

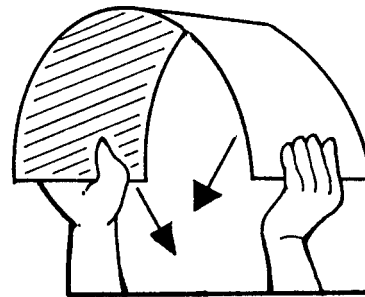
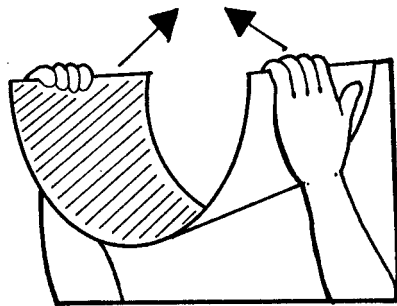
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Mountains, Valleys, and Caves

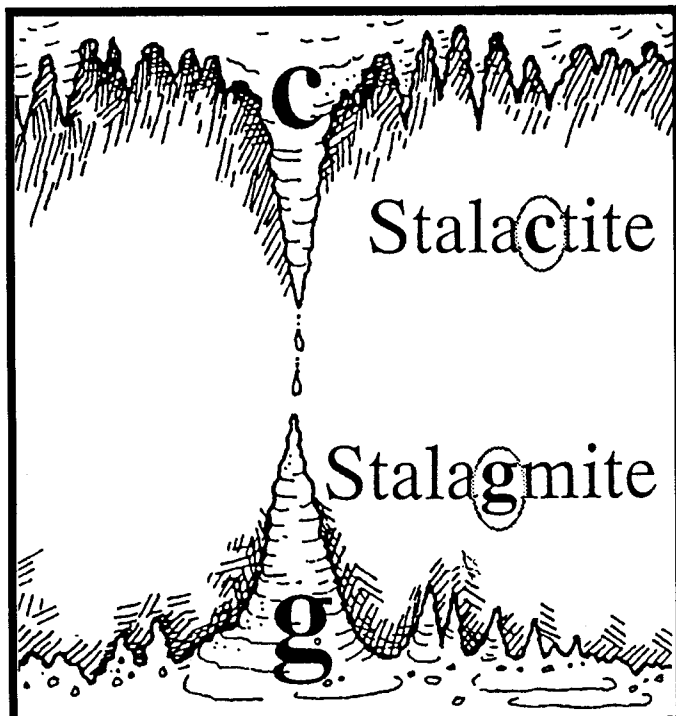
Paper Pressure

Hand out pieces of brown construction paper. Ask students to bow the paper up at the ends (Figure 1) while you model with your paper. Ask what it looks like (a valley). Ask how the side walls of rock move up (pressure). Have students flatten their paper. This time ask them to create a mountain by bowing paper in the opposite direction (Figure 2). What caused the mountain to rise in the middle (pressure)? Explain that this is what happens to large pieces of rock. When the pressure moves the big pieces, little pieces break off and make smaller rocks. Paint with thick tempera; allow to dry; then bend to see cracking and flaking. Have students review what they have learned by working with partners and creating mountains and valleys with their paper.



Cave Talk

Teach students how to remember where the “stalagmites” and “stalactites” are located in a cave. Draw a picture as shown below on the chalkboard. Write the word to describe each rock formation in the correct area. Using colored chalk, put a circle around the “g” and “c” in each word. As a class, repeat the poem below. Students then draw their own cave scene, label their rock formations, and write out the cave poem.



*Stalagmite, stalactite
Which one is which?
Here's a way to make
remembering a cinch!
G is for ground,
so stalagmite it must be,
C is for ceiling
so stalactite, look up, you'll see!*

Math/Science Activities *(cont.)*

Pet Rock Experiment

Draw a picture of your rock here:




Where did you find your rock?

Check the correct boxes.

My rock is:

<input type="checkbox"/> SHINY	<input type="checkbox"/> DULL	<input type="checkbox"/> HARD	<input type="checkbox"/> SOFT	<input type="checkbox"/> ROUGH
<input type="checkbox"/> SPARKLY	<input type="checkbox"/> NOT SPARKLY	<input type="checkbox"/> BIG	<input type="checkbox"/> LITTLE	<input type="checkbox"/> SMOOTH

Now conduct your experiment. Predict what you think the answers will be and write them down in the first row. After the experiment, write down the results. Compare.

	LENGTH Measure with a ruler.	WEIGHT Measure with a scale.	HARDNESS Which will scratch your rock?* 	ACID Does your Rock Bubble when vinegar is dropped on it?** 	FLOATS Does your rock float or sink?***
PREDICTION					
RESULTS					

Hardness Numbers

* Hardness scale: Fingernail can scratch rock. 2 A soft rock

Penny can scratch rock 3

Nail can scratch rock 4 A hard rock

↑↓

** If there are bubbles appearing on your rock, it has lime (or calcium carbonate) in it. This mineral is found in limestone and marble.

*** Rocks that float usually have come out of a volcano. Was the area where you live ever a volcano?