



# **Understanding the Air We Breathe: Air Pollution & Air Quality Index (AQI)**

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# Introduction



Before we begin today's lesson, let's start with something we all do every moment... breathing in & Out!

As you breathe in, Notice:

- Is your breath deep or Shallow?
- Does it feel easy or heavy?

# Observe this image



- What differences do you notice between the two images?
- Which day do you think had cleaner air and why?
- What Clues in the photo helped you decide?

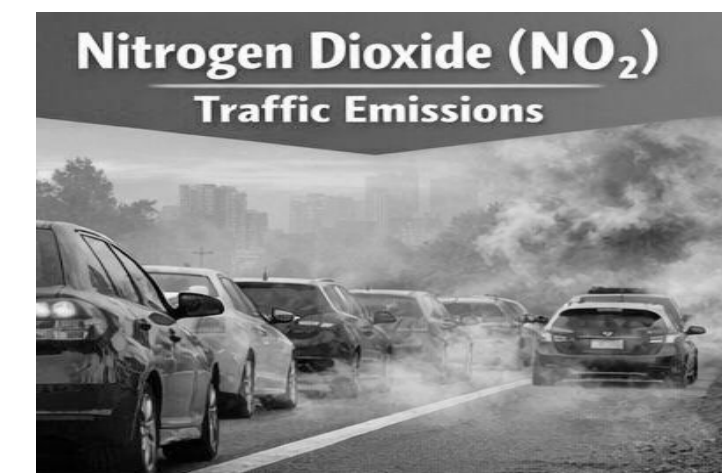
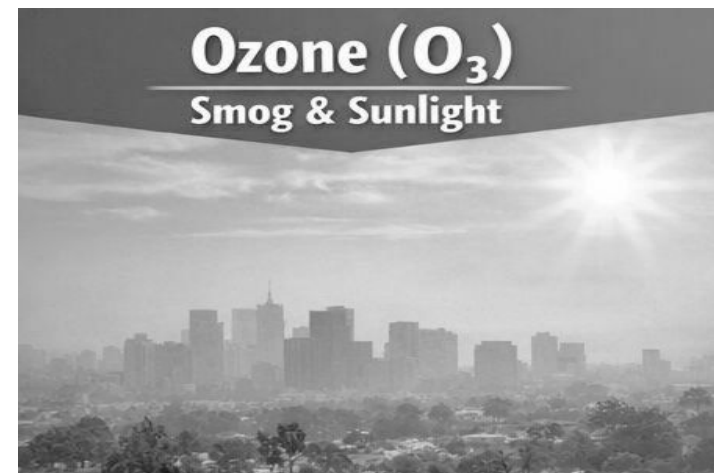
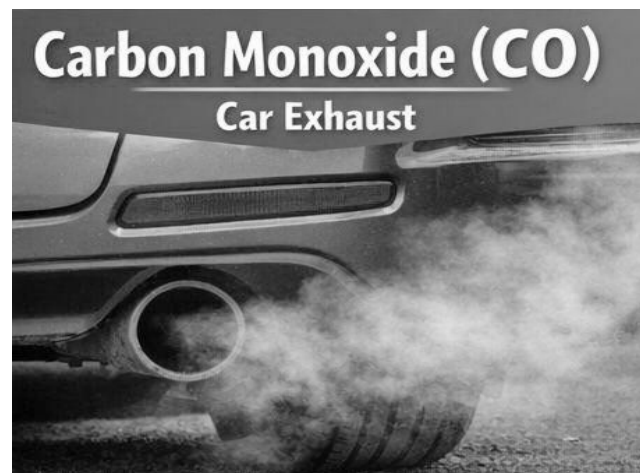
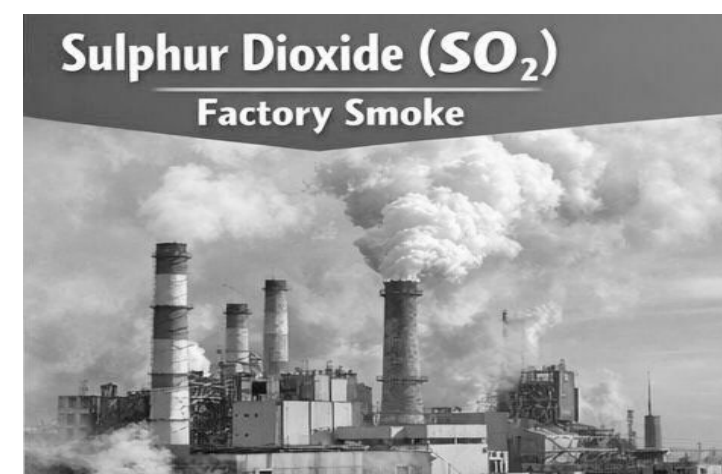
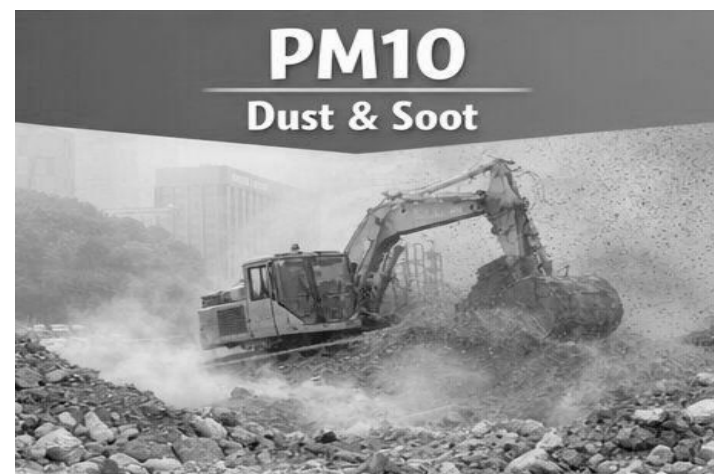
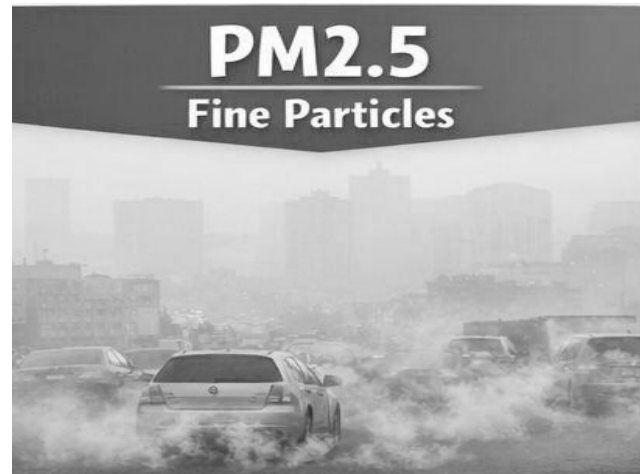
# Air pollution



