

## **Solar System Study Guide**

Directions: Complete this study guide to prepare for your **test on Monday, 5/23** - all classes.

**Turn in this study guide for a homework grade by:**

Thursday, 5/19 - 6B

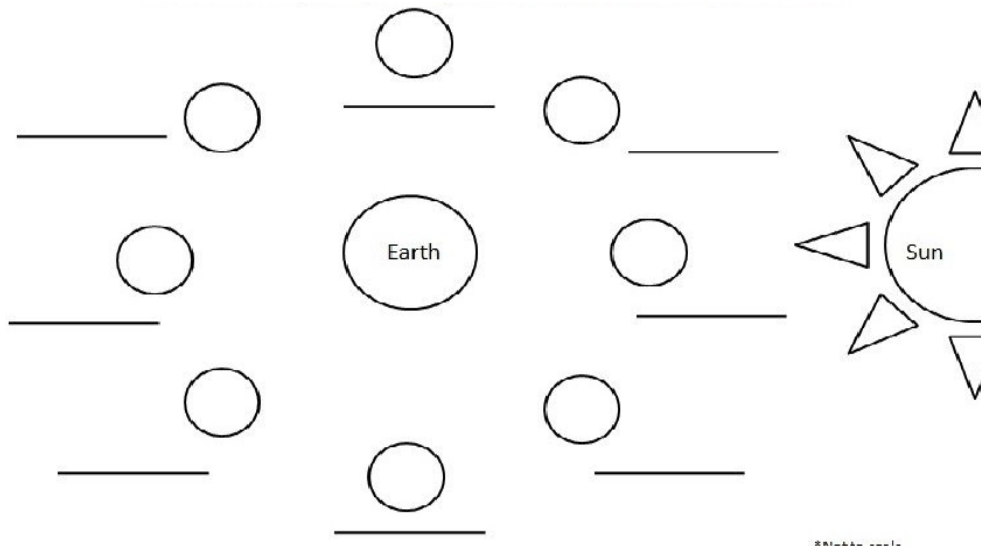
Friday, 5/20 - 6A, 6C, 6D, 6E

### **Part 1: Planets**

1. Write all the planets in order of distance, beginning with the planet that is closest to the sun.
2. Write all the planets in order from smallest to largest.
3. Will smaller planets have a stronger or a weaker gravity?
4. Will planets with a stronger gravity have a thin or thick atmosphere?
5. What is the temperature like on Mercury? Why?
6. What is the temperature like on Venus? Why?
7. What is the temperature like on Earth? Why?
8. What is the temperature like on Mars? Why?
9. What are the inner planets made of?
10. What are the outer planets made of?
11. Which of the inner planets have moons? How many?
12. Which planets have rings?

## **Part 2: Phases of the moon**

Draw and label each phase of the moon



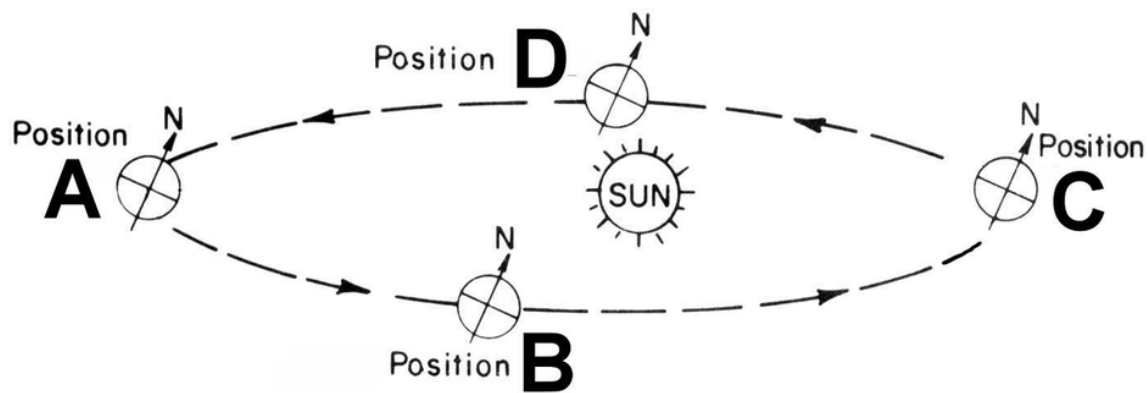
## **Part 3: Tides**

1. What causes the tides?
2. What phases of the moon lead to spring tides?
3. What phases of the moon lead to neap tides?
4. How many hours does it take to go from a high tide to a low tide at a given location on Earth?
5. How many hours does it take to go from a high tide to the next high tide on a given location on Earth?
6. What are spring tides? How many times per month do spring tides occur?
7. What are neap tides? How many times per month do neap tides occur?

#### **Part 4: Eclipses**

1. True or false: a lunar eclipse occurs when the moon falls in the sun's shadow.
2. True or false: a solar eclipse occurs when the sun falls in the Earth's shadow.
3. Write the order in which the sun, Earth, and moon are lined up for a lunar eclipse.
4. Write the order in which the sun, Earth, and moon are lined up for a solar eclipse.
5. What is the umbra?
6. What is the penumbra?

#### **Part 5: Seasons**



For each position, label the season in the northern and southern hemisphere, and the month of the year.

#### **Part 6: Small objects**

1. Where are asteroids located in the solar system? (hint: name all three possibilities!)
2. What are comets made out of? Where do they originate from?
3. What direction does the tail of a comet point?
4. What is the difference between meteoroids, meteors, meteorites?
5. Which object is the smallest (usually): asteroids, comets, meteoroids? Why?
6. Why are there usually meteor showers when Earth passes through the orbit of a comet?