

Name:

Date:

Class:

Cars and Air Quality Connections (K-2)

Do gas-powered and electric cars affect our air?

Together, we are going to find out:

- Do cars change how clean the air is?
- Does dirty air affect our health?
- Can certain cars help make the air cleaner?

1. Watch the [video](#) of vehicles in traffic. Draw or write about what you saw:

Class Reflection: Do you think cars affect how clean the air is? Share your thoughts as a class.

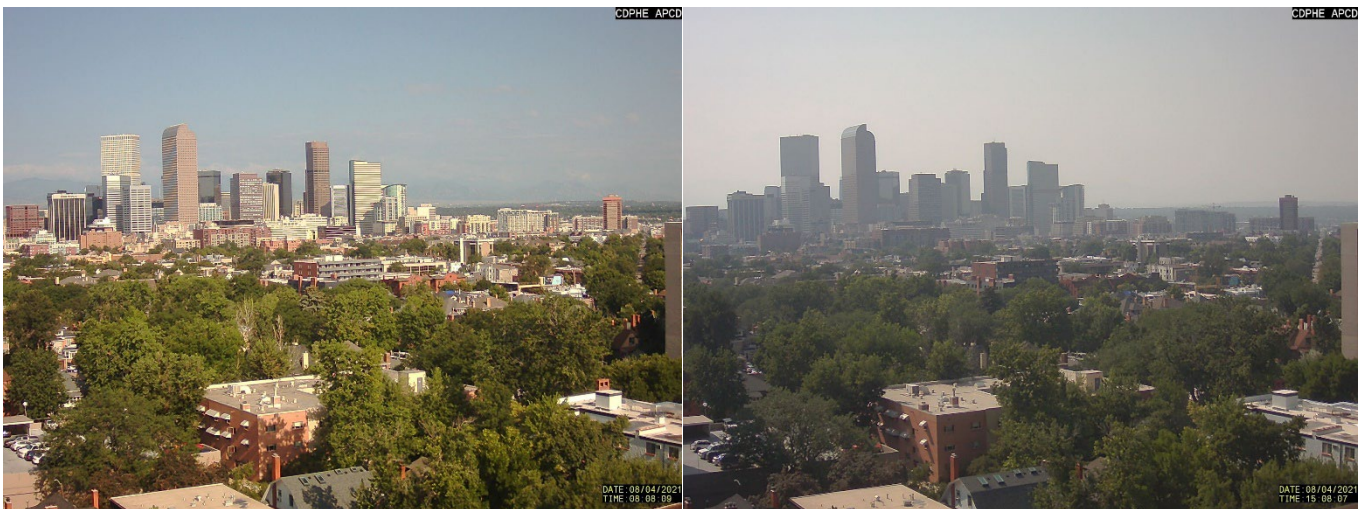
2. Let's find out about one type of air pollution that comes from vehicles.

Particulate Matter (PM)

Particulate Matter, also called **PM**, is a type of air pollution. Let's learn more about air pollution in this [video](#) (watch up to 2:24).

Particulate Matter is a **pollutant** made up of **very tiny particles** and **droplets** that **float** in the air.

- PM comes from **natural** sources like **dirt**, **dust**, and **wildfire smoke**.
- PM comes from **human-made** sources like **soot** from **burning fuels** for energy and heat.
- PM can make the air **hazy**.



Look at two photos that were taken on the same day at different times.

What looks the same? What looks different? Describe what you observe.

1. Write a plus sign “+” on the photo that has **more PM**.
 - Tell why you think this photo has more PM.
2. Write a minus sign “-” on the photo that has **less PM**.
 - Tell why you think this photo has less PM.
3. Draw a “☹️” on the photo that has **dirtier air**.
 - Tell why you think this photo has dirtier air.
4. Draw a “😊” on the photo that has **cleaner air**.
 - Tell why you think this photo has cleaner air.

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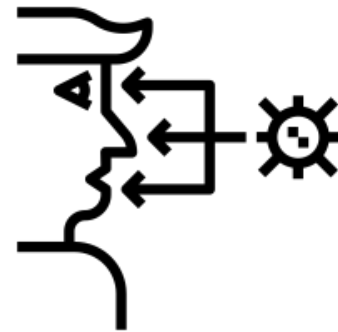
3. How does air pollution affect our health?

Draw a line to **match the words and pictures** to explain how **breathing PM** affects our health:

Words:

- Irritates the **eyes, nose, and throat**
- Gets into the **lungs** and bloodstream
- Triggers **asthma and allergies**

Pictures:



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4. Let's figure out how gas-powered cars and electric cars work.

Now, let's put together what we now know about **PM air pollution** and its **health effects** to learn how different types of **vehicles** affect how clean the air is.

- First, watch the [video](#) about how a **gas-powered car** works.
- Now, watch the [video](#) about how an **electric vehicle**, also called an EV, works.

How are **electric cars** and **gas-powered cars** the **same**? Draw or write your answer:

How are **electric cars** and **gas-powered cars** **different**? Draw or write your answer:

Class Reflection: Share your thoughts on the following questions as a class:

- Is **clean air** important?
- Do **gas-powered** or **electric cars** make our air **dirtier**?
- Do **gas-powered** or **electric cars** make our air **cleaner**?