

METAMORPHIC SQUISHEE!

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Objective: To model the metamorphic process that makes layered rocks (i.e., slate, schist, and gneiss).

Materials:

- Play-doh
- Wax paper
- Ruler
- Paper
- Colored pencils
- Metamorphic rocks such as slate, schist, and gneiss.

Grades: K-3

Time: ½ hour

Procedure:

- Roll out “snakes” of Play-doh.
- Cut the “snakes” into pieces so that they are about as long as they are wide.
- Press the pieces together to make “sandstone.”
- Measure individual little pieces and measure the whole “rock.”
- Draw the rock, showing the little pieces, and label the drawing.
- Predict what will happen if the “rocks” are squashed.
- Write the predictions on the black board.
- Gently press down on the “rock.”
- Draw and label the result.
- Discuss.
- Compare to metamorphic, layered rocks and to other rocks.

Note for Teachers:

Metamorphic rocks form from the original rock without ever melting. It takes burial under other rocks, heat, pressure, and time. The change is accomplished by the original minerals in a rock being forced by changed conditions to undergo chemical reactions to form new minerals that are stable under the new conditions. This is much too complicated for young children to understand. The point of this activity is to practice important scientific skills: prediction, observation, recording observations, and communicating observations.

GeoMan’s Rock Identification Chart:

<http://jersey.uoregon.edu/~mstrick/MinRockID/RockID/RockIDChart.html>

GeoMan’s Mineral and Rock Glossary:

<http://jersey.uoregon.edu/~mstrick/MinRockID/MinRockGloss.html>