Discussion Questions Answers

Relative Dating Lab Activity
Sediment Deposits

Discussion

1. Identify the layers of deposition.
A: At the bottom of the jar, you'll see gravel (large rocks). Next, you'll see sand, then silt, then clay, then humus (decaying matter). The types of sediments are named based on their particle size.

2. Where may depositions like this occur? **A: Streams, ponds, lakes and oceans.**

3. In what order did these layers occur (i.e. which is the oldest layer)? **A: Oldest on the bottom and the youngest on the top.**

Edible Rocks

Instructions

1. Draw a cross-section, or profile, of the Snickers Bar. Use your observational skills to determine how many components there are to your "rock".

2. Draw a step-by-step process of how the rock formed (i.e. Step 1, draw the oldest layer first).

Draw the oldest layer first, which in most cases is the bottom chocolate layer.

Draw the next oldest layer, which is usually the nougat.

Draw next oldest layer, which is usually the caramel-peanut mix. This is always a difficult concept but remind the students that one of the examples on the relative age dating worksheet helps to explain how this layer might have formed.

Finally, the overlying chocolate layer is added. The evidence for this can be found by looking in the bottom corners where the bottom layer of chocolate meets the overlying layer of chocolate. As long as the sample isn't melted, it should be possible to see that the two layer of chocolate are separated by a line, showing that they are not the same unit (only point out this feature at the end of the activity, unless one of the students finds it first). Now this scenario is still up for discussion, so proceed with your own ideas. For example someone suggested that all of the chocolate is one layer (e.g. a chocolate shell) and that all of the other components are stuffed into the shell. In any event, remind the students that they must be able to provide evidence for their hypothesis.

Discussion

1. What is the oldest layer of the rock? How do you know?

A: A: Bottom chocolate layer of the Snickers Bar (Principle of superposition).

2. What is the youngest layer of the rock? How do you know?

A: The overlaying chocolate is the youngest layer of the Snickers Bar (Principle of superposition).

3. Which formed first, the peanuts or the caramel? How do you know?

A: The peanuts are older because they were formed before they were placed in the caramel (Principle of inclusion).