

## Virtual Science Adventure Lab (VSAL) How Do Lungs Work Lesson Summary

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**Grade Levels:** This virtual lesson is appropriate for students in grades K-6

**Time Required:** 20 minutes

### Outcomes and Objectives

#### Learning Targets

- To introduce students to the lungs.
- To introduce students to the role of the respiratory system in the body.

#### Assumptions of Prior Student Knowledge

- Students will understand that we need to breathe to survive.

### Description

In this virtual lesson, students will learn about the lungs and respiratory system. They will view pig lungs as an animal model that simulate healthy human lungs and those from a smoker to show how respiratory health can be impacted.

### Vocabulary

- **Alveoli:** Tiny air sacs at the ends of the bronchioles where gas exchange occurs between the lungs and blood.
- **Bronchial Tubes:** Tubes that branch off from the trachea and into the lungs.
- **Bronchioles:** Small tubes that branch off from the bronchial tubes in the lungs.
- **Cancer:** An illness that occurs when cells grow out of control. It is expressed as a tumor in the body.
- **Carbon Dioxide:** A waste gas produced by cells that we get rid of by exhaling.
- **Cartilage:** Flexible tissue that can be found in the ear, nose, and trachea that acts as a rubber-like protection for bones.
- **Lung Volume:** How much air the lungs can hold.
- **Oxygen:** An essential element needed for survival that helps all cells to function properly.
- **Respiratory System:** The group of organs that moves oxygen into the body and carbon dioxide out of the body.
- **Trachea/Airway/Windpipe:** The hard tube in the throat that allows air to pass from the nose and mouth to the lungs.