralogy: the science or study of minerals

✂ Complete the vocabulary book for your lapbook.

ART

Medium: In art, the medium is the material that the artist used to draw or paint the picture. In this story, illustrator James Stevenson used two media. For his drawing medium, he used ink and for the paint medium, he used watercolor.

MATH

Percent: Out of the hundreds of rocks in the museum, he says that only 10 or 11 are better than the specimens he has. If we assume that the museum has 200 rocks, what percent is 10? 11? What if the museum has 300 rocks?

If your student has not computed percents yet, you could turn it into a subtraction problem to practice borrowing.

SCIENCE

Rocks: A rock is "*an aggregate of one or more minerals. (A rock may also include*

organic remains and mineraloids.)" (Aggregate means that it contains a mixture of minerals. A mineraloid is similar to a mineral but does not have a crystalline structure.) The science of studying rocks is called *petrology*.

Anyone wishing to collect rocks should know the three rock groups: igneous, sedimentary, and metamorphic.

- Igneous rocks are formed from rocks that melted and then cooled. Molten rock inside the earth is called magma, above the earth it is called lava. Magma is formed deep inside the earth, where the high pressure and temperature makes the rocks melt. Magma pushes up through the earth and can be forced up through volcanoes, where the lava cools and becomes igneous rock. If the igneous rock is made from molten rock that slowly cooled within the earth, it is called intrusive, or plutonic, igneous rock. If the magma was pushed out to the surface of the earth and quickly cooled there, it is called extrusive, or volcanic, igneous rock. Most of the 700 kinds of igneous rocks are intrusive. Obsidian (also known as volcanic glass), basalt, pumice, and granite are all examples igneous rocks.

Igneous Rock Experiment: Melt some candy-making chocolate (either disks or part of a block) over low heat. Point out that the melted chocolate is like magma. Pour some of the chocolate into a candy mold. (If you don't have a candy mold, you could use one of the thin, flexible ice cube trays or possibly just a few paper mini cupcake liners that can be peeled off the candy.) Allow candy to harden (placing in the refrigerator or freezer will quicken the process, although this may cause white streaks in the candy that will not affect the taste). Remove the candies from mold and discuss how this now-solid chocolate candy is like igneous rocks.

Research Idea: Have your student research to learn more about the 5 kinds of igneous rocks (granite, diorite, gabbro, periodotite, and pegmatite) and the differences between them (the minerals from which they were made).

- Sedimentary rocks are usually small pieces of rocks (called sediments) that become cemented together. As the wind and rains erode (break off pieces) rock, the small pieces drop in a layer of other sediments. These layers of tiny bits of rock become cemented together over time and are then called sedimentary rock. Most sediments are put down by water. Think of the sand

at the beach. Sandstone, limestone, and shale are kinds of sedimentary rocks.

Experiment #1: (Works best if you do first thing in the morning, so you have several hours to observe.) Take a see-through bottle (the glass bottles of Lipton tea work well, an applesauce or salsa jar would work too) and have your student place inside various sized rocks (get a variety of whatever will fit into the mouth of the jar). Add some soil and a bits of mulch if you have any. All of these items should fill your jar no more than half way full. Add water so that the jar is about 3/4 full. Place lid on jar and close tightly. Now have the student shake the jar several times. Place the jar in a place that can be easily observed. Note that at first the jar is very dark and cloudy. Over several hours your student will observe how first the larger rocks settle on the bottom, then the smaller rocks, then the bits of mulch and soil and eventually the water becomes clear again. Be sure to check it several times over the course of about 24 hours and have your student write his observations.

Experiment #2: (Works best if you freeze a Snickers bar for several hours or the night before.) Take a Snickers bar and break it in half. Point out the different layers, they are made of different size items. This is similar to sedimentary rock.

Experiment #3: Have your student layer peanut butter between graham crackers, keep layering until it is three or four graham crackers high. Discuss how the layers are like sedimentary rock. To make the layers more visible, use both regular and chocolate graham crackers and use some chunky peanut butter for one of the layers.

Research idea: Have your student research to learn about the 6 main kinds of sedimentary rocks (conglomerate, sandstone, shale, limestone, gypsum, prophyry rock) and the difference between them (their appearance).

- Metamorphic rocks are rocks that have been changed by pressure or heat (but not melted). Sedimentary, igneous, or even older metamorphic rock that changes due to heat or pressure becomes a metamorphic rock. If your student has studied butterflies, he may remember the word metamorphosis means "to change." Examples of metamorphic rock include marble, slate, gneiss (pronounced 'nice'), and schist. Gneiss was once granite (an igneous rock). Slate was once shale (a sedimentary rock).

Experiment #1: Make Rice Krispies Treats. As you are doing so, talk about the different ingredients, comparing them to different kinds of rocks. Point out how the marshmallows and butter change forms once heat is applied. Discuss how you use the wax paper (or buttered spatula) to apply pressure to the mixture. When they are done, discuss once again how metamorphic rocks change with heat and pressure--just like the treats.

Experiment #2: Take two or three pieces of different colored taffy and place between two pieces of wax paper. Have your student smash until the pieces are well-mixed together and marble-like. (We used Laffy Taffy, which is not easily pliable, and we ended up tossing the wax paper and using our hands to stretch and pull and smash!)