Air Pollution is the contamination of air by harmful substances such as smoke, dust, particulate matter, and poisonous gases, making the air unsafe for humans, animals, plants and the environment.

# Air Pollutant

An air Pollutant is a harmful substance that makes the air dirty and unsafe to breathe.



## Air Quality Index (AQI)

The Air Quality Index (AQI) is a number used to tell how clean or polluted the air is .

A lower AQI value means cleaner air, while a higher AQI value means more polluted and unhealthy air.

AQI is shown using colors, where each color represents a different level of air quality and health risk.

# Air Quality Index(AQI) Scale

**Good**  
0-50

The air is fresh and free from toxins. People are not exposed to any health risk.

**Moderate**  
51-100

Acceptable air quality for healthy adults but mild threat to sensitive individuals.

**Sensitive groups**  
101-150

Inhaling such air can cause slight discomfort and difficulty in breathing.

**Unhealthy**  
151-200

This could be typically problematic for children, pregnant women and the elderly.

**Very Unhealthy**  
201-300

Exposure to air can cause chronic morbidities or even organ impairment.

**Hazardous**  
301-500

Beware! Your Life is in danger. Prolonged exposure can lead to premature death.

## Air Quality Index(AQI) ( Data from India)



Recent real-time air quality data show that air pollution varies widely across Indian cities. In the northern region, Delhi has an AQI of about 375.

In contrast, cities in the south and west show lower pollution: Bengaluru's AQI is approximately 103. Mumbai's AQI is around 131. Ahmedabad has an AQI of about 191

# Common Methods to check Air Quality Index(AQI)



- Google Maps: Open the app, tap the layers icon (squares), and select "Air Quality" to see local data
- Search Engines: Simply search "Air Quality [Your City]" or "AQI [Your City]" on Google or other search engines for quick results

What is the current air quality index of your City?

# Group Discussion

- What sources of air pollution do you see around your home or school?
- When does the air feel worse, morning, afternoon, or evening? Why?
- Which activities create smoke, dust, or bad smells in your area?
- Who is most affected by this pollution (children, elderly, workers)?
- What small actions can people in our community take to reduce it?

# Reflection and Commitment

Think about your home, school, or neighbourhood. What is one small action you can take to help improve air quality.



# Thank You!

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