

click®

Making Work Easier

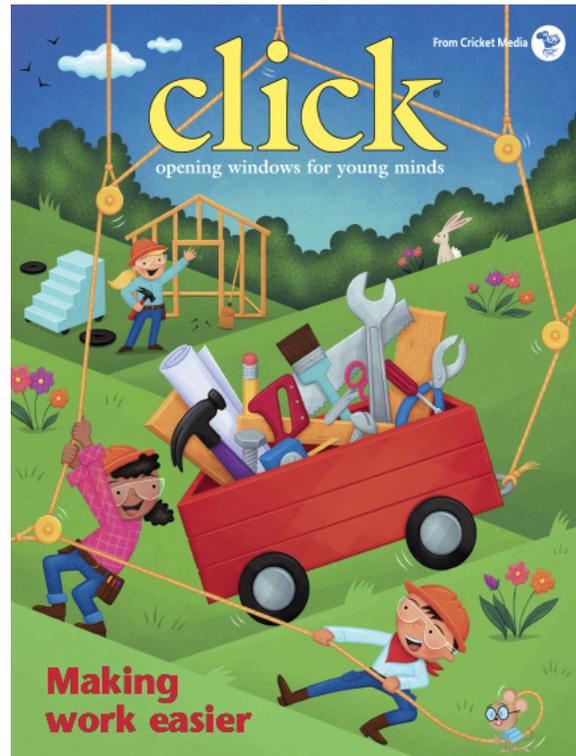
Students learn about simple machines and how they help people do tasks they couldn't do without them.

CONVERSATION QUESTION

How do machines help people work?

TEACHING OBJECTIVES

- Students will read to learn about simple machines
- Students will determine the structure and function of simple machines
- Students will obtain information about simple machines used in the kitchen
- Students will analyze how different formats and media communicate information
- Students will design a machine that uses simple machine parts
- Students will use graphics and writing to communicate information
- Students will play a game to practice using vocabulary and science concepts using oral language



In addition to supplemental materials focused on core STEM skills, this flexible teaching tool offers vocabulary-building activities, questions for discussion, and cross-curricular activities.

SELECTIONS

- **Meet the Machines**
Expository Nonfiction, ~650L
- **Kitchen Helpers**
Expository Nonfiction/Activity, ~750L
- **What Am I?**
Expository Nonfiction, ~550L

Meet the Machines

pp. 8–13, Expository Nonfiction

Use this article to help students learn about the structure and function of simple machines.



RESOURCES

- Structure and Function

OBJECTIVES

- Students will read to learn about simple machines
- Students will determine the structure and function of simple machines
- Students will design a machine that uses simple machine parts

KEY VOCABULARY

- **screw (p. 10)** a narrow, pointed metal piece with a ridge that goes around it in a spiral
- **wedge (p. 10)** something with one pointed end and one thicker end used to split something
- **lever (p. 11)** a bar used to lift and move something heavy
- **fulcrum (p. 11)** the support on which a lever moves
- **axle (p. 12)** a bar on which a wheel or a pair of wheels turns
- **pulley (p. 13)** a wheel or set of wheels used with a rope or chain to lift or lower heavy objects

ENGAGE

Conversation Question: How do machines help people work?

Take a quick tour of the playground and ask students how different playground equipment moves. Ask them to point out how each is designed to move. Explain they will be reading an article that explains how simple machines work.

INTRODUCE VOCABULARY

Provide students with the *Structure and Function* graphic organizer. Explain that they will be learning about each word on the organizer as they read the article. Have students use the first column to draw a picture to show what they think each word means. As they read the article and study the illustrations, students will add information to the graphic organizer to clarify each meaning.

READ & DISCUSS

Have students read the article and take notes about each simple machine as they read in the second column of the *Structure and Function* graphic organizer.

Next, use these questions for a class discussion:

- Which simple machines are used to lift heavy objects? (ramps, levers, pulleys)
- How do wheels and axles make our lives easier?
- What simple machines can you find in the classroom?

CONCEPT/SKILL FOCUS: Structure and Function

INSTRUCT: Review how each simple machine is used to make work easier. Ask students how the illustrations help them understand how each machine works. Have students return to their *Structure and Function* graphic organizer. Have them use the information from the article to draw a picture of each simple machine doing work.

ASSESS: Students compare their before-and-after reading drawings and review their notes to assess their learning. Have students record what simple machines they learned the most about in the bottom section of the graphic organizer.

EXTEND

Language Arts: Informational Writing Students draw a pretend machine that uses each the simple machines in some way as part of their creation. They label the parts of their machine and write a caption that names the machine and share what it is used for. Display these diagrams and have students share their thinking behind their designs.

Structure and Function

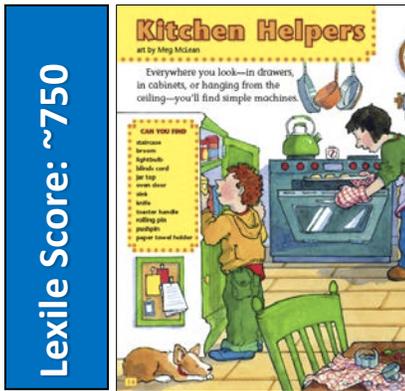
	Before Reading: Draw a picture to show what you think the word means.	As You Read: Give an example of how each is used to do work.	After You Read: Draw a picture of each as a part of a machine being used to do work.
Screw			
Wedge			
Lever and Fulcrum			
Wheel and Axle			
Pulley			

Compare your drawings before you read to the ones after you read. What did you learn?

