

### A note about air quality education:

Air pollution is linked to serious environmental and human health effects. It's important to educate kids about these topics without scaring them. For younger students, when we talk about air pollution we normally say that it can make you sneeze or cough, or it can make it hard for people with asthma to breathe. For older kids, you may feel more comfortable telling them that air pollution is linked to cancer, respiratory disease, and heart disease.

### **Supplies:**

- Glue
- Food coloring (yellow and green)
- Baking soda
- Contact solution
- Sequins, glitter, or any other small particle like pieces

## **Step 1: Introduce Particulate Matter**

Have you ever seen a beam of light shine into a dark room and noticed little bits of stuff floating around in the air? Particulate matter, or PM, is a type of air pollutant common to southwestern PA. Essentially PM is any solid or liquid that is floating in the air. This can come from natural sources, like pollen, mold, or soot, or human made sources like vehicles, factories, and anywhere else fossil fuels are burned.

When we breathe, larger particles get stuck in our nose hairs and mucus, and we sneeze or cough them out.

Smaller particles can travel deeper into our lungs and even enter our bloodstream. PM is linked to negative health effects such as asthma (as well as cancers, birth defects, and heart disease).

# **Step 2: Talk about Boogers!**

Our bodies are amazing, and have evolved to protect us from some forms of air pollution, such as particulate matter. The nose hairs, and the mucus in our nose and throat catch a lot of the bigger particles. When we sneeze, cough, or blow our nose, these particles are expelled from our bodies. Today we'll be making some particle filled boogers!

### **Step 3: Make Slime:**

- This is a messy activity. If possible cover surfaces and remind children that food coloring can stain their skin or clothes.
- Fill a cup up half full with the glue.Add a pinch of the baking soda and mix with a spoon or popsicle stick.
- Add a few drops of food coloring (yellow or green is best for boogers, but it doesn't really matter).
- Add the particles (sequins/glitter/etc) to the cups.
- Add a few drops at a time of the activator (contact solution). As kids stir their glue should start to thicken and turn to slime. Slowly add more activator until it becomes hard to stir and is mostly stuck to the spoon.
- At this time they can take it out and start to use their hands to mix it. If it's still sticky on their hands, add a few more drops of the activator.