Research idea: Have your student research and learn about the two kinds of metamorphic rocks (foliated and non-foliated) and the difference between them (foliated has banding or layers and non-foliated does not).

✘ Complete Three Types of Rock Tab Book

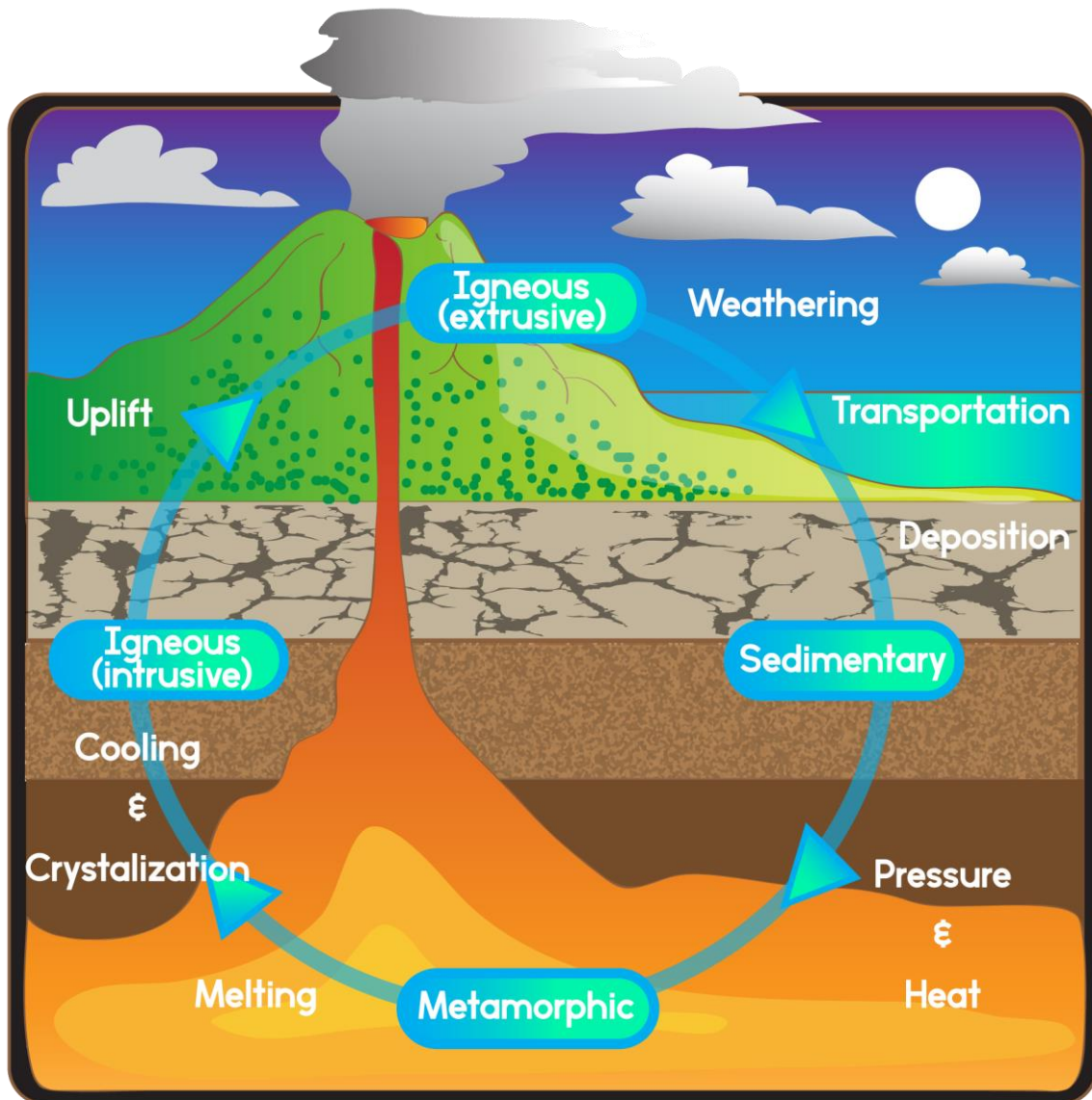
Research Idea: Within the story and again at the end, several different rocks are shown and labeled.

They are:

[Hematite](#), [Muscovite](#), [Sphalerite](#), [Garnet](#), [Fluorite](#), [Quartz](#), [Calcite](#), [Pyrite](#), [K-spar](#) (feldspar). Have your student research several of these rocks to learn more about them. Which kind of rock is it? What color is it? Where can it be found? What is it used for?

✘ Use the Rock Shape book to research these different rocks.

The Rock Cycle: Now that your student has learned about the three different kinds of rocks, he is ready to learn about the rock cycle and to review the kinds of rocks. Like the water cycle, the rock cycle is an on-going process.



