Lab #6: *Astronomy* (Chapter 4)

INTRODUCTION:

The objective of this lab is for the student to learn how to find with an app specific stars and galaxies, how to use a telescope, and where to find notable objects in the night sky, especially those relevant to creationists.

MATERIALS

- Telescope
- Star constellation app (e.g., "Star Chart") on a mobile device

METHODS

1. Use the star constellation app to find and observe (with the telescope) the location of the viewable planets in our solar system.
    - Document the relative differences in star versus planet brightness and size as seen through a telescope or the naked eye. Rate the differences using a scale of 1-5, with 1 being the dimmest.
2. Find and observe the best example of a spiral galaxy, Andromeda—the closest large galaxy to our own.
3. Find and observe the blue supergiant, Rigel in the constellation Orion (bottom right star of constellation—47,000 times as luminous as our Sun; 870 light years from the Sun). [Can you see the blueish tint of the star?]
4. Find and observe Alnilam (center of Orion's belt; blue supergiant star; 1,350 light years from Earth)
5. Find and observe Betelgeuse (top left star in Orion; red giant; one of the largest known stars; 429 light years away from Earth; 550-920 times the diameter of the Sun). [Can you see the reddish tint of the star?]

RESULTS/DISCUSSION

1. Discuss the differences between planets and stars, as viewable through a telescope.
2. Why are spiral galaxies significant to creationists?
3. As blue stars, why are Rigel and Alnilam significant to creationists? [See for further study: The Stars of Heaven Confirm Biblical Creation | Answers in Genesis]
4. How can distant starlight (theoretically billions of light years away) be explained in light of the Bible?
5. Discuss the significance of Psalm 19:1 and Genesis 15:5 in light of your observations.
6. Discuss any other astronomic observations from the evening which would be relevant to Bible believers/Creation science.