Kitchen Helpers

pp. 8–13, Expository Nonfiction/
Activity

Use this article to help students obtain information about how simple machines are used in the kitchen.



RESOURCES

- Kitchen Helpers

OBJECTIVES

- Students will read to learn about simple machines
- Students will obtain information about simple machines used in the kitchen
- Students will use graphics and writing to communicate information

KEY VOCABULARY

- **pulley (p. 16)** a wheel or set of wheels used with a rope or chain to lift or lower heavy objects
- **wedge (p. 16)** something with one pointed end and one thicker end used to split something
- **lever (p. 16)** a bar used to lift and move something heavy
- **pivots (p. 16)** points around which things turn
- **screw (p. 17)** a pointed metal piece with a ridge that goes around it
- **ramp (p. 17)** a slope used to join two places at different heights

ENGAGE

Conversation Question: How do machines help people work?

Students search for kitchen objects by completing the activity portion of the article on pages 14 and 15 with a partner. Explain that they will now read and look at photos to see how each object uses a simple machine.

INTRODUCE VOCABULARY

Display the vocabulary and ask what the words have in common (they all describe machines or parts of machines). Assign partners to work together to either act out or point to examples of the words in the classroom. Combine two groups so all words are represented and have students share their physical definitions.

READ & DISCUSS

Have students read the descriptions of how each kitchen object uses a simple machine. Using these prompts, ask students to find the following pictured objects:

- Find something that uses a wheel to make your cleaning easier. (paper towel holder)
- Find something that works like a ramp so you can go up and down. (staircase)
- Find something that spins around like a screw to keep things in place. (jar cover)

CONCEPT/SKILL FOCUS: Obtain Information

INSTRUCT: Review how each simple machine is used to make kitchen tasks easier. Distribute the *Kitchen Helpers* graphic organizer and demonstrate how to look at the article's information to find the kitchen helpers that match each simple machine.

ASSESS: Review the graphic organizers to assess if students are able to find information and correctly match what simple machine each kitchen helper uses to make work easier to do.

EXTEND

Language Arts: Classroom Helpers Have students work in groups to create a Classroom Helpers presentation that uses photos of three simple classroom items (such as scissors, stapler, pencil sharpener, etc.) and descriptions of what simple machines are used. Groups will share and compare what objects they found that use simple machines.

Kitchen Helpers

Find examples of kitchen helpers for each kind of simple machine shown in the article.

Pulley

- _____

Wedge

- _____

- _____

Wheel

- _____

- _____

Lever

- _____

- _____

- _____

Screw

- _____

- _____

Ramp

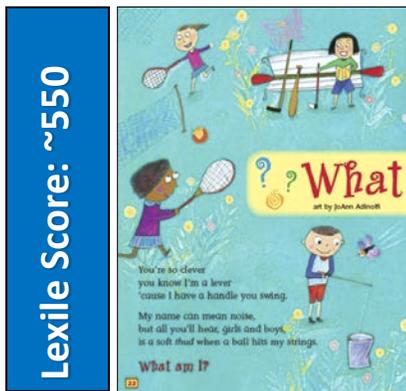
- _____

- _____

What Am I?

pp. 22–23, poetry

Use these rhymes about simple machines to help students recognize that information can be presented in diverse formats.



OBJECTIVES

- Students will read to learn about simple machines
- Students will analyze how different formats and media communicate information
- Students will play a game to practice using vocabulary and science concepts using oral language

KEY VOCABULARY

- **lever** (p. 22) a bar used to lift and move something heavy
- **screw** (p. 23) a narrow, pointed metal piece with a ridge that goes around it in a spiral
- **wedge** (p. 23) something with one pointed end and one thicker end used to split something

ENGAGE

Conversation Question: How do machines help people work?

Read the first rhyme aloud without the students looking at the illustrations. Ask them to take some guesses at what the object is. Next, look at the illustrations and ask how this helps them come up with the answer.

INTRODUCE VOCABULARY

Have students look for the vocabulary words in the rhymes. Ask them to find clues in the text and illustrations that help them determine the word meanings. Answer questions and confirm the students understand the words signifying three different simple machines.

READ & DISCUSS

Read the second two rhymes aloud as in the Engage section. Again, invite students to take a guess at the object the rhyme is describing. Have students break the rhyme down to collect information about what simple machine is involved and the work the object is doing.

After students have shared their ideas from listening to the text, have students read the rhymes aloud with a partner and study the illustrations to answer the following questions:

- How do you know if the first “What am I?” is a tennis racquet or a fishing pole, since both are pictured?
- What clues are found in the rhyme to let you know?
- What simple machine are the cup illustrations and poem demonstrating?
- Which part of the shovel is a wedge? Which part is a lever?

CONCEPT/SKILL FOCUS: Structure and Function

INSTRUCT: Help students recognize and explain how diverse text formats and illustrations can provide information about simple machines. Ask students to explain how each rhyme provides information about the object (structure) and use (function) featured.

ASSESS: Take note if students are recognizing how the rhymes are conveying informative clues about simple machines.

EXTEND

Language Arts: Oral Language Students play a guessing game by thinking up simple “What am I?” sentences. They will give clues about objects in their surroundings with different simple machine parts. These sentences can be shared on the playground or in the classroom. For example, “I am a wedge that kids have fun going down. What am I?” (a slide), or “I am something that uses a lever to hold papers together. What am I?” (a stapler).