

Slime Boogers

A note about air quality education:

Air pollution is linked to serious environmental and human health effects, and 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 floating around in the air? Or have you ever watched smoke from a campfire rise and spread out 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 they have evolved to protect us from some forms of air pollution, including 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. Each student can get their own cup or they can pair off.*
- Fill each 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.
 - *If you have differently sized 'particles' you can use the difference to discuss how larger vs smaller particles affect the body. Smaller sized particles are less easily filtered through the nose and more likely to enter the lungs and bloodstream, making them more dangerous to your health. Ask them for examples of smaller vs larger particles.*
- 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.

Notes:

Another way noses help protect us from air pollution is our ability to smell! Even invisible air pollution can sometimes have an odor, and we can often smell dirty air even if we can't see it.

A lot of us are used to wearing masks to protect our bodies from germs. A facemask can be another layer of protection from both germs and air pollution for sensitive groups or during especially bad air pollution episodes.