The Steps of the Rock Cycle:

1. Weathering: All rocks on the earth's surface are constantly being broken down or worn into smaller pieces by wind or water. When the wind carries bits of sand in it, it breaks off pieces of rocks (has your student ever seen a sandblaster take paint off an old house?). When water rushes through a river or on the shore of a beach, tumbling the rocks over and over, rocks become rounded. When water seeps into a rock and then freezes, it sometimes cracks the rock open. All of these are examples of weathering or erosion. If wind or water wears down a rock and those pieces stay in that area, it is called *weathering*. If the wind or water wears down a rock and the pieces are carried elsewhere (usually by water but sometimes by wind), it is called *erosion*.
2. Transportation: This occurs when the wind or water carries particle elsewhere; they are transported from one place to another. This can occur too by the movement of ice and snow (glaciers and avalanches) that carry rocks.
3. Deposition: When tiny pieces of rock are carried to the end of a river or are moved by flood waters to a flood plain, the pieces mix with soil and become a layer of sediment.
4. Pressure and Heat: As the layers of sediment become thicker and thicker, the bottom layers are pressed down (compacted) and minerals act as cement. Years of this create sedimentary rock.
5. Metamorphism: As sedimentary rock or igneous rock becomes buried deep in the earth (often due to the movement of the earth's tectonic plates), the rocks become exposed to high pressure and heat, causing them to change. This changed rock is called a metamorphic rock.
6. Melted Rock: Down deep inside the earth, the metamorphic rocks become so hot that they actually melt and become magma.
7. Cooling and Crystallization: After magma has pushed out of a volcano (at which time it is called lava), it cools and hardens back into rock. This once melted rock is called igneous rock.
8. Uplift: The rock is brought to the surface where it is subject to weathering and erosion again and the cycle begins again.

✂ Complete the Rock Cycle Diagram and add it to your lapbook

Minerals: Rocks can be made of one or more minerals. Wiki defines a mineral as being a "*naturally occurring, inorganic solid with a definite chemical composition*

and a crystalline structure." Whereas, "a rock is an aggregate of one or more minerals. (A rock may also include organic remains and mineraloids.)" (Aggregate meaning that it contains a mixture of minerals. A mineraloid is similar to a mineral but does not have a crystalline structure.)

The science of studying minerals is called mineralogy. Remember? The father in our story became the Curator of Mineralogy? His job would be to determine a mineral's origin and how it was formed, as well as classifying them.

There are about 4,000 different kinds of minerals, but only about a hundred of them are common. Minerals can be broken down into three categories:

- metallic minerals: these include copper, silver, iron, nickel
- non-metallic minerals: these include graphite (pencil lead), rock salt, borax, talc
- rock-forming minerals: these minerals make up our soil and sea salt and also include mica, feldspar, garnets

✂ Complete the Minerals Layer Book and add it to your lapbook.

Research Ideas:

Research the man known as the *Father of Mineralogy*: German scientist Georg Bauer.

Research the tests used to identify a mineral (color, streak, transparency, luster, hardness, cleavage, fracture, specific gravity / density, crystal form).

Science -- Crystals:

Many things have a crystalline structure. The atoms of a crystal form in a definite, repeating pattern and so the outside that we see takes on that pattern. This repeating pattern is called a crystal.

The word 'crystal' comes from a Greek word that means clear ice. Many crystals are transparent (clear enough to see through). Crystallography is the science of forms and structures of crystals.

Using a microscope or magnifying glass, examine salt (table, rock, kosher, Epsom) and sugar (white or raw). Each are crystals.

Experiment: Grown crystals.

Add a half cup of Epsom salts to a bowl. Add a half cup of the hottest water that comes out of your tap (do NOT use boiling water!). Stir for about a minute. The mixture should go from cloudy to clear but it will still have some undissolved salt on bottom. Place in a refrigerator several hours. It will form pin-like needles that are very fragile. Take pictures and add to your lapbook/notebook. (It might be fun to repeat the experiment, but using a narrow glass. Is there any difference? Also, to make it easier to handle the needle crystals, you could try adding some of the mixture to butter bowls lids or drink lids. This will give a base by which you can pick up and examine the crystals better.)

Science -- Gems: A gemstone is a rock or mineral that is used for adornment. It has three qualities that make it a gem vs. an ordinary rock or mineral: rarity, beauty, and durability. Being rare or particularly beautiful increases the value. How durable (or hard) it is, assures that it will last a long time.

Some examples of gems are garnets, diamonds, sapphires, emeralds, and amethysts.

Research Idea: Have your student research birthstones and make a listing of each month's birthstone.

Just for Fun

Start a rock collection -- don't forget to carefully label.

Purchase a rock tumbler and allow your geologist to find the hidden beauty within rough rocks. Note: this process takes many days.

Learn to play chess!

Field Trip Ideas

- Visit a museum with a rock collection or go to a local rock shop. Or perhaps you know a rock hound that would love to show you his collection!
 - Go to an antique car show, where you might see some Model T's.
 - If you know of someone who has a small engine repair shop, set up a time to visit and ask the person to show you all the different parts of an engine or appliance. Maybe they will even allow your student to try to put it back together again!
-

Library List

Rocks and Minerals (Reader's Digest Pathfinders) by Tracy Staedter. Large and colorful!

Rocks and Minerals (DK Smithsonian Handbooks) by Chris Pellant. Colorful, close-up pictures. Excellent field guide.

