Educational Resources from *Phenomenon Science Education* Student Proficiency Goals for **NGSS 1-ESS1-1**



Information about 1-ESS1-1

NGSS Performance Expectation 1-ESS1-1.

Use observations of the sun, moon, and stars to describe patterns that can be predicted.

Clarification Statement.

Examples of patterns could include that the sun and moon appear to rise in one part of the sky, move across the sky, and set; and stars other than our sun are visible at night but not during the day.

Assessment Limits.

Assessment of star patterns is limited to stars being seen at night and not during the day.

Science and Engineering Practice (Analyzing and Interpreting Data)

• Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions.

Disciplinary Core Idea (ESS1.A: The Universe and its Stars)

• Patterns of the motion of the sun, moon, and stars in the sky can be observed, described, and predicted.

Crosscutting Concept (Patterns)

• Patterns in the natural world can be observed, used to describe phenomena, and used as evidence.

Educational Resources from *Phenomenon Science Education* Student Proficiency Goals for **NGSS 1-ESS1-1**



Student Proficiency Goals	
SEP (Analyzing and Interpreting Data):	
 Students observe, either firsthand or from grade-level appropriate media, the apparent positions and movements of the Sun, Moon, and other stars. Students organize their observations of the apparent positions and movements of the Sun, Moon, and other stars. Students identify patterns within their organized observations of the apparent positions and movements of the Sun, Moon, and other stars. Students share their organized observations of the Sun, Moon, and other stars. Students use the patterns they identify within their organized observations to help answer scientific questions. 	
 DCI (ESS1.A The Universe and its Stars): Students know that there are objects in the sky which can be observed, namely the Sun, the Moon, and other stars. Students know that the Sun, Moon, and other stars appear to move in the sky over time. Students know that the apparent positions and movements of the Sun, Moon, and other stars can be described. Students know that predictions can be made about the future apparent positions and movements of the Sun, Moon, and other stars. 	 CCC (Patterns): Students notice that apparent positions and movements of the Sun, Moon, and other stars result in observable patterns over time which can be described. Students consider how patterns in the apparent positions and movements of the Sun, Moon, and other stars can serve as evidence to help answer scientific questions.