



## SECTION 6: RESPIRATION

### LAB

### INTRODUCTION

The respiration system exchanges gases in the blood. Oxygen is collected from the air by the lungs and carried to the cells by the blood. The blood collects carbon dioxide, a waste product, from the cells and returns it to be exhaled by the lungs. The exchange of oxygen and carbon dioxide takes place in air sacs in the lungs called alveoli.

**Diaphragm:** A muscle under the ribs that helps breathing by changing air pressure in the lungs. As the diaphragm contracts (is pulled downward), the size of the chest cavity increases. This makes less air pressure in the lungs and air from the outside rushes in, making the lungs expand.

### ASSESSMENT ANCHORS ADDRESSED

**S4.B.1.1** Identify and describe similarities and differences between living things and their life processes.

### PURPOSE

Students will study the respiratory system through a series of lessons that include by comparing carbon dioxide and oxygen and finding their lung capacity.

### MATERIALS

#### For the class:

Straws	Bromthymol blue
1 cup	4 vials with lids
¼ Alka-Seltzer tablet	6" piece anacharis* (aquatic plant)
1 qt. size plastic cup	Balloons
Rubber band	Tape*
Plastic tubing	Plastic dish pan
1 gallon transparent bottle	

*Teacher provides items marked with \**