

Science 9-Biology Activity 8E—Vital Capacity



10

Name _____

Name _____

Due Date _____

Show Me Hand In

Correct and Hand In Again By _____

- You are to complete this activity in **pairs**.
- Complete the **pre-lab questions** before you begin the lab.
- Once you have completed the lab answer the **questions** at the end.
- You will hand in **one report – this sheet** and your **questions - per pair**.

Pre-Lab Questions:

1. What is meant by **vital capacity**? _____

2. List factors that **might affect** your vital capacity.

Now after examining the list try to pair with someone who has a different quality on your list than you do.

Procedure:

1. Complete the **first two lines** of the table below. Each partner must **measure their vital capacity**, put it in the first column of the table and then check off the **qualities that match**.

To find your vital capacity you will use a **respirometer**.

BE SURE TO FOLLOW YOUR TEACHERS INSTRUCTIONS ON HOW TO USE THE RESPIROMETERS

Sign your **name to your mouthpiece so no one else uses it.**

** 1000 ml = 1 Litre **

VITAL CAPACITY IN LITRES	FACTORS THAT MIGHT AFFECT VITAL CAPACITY					
	MALE	FEMALE	ATHLETE	NON-ATHLETE	OVER 5'6"	UNDER 5'6"

2. Collect enough **data** from other class members to fill in all the rows of the table on page 2.

Questions:

1. What **factors** seem to affect vital capacity and how does each factor affect it (*increase or decrease*)?

Factor	Increase or Decrease Vital Capacity?

2. What factors **do not** seem to affect **vital capacity**?

3. When you **breathe out** do you remove all the air from your lungs? _____
 If not where is that **extra air**? _____
 What is this **extra volume of air** called? _____

4. What might some **advantages** be to **increasing** your vital capacity?

5. What might you do to **increase** your vital capacity?