

CERCA SET **Distracted Driving**  
English Language Arts

How can engineers and lawmakers improve driver safety and minimize driver distraction?

LESSON TITLE **Computer, Take the Wheel**

CERCA QUESTION Will self-driving cars make roads safer?

**RESOURCES**

- **Build Background Knowledge**  
<https://www.pinterest.com/thinkcerca/distracted-driving-cerca-set-board/>
- **CERCA Framework**
- **Vocabulary Routine**
- **Speaking and Listening Routines**

	Whole group		Online
	Small group		Offline
	Individual activity		Activity time period
	Speaking and listening activity		Audio
			Available in English and Spanish

**Introduce the CERCA Question**



Introduce the concept of computers doing things in place of people using the examples of navigation systems or automatic calendar reminders. Introduce the concept of self-driving cars by citing the text example of a blind man driving a car. Briefly explore the advantages and disadvantages of self-driving.

**LEVEL 3-4 Expanding**

▶ **ASK:** What are some examples of computers that have replaced people?

Support language acquisition with the following sentence frame:

*Computers have replaced people in \_\_\_\_\_.*

▶ **ASK:** What are some advantages and disadvantages of technology?

Discuss students' opinions about the positive and negative sides of technology. Ask students to cite examples to support their opinions.

**1 Connect**



Have students log in to ThinkCERCA and click into this lesson.

**LEVEL 3-4 Expanding**

Read the overview aloud and discuss vocabulary. Then read the writing prompt aloud for students before they answer.

Complete Step 1: Connect.

**Introduce Vocabulary**



Use **Semantic Webbing** to introduce vocabulary

▶ **NOTE:** Some students will need support for additional words not listed on the student support page. Weave them into the instruction.

**LEVEL 3-4 Expanding**

Assign vocabulary words to small groups, or to partners. Depending on student familiarity with the vocabulary words you can create webs for all new words, or just the most challenging words. For small groups, assign a word and have them map it out on the whiteboard. When they are finished they can take a minute to explain it while classmates copy the map down. For partner work, have mixed ability pairs create maps for all assigned words in their notebooks.

After the routine have students add the focus words to their word notebooks.

**LEVEL 4-5 Bridging**

▶ **ASK:** What are some advantages and disadvantages of technology?

Discuss students' opinions about the positive and negative sides of technology. Ask students to cite examples to support their opinions.

**LEVEL 4-5 Bridging**

Complete Step 1: Connect.

**LEVEL 4-5 Bridging**

Depending on student familiarity with the vocabulary words you can create webs for all new words, or just the most challenging words. Have students work in pairs to write their own definition of the word in English. Next, have them brainstorm an image or mental picture to illustrate each word.

After the routine have students add the focus words to their word notebooks.

## Introduce the Summary

En | Sp

Remind students that this is a summary for the passage they will read. Point out the Vocabulary as you read.

### LEVEL 3-4 Expanding

 Have students read the Spanish version on the student support page, if applicable, before you read the summary aloud and have students follow along.

### LEVEL 4-5 Bridging

 Ask a student to read aloud the summary in English to practice their fluency.

## 2 Read

Have students read the text, using Vocabulary from the student support page as appropriate.

### LEVEL 3-4 Expanding

 Read comprehension questions with students before they begin reading the passage.

 Complete Step 2: Read.

 Discuss comprehension questions. Point out key vocabulary words in the text, especially as they are relevant to finding answers.

### LEVEL 4-5 Bridging

 Complete Step 2: Read.

 Discuss comprehension questions. Point out key vocabulary words in the text, especially as they are relevant to finding answers.

## 3 Engage with the Text

 **NOTE:** If you have concerns that your students are struggling with comprehension, you may wish to work with them on Step 4: Summarize before Step 3: Engage with the Text.

### LEVEL 3-4 Expanding

 Model highlighting the text for students.

 Complete Step 3: Engage with the Text.

 Use the following sentence frames to discuss the highlights students made.

***Driverless cars run by \_\_\_\_\_.***

***This may be safer than humans driving because \_\_\_\_\_.***

### LEVEL 4-5 Bridging

 Complete Step 3: Engage with the Text.

