

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

--	--	--	--	--	--	--	--	--	--

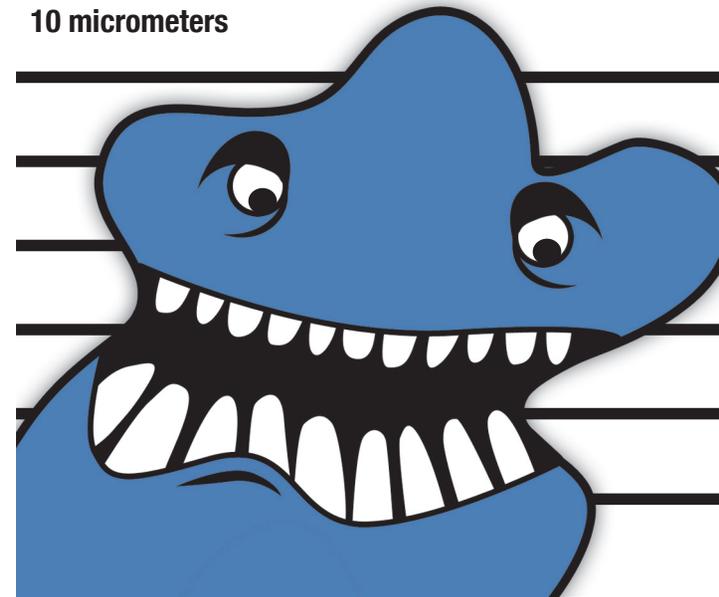
**Help keep dust
 out of the air!**



Word scramble: Power plant, factories

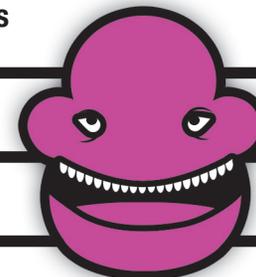
WANTED:

10 micrometers



Paul Particulate Matter

2.5 micrometers



Patti Particulate Matter

DUST WITH A BAD ATTITUDE



PM₁₀

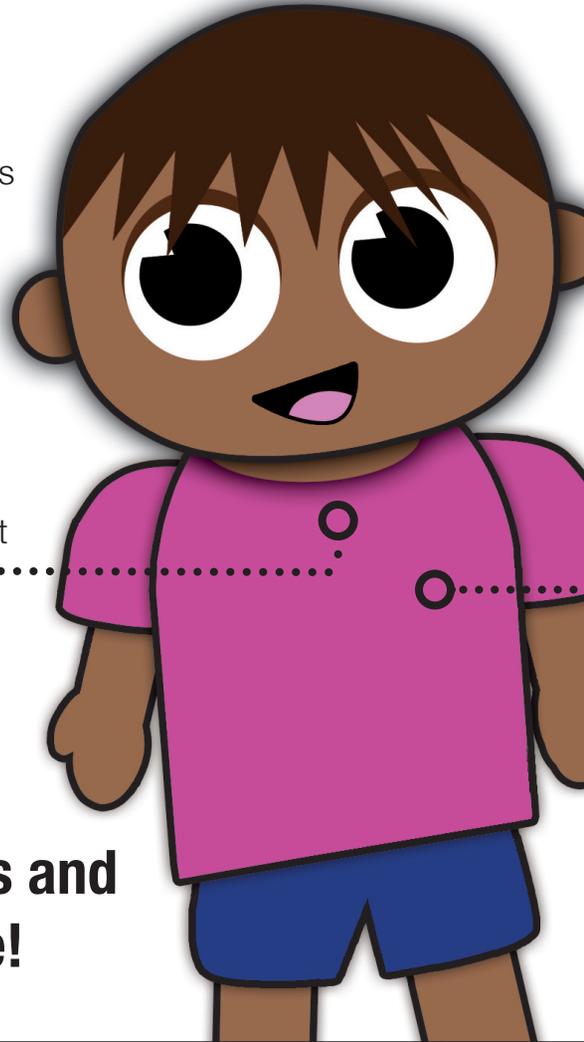
What is particulate matter?

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_{2.5}

