

Asking Questions and Defining Problems



To figure out how the natural world works, we ask questions about phenomena we observe or measure. We can use these questions to make sense of new information and move our understanding forward.

SCIENCE PRACTICE

Developing and Using Models



Models are anything we create that represents how we understand a phenomenon. To help make sense of the natural world, we develop and use models that represent our ideas.

We can use models to visualize and explain natural phenomena. We can also revise models when we learn something new.

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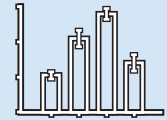
Planning and Carrying Out Investigations



We can investigate questions and solve problems in a variety of ways. Some ways include laboratory experiments, field observations, data collection, and other problem-solving activities.

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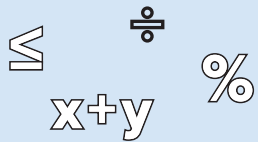
Analyzing and Interpreting Data



Identifying patterns, constructing meaning, and pulling evidence from data helps us explain natural phenomena. We can make sense of data using a variety of tools, including tables, graphs, and statistical methods.

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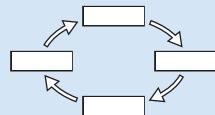
Using Mathematics and Computational Thinking



We can use math as a tool to figure out and explain phenomena. Mathematical and computational thinking can help us identify patterns in data, model systems, and discover relationships between different parts of a system.

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Constructing Explanations and Designing Solutions



A goal of science is to construct explanations for natural phenomena. Scientific theories help us explain phenomena. As theories become even more well-supported or refined over time, we can construct more complete explanations.

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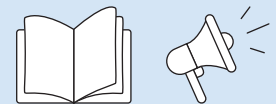
Engaging in Argument from Evidence



We use scientific arguments to present and evaluate explanations of natural phenomena. We can identify the best and most current explanation by compiling and evaluating evidence. As more evidence emerges through scientific discovery over time, we can develop and argue for better explanations.

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Obtaining, Evaluating, and Communicating Information



Scientists communicate their findings so that others can evaluate and critique their data. This allows others to learn about their findings and apply the results. We can read sources of scientific information and summarize the key ideas to strengthen our understanding of a phenomenon.

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