

**FIGURE 1. Curriculum Storyboard Example**

# Grade 5 Science

Essential  
Question(s)

How can energy be transformed?  
How can energy cause matter to transform?

QUARTER 1

**Force, Motion, Energy: Wheel! Energy causes motion.**



**THE FOCUS OF THE STORY**

Roller coasters and F-18s move fast, but how? We will explore how forces transfer energy, and what happens to an object's motion when multiple forces act upon it. We will ask questions, investigate, and analyze data to make sense of motion.

**LEARNING TARGETS**

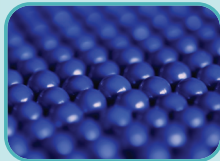
I can ask questions about how energy works through forces to move objects.

I can plan and conduct an experiment to determine the effects of the net force acting on an object.

I can collect and interpret data related to force and the motion of objects.

QUARTER 2

**Matter: Whoa! Energy causes matter to change!**



**THE FOCUS OF THE STORY**

What exactly is matter, and what happens to it when it's combined or heated? We will investigate this question and then use what we learn to solve real-world problems.

**LEARNING TARGETS**

I can construct a simple model to show that matter is composed of atoms.

I can solve a problem by designing a process to separate two or more types of matter within a mixture.

I can use data to show what happens when energy causes a phase change.

QUARTER 2

**Electricity: Wait! Energy is useful, but limited.**



**THE FOCUS OF THE STORY**

We know what energy is, but how can it be transformed into electricity so that we can use it? We will explore the relationships between electricity, energy, and magnetism and then consider how to use our data to find creative solutions to problems.

**LEARNING TARGETS**

I can explain the relationship between energy, electricity, and magnetism.

I can design a solution to a problem using what I know about electricity and electromagnets.

I can use data to determine solutions for conserving energy.

QUARTER 3

**Sound and Light: Wow! Energy exists in many forms.**



**THE FOCUS OF THE STORY**

Sound and light seem so very different, but are they? We will ask questions and investigate the ways sound and light travel. Then, we will use what we know to determine how sound and light can help us do work and solve problems.

**LEARNING TARGETS**

I can identify ways that sound and light are similar and different.

I can use a design process to solve a problem using what I know about sound and light.

I can use observations and data to support conclusions about how sound and light travel.

QUARTER 4

**Earth's Structures: What? Energy causes matter to transform.**



**THE FOCUS OF THE STORY**

Is Earth's energy really causing the ground we stand on every day to change? We will study Earth's internal energy and explore how it impacts Earth's structures. We will then consider how to mitigate those changes to reduce the impacts.

**LEARNING TARGETS**

I can use models to show the structure of Earth and how Earth's crust moves and changes.

I can classify rocks based on how they were formed.

I can describe the relationship between Earth's energy and the forces which cause change on Earth's surfaces.

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