

## What you can do to stop Paul and Patty Particulate Matter

- Walk or bike to places when you can instead of riding in a car
- Add plants, rocks, or water to dirt areas to help keep the wind from picking up loose soil
- Don't use leaf blowers, which can stir up more dust
- Limit travel when the air quality is bad
- Avoid driving on dirt roads
- When your family has to drive on a dirt road, try to drive slowly
- Don't burn yard waste or trash
- Avoid using fireplaces and wood-burning stoves

Arizona has laws that help to reduce the amount of particulate matter in our air. These laws include:

- Controlling dust at landscaping and construction sites
- Regulating wood burning
- Requiring cleaner burning fuels

## Word Find

P O L L U T I O N D A O Y L S  
S C A R S T O F I J S G I E E  
S G O Q U S L E N W T O B T T  
F R N M L O S S J X H W M X A  
Y C F U A E A S Z Y M W B C L  
S M G Q L W T H T L A A C P U  
Q B J L H S Z I D S A N I M C  
R E C N A C L O E I C F X R I  
E X B V B I K R I P S E F T T  
D J H O B T I Q J Z W E N H R  
V C A I T F R J O M Z P A N A  
X S S K R F P T L V Q D X S P  
Y I F A A Q Z S W O G F W I E  
V T I S E G T G M J E Y Y W N  
Q U Z R H R M R M U T H V K C

**AIR FIRES ASTHMA HEART  
CANCER LUNGS CARS  
PARTICULATES DIESEL  
POLLUTION**

## Word Scramble

PWROE LPASNT

TRASEICOF

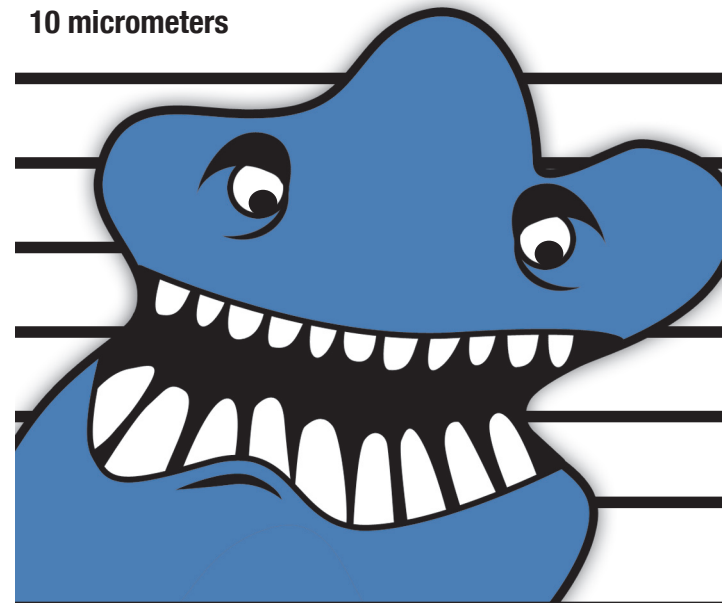
**Help keep dust  
out of the air!**



Word scramble: Power plant, factories

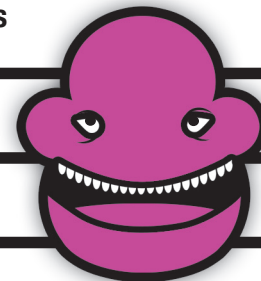
# WANTED:

10 micrometers



**Paul Particulate Matter**

2.5 micrometers



**Patti Particulate Matter**

**DUST WITH A BAD ATTITUDE**



# PM<sub>10</sub>

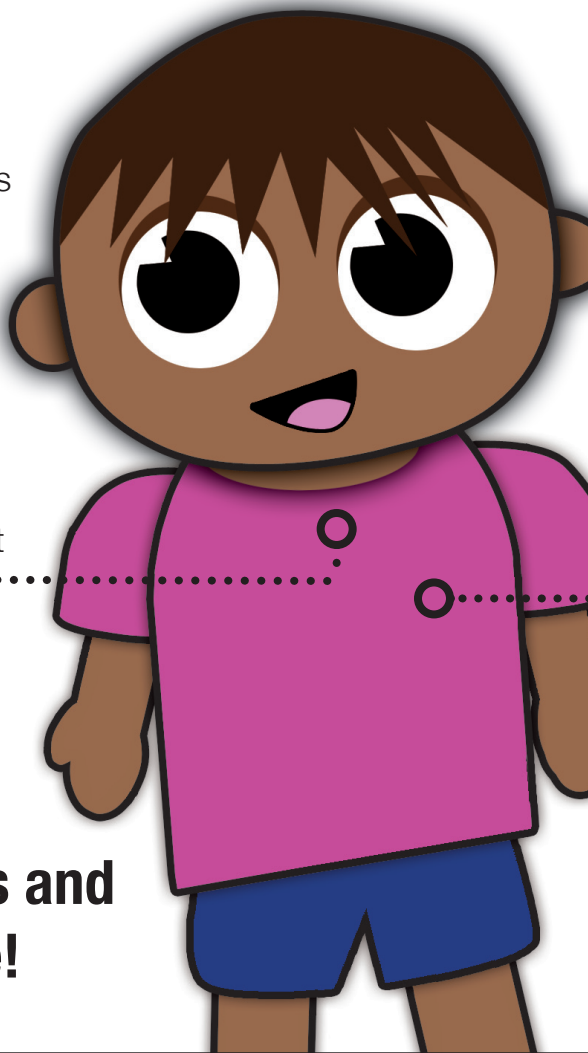
## What is particulate matter?

Particulate Matter (PM) includes different kinds of tiny particles, both liquid and solid. The particles are grouped by size. Those with a diameter of less than 10 micrometers but more than 2.5 micrometers are called **PM10**. Those that are smaller than 2.5 micrometers are called **PM2.5**. Thousands of these particles could fit in the period at the end of this sentence.

### What does PM10 do to our bodies?

- Sometimes, **PM10 can get stuck in the upper part of the breathing tube**. This can lead to a lot of irritation and damage to the upper lung.
- Breathing too much PM10 can cause many symptoms and diseases including: coughing and trouble breathing, headaches, eye/throat irritation, asthma, lung disease, and heart diseases

## Both types of PM can hurt lungs and make it hard for kids to breathe!



## Where does PM come from?

- **Motor exhaust** from cars and trucks
- **Natural events** such as forest fires
- **Dust** from dirt roads and vacant lots
- PM can also form when **chemicals in the air combine**

When there is a lot of PM2.5 and PM10 in the air it makes it hard to see outside and the air looks dirty

### What are the differences between PM10 and PM2.5?

- PM 10 is larger and does not tend to travel deep into the lungs
- PM 2.5 is so small, it can get caught deep inside a person's lungs and create problems

### What does PM2.5 do to our bodies?

- Can trigger asthma
- Can contribute to heart disease
- Can contribute to lung infections

Sources: EPA, CDC, PDEQ

A fine human hair is 50 micrometers across, which is...



... the same size across as five PM10 particles, which is ...



... the same size across as twenty PM2.5 particles

# PM<sub>2.5</sub>

