

# A STEM in the Park

## Take Home Activity

# STEM

in the **PARK**™

Science, Technology, Engineering, and Mathematics

## Edible Soil

### ***What You Need***

- Chocolate pudding
- Crushed Oreos
- Roughly chopped graham crackers
- Butterscotch chips or round tan cereal (ex. Kix, Reese Puffs)
- Green coconut (colored with green food coloring)
- Sprinkles (preferably a mixed variety with three colors)
- Gummy worms
- Small clear cups and spoons



### ***What To Do***

1. Prepare or buy chocolate pudding.
2. Have students fill their cups in the following order and explain what each ingredient represents:
  - Butterscotch chips represents bedrock. Bedrock is usually a light tan color and is made of rock from the compressed layer of soil above it. Plant roots do not reach this layer.

***Continued on back***

## ***What To Do cont.***

- Chopped graham crackers represents a layer of parent material. A layer of parent material exists between bedrock and subsoil and can contain rocks. Organisms don't exist, and chances of plant roots entering it are low. This can be found 5 feet below, but it varies on location.
- Chocolate pudding represents subsoil. Subsoil contains some nutrients, but it is also rich in clay. Subsoil can be found 2-4 feet below our feet.
- Crushed Oreos represents topsoil. Topsoil is rich in nutrients, such as Nitrogen, Phosphorus and Potassium. Topsoil is essential for plant growth. Topsoil can be as deep as 2 feet.
- Gummy worms represent worms! The topsoil is alive with organisms and organic matter.
- Green coconut represents the grass and many plants that grow in the soil.
- Sprinkles represents fertilizer. Plants take nutrients from the topsoil and need to be replaced with fertilizer. Fertilizers play an important role in keeping the soil healthy and in growing our food.

## ***The Science***

Soil has many layers. Each layer is different and has certain distinct characteristics. The composition of soil determines what the soil is used for and why it is important. This edible activity will help students learn about each layer.

***This activity is brought to you by Nutrients for Life Foundation***

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