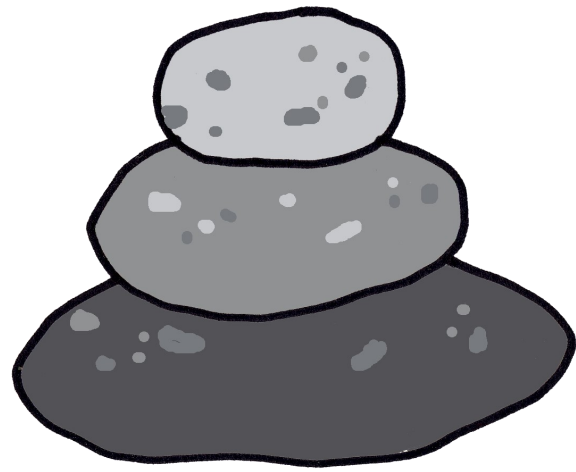
Looking for Diamonds by Brenda Seabrooke. In this beautiful picture book, Amy visits her grandparents who live in the country. She takes morning walks with Granddaddy and "*they always look for diamonds, that special moment when the sun caught fire in a drop of water and glittered with color.*" While this book is not about rocks, it is a beautiful picture book and if you read it after you've talked about rocks, gems, and minerals awhile, your child just might recognize these that are mentioned: [talcum](#), [coal](#), [quartz](#), [moss agate](#), [ruby](#), [emerald](#), [sapphire](#), and [topaz](#).

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Directions: Cut on the solid black lines, removing gray areas next to tabs. Stack tab book in order with cover on top and staple on the left side.

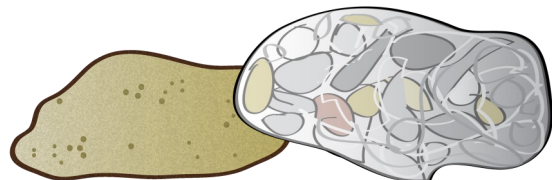
Three Types of Rock



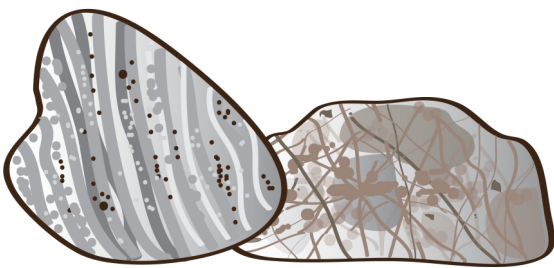
Igneous



Sedimentary



Metamorphic



Directions: Cut out rock shapes. Complete research. Stack together with cover on top and staple to secure.

Rocks, Minerals, and Gemstones

Name: _____

Type of Rock: _____

Color: _____

Location: _____

Uses: _____

Type of Rock:

Name: _____

Type of Rock: _____

Color: _____

Location: _____

Uses: _____

Name: _____

Type of Rock: _____

Color: _____

Location: _____

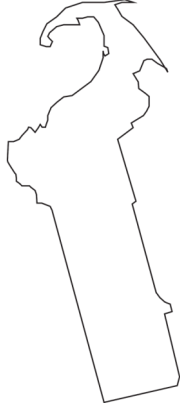
Uses: _____

Directions: Cut out book as one piece. Fold outer flaps in. Fold book in half with cover on top. Open book. Cut on dotted lines to form eight flaps.

State Abbreviation	State Capitol
Area	Largest City
Population	Major Industries
Highest Point	Bordering States

Massachusetts

Fast Facts



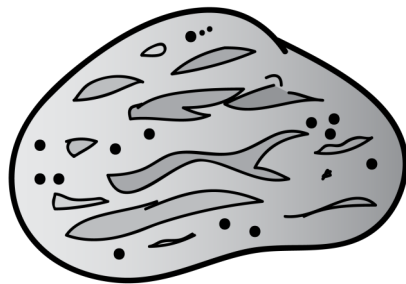
Directions: Complete the diagram (using the one provided within the unit study). Paste into your lapbook.

The Rock Cycle



Directions: Cut out book. Fold on lines (matchbook style).

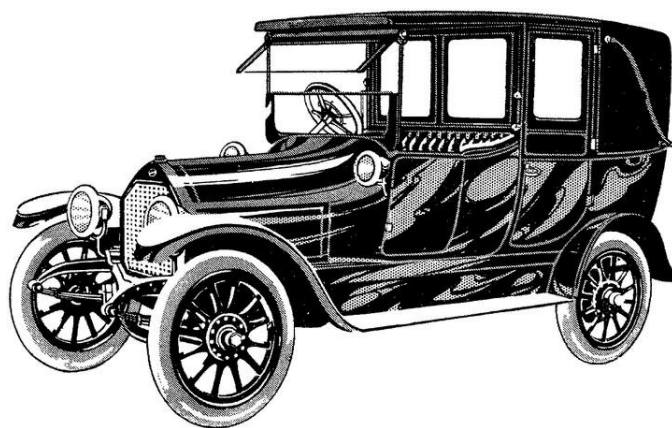
the Rock



Jesus Is

Directions: Cut out pocket as one piece. Fold back flap up and wrap side flaps around the back and glue down. Glue the back of your pocket into your lapbook. Store your Henry Ford report in the pocket.

