

# What is Air?



## Target Grade Levels

Kindergarten - Fifth

## Time

20 minutes

## Materials

None

## Knowledge and Skills (TEKS)

- Science:
  - Make wise choices in the conservation of resources;
  - Describe ways technology influences human capacity to modify the environment;
  - Give examples of scientific discoveries and technological innovations that have shaped the world;
  - Compare ways living organisms depend on each other; and
  - Know that organisms need food, water, light, air, and habitat.
- Language Arts
  - Listen and talk about experiences; and
  - Make contributions to small or large group discussions.

## Overview

In this discussion activity, students will be asked a series of questions to see what they know about air—some possible answers are provided. Teachers can then choose from the accompanying series of activities to help students check their assumptions about air.

## Background Information

Before understanding air pollution and what it means to our air, students need to be able to recognize air itself. Air is all around us and is a primary ingredient for life—without air; there would not be any life as we know, so we need to take care of our air.

## Procedure

### 1) Vocabulary

- |                |                   |
|----------------|-------------------|
| a) air         | g) carbon dioxide |
| b) gas         | h) smokestacks    |
| c) atmosphere  | i) transportation |
| d) water vapor | j) molecules      |
| e) smoke       | k) atoms          |
| f) oxygen      |                   |

### 2) Activities

- a) Ask students to back up their answers with evidence. Questions for students with possible answers included below each question:
  - i) What do you know about air?
    - (1) We breathe air.
    - (2) Air is a gas.
    - (3) Air makes up the atmosphere.

ii) What are some things you have observed about air?

- (1) Air moves (wind).
- (2) Air can change temperature.
- (3) Air can smell.
- (4) Air can be seen (water vapor, smoke).
- (5) You can feel air when it moves (wind).
- (6) You can see air moves things (storms, trees, leaves, dust, litter).
- (7) Moving air makes weather.
- (8) Hot air rises (hot air balloon).

iii) How do living things use air?

- (1) Living things use air to breathe oxygen.
- (2) Plants use air (carbon dioxide) to make food.
- (3) Birds use air to fly.
- (4) Seeds are distributed by the wind.

iv) How does air become polluted?

- (1) Industry, such as smokestacks, pollutes the air.
- (2) Individuals' actions (driving, mowing) create pollution by burning gas.
- (3) Air coming from other areas of the U.S. pollutes the air.
- (4) Transportation (cars, planes, trucks, trains) helps create ozone pollution.

v) Is all air clean?

- (1) Some air is polluted.
- (2) Sometimes we can see air pollution.
- (3) Sometimes we can smell pollution.
- (4) Sometimes we can't see it or smell it, but special equipment shows that there is air pollution on in the air.

vi) What are the properties of air?

(1) Possible Answers

- (a) Air is transparent.
- (b) Air has weight.
- (c) Air takes up space.
- (d) Air is a gas.
- (e) Air is made up of molecules and atoms.

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Adapted from: "Ozone Action! Let's Clear the Air: Educational Activities Kindergarten-5th grade." West Michigan Clean Air Coalition. 2003. [www.wmcac.org/gradesk5.pdf](http://www.wmcac.org/gradesk5.pdf).