



# Telescope Lab

Name \_\_\_\_\_ Block \_\_\_\_\_

1. Draw a diagram of your telescope.

Objective lens  
Eyepiece lens

Outer Tube  
Inner Tube

Draw light rays to show lens collecting light  
Label the lens that magnifies

2. a. What type of telescope is this? Reflecting or Refracting?

b. What type of energy from the Electromagnetic Spectrum does this telescope collect and focus?

3. Using the telescope, focus on an object in the room. Measure the length of the inner tube (sticking out of the outer tube) in cm.

Object \_\_\_\_\_ Length of Inner Tube \_\_\_\_\_ cm

4. Using the telescope, focus on a distant object outside. **NOTE: DON'T LOOK AT THE SUN!!** Measure the length of inner tube (sticking out of the outer tube) in cm.

Object \_\_\_\_\_ Length of Inner Tube \_\_\_\_\_ cm

5. Study the answers for #3 and 4. What is the relationship between length of tube and distance to object?

As the length of the tube \_\_\_\_\_, the distance to the object \_\_\_\_\_.

6. What is the relationship between the size of the lens and the amount of light gathering power? See pg. 359 in your textbook.

7. Compare and contrast a Refracting Telescope (uses lenses) and a Reflecting Telescope (uses mirrors) See Types of Telescope Study Guide and pages 360 & 361 in your textbook.

8. List at least three other interesting observations you made during this lab.