

Name: _____

Date: _____ Period _____

Entry _____ **Sponge Bob and Party Blowers**
(How Much Air Can You Exhale?)

Problem: If your lungs hold about 6 liters of air, how much air (liters) can you exhale?

Your Hypothesis: (Use If...then ...because...)

Names of Students	Trial #1	Trial #2	Trial #3

Part I: The Sponge Lab

Procedure: Read the **Getting Started** section on page 91-92. Fill out the data table below while you follow steps 1-8.

Sponge Lab Data

Amount of H ₂ O Absorbed by the Sponge (ml)	Amount of H ₂ O Squeezed from the Sponge (ml)	Amount of H ₂ O Remaining in Sponge after Squeezing (ml)

Conclusion (answer the following with complete sentences)

1. Was the sponge still wet after you squeezed out as much as you could? _____ Why or why not?

2. How do you think the data collected above relates to your lungs and what happens when you inhale and exhale?

Part II: Measuring How Much Air You Can Exhale (Vital Capacity)

Procedure: Follow the directions for Inquiry 11.1 Procedure 1-6 on p.92-94. Fill out the data table below as you perform the experiment.

Exhaled Air Data
(Measuring Vital Capacity)

Names of Students	Trial #1	Trial #2	Average Amount of Exhaled Air (liters)

Conclusion (Use **complete sentences** to answer the following questions)

1. Why do scientists conduct multiple trials when doing an experiment?
2. What is the answer to the Investigative Question? Use the two data tables to support your answer.
3. Why is it important that air remain in your lungs after you exhale?
4. List five things that might affect how much air a person's lungs can hold?

Read p.96 Up, Up, and Away before answering #5 - #8 below.

5. What is the main cause of mountain sickness? Explain.
6. How does altitude affect the amount of oxygen in the air?
7. List four effects of oxygen shortage. (Symptoms)
8. What do experienced mountain climbers do to prevent mountain sickness?