



## Lesson + Activity: Rocks and Minerals Playdough Model

Grade Level(s)	Timeframe
K-2, 3-5	45 min

### ABSTRACT

Playdough model of the rock cycle and layers.


PDF showing rock categories and geologic time scale. PDF includes much of Don Ball's lesson.

30 minutes.

### EQUIPMENT AND SUPPLIES

Playdough.

### LESSON FILES

 008\_1.pdf

## **GETTING READY**

### Play-Doh Folds

1. Make a flattened pancake of each colour of Play-Doh (about 15 cm in diameter and 1 cm thick). The greater the diameter, the thinner the layers and the more easily the model can be folded.
2. Stack the layers on top of each other in any colour order to make a block.
3. Use colouring pencils that closely match the Play-Doh, sketch the side view of this model in the space labelled, Diagram A.
4. To simulate compression - place your hands, one on either end of the play dough block. Gently push your hands together so that you squeeze it along its longer axis. This will cause the play dough block to fold and buckle. Try to make at least one upward fold (anticline) and one downward fold (syncline)
5. Use colouring pencils that closely match the Play-Doh, sketch the side view of this model in the space labelled, Diagram B.
6. To simulate surface erosion - Take your cutting device (fishing line and washers) and cut the top off of your folded model.
7. Use colouring pencils that closely match the Play-Doh, sketch the side view of this model in the space labelled, Diagram C.
8. Discuss what you observe with your group members. Repeating bands of sedimentary layers, such as in this model, when found at the surface of the Earth tell a geologist that they have found an eroded fold.

### Popsicle Stick Faults

1. Take one Popsicle stick. Hold it in both hands and bend it. What happens? Instead of folding, the Popsicle stick is brittle, and breaks.

This is how a fault is produced in rocks.