

**A) Microscopes**

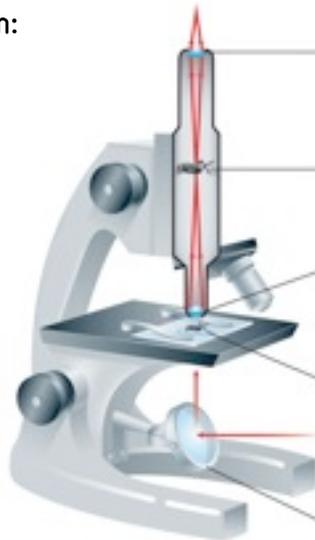
1. What is the function of a compound microscope?



2. What type of lenses does it use?

3. Describe how a compound microscope works.

4. Label the parts on the diagram:



5. Create 3 possible quiz questions and answers for this section.



## B) Refracting Telescopes

1. What is the general purpose of a telescope?

2. How is a telescope similar to a microscope?

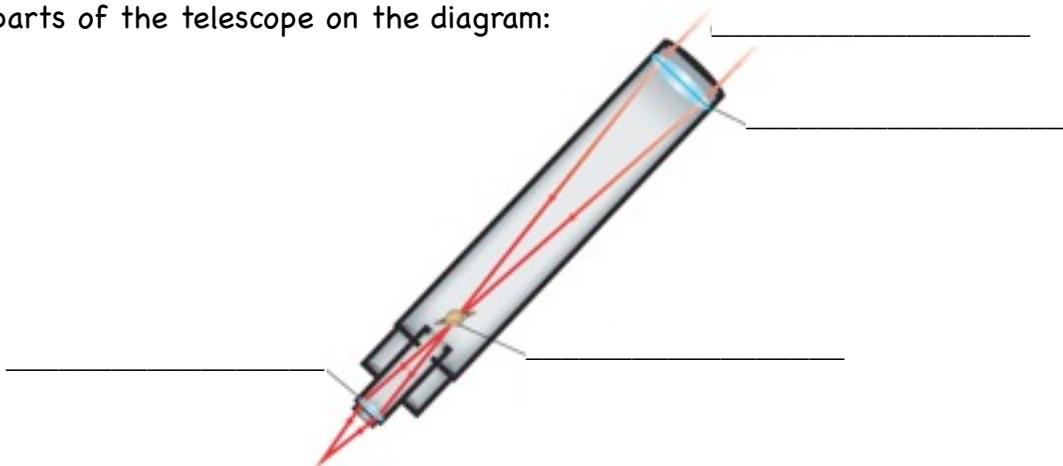
3. How is a telescope different from a microscope?

4. How many lenses does a refracting telescope use?

5. Describe how a refracting telescope works.

6. What are some problems with refracting telescopes?

7. Label the parts of the telescope on the diagram:

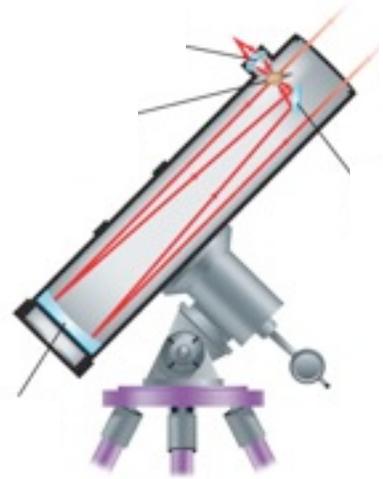


### C) Reflecting Telescopes

1. Are reflecting telescopes common? Why or why not?

2. Name the 2 types of mirrors and the type of lens used in a reflecting telescope.

3. Describe how a reflecting telescope works.



4. Give an example of a reflecting telescope.

5. What is the Hubble Space Telescope?

6. How big is the main mirror in this telescope?

7. How is the Hubble Space Telescope different from ground-based telescopes?



## D) Binoculars

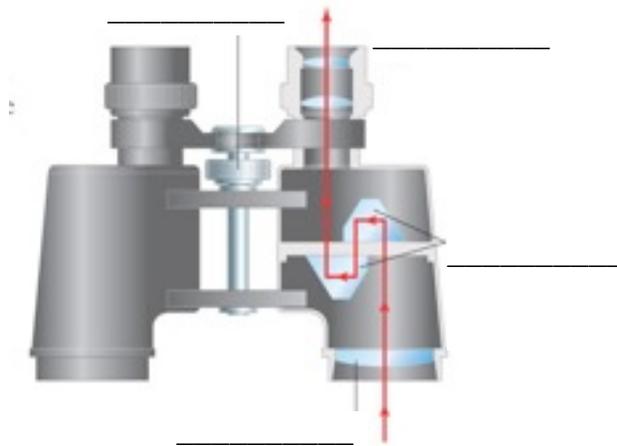
1. Why type of telescope do binoculars make use of?

2. How are these telescopes modified in binoculars?

3. What is the function of prisms in binoculars?

4. What is the function of the thumbscrew in binoculars?

5. Label the pair of binoculars.



6. Create 3 quiz questions and answers for this section.

## E) Cameras



1. What type of lens does a digital camera use?
2. What type of image does this lens produce?
3. Describe 3 characteristics of a wide angle lens.
4. How should you use a wide angle lens in order to produce a sharp image?
5. Name 1 characteristic of a telephoto lens.
6. Describe the image that appears through a telephoto lens.



## F) Comparing Cameras to Human Eyes



1. Fill in the chart below to show how each part of a camera may be represented by a part of the human eye.

Camera Part	Human Eye Part

2. Name 2 ways that a camera is similar to a human eye.

3. Name 2 ways that a camera is different from a human eye.