

Vroom Vroom

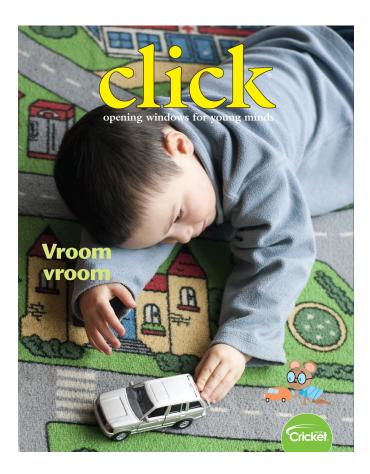
The click of the seatbelt, the roar of the engine, and an open road ahead . . . sounds like we are going on a road trip! This month's issue of CLICK explores structural elements of automobiles, the world of professional racecar driving, and the importance of road signs.

CONVERSATION QUESTION

What can we learn about cars?

TEACHING OBJECTIVES

- Students will learn how a variety of different components are needed to make a car operational.
- Students will learn detailed information about racecars from a professional driver.
- Students will learn that road signs are important because they give the driver instructions and information.
- Students will examine the structure and function of specific car parts.
- Students will compare and contrast a standard passenger car to a racecar.
- Students will interpret and analyze symbols.
- Students will discuss modes of transportation and study a local map.
- Students will solve a mathematical word problem related to information from the article.
- Students will explore the use of symbols in rebus stories.



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

• Car Parts

Diagram, ~850L

- Meet Danny Bender
 Informational Interview, ~650L
- What Signs?Map, ~550L

Car Parts

pp. 8-12, Diagram

Buckle up and get ready to learn! Young readers will enjoy studying these straightforward car diagrams, which use clear labels and brief text blocks. A more detailed diagram of a car engine appears on the last page of the selection.



RESOURCES

Honk, Honk!

OBJECTIVES

- Students will learn how a variety of different components are needed to make a car operational.
- Students will examine the structure and function of specific car parts.
- Students will discuss modes of transportation and study a local map.

KEY VOCABULARY

- axle (9) a rod on which a pair of wheels turn
- spare tire (p. 9) an extra tire for a
- gas pedal (p. 10) the pedal in a car that is pressed down to make the car go
- *muffler* (p. 11) a part of a car that quiets the noise from the engine

ENGAGE

Conversation Question: What can we learn about cars?

As a motivational activity, give students a rectangular piece of card stock and have them create their own license plate. It can be a combination of letters and numbers, but it must have five to seven characters. Discuss standard and vanity plates. Have students tape their plates to the front of their desks for all to see.

INTRODUCE VOCABULARY

Discuss the key vocabulary words and definitions with your students. Provide them with paper and instruct them to fold it into quarters. Have them make a visual representation (picture dictionary) of each key term. Draw attention to these words as you read.

RFAD & DISCUSS

Have students study the diagrams and listen as you read the text aloud. Pose these questions as a post-reading activity:

- 1. What is the purpose of a license plate?
- 2. What is the difference between the gas pedal and the brake pedal?
- 3. What are the different ways that a car can be powered?
- 4. Where do smoke, noise, and fumes come out of a gas-powered car?
- 5. Use the diagram on page 12 to retell in your own words what happens inside an engine.

CONCEPT/SKILL FOCUS: Structure and Function

INSTRUCT: Elicit from students that the main idea of the article is to provide a detailed description of the different parts of a car. Distribute the *Honk, Honk!* organizer. Tell students they will use information from the article to "Show & Tell" how each car part functions.

ASSESS: Circulate and have mini-conversations with students as they are working. Remedial readers may work with a partner to reread the text. Collect and review their work to further assess understanding.

FXTFND

Social Studies Provide the students with a basic map of their town or city. Discuss different routes that can be taken from point A to point B. Pose questions such as: What types of transportation are available in your area? When might you want to take the fastest route? When would you prefer to take the scenic route? How would you prepare for a long road trip?

Honk, Honk!

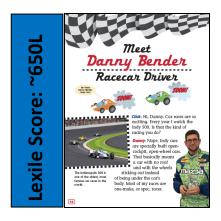
Use information from "Car Parts" to show and tell what each car part does.

Car Part	Show/use pictures (What does it look like?)	Tell/use words (What does it do?)
headlights		
mirrors		
tires		
engine		

Meet Danny Bender, Racecar Driver

pp. 16-21, Informational Interview

Young students will enjoy getting to know professional racecar driver Danny Bender. The question-and-answer format is easy to read and filled with interesting information and fun facts about the world of car racing.



RESOURCES

Fender BENDER

OBJECTIVES

- Students will learn detailed information about racecars from a professional driver.
- Students will compare and contrast a standard passenger car to a racecar.
- Students will solve a mathematical word problem related to information from the article.

KEY VOCABULARY

- spec race (p. 16) a car race where all drivers drive the exact same kind of car
- stock car (p. 17) a racecar that looks like a regular car but has a more powerful engine
- drag race (p. 17) a contest in which people race cars at very high speeds over a short distance

ENGAGE

Conversation Question: What can we learn about cars?

