

Name \_\_\_\_\_

Date \_\_\_\_\_

### LAB 3B: Confound it all! *Response Sheet*

Directions: Record your responses to the **bold** lab questions in the spaces provided.

#### Finding data in new places

#### Importing our data

#### Our new data

#### About the data

#### Cleaning your data

#### Analyzing our data

- **Write down a reason the researchers couldn't use an experiment to test the effects of smoking on children's lungs.**
  
- **Do you think that a person's age affects their lung capacity? Make a sketch of what you think a scatterplot of the two variables would look like and explain.**

Use the lungs data to create an xyplot of age and lung\_cap.

- **Interpret the plot and describe why the relationship between the two variables makes sense.**

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### LAB 3B: Confound it all! *Response Sheet*

#### Smoking and lung capacity

Make a plot that can be used to answer the statistical investigative question: *Do people who smoke tend to have lower lung capacity than those who do not smoke?*

- **Use your plot to answer the question.**
  
- **Were you surprised by the answer? Why?**
  
- **Can you suggest a possible confounding factor that might be affecting the result?**

#### Let's compare

- **How does the relationship between smoking and lung capacity change as we increase the age from 13 to 15 to 17?**

#### Sum it up!

- **Does smoking affect lung capacity? If so, how?**