



Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
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Space, That Vast Frontier

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Astronomy is said to excite the imagination in ways that no other area in science can. Often students imagine and talk about floating in space and intergalactic travel. People in many geographic locations have reported sightings of UFO's. There have been reports of alien infiltration and encounters from outer space phenomena. It is these reports and anxiety that caused my students to be concerned about the vast frontier of space.

Some of the major concerns of my students are as follows: 1) Is there any form of life in outer space? It is speculative that life exists beyond Earth. There is no scientific evidence to support such speculations otherwise. The chance of finding microorganisms on other planets, however, cannot be ruled out. 2) Travel through space. What the students are likely to discover is that the Earth is not the only planet in the Solar System. The major body in the Solar System is the Sun. The Solar System is made up of nine planets and their satellites, comets and countless minor bodies of meteorites and meteors. 3) Stellar detectors. Various telescopes and instruments are used to study the Sun and other stars. The telescope makes it possible to study many star groups. The telescope is most useful to show detail and take photographs of the night sky. 4) Life cycle of stars. Modern theory portrays that a star begins inside a nebula and contracts. Later it joins the main sequence. Eventually it will collapse into a condensed white dwarf, a neutron star or a black hole, according to its mass.

This unit will be used as a tool to enhance the eighth grade Earth Science unit on astronomy. This unit will be spread out and dissected to fit whatever aspect in the astronomy unit requires illuminating from data that I have gathered. In two of my classes this unit will be taught in its entirety. The time frame for teaching this unit is two weeks. Included in this unit are: vocabulary list, lesson plans, resources, field trip plans, student reading list, teacher reading list, and bibliography.

The students are looking for answers to their many questions and I am looking forward to answering them. The interchange will stimulate and enhance their knowledge of space.

I concur that space is a vast frontier which is far from being tamed. There is something new on the horizon to be explored. Technology has permitted man to get a quick glimpse into outer space but there is much more.

(Recommended for Earth Science, grade 8; Physical Science, grades 8-9; and General Science, grades 9-10)

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