

## SECTION 3: AIR IS A GAS

### LAB

#### INTRODUCTION

Air is a gas made of up 78% nitrogen, 20% oxygen and 2% other gases. Gases have weight, take up space, can exert pressure, and increase in volume when heated. In this lesson students will investigate the difference between the air they breathe and another gas, helium. The second activity focuses on the lungs as students study how many breaths they take in one minute and how much air their lungs can hold.

#### ASSESSMENT ANCHORS ADDRESSED

- S4.A.2.2** Identify appropriate instruments for a specific task and describe the information the instrument can provide.
- S4.C.1.1** Describe observable physical properties of matter.
- S4.C.3.1** Identify and describe different types of force and motion and the effect of the interaction between force and motion.
- S4.A.3.3** Identify and make observations about patterns that regularly occur and reoccur in nature.
- S4.D.1.2** Identify the types and uses of Earth's resources.

#### PURPOSE

Students will further study air as a gas and the properties of gasses through a series of activities and experiments.

#### MATERIALS

**For the class:**

10 tall plastic jars

11 rubber bands

11 plastic bags

Large bags (1 per student)

*Teacher provides items marked with \**

**For the teacher:**

1 balloon

2 liter plastic soda bottle\*

1 quart jar