**Candy Fossil Excavation**

Possibility: have the Dam Builders build the excavation sites so the Junior Beavers do not know where the fossils are buried. Alternatively, have each group build the site and then switch off with another group for the excavation. Another alternative is for you to build all 4 excavation sites.

**OBJECTIVE:**

Create an edible model of rock and fossil layers to be excavated and mapped.

**TERMS TO GO OVER:**

Rock layers

Fossil

**LAB MATERIALS: (as well as ingredients to make brownie, rice and wheat crispy, and popcorn balls)**

* A bin for each group minimum 5 inches deep
* Masking tape
* Wax paper
* Spatula
* Heat source (hot plate)
* Kettle
* Popcorn popper
* Brownie
* Honey graham crackers
* Rice Crispy
* Chocolate graham cracker
* Wheat Crispy
* Popcorn ball
* Animal crackers
* Gummy dinosaurs
* Jelly beans (will be the eggs)
* Swedish fish
* Popsicle stick
* Shish kabob stick

**GROUP LEADER/VOLUNTEER/TLC ROLE**

Make the brownies, rice and wheat crispy treats, and popcorn balls. Also, help students learn how to map on a grid and spread the layers.

**SETUP PROCEDURE**

1. Make brownies beforehand
2. On each bin, use the masking tape to mark it into a grid, such as A-C for the columns and 1-3 for the rows.
3. Lay the wax paper into the bin (covering the entirety of the bottom and sides) and use a permanent marker to copy the grid onto it
4. On a sheet of paper, make three 3x3 grids. One grid is for mammals, one dinosaur, and one marine. Make enough copies so there will be one copy for the answer key and one for the discovering.
5. Look up your favorite rice crispy treat recipe and use it for both the rice and wheat crispies. Also look up your favorite popcorn ball recipe. Collect the materials for these recipes as you will need to make them during the class.

**LAB PROCEDURE**

The layers of the excavation site top to bottom are: brownie, chocolate graham crackers, rice crispy, honey and chocolate graham cracker mixture, wheat crispy, honey graham cracker, and finally popcorn ball.

**Making of excavation site:**

1. Have the students mark on a separate piece of paper with three 3x3 grids where each “fossil” will go. They will mark for 2 mammals, 2 eggs, 2 dinosaurs, and 4 fish.
2. Have the students place the fish on the bottom of the bin where they want them in the grid.
3. Make the popcorn ball recipe, and while still hot, distribute enough to each group to cover the bottom of the bin approximately 2 inches deep. Have the students make the layer even \*be careful not to move the fish around while doing this\*
4. Next, lay down sheets of honey graham cracker to cover the entire popcorn layer. It does not matter if you have to break the crackers to cover it completely, but do try to keep the crackers whole.
5. Next, place the dinosaurs and eggs.
6. Make the wheat crispy recipe, and while still malleable, cover the site about 1 inch deep.
7. Next, cover the site with both honey and chocolate graham crackers.
8. Then place the animal crackers.
9. Then make the rice crispy recipe and cover the site about 1 inch deep.
10. Next, cover the site with honey graham crackers.
11. Finally cover the site with about ¼ inches of brownie.

**Digging of excavation site:**

1. Completely remove one layer before uncovering the next.
2. As fossils are found, mark where on the grid they are and then very carefully remove them and set them aside.
3. Continue until all the layers have been uncovered and all 10 fossils are found
4. Chow down