Henry Ford



Henry Ford



Born:

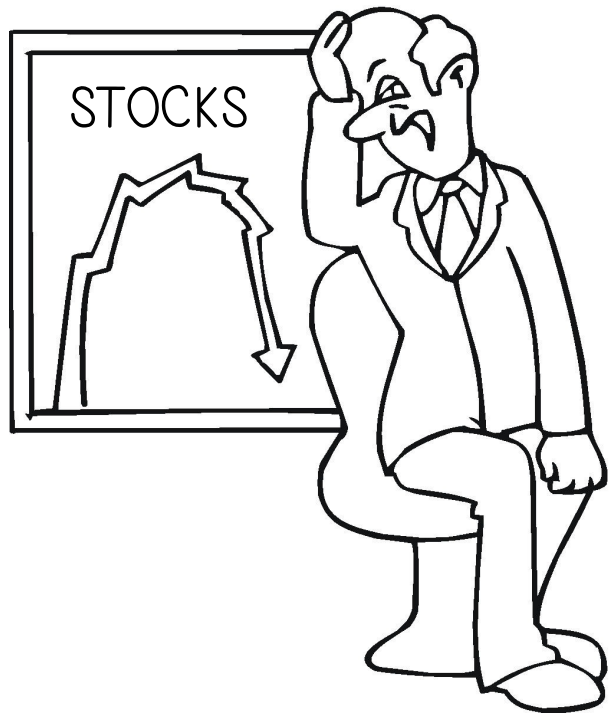
Died:

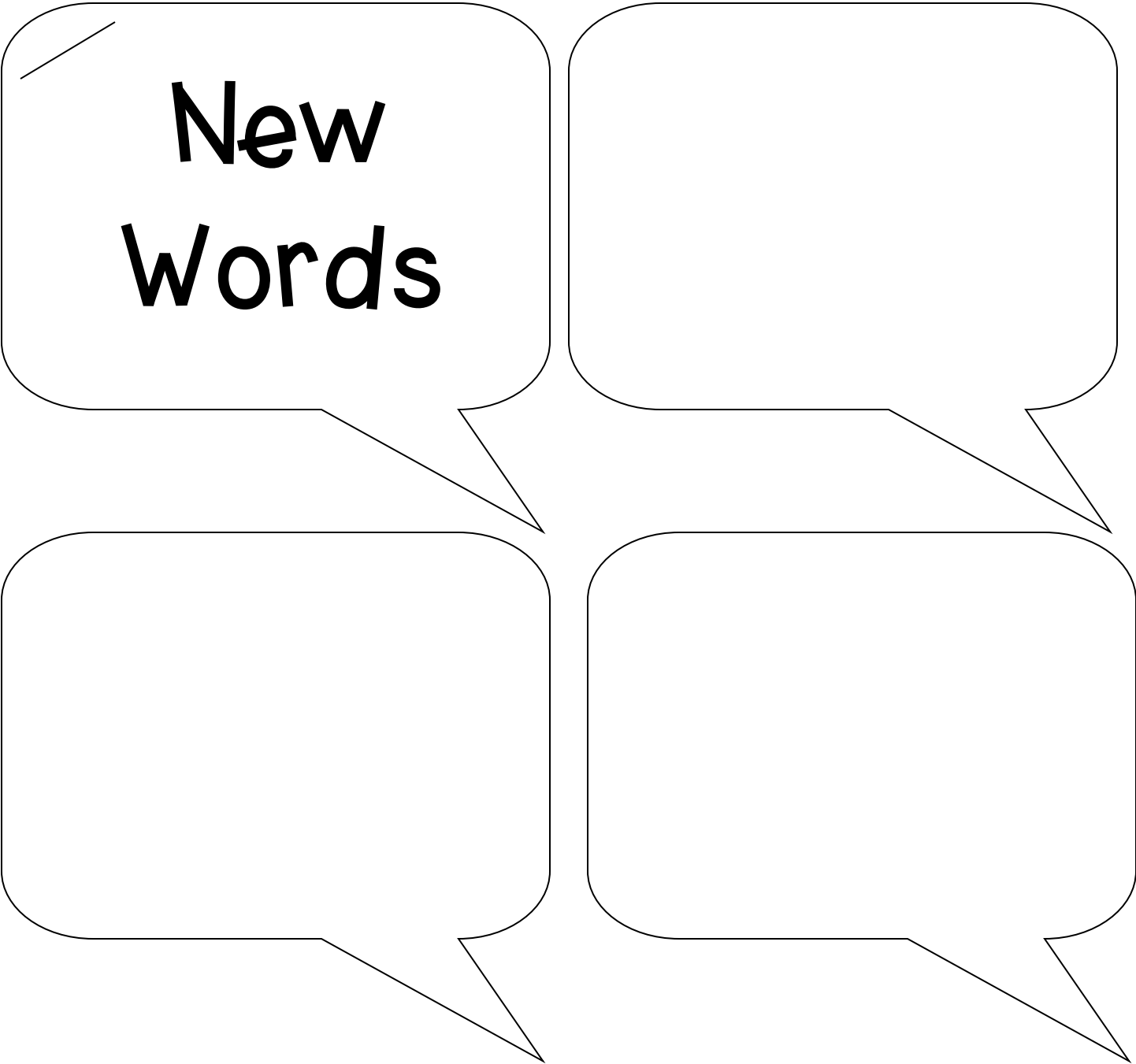
Inventions:

Interesting Facts:

Directions: Cut out book. Fold in half.

