

Name \_\_\_\_\_

## **“Scope It Out” Worksheet**

### **Level Zero**

#### **Define:**

Reflector Telescope

Refractor Telescope

Who invented/is credited with the refracting telescope? What date did the discovery occur?

Draw a diagram to show how the light travels as it enters the top of the telescope until the light is seen by the observer.

Who invented/is credited with designing the first reflecting telescope? What date did the discovery occur?

## Level One

**Match the seven components on the Newtonian Telescope with the corresponding component on the James Webb Space Telescope.**

| <b>Newtonian Telescope</b> | <b>James Webb Telescope</b> |
|----------------------------|-----------------------------|
| 1.                         | 1.                          |
| 2.                         | 2.                          |
| 3.                         | 3.                          |
| 4.                         | 4.                          |
| 5.                         | 5.                          |
| 6.                         | .                           |
| 7.                         | 7.                          |

## Level Two/Level Three

**Draw a diagram of the Hubble Space Telescope and draw lines to a diagram of the corresponding components on the James Webb Space Telescope.**

## Level Four

What is the function of the James Webb Space Telescope's sunshield?

How do the diameters of the mirrors compare for the Hubble Space Telescope and the James Webb Space Telescope?

How many hexagonal segments does the James Webb Space Telescope have?

What is the ISIM? What is the ISIM's function?