

## Canadian Provincial Correlated Learning Outcomes

### Alberta

#### Grade 9

#### Unit E: Space Exploration

#### 1. Investigate and describe ways that human understanding of the Earth and space has depended on technological development.

- Identify different perspectives on the nature of Earth and space, based on culture and science.

#### Starry Night Lesson Plans

*In order of relevance*

E1 E2 E3

- Investigate and illustrate the contributions of technological advances- including optical telescopes, spectral analysis and space travel- to a scientific understanding of space.

F1 F2 F3 G1 G2 H1 H2 H3 I1 I2

- Describe, in general terms, the distribution of matter in space (e.g., stars, star systems, galaxies, nebulae)

G1 G2 H1 H2 H3

- Identify evidence for, and describe characteristics of, bodies that make up the Solar System; and compare their characteristics with those of Earth.

B1-B2 C1-C3 D1-D3 F1-F3

- Describe and apply techniques for determining the position and motion of objects in space.

E1-E3 G1-G2 I1 H1-H3

- Investigate predictions about the motion, alignment and collision of bodies in space and critically examine the evidence on which they are based (eclipses; meteor showers).

A5 B2 C2 D1 D2 D3

#### 2. Identify problems in developing technologies for space exploration, describe technologies developed for life in space, and explain the scientific principles involved.

I1 I2

#### 3. Describe and interpret the science of optical and radio telescopes, space probes and remote sensing technologies.

I1 I2 F1 F2 F3 G1 G2 H1 H2 H3

#### 4. Identify issues and opportunities arising from the application of space technology, identify alternatives involved, and analyze implications.

I1 F2