

Sam and Dave Dig a Hole

RIF EXTENSION ACTIVITIES FOR EDUCATORS

STEAM-THEMED: SCIENCE, TECHNOLOGY, ENGINEERING, ART, MATH

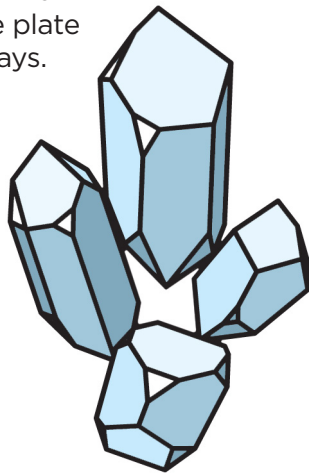
SCIENCE

SPECTACULAR SALT CRYSTALS

Materials: pie plate, 1/4 cup warm water, 2 tablespoons salt, rocks, bowl

In a bowl, mix salt and water until the salt dissolves. Place rocks in the pie plate. Pour the salt water mixture over the rocks. Have students write down predictions of what they think is going to happen. Put the pie plate in a sunny spot for several days.

Have students check its progress each day and discuss and record any changes. After all the liquid has evaporated, have students record their final observations and discuss how these compare to their original predictions.



TECHNOLOGY, SCIENCE

DIAMOND IN THE ROUGH

Check out what this boy finds while digging in the dirt in Arkansas: www.youtube.com/watch?v=k9w-RuAD55M. Does this spectacular find look like the ones in the text? Why didn't the boy know what he'd found? What would you do if you found a diamond while digging? Would you be able to recognize it? How does this natural diamond compare to diamonds you usually see?

ENGINEERING

DIRECTIONAL DIGGING

Materials: foam board, 2 books, 2 ballpoint pens, paper, ruler

Stand the foam board between books to hold it up. Have one student draw a penny-sized circle and label it A. This is one tunnel entrance. Repeat on the opposite side and label circle B for the other tunnel entrance. Have the student on the A side describe where the entrance is. Repeat for the B side. Based on descriptions, students should draw on each side of their board where they think the

other tunnel entrance is. Then, punch the ballpoint pen through the foam board.

Check to see if, like

Sam and Dave, you were able to dig a tunnel and "meet up." How does this activity demonstrate the challenge engineers face in digging underground tunnels?

ART, MATH

DIAMOND DESIGNS

Materials: paper, pencil, ruler, markers or crayons

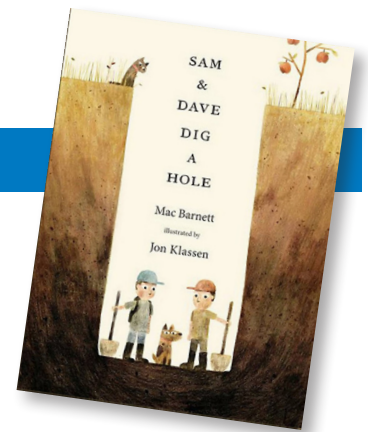
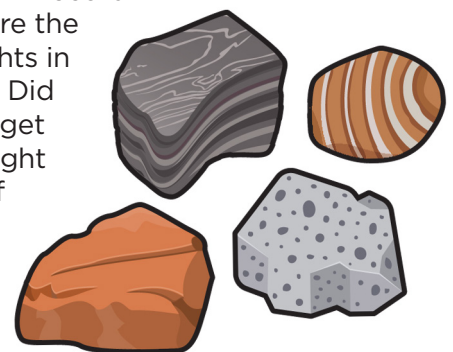
Using a ruler, divide the paper into four quadrants. Starting closer to the center, use the ruler to make diamond shapes. Create larger diamonds while moving toward the outer edges. Once complete, use markers or crayons to create a design of your choice. Did you make a pattern or is your design abstract?

MATH, SCIENCE

WATER WEIGHT

Materials: 3-4 different types of large rocks, water, scale, paper, pencil

Experiment to see if rocks can hold water. Write a hypothesis, then weigh the dry rocks. Record the data. Soak rocks in water for 30 minutes, then weigh them again. Record the data. Compare the two sets of weights in a graph or chart. Did any of the rocks get heavier? Why might different kinds of rocks absorb more or less water?



Reading Is
Fundamental