 Discuss the highlighting students did. Ask students to share their highlights and notes, and use the following sentence stems to support student engagement in the conversation.

***Self-driving cars can \_\_\_\_\_ which is safe because \_\_\_\_\_.***

***Driverless cars are also very efficient because \_\_\_\_\_.***

## 4 Summarize



Prepare students to write a CERCA by having them summarize the text.

### LEVEL 3-4 Expanding

Complete a summary of the article together using either the suggested sentence frames below or the stems in the product. Encourage students to use Vocabulary from the lesson.

Use the following sentence frames to create a summary.

**Driverless cars are** \_\_\_\_\_.

**Drivers are often distracted by** \_\_\_\_\_.

**Self-driving cars might be safer because** \_\_\_\_\_.

Complete Step 4: Summarize.

### LEVEL 4-5 Bridging

Complete Step 4: Summarize.

Review the summaries to ensure that all students understand the big ideas of the passage. Encourage students to use Vocabulary from the lesson.

## 5 Build Your Argument



Practice creating a CERCA together using the CERCA graphic organizer (online or offline) and the leveled frames below and on the student support pages. Remind students that some of their evidence can come from their highlighting work.

**NOTE:** You may wish to have students orally respond to the CERCA question using a Listening and Speaking Routine instead of writing a response.

### LEVEL 3-4 Expanding

Use the following sentence frames to complete the CERCA graphic organizer.

**Claim** *Self-driving cars [will/will not] make roads safer*

**Reason because** \_\_\_\_\_.

**Evidence** *Driverless cars run by* \_\_\_\_\_

**Reasoning which makes roads [safer/less safe] by** \_\_\_\_\_.

Complete Step 5: Build Your Argument.

### LEVEL 4-5 Bridging

Have students share their thoughts with the group.

Use the following sentence frames to complete the CERCA graphic organizer.

**Claim** *Self-driving cars [will/will not] improve road safety*

**Reason because** \_\_\_\_\_.

**Evidence** *Driverless cars run by* \_\_\_\_\_

**Reasoning which** \_\_\_\_\_.

**Evidence** \_\_\_\_\_ *also [contributes/does not contribute] to safer roads*

**Reasoning because** \_\_\_\_\_.

Have students complete the graphic organizer with at least one more piece of evidence and associated reasoning. Assist as needed.

Complete Step 5: Build Your Argument.

## 6 Create Your CERCA



Have students write their CERCA in the lesson online so that you can provide feedback and monitor growth.

▶ **NOTE:** Remind students that they can use the Copy all button to move their work into the text box.

### LEVEL 3-4 Expanding

Use the responses students made in the graphic organizer to model writing in response to the CERCA question.

Have students reread their draft. Then have them submit to complete Step 6: Write Your CERCA.

### LEVEL 4-5 Bridging

Have students write their CERCA. Provide support as necessary. Remind students that they can use vocabulary words as they write.

Use this sentence frame to help students conclude their CERCA:  
***Driverless cars run by \_\_\_\_\_ which \_\_\_\_\_.***

Have students add a conclusion and then reread their draft. Then have them submit to complete Step 6: Write Your CERCA.

## Complete Speaking and Listening Activities



Complete a whole group speaking and listening activity with all students who completed the grade level lesson. Prompt students to use the vocabulary from the passage in the activity.

### LEVEL 3-4 Expanding

Do the **Fishbowl Activity** with students. Modify the activity for these students by providing them with questions in advance of the discussion, and with appropriate sentence frames to support them in answering those questions so that they will be ready to participate in discussion.

### LEVEL 4-5 Bridging

Do the **Fishbowl Activity** with students. Modify the activity for these students by providing them with questions in advance of the discussion.

# Computer, Take the Wheel

Will self-driving cars make roads safer?