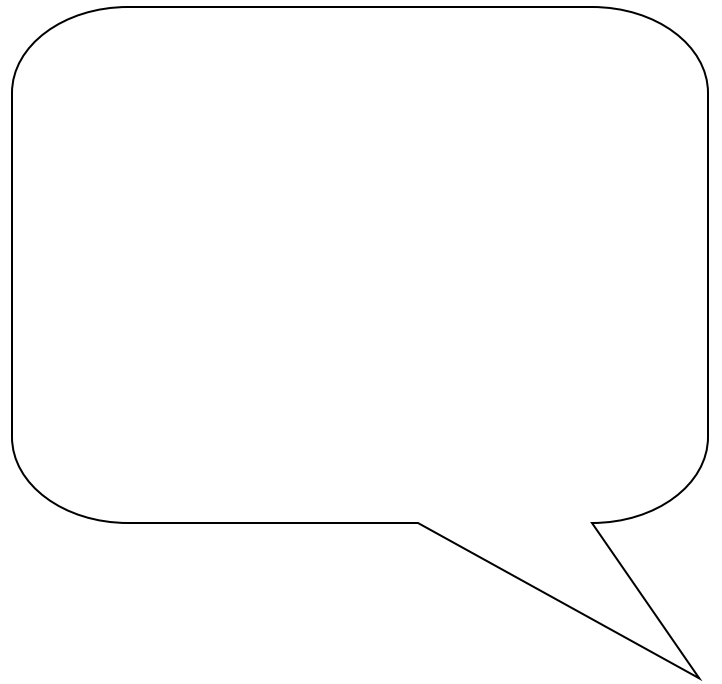
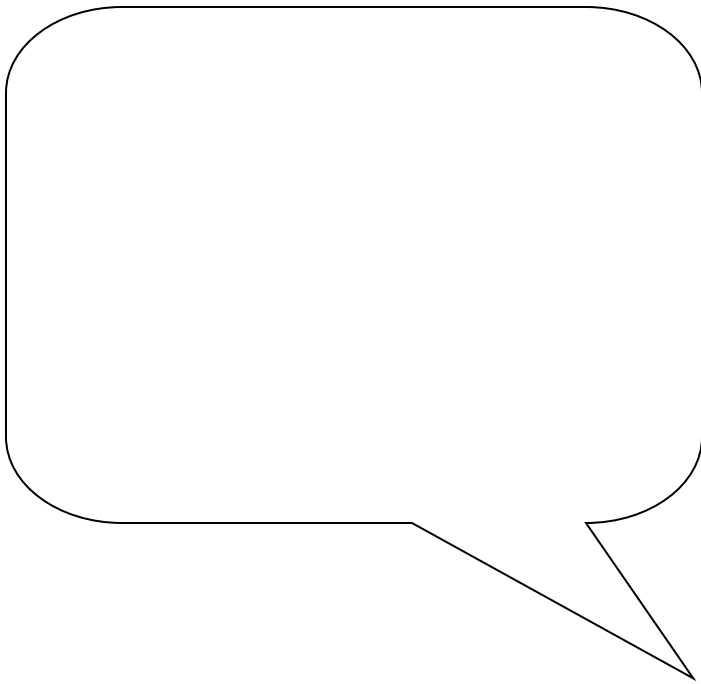
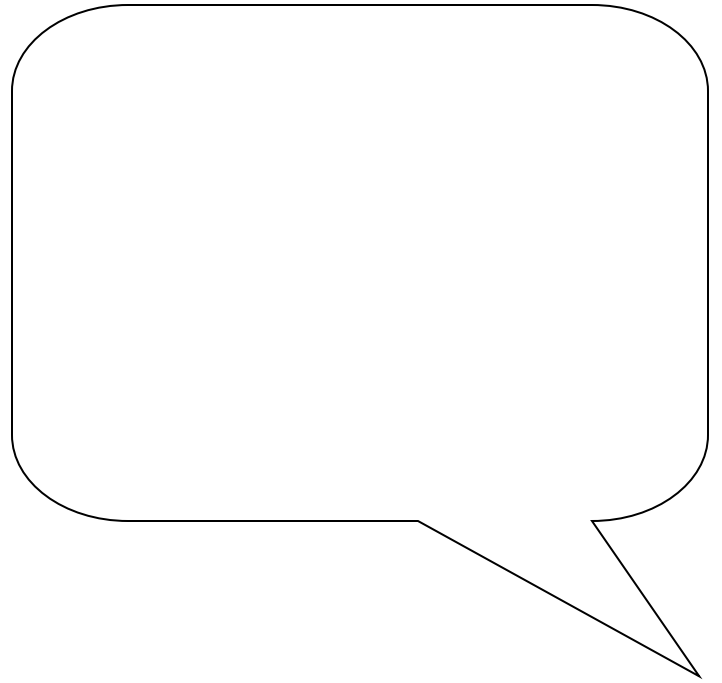
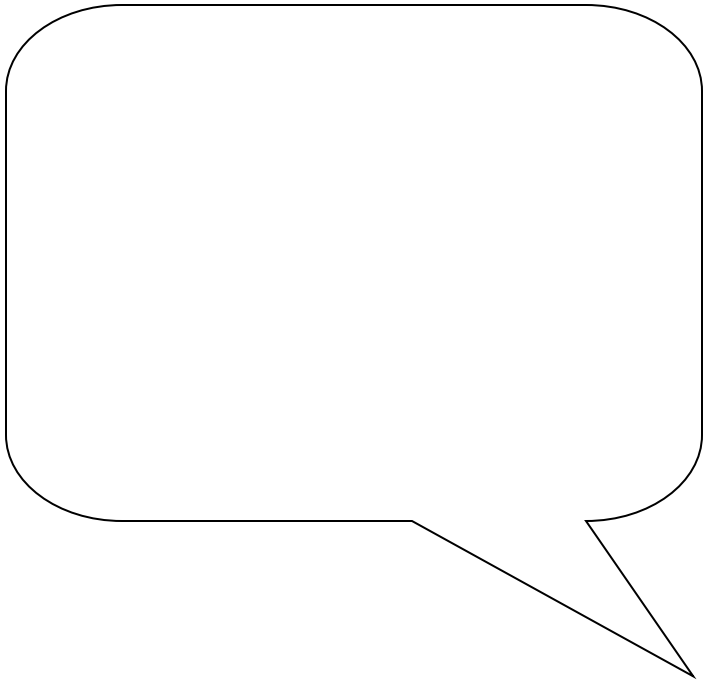
Stock Market Crash





