

Air Quality Activity Sheet

Please use this sheet to record your data from the air quality activity session.

Materials Needed: Food coloring/dye (only 1 color is needed), Container filled with water(cold water and then hot tap – hand washing temp), cardboard scraps

Air Quality Background

What is particulate matter?

What are some major sources of particulate matter?

Air Particulate Collector Experiment

What are your thoughts on this experiment? If you did the experiment, did you collect more or less than you had expected?

How do the different samples compare to each other?

Air Pollution in Pittsburgh & Pittsburgh Air Quality Website

Which areas of Pittsburgh do you expect there to be more pollution or less pollution? Why?

What do you expect to be the major sources of pollutants here in Pittsburgh?

Visit the website: http://www.pghairquality.com/pollution_map/map to answer the following questions.

Does the air quality map match your expectations?

What surprised you?

Diffusion Experiment

Follow along with the video or do the experiment yourself.

What do you expect to happen when you drop some food coloring/dye into cold water? Hot water?

Why is the color less “sharp” farther away from the spot where the color dye was initially dropped into the water?

What happens when the water is stirred or agitated?

Do you think that the temperature of the water makes a difference in the results?

How does the color dye diffusing through the water relate to pollutants in the atmosphere?

Conclusions

Why is it important to measure pollutants?

How can you make a difference when it comes to air quality and climate change?
