

Grade 1: Day and Night Patterns

Stage 1 Desired Results		
ESTABLISHED GOALS: <u>Competencies:</u> <u>Nature of Science and Engineering</u> - Students will demonstrate the ability to work collaboratively and individually to generate testable questions or define problems, plan and conduct investigations using a variety of research methods in various settings, analyze and interpret data, reason with evidence to construct explanations in light of existing theory and previous research, and effectively communicate the research processes and conclusions. <u>Patterns</u> - Students will demonstrate the ability to observe and describe patterns in natural and human designed phenomena and use those patterns to support claims about the observed or predicted relationships among phenomena. <u>Content Standards:</u> 1-ESS1-1. Use observations of the sun, moon, and stars to describe patterns that can be predicted. 1-ESS1-2. Make observations at different times of year to relate the amount of daylight to the time of year.	Transfer	
	Students will be able to independently use their learning to make informed decisions based upon periodic patterns.	
	Meaning	
	ENDURING UNDERSTANDINGS <i>Students will understand that...</i> - patterns in the natural world can be observed, used to describe phenomena, and used as evidence. - science assumes natural events happen today as they happened in the past. Many events are repeated.	ESSENTIAL QUESTIONS Who cares about patterns?
	Acquisition	
	<i>Students will know...</i> - that patterns of the motion of the sun, moon, and stars in the sky can be observed, described, and predicted. - that seasonal patterns of sunrise and sunset can be observed, described, and predicted. - that the sun's apparent motion follows a regular, predictable pattern that can be used to explain a variety of phenomena on Earth. <u>vocabulary:</u> sunrise, sunset, shadow, patterns, position, cycle, full moon, half moon, new moon, waxing, waning, constellations, gibbous	<i>Students will be skilled at...</i> - making observations (firsthand and from media) on periodic patterns to collect information. - observing, describing, and predicting cyclical patterns (sunrise/sunset, phases of the moon, etc.). - comparing periodic pattern information collected (example: high/low tide, moon calendar, stars).
Content Area Literacy Standards		21st Century Skills
not applicable		- use technology effectively - make judgments and decisions - reasoning effectively - manage and use information

Stage 2 - Evidence	
Evaluative Criteria	Assessment Evidence
	PERFORMANCE TASK(S):

	OTHER EVIDENCE:
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Stage 3 – Learning Plan <i>Summary of Key Learning Events and Instruction</i>	
<i>Language Arts Integration</i> • W.1.7 Participate in shared research and writing projects (e.g., explore a number of “how-to” books on a given topic and use them to write a sequence of instructions). • W.1.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.	<i>Mathematics Integration</i> • MP.2 Reason abstractly and quantitatively. • MP.4 Model with mathematics. • MP.5 Use appropriate tools strategically. • 1.OA.A.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations to represent the problem. • 1.MD.C.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.
<i>Technology Integration</i>	<i>District Materials</i>