

# Watershed and Envirosnacks

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## **Standard of Learning**

Science 1.8, 3.9, 4.9, 6.5, 6.7, 6.9

## **Objective**

The student will

- identify natural resources.
- create a model of the water cycle as well as model Virginia natural resources.
- describe watersheds and surrounding environments while making a tasty treat. Water is important to every living thing.

## **Materials**

- Chocolate Graham Crackers – Soil
- White spreadable cake frosting – Adhesive agent
- Chocolate kisses (2 or 3 per student) – Mountains
- Chocolate chips – Hills
- Green sprinkles – Grassland
- Green tree nonpareils (evergreen shape) – Forests
- Tube of blue cake icing (no gel) – Lakes and streams
- Small marshmallows or cool whip – Clouds/precipitation

## **Background Knowledge**

A watershed is the area of land that water flows over or under on its way to a stream, river, lake or ocean. The water in the watershed comes from rain, snow, sleet, ice or irrigation. Some activities that cause pollution of a watershed are: cars leaking oil and gas, a mountain with no trees, construction sites that contribute silt, oil, etc., factories that contribute to pollution, cows stirring up sediment in rivers when they get a drink, fertilizer and pesticides used around houses and on golf courses, sewage treatment plants that are not properly maintained, loose soil, fertilizer and pesticides from farms.

There are some things that we can do to keep pollution out of the clean lakes. We put up fences to keep the cows out of the rivers, maintain our cars, tractors and bulldozers so that they don't leak and plant grass filter strips along the edge of the farms so the loose soil, fertilizer and pesticides get trapped in the grass before they reach water.

## **Procedure**

1. Assemble the envirosnack by spreading white frosting on a full size cracker.
2. Add hills and mountains as desired.
3. Sprinkle with green grassland sugar crystals.
4. Place the evergreen nonpareils to create a forest area.
5. Add blue icing to form mountain waterfalls, rivers, and lakes. (Make sure to use cake icing and not gel.) The instructor may want to control application of the blue icing as it is the most expensive ingredient. (Another choice would be to use blue sugar sprinkles in place of the blue icing.)



6. Add clouds according to personal preference – perhaps surrounding the mountains, creating precipitation that ends up as a lovely mountain stream. (Whipped topping could be used instead of marshmallows, but would require refrigeration.)
7. Now eat your envirosnack and enjoy!

### **Extension**

Question students about the affects of water on the environment. Include scenerios dealing with drought, flood, erosion.

Discuss methods for erosion prevention.

Have students create a large envirosnack leading from a stream or pond to a large body of water to trace the watershed.

