$\qquad$ Date $\qquad$ Period $\qquad$

## Lab: The Scientific Method - Optical Illusions BIOLOGY

Directions: Make your guess and then measure with a metric ruler.

1. Which line is longer, $\mathbf{A B}$ or $\mathbf{C D}$ ? $\qquad$
$\underset{A}{7}$
B

C
D

What are the actual lengths of the two lines $\mathbf{A B}=$ $\qquad$ $C D=$ $\qquad$
2. Which line is longer EF or GH? $\qquad$


What are the actual measurements?
$E F+$ $\qquad$ GH = $\qquad$
3. Which Circle is larger? $\mathbf{A}$ or $\mathbf{B}$ $\qquad$
4. Which center circle is largest? $\qquad$

5. Which line appears longest, $\mathbf{A B}$ or $\mathbf{B C}$ ? $\qquad$ Which is the longest? $\qquad$
6. Do you only see black shapes on white - or a word?

7. Which line continues straight through the diagram, $\mathbf{A}$ or $\mathbf{B}$ ? $\qquad$
Check it with a ruler! Which one is it?
8. Look at the pairs of lines in the three diagrams below. Do they look straight or curved? $\qquad$
Check them with a ruler. Are they straight or curved? $\qquad$


Why do you think that they look curved? Give me your best hypothesis.

9. How would you describe the "rounded" shape on the inside of this structure?

It is actually a perfect circle.....check it!
Why do you think people perceive it differently?
10. Look at the box to the right. Describe what you see when you stare at it. Why do you think it appears the way it does?


