Inventors/Pioneers Science Week 2 Lesson Plan

Friday, September 2, 2016

Then God said, "Let there be lights in the firmament of the heavens to divide the day from the night; and let them be for signs and seasons, and for days and years; and let them be for lights in the firmament of the heavens to give light on the earth"; and it was so. Then God made two great lights: the greater light to rule the day, and the lesser light to rule the night. He made the stars also. God set them in the firmament of the heavens to give light on the earth, and to rule over the day and over the night, and to divide the light from the darkness. And God saw that it was good. So the evening and the morning were the fourth day. – Genesis 1:14-19

Class Overview: Apologia Astronomy, Chapter 1, Week 1 of 2

Students will have read pages 186-188 and should have planisphere

- Prayer
- Collect homework assignments
- Astronomy Week 1 Content

A. Review

- Astronomy – astron – star or aster (the flower) and study or laws of
- Oldest of the natural sciences – why is that?
- Show aster flowers
- What is the purpose of all these bright objects? Answer: Signs and Seasons – Genesis 1:14-19
- Signs for navigation: some birds, sailors & explorers
- Seasons: man, or planting, hunting, preparing for the season ahead
- Pull from the review questions: gravity, galileo, heliocentric, planisphere, latitude
- Pull from Along Came Galileo chapter 1

B. **What do we know:** So we determined north, then we can place our sundial and we can determine the time; we can watch the moon and determine that it take right around 28 days to go through its phases; we know that the Egyptians went even further and determined the solar year. They determined that 12 month fit into a solar year with 5 days left over.

C. **How did the Egyptians determine this?**!?!?!

- Nile levels; precip; planting and harvest
- Patterns of the stars
- The sun's path would not have helped determine this because in the tropics, the path of the sun stays the same
- Great resource for the development of the calendar is Daniel Boorstin's "The Discoverers"

D. Planisphere demo

- Combines the 24 hour clock (earth's rotation) with the solar year (earth's revolution about the sun) which you will learn more about this week as you study the sun
- http://astronomy.sierracollege.edu/Courses/Astronomy02/Planisphere.htm