

## Science 6 Course Overview

Sixth grade science students develop as scientific thinkers through an integrated study of earth and physical science. Through engaging in an exploration of science, students learn that science involves a particular way of knowing that includes relying on empirical evidence, logical arguments, skepticism, and peer review. We strive to teach our students that science benefits as a discipline by engaging a diverse community of participants with different perspectives.

Our overarching questions include:

- What does it mean to be a scientist?
- How can a scientist's work be impacted by working collaboratively with other scientists?
- How does communicating what we know about science help us to be better scientists?
- *How do people use the process of science to investigate questions about the natural world?*
- *Why are diverse perspectives and a team approach important to scientific research?*
- *How is change evident?*
- *How can we use patterns to make predictions?*
- *What is a system?*
- *How do we know if something is true or real?*

Explorations in the sixth grade science course include:

<b><u>Measurement</u></b>
<i>Why do we measure?</i>
<i>Why do we convert measurements? What determines reasonableness?</i>
<i>How can measurement be used to explain change?</i>
<i>How can patterns in data be used to explain events and state “truths”?</i>
<b><u>Scientific Inquiry</u></b>
<i>How is science different from other disciplines in how it approaches questions and explores problems?</i>
<b><u>Matter and Its Interactions Unit</u></b>
<i>What is matter?</i>
<i>How does matter make up the world around us?</i>
<i>How does the structure of matter explain its properties and the changes it undergoes?</i>
<b><u>Weather and Water</u></b>

*How do Earth's systems interact?*

*What causes weather and climate?*

*How does the Sun affect the Earth's atmosphere and its changes?*

*What are the unique properties of water and how does it cycle within the Earth's crust, atmosphere, oceans, and other bodies of water?*

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**The Dynamic Earth**

*How and why is Earth constantly changing?*

*Why does the Earth's surface look the way it does and how do we know?*