**New
Words**

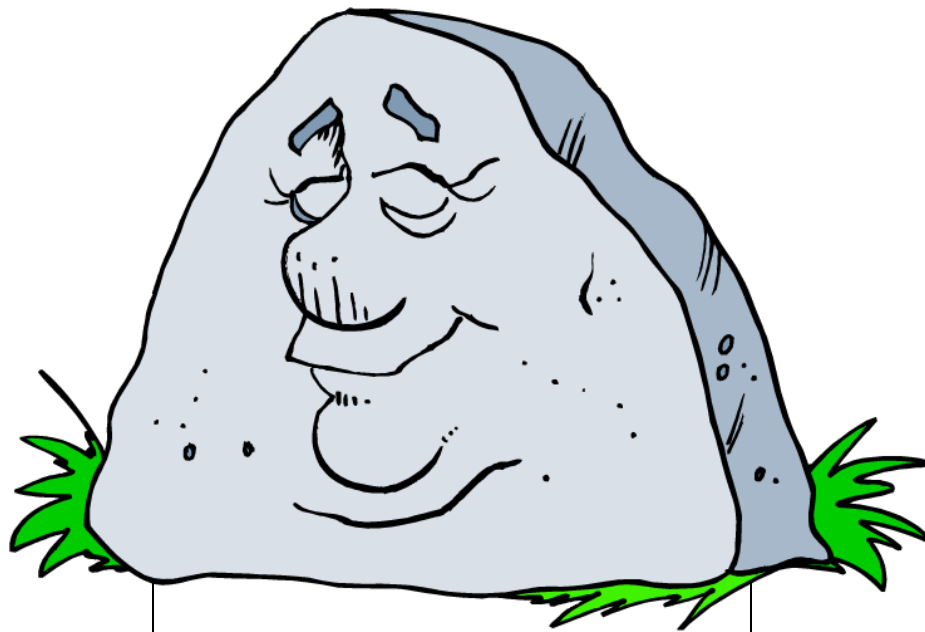
Directions: Cut out shapes. Write new words and definitions on the pages. Stack together with cover on top and secure with a staple.



Intrusive Rock

Extrusive Rock

Directions: Cut out as one piece. Fold flaps to the front. Record information under the flaps.



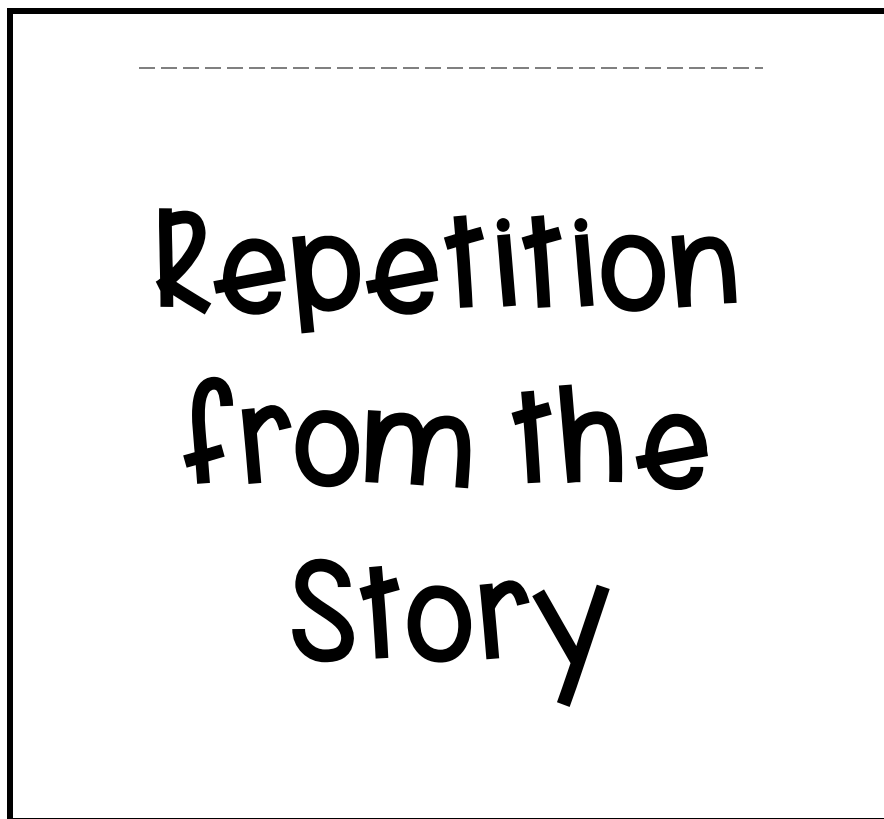
"You have rocks in your head!"

