



Science Benchmark Achievements

Senior Science

The Fourth Day: Astronomy

Ages 12+

Objectives at this age:

- Students will complete their astronomy science textbook.
- Upon completion of the textbook, they will be prepared to enroll in a college-level astronomy course.
- Student-created textbooks should demonstrate a basic understanding of astronomy.
- However, students are encouraged to explore subjects in greater depth according to their interests and desires.

Student-created textbooks should include:

- A cover designed and created by the student
- An introduction to astronomy written by the student that includes the question and discussion of why and how God organized and created the universe
- Definitions, illustrations, and descriptions of chemistry terms and concepts listed in the Elementary Science Benchmark Achievements for Astronomy
- A combination of reports, essays, illustrations, research papers to demonstrate student's knowledge of the following divisions of astronomy. (At least 3 projects for each division)
 - The sun (size, composition, distance, shadows, solar flares, solar eclipse)
 - The moon (phases, full moon, new moon, crater, lunar eclipse, moon's gravity, tides)
 - Our solar system (planets, orbits, asteroids, gravitation, space travel)
 - The universe (clusters, eternity, infinity, light year, quasar, red shift, superclusters)
 - Stars and Galaxies (elliptical, irregular, spiral, black holes, constellations, neutron star, nova, supernovas, white dwarf)
 - Space Rocks (Comets, meteorites, asteroids, asteroid belt, meteor shower)
 - Famous scientists (Galileo Galilei, Nicolaus Copernicus, Isaac Newton, Edwin Hubble)
- Conclusion written by the student that answers the question of why and how God created things using chemistry. Students may consider searching the scriptures for the following terms to assist them in their study:

- Worlds without number, worlds, innumerable, heavens, stars, sun, moon, creation, space, organized, greater light, lesser light, eternal, infinite
- Include a bibliography in the back of the book to reference the materials used in the creation of the textbook
- Optional: Table of contents and page numbers