Mastery Opportunity - Astronomy

Mastery assignments are optional, but are due ONLY on the day of the test.
Choose any two of the following four assignments.

Option 1:

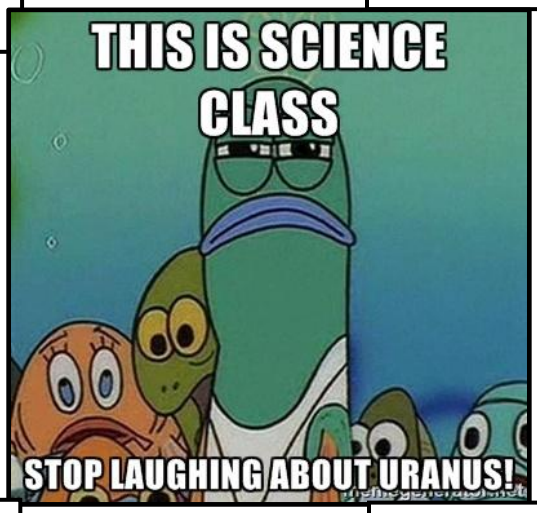
1. What happens to light as a star moves away from us? As it moves closer? (describe BOTH the wavelength and the color)
2. What is the Big Bang Theory? What evidence do scientists have to support it?
3. What is the process that generates energy in a star? Which elements are involved?
4. Describe each of the following: nebula, red giant, white dwarf, nova, black hole
5. Which two elements make up the sun?
6. What are sunspots and what is their significance to us on Earth?
7. What is an aurora and what causes it?

Option 2:

Create a facebook "conversation" between the two scientists that each organized the stars by their temperature and brightness/magnitude.

Document:

1. Their idea
2. Discovery of the patterns/placement
3. Publishing idea
4. Discovery that someone else did the same thing
5. "compromise"/shared credit of H-R diagram



Option 3:

Create a detailed sketch that shows each stage in stellar evolution.
You will need:

1. Picture/diagram of each stage
2. Labels for each
3. Description of each

As you complete this, be sure to note where our sun is along this evolutionary path.

Option 4:

1. What is a solar eclipse? A lunar eclipse?
2. Name & describe the 8 phases of the moon?
3. Where is the asteroid belt located?
4. What are "shooting stars"?
5. Explain the nebular theory.
6. Differentiate between a geocentric model of our solar system and a heliocentric model
7. What is the cause for Earth's seasons?
8. Differentiate between barycenter, nutation, and precession.

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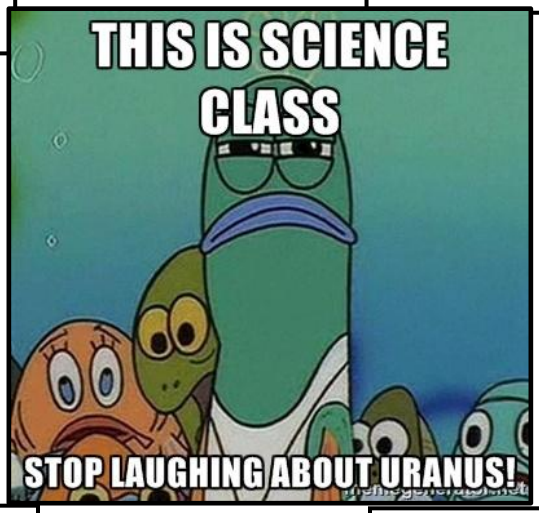

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