Directions:

Print on cardstock.

Cut out the pull-tab book (previous page) as one piece. Use the white area for your student to write the two repeating phrases in this story.

Cut out this pocket piece (below). Cut slit with an exact-o knife. Add a *tiny* bit of glue around the back outside edges (but NOT at the top). Glue down to your lapbook or scrapbook. After the glue is dry, bend the pull-tab piece so that it fits down into the pocket through the slit.



Rock Synonyms

Boulder

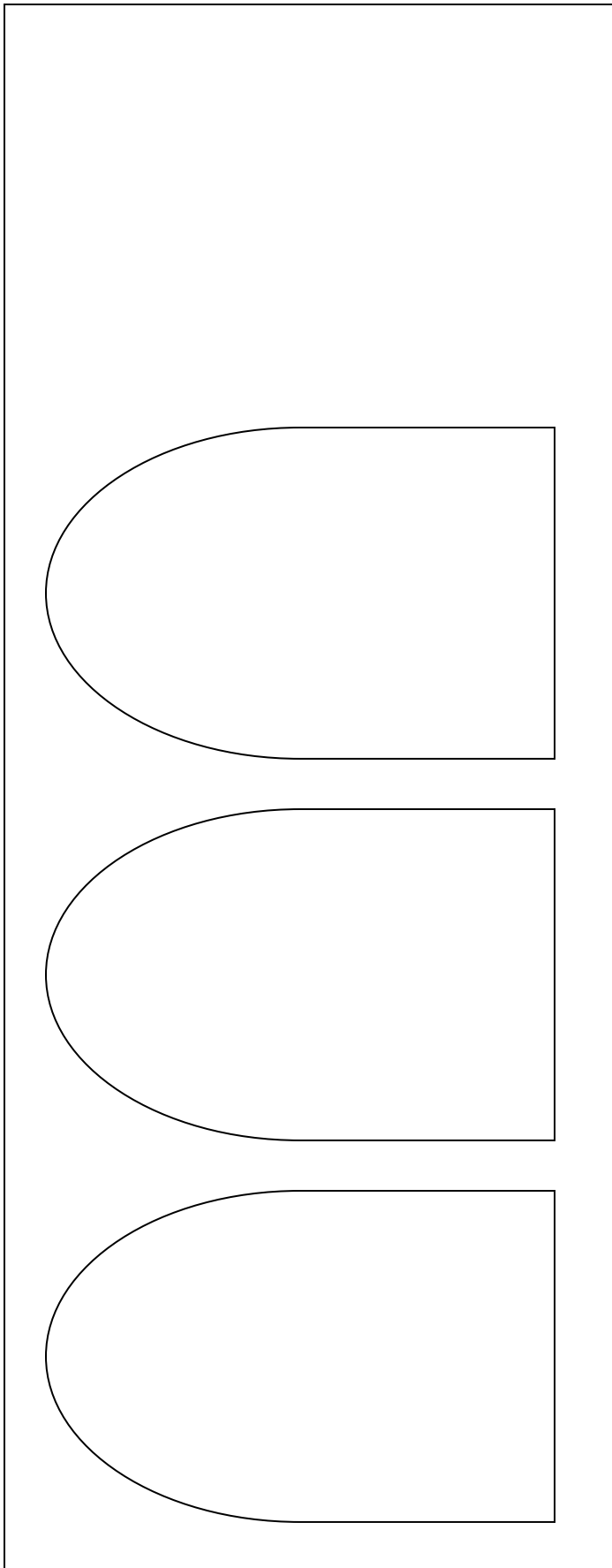
Stone

Pebble

Directions: Cut out this book as one piece.

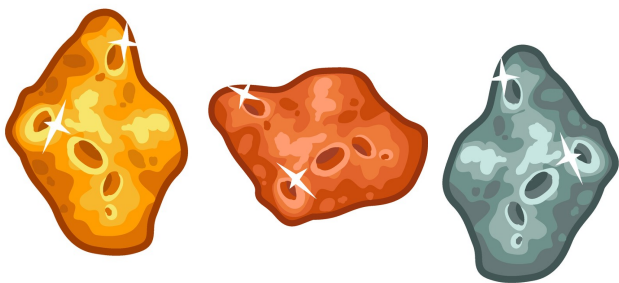
The shapes on this page are going to be windows on your finished book. You need to use an exact-o knife to cut around each shape (the curved part only—leave the straight side uncut).

Cut out this piece of the book as one piece. Student should draw pictures on this blank page. This page should be glued behind the first page.



Directions: Cut out the four rectangles. Stack together (smallest to largest) with cover on top and staple.

Mineral Categories



Metallic Minerals

Rock-forming Minerals

Non-metallic Minerals

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