Use a K-W-L chart to record what students know about car racing and what they would like to learn about this topic. Return to the chart after the lesson to add details about what students learned. If students don't learn everything they want to from the article, have them use books and websites to find the answers to their remaining questions.

INTRODUCE VOCABULARY

Discuss the key vocabulary words and definitions with your students. To provide extra motivation for reading, show the class some video clips of car racing events prior to reading the article. Present clips with different types of racing, as proposed in the vocabulary section of this guide, as well as in the Read & Discuss section below.

READ & DISCUSS

Reinforce comprehension of the concepts in the article by using the following prompts to direct discussion.

- 1. What is the Indianapolis 500?
- 2. What is a one-make race?
- 3. Explain what Danny means when he says driving a racecar is thrilling but it's also hard work.
- 4. Why is it so important that Danny stays focused during a race?
- 5. What is the job of the service crew?

CONCEPT/SKILL FOCUS: Compare and Contrast

INSTRUCT: Students will compare and contrast the details of a standard family car with a racecar. Instruct pairs of students to reread the text and to underline information that will be helpful for this purpose. Introduce the *Fender BENDER* graphic organizer and have the partners record the data on their charts.

ASSESS: Collect the *Fender BENDER* worksheet and review. Be sure the students have collected accurate and pertinent information. Encourage students to make drawings that show the differences, as well.

EXTEND

Mathematics Review the interview question on page 18 where Click asks Danny how fast he drives in his racecar. Danny answers that he usually drives 130 mph in a race, but his top speed is about 160 mph. What is the difference between these two speeds? Have students show their mathematical thinking when solving this problem. They should also write their answer to the question in a full sentence.

Fender BENDER

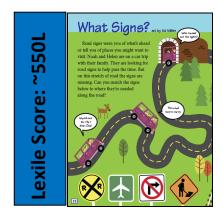
Refer to the article "Meet Danny Bender, Racecar Driver" to describe the differences between a family car and a racecar.

How are they alike? How are they different?	Family Car	Racecar
Interior (inside of the car)		
Exterior (outside of the car)		
Crash Protection		
Driver & Speed		

What Signs?

pp. 22-23, Map

Our roadways are filled with instructional and informational signage. Young readers will be delighted to demonstrate how they can "read" signs by properly interpreting the symbols.



RESOURCES

Signs & Symbols

OBJECTIVES

- Students will learn that road signs are important because they give the driver instructions and information.
- Students will interpret and analyze symbols.
- Students will explore the use of symbols in rebus stories.

KEY VOCABULARY

- road signs (p. 22) signs near a road with words or symbols that give instructions or information to drivers
- road construction (p. 23) the building or fixing of roads to improve travel

ENGAGE

Conversation Question: What can we learn about cars?

Introduce the title of the article. Tell students that people can interpret information expressed using a symbol and a few words. Show the class a stop sign, a handicap parking sign, and a sign for male/female restrooms. Ask them to identify the meaning of each symbol. Further explain that the color of road signs gives people information as well: white—traffic laws; orange—warning; yellow—caution; red—warning/stop; blue—road-user services. Instruct students to notice the color of the signs presented in the article.

INTRODUCE VOCABULARY

Discuss the key words and definitions. Guide students to notice that the word *road* appears in both terms. Remind students that a synonym is a word or phrase that means exactly or nearly the same as another word. Challenge students to share synonyms for the word *road*.

READ & DISCUSS

Read aloud the paragraph on page 22. Ask for volunteers to read the speech bubbles on pages 22–23. Encourage students to make connections between the comments in the bubbles and the picture of the correct sign on the page.

- 1. Why are road signs so important?
- 2. What information can you get from a road sign?
- 3. Why do you think so many road signs use symbols instead of words?
- 4. What signs do you see on your way to school?

CONCEPT/SKILL FOCUS: Interpreting Symbols

INSTRUCT: Direct students to return to pages 22–23 to study the speech bubbles and the graphics. Emphasize the fact that road signs are an essential part of our roadways. Distribute copies of the *Signs & Symbols* graphic organizer and instruct the students to decipher and analyze the symbols placed on roads to convey important information to drivers.

ASSESS: Circulate and converse with the students as they are working. Collect and review worksheets to evaluate individual abilities to interpret information.

EXTEND

English/Language Arts Provide the class with a variety of rebus story books. Discuss the fact that these books tell stories by using a combination of text and small pictures. The pictures represent characters or key elements in the story and are used throughout the story in place of the corresponding word. Guide students to make a connection about the use of symbols in these books and on our roadways.

Signs & Symbols

Refer to the article "What Signs?" to tell the meaning of each sign, or to create a drawing to match the words. Some of these signs are NOT in the article . . . can you figure them out?

What does each sign mean?	Draw a sign to match the words.
	Deer Crossing
	Road Worker Ahead
	Tunnel Ahead
	Airport Nearby