

Module 2: Create a Pollution Collector



Name: _____ Date: _____

Introduction

In Module 1, you learned about common air pollution sources in Maricopa County, as well as how air pollution is defined and monitored. In this module, you will explore particle pollution by creating particle pollution collectors and placing them in different locations around your home. You will collect and analyze data on the number of particulates found at each location.

Choose Your Locations

Directions: Choose data collection sites outside your home. Think about which areas may have particle pollution sources. You will place four particle pollution collectors at these locations. The fifth collector will be your control. List the locations in the table below.

Collector Number	Description of Location
1	
2	
3	
4	
Control	Indoor location

Materials

You will need to gather these materials:

1. Five index cards (or pieces of paper)
2. Transparent, or clear, tape
3. Scissors or a hole punch
4. Re-sealable plastic bag

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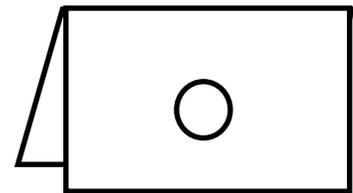
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Instructions

Directions: You will make **five** particle pollution collectors. Four of the particle collectors will be placed outside your home and one of the particle collectors will be used as a control in the experiment. Follow the steps below to make your particle pollution collectors.

1. Fold index card, or paper, in half.

2. Cut a hole in the middle of one side. The hole should be no larger than the width of your tape. Stand it up on the table like a tent.



3. Place the tape over the hole with the sticky side facing out. The tape should cover the entire hole. Note: if you do not have tape or scissors, smear a quarter sized amount of petroleum jelly in the center of each index card. Use the side that is facing outward.

4. Label each card with the data collection site or location. On the fifth card, write "Control."

5. Place the particle pollution collectors in the chosen locations. You may wish to secure the collectors so they do not blow away. Place the particle pollution collector labeled "Control" in a re-sealable plastic bag and leave it on your desk or other indoor space.

6. Leave the particle pollution collectors in their locations for 24 hours. Ensure they are placed somewhere they will not be disturbed.

Hypothesis

Directions: Make a prediction about which location will have the most particulate pollution. Why do you believe that location will have the most particles? Answer in complete sentences.