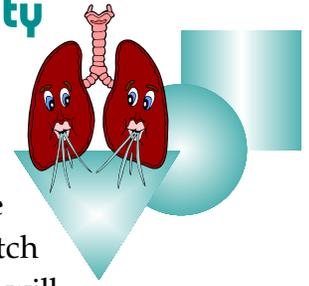


# Building Pulmo Park: A Constructivist Activity

## Student Information Page 2A



### Activity Introduction:

Have you ever been sitting around staring at a sun beam? Did you notice the dust in the air? Next time you are in this situation, breathe in deeply and watch as all those particles head straight down your windpipe! In this activity, you will explore the necessity of breathing, the volume of air you breathe each day, and how the lungs function to provide your body with a continuous supply of oxygen and to rid your body of waste products. This activity is completely exploratory, so locate your Lewis and Clark genes, grab your toolbox, and let's begin the construction of the respiratory system.

### Activity Background:

In the first part of this activity, you will explore a flash animation called *The Anatomy of Breathing* and make observations by completing a graphic organizer called *The Pulmo Park Blue Prints*. After discussing this with other classmates and your teacher, you will begin an exploratory lab called *Under Construction*. This lab consists of short lab station activities that you will match to visuals of the respiratory system in your *Pulmo Park Builder's Log*. Once you have explored, you will revisit your graphic organizer to add more detail and process out of this activity by creating a working model of the respiratory system called *Project: Build It*.

### Activity Materials:

1. Computer access to the flash animation "The Anatomy of Breathing" (<http://teachhealthk-12.uthscsa.edu/curriculum/pulmonary/pulmonary-breathsimulation.html>)
2. 1 Class set *Student Information Pages*
3. 1 Copy *Student Data Page* for each student
4. Lab Baskets for each station

### Activity Instructions:

1. *Explore what you already know and what you can learn on your own.* Using the graphic organizer, *The Pulmo Park Blue Print*, observe the flash animation called, *The Anatomy of Breathing* and record observations from the video. Use the flash animation *as many times as you need to do a thorough job*. It is found at the following URL: (<http://teachhealthk-12.uthscsa.edu/curriculum/pulmonary/pulmonary-breathsimulation.html>).
2. *All done...not quite!* After completing the graphic organizer, divide into groups of three as directed by your teacher and review the information collected by the group. As a whole class, discuss how the respiratory system works (based upon your observations and inferences). Share the most significant findings first, but be sure to share important details that someone might have missed. Be prepared to take notes as your teacher will add more information.



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3. **Lab time.** Your teacher will set up lab stations called *Under Construction* and you and your group of three will rotate through each station, following the instructions at each station. You will complete the lab sheet *Pulmo Park Builder's Log* by matching the lab with a visual on the log. You will also write a justification for your inferences. Once everyone has had time to do the lab investigations, you will again discuss findings and observations as a class. Take notes on points you had not considered. You will need to apply this knowledge later!
4. **Back to the graphic organizer.** Now that you have some new ideas on how the respiratory system works, go back and revisit the flash animation and add new important points.
5. **Process out!** To complete this activity, build a model of the lungs reviewing what you have learned called, *Project, Build It!*

