

# K Science Pacing Guide: Teacher Created Material Science Readers

Months	Units		Lessons	Standards	
August	Science Safety	Discuss the weather throughout the school year. This can be done by creating a weather chart or graph.	Students will identify and apply basic science classroom safety rules and procedures.		
September	Weather		<ul style="list-style-type: none"> <li>What is Weather?</li> </ul>	K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time.	
October			<ul style="list-style-type: none"> <li>Changing Weather</li> </ul>	K-ESS3-2. Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.	
November	Forces and Interactions: Pushes and Pulls		<ul style="list-style-type: none"> <li>Tell Me About It</li> </ul>	K-PS2-1 Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object	
Thanksgiving Break					
December			<ul style="list-style-type: none"> <li>On Land</li> </ul>	K-PS2-2 Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull	
Christmas Break					
January	Review Science Safety		Students will identify, review, and apply basic science classroom safety rules and procedures		
February	Interdependent Relationships in Ecosystems: Animals, Plants, and Their Environment		<ul style="list-style-type: none"> <li>Living!</li> <li>Baby Animals</li> <li>Seeds</li> <li>What Do Living Things Need?</li> </ul>	<p>K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.</p> <p>K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs</p>	

March	Interdependent Relationships in Ecosystems: Animals, Plants, and Their Environment	Discuss the weather throughout the school year. This can be done by creating a weather chart or graph.	Spring Break	K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.
April			<ul style="list-style-type: none"> <li>• Growing Up</li> <li>• On Water</li> <li>• On Land</li> <li>• Too Much Trash</li> </ul>	K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.  K-ESS3-1. Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.
May			K-ESS3-3. Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.	
June	Weather Focusing on the sun		<ul style="list-style-type: none"> <li>• Here Comes the Sun</li> </ul>	K-PS3-1. Make observations to determine the effect of sunlight on Earth's surface.  K-PS3-2. Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area

### 5e Model

**Engage-** Introduce a topic or concept with an intriguing, fascinating, or challenging question or demonstration to capture the students' interest, curiosity, attention. **Explore-** Students conduct various hands-on or problem-solving activities and experiments to designed to help them explore the topic. **Explain-** Teacher helps students observe patterns, analyze results, and/or draw conclusions based on their activities and investigations. **Elaborate-** Students build upon the concepts or ideas they have learned and make connections to other related concepts and new situations. **Evaluate-** Teacher evaluates or assess students' understanding of the topic studied.

Teachers can integrate science in a variety of formats throughout the year. Some suggested are as listed:

- Have a designated block of time for science weekly (i.e., Science Fridays).
- Have a designated block of time over a course of days. Cover one of the 5 e's once a day (i.e. Monday- Engage, Tuesday- Explore, Wednesday- Explain, Thursday- Elaborate, Friday- Evaluate).
- Integrate Science during a Shared Reading time (Engage, Elaborate) and Choice Time (Explore, Explain, & Evaluate)

When integrating science throughout the school year it is important to allow time to review the text. Allow **10-15 minutes** to read the text (Engage, Explain, Elaborate) and **30-40 minutes** to conduct a lab activity and evaluate student progress (Explore and Evaluate).