

Edible Earth

Summary

Students will create the Earth using edible household items. They will learn the layers of the Earth, what they are made of and why they are important.

Time Frame

1 class periods of 45 minutes each

Group Size

Small Groups

Life Skills

Systems Thinking

Materials

Per Group:

- 1 bowl with mixing spoon
- 1 spice drop candy
- 13 full size marshmallows plus 1 full size marshmallow
- 1 Tbsp of butter
- 2 cups of rice krispies
- 1/2 bottle of magic shell chocolate sauce
- Access to a microwave and freezer

Background for Teachers

Teachers should know that there are 4 layers to the Earth, what they are called, their function within the Earth and their geologic importance. One should know what they layers are comprised of, relative size (diameter/radius), and phases of each layer. A basic geologic course would go over this.

Student Prior Knowledge

Students should know prior to this lesson that the Earth is not flat, and it is not homogenous below their feet. A basic chemistry class would also be ideal as discussion of the composition and phases of the layers will take place.

Intended Learning Outcomes

To learn the interior of the Earth geologically and chemically. Also to learn the relative size of the Earth and distance from the Sun and why geologists are important.

Instructional Procedures

Divide the class in groups of 4-5 students as it is better to have each group member have at least a single task to accomplish.

Ask every student to wash their hands before you begin since they will be touching the ingredients.

Dive right into the creation of the Edible Earth, with discussion at the end.

First, tell the students what they are working with (the ingredients) and not what this lesson is or what they are making (not yet).

Put the 1 spice drop in 1 marshmallow so that the candy is in the center of the marshmallow, set

aside.

Hand out the bowls and mixing spoons. Put 13 marshmallows and 1 Tbsp of butter in the bowl and put in the microwave for 1 minute. Immediately remove and ask the student to mix the melted marshmallows.

Add the 2 cups of rice krispies to the bowl, mix until it gets really sticky.

Tell one student to get their hands wet (its easier to handle the stuff in the bowl). Grab what they can out of the bowl and make a ball, putting the spice drop/marshmallow in the direct center. i.e. form the rice krispies into a ball around the single marshmallow.

Place the ball into the freezer for 15 minutes

Begin discussion on what you made, the layers of the Earth, importance, etc.

After 15 minutes, pull the Earth out and add the chocolate sauce (the crust).

Next cut the Earth up evenly for everyone to eat, finding out if their core is actually in the center.

****20 students is the limit to accomplish this lesson within 45 minutes. Either teachers would need at least 60 minutes or more group leaders/classroom help to get this lesson done on time with a larger group.**

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