

## Title of Unit: Exploring Light and Shadows

This TILT is aligned with the following South Carolina academic standards for two or more content areas:

<b><u>Science:</u></b> <b>Lights and Shadows:</b> <b>P.2A.1, P.2A.2, P.2A.3</b>	<b><u>Social Studies:</u></b>	<b><u>ELA:</u></b> <b>Inquiry 1.1, 2.1, 3.1,</b> <b>3.2, 4.1, 4.2, 4.3, 5.1,</b> <b>5.2, 5.3</b> <b>Reading Informational</b> <b>Text - 5.1, 5.2, 6.1, 7.1,</b> <b>12.1, 12.3</b> <b>Writing - 1.1, 1.2, 2.1,</b> <b>2.2, 3.2, 4.5</b>	<b><u>Mathematics:</u></b> <b>Measurement and</b> <b>Data: MDA. 4.2, 4.4,</b> <b>4.5</b>
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Connections to one or more Exploratories:

<b><u>Art:</u></b> <b>VA1- 1.1, 1.4, 5.2</b>	<b><u>Music:</u></b>	<b><u>Technology:</u></b> <b>ISTE – Creativity and</b> <b>Innovation – 1.B</b>	<b><u>PE:</u></b>
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<b>Summary of activities showing strong connections between content areas</b>	<p><b><u>Science:</u></b></p> <ul style="list-style-type: none"> <li>* Read text about light and shadows.</li> <li>* Students will share their experiences with shadows.</li> <li>* Create anchor charts for the sources of light.</li> <li>* Create an anchor chart with students' examples of shadows, comments or questions they may have about shadows.</li> <li>* Students will investigate and make different types of shadows. Students will then draw, write or describe their thoughts.</li> <li>* Students will write a summary of activities for the Bat Cave.</li> </ul> <p><b><u>ELA:</u></b></p> <ul style="list-style-type: none"> <li>* Read a text about artificial and natural light sources. Create a compare and contrast Venn diagram. Create a student/teacher anchor chart with explanations and examples of light sources.</li> <li>* Write your own poem about shadows.</li> <li>* Write an informational paragraph about what it is and light sources.</li> <li>* Introduce rhyming words with the: -ight chunk.</li> </ul> <p><b><u>Math:</u></b></p> <ul style="list-style-type: none"> <li>* Measurement (students will measure their partners shadow using nonstandard units of measure – unifix cubes and shoes)</li> <li>* The students will create a graph from the data collected. Students will create a bar graph and tally chart in increments of five.</li> </ul> <p><b><u>Art:</u></b></p> <ul style="list-style-type: none"> <li>* Students will make their own kaleidoscope collages.</li> </ul> <p><b><u>Technology:</u></b></p> <ul style="list-style-type: none"> <li>* Students will create Word Clouds using examples of light sources on <a href="http://www.abcya.com">www.abcya.com</a></li> <li>* Students will do a Story Maker on Shadows on <a href="http://www.abcya.com">www.abcya.com</a></li> </ul>
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<b>Text Set</b> (This might include children's literature, films, maps, brochures, magazines, websites, and other resources)	See attached sheets		
<b>Essential Questions</b>	What is light? How are shadows created? How does light behave with different materials?		
<b>Content Area Vocabulary</b>	light shine visible light light source sun flashlight fire observation natural light	artificial light flame reflect wood metal mirror cast shadow	position reflection
<b>Pre-Writing and Writing Activities</b>	1. Create an anchor chart for light sources 2. Create an anchor chart for natural and artificial light. 3. Develop compare/contrast Venn Diagrams to compare and contrast natural and artificial light. 4. Free write – What is light? How do we use light? What are shadows? 5. Flashlight writing 6. Poetry Writing 7. Draw/write about your kaleidoscope picture.		
<b>Instructional Strategies</b>	* Respond and reflect about information learned about lights and shadows * Hands-on activities about to explore lights and shadows *Observations *Read Aloud *Questioning and discussion throughout the unit *Anchor Charts *Venn Diagrams *Turn and talks *Use of tools and manipulatives to create shadows, complete experiments; flashlight activity, cave experiment, box light experiment		
<b>Accommodations, Modalities of Learning, Differentiating Instruction</b>	Multisensory activities will address visual, auditory, and kinesthetic learners and differentiate learning for all students. Students will have opportunities to work collaboratively with partners and in small groups on projects. Students in all areas will have opportunities to excel in their areas of strength. Assignments will be open-ended and will provide flexibility. A plethora of independent and instructional-leveled texts will be provided to meet students varying levels.		

<b>Assessment</b>	<p>Informal – Share time/Turn and Talks/Student work</p> <p>Formal – Completion of activity to determine the differences between artificial/natural light sources.</p> <ul style="list-style-type: none"><li>- Completion of Word Cloud on ABCya.</li></ul>
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Attached:

1. Implementation Guide
2. Daily Lesson Plans in Learning Cycle