Names:_____

Section (MWF or TR)

In-class activity 1 – The Universe

Work in groups of two and turn in one exercise per group. Use complete sentences and sketches to answer each question below. Turn in before you leave class today.

1. Explain in words and with an equation how Hubble's rate of cosmic expansion can be used to derive the age of the universe.

2. If all galaxies in the universe are moving away from each other, what shape does the universe have to be, and how is that shape changing over time? Does the universe have an edge?

3. What is the name of our galaxy? Describe its shape.

4. Which planets are the inner, rocky planets? Which planets are the outer gas giants?

5. What caused the differences between the inner rocky planets and the outer gas giants? Is this mechanism still happening today?

6. Based on the new definition of a planet, why is Pluto no longer a planet?