

Science
Unit 1: Day and Night

Essential Understandings	<ul style="list-style-type: none"> ▪ Predictable cycles influence life on Earth. ▪ Earth’s movement relative to the sun causes night and day cycles.
Essential Questions	<ul style="list-style-type: none"> ▪ What is the sun? ▪ What is the relationship of the sun and the earth? ▪ How does the sun affect things on Earth? ▪ How are shadows made? ▪ Why do we have night and day? ▪ How do the earth and moon move around the sun?
Essential Knowledge	<ul style="list-style-type: none"> ▪ The sun is a star. ▪ The sun is the closest star to the earth. ▪ The earth rotates on its axis. ▪ The earth orbits around the sun. ▪ The sun does not move around the earth. ▪ The moon orbits around the earth. ▪ The moon looks different from day to day. ▪ There is a day and night cycle. ▪ The sun gives off light and heat energy. ▪ Shadows change as the sun’s position changes. ▪ Scientists use tools to conduct investigations, gather data, and answer questions. ▪ Scientists use evidence to develop and communicate outcomes.
Vocabulary	<ul style="list-style-type: none"> ▪ <u>Terms:</u> <ul style="list-style-type: none"> ○ day, night, cycle, sun, moon, position, energy, star, shadow, Earth, change, orbit, rotate, axis, observe, investigation, data, question
Essential Skills	<ul style="list-style-type: none"> ▪ Identify the sun as the closest star to Earth. ▪ Identify the day/night cycle. ▪ Tell that the sun gives off light and heat. ▪ Demonstrate how a shadow is made. ▪ Compare shadows at different times of the day. ▪ Describe the movement of the earth. ▪ Describe the movement of the moon. ▪ Describe how the appearance of the moon changes. ▪ Ask questions and seek answers from reliable sources. ▪ Plan and conduct an investigation using appropriate tools. ▪ Use data to develop and communicate outcomes.

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<p align="center">Related Maine Learning Results</p>	<p><u>Science</u> B. The Skills and Traits of Scientific Inquiry and Technological Design B1.Skills and Traits of Scientific Inquiry Students conduct and communicate results of simple investigations. a. Ask questions and make observations about objects, organisms, and events in the environment. b. Safely conduct simple investigations to answer questions. c. Use simple instruments with basic units of measurement to gather data and extend the senses. d. Know what constitutes evidence that can be used to construct a reasonable explanation. e. Use writing, speaking, and drawing to communicate investigations and explanations. D. The Physical Setting D1.Universe and Solar System Students describe the movement of objects across the sky, as seen from Earth. a. Describe how the sun and moon seem to move across the sky. b. Describe the changes in the appearance of the moon from day to day. D2.Earth Students describe Earth’s weather and surface materials and the different ways they change a. Explain that the sun warms the air, water, and land.</p>
<p align="center">Sample Lessons And Activities</p>	<ul style="list-style-type: none"> ▪ Make a diagram of the day/night cycle. ▪ Create a shadow. ▪ Complete “Melts In the Sun” activity. (Scientific Inquiry) ▪ Demonstrate day/night cycle using a model (example globe and flashlight).
<p align="center">Sample Classroom Assessment Methods</p>	<ul style="list-style-type: none"> ▪ Label a diagram of the day/night cycle.

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<p>Sample Resources</p>	<ul style="list-style-type: none">▪ <u>Publications:</u><ul style="list-style-type: none">○ <u>Day and Night</u> - Henry Pluckrose○ <u>Goodnight Moon</u> - Margaret Wise Brown○ <u>Grandfather Twilight</u> - Barbara Berger○ <u>Guess Whose Shadow?</u> - Stephen Swinburne○ <u>I Am A Star</u> - Jean Marzollo○ <u>Moon Book</u> – Gail Gibbons○ <u>Moonstruck</u> - Gennifer Choldenko○ <u>The Napping House</u> - Audrey Wood○ <u>Papa, Please Get the Moon For Me</u> - Eric Carle○ <u>Sadie and The Snowman</u> - Allen Morgan○ <u>A Seed is Sleepy</u> – Dianna Aston○ <u>The Sky Is Full Of Stars</u> - Frankln Branley○ <u>The Sun</u> - Paulette Bourgeois○ <u>The Sun</u> - Allison Lassieur○ <u>What Makes A Shadow</u> - Clyde Bulla○ <u>What Makes Day and Night</u> - Franklyn Branley○ <u>Why The Sun and the Moon Live in the Sky</u> - Blair Lent
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