**How does light behave?**

1. Light is an electromagnetic wave: How are electromagnetic waves different from sound (mechanical) waves?

***Coin Trick***

2. How did the coin look in the glass of water? Don’t forget different angles.

3. How did the coin look under the glass of water? Don’t forget different angles.

4. In the space (to the right)draw a diagram/model

showing what observations you made with

coin and drops of water under the cup.

5. What do you believe is the scientific reason for these observations?

***Broken Glass***

6. How did the pencil look when it was in the center of the glass of water?

7. How did the pencil look when it was resting against the side of the glass of water?

8. In the space (to the right) draw a diagram/model

showing what observations you made

when the pencil was left of the center.

9. What do, you believe is the scientific reason for these observations?

***Directional Arrows***

10. What did the ONE arrow look like through the water?

11. What did the TWO arrows look like through the water?

12. In the space (to the right) draw a diagram/model

showing what observations you made

when you moved the glass from side to side.

13. What do, you believe is the scientific reason for these observations?

***Watery Stripes***

14. How did the stripe sheet look with the glass was ½ filled with water?

15. How did the stripe sheet look with the glass was totally filled with water?

16. In the space (to the right) draw a diagram/model

showing what observations you made

when you moved the glass from side to side.

17. What do, you believe is the scientific reason for these observations?

***Analysis and Conclusions***

Write a conclusion that explains what you have learned about the behavior of light as it passes from one medium to another.