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## Vocabulary

blind (adj.): unable to see

concern (noun): something one worries about

\*controversy (noun): a heated disagreement

data (noun): information

deteriorate (verb): worsen

dramatically (adv.): greatly

\*efficient (adj.): without wasting time or energy

futuristic (adj.): looking or seeming like it is from the future

Google (proper noun): a computer technology company

malfunction (noun): break down

\*routes (noun): paths

\*self-driving cars (noun): cars that receive commands from a computer rather than a human driver

## Vocabulary continued

\*sensors (noun): devices that detect something

state-of-the-art (adj.): newest of the new

\*technology (noun): machines that help people do things easier and faster

traffic jams (noun): long lines of traffic

# Computer, Take the Wheel

Will self-driving cars make roads safer?

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## Summary

Google has invented a self-driving car. Its sensors watch the car's surroundings and send the data to the central computer. With all the information coming in, the computer can decide when to stop, turn, speed up, slow down, or change routes. Self-driving cars would change driving dramatically. It would make it possible for many people who wouldn't be able to drive a car on their own to be able to get around much more easily. Driverless cars would also make travel a lot more efficient, since the vehicles' sensors would keep them at an equal distance on the road while moving at high speeds. Using roads in this way would decrease traffic.

LESSON TITLE **Computer, Take the Wheel**

CERCA QUESTION Will self-driving cars make roads safer?  
 ¿Los automóviles de conducción automática harán que las calles sean más seguras?

## Vocabulary

English	Español
<p><b>blind</b> (adj.): unable to see</p>	<p><b>ciego</b> (adjetivo): que no puede ver</p>
<p><b>concern</b> (noun): something one worries about</p>	<p><b>preocupación</b> (sustantivo): algo por lo que alguien se inquieta</p>
<p><b>*controversy</b> (noun): a heated disagreement</p>	<p><b>*controversia</b> (sustantivo): un desacuerdo acalorado</p>
<p><b>data</b> (noun): information</p>	<p><b>datos</b> (sustantivo): información</p>
<p><b>deteriorate</b> (verb): worsen</p>	<p><b>deteriorar</b> (verbo): empeorar</p>
<p><b>dramatically</b> (adv.): greatly</p>	<p><b>drásticamente</b> (adverbio): en gran medida</p>
<p><b>*efficient</b> (adj.): without wasting time or energy</p>	<p><b>*eficiente</b> (adjetivo): sin perder tiempo ni energía</p>
<p><b>futuristic</b> (adj.): looking or seeming like it is from the future</p>	<p><b>futurista</b> (adjetivo): que se ve o parece ser del futuro</p>
<p><b>Google</b> (proper noun): a computer technology company</p>	<p><b>Google</b> (sustantivo propio): una empresa de tecnología informática</p>

## Vocabulary continued

<p><b>malfunction</b> (noun): break down</p>	<p><b>mal funcionamiento</b> (sustantivo): falla</p>
<p><b>*routes</b> (noun): paths</p>	<p><b>*rutas</b> (sustantivo): caminos</p>
<p><b>*self-driving cars</b> (noun): cars that receive commands from a computer rather than a human driver</p>	<p><b>*automóviles de conducción automática</b> (sustantivo): vehículos que reciben órdenes desde una computadora en lugar de un conductor humano</p>
<p><b>*sensors</b> (noun): devices that detect something</p>	<p><b>*sensores</b> (sustantivo): dispositivos que detectan algo</p>
<p><b>state-of-the-art</b> (adj.): newest of the new</p>	<p><b>moderno</b> (adjetivo): lo más nuevo y reciente</p>
<p><b>*technology</b> (noun): machines that help people do things easier and faster</p>	<p><b>*tecnología</b> (sustantivo): máquinas que ayudan a la gente a hacer las cosas de manera más rápida y sencilla</p>
<p><b>traffic jams</b> (noun): long lines of traffic</p>	<p><b>atascos de tráfico</b> (sustantivo): largas colas de tráfico</p>

# Computer, Take the Wheel

Will self-driving cars make roads safer?

¿Los automóviles de conducción automática harán que las calles sean más seguras?

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## Summary

**English** Google has invented a self-driving car. Its sensors watch the car's surroundings and send the **data** to the central computer. With all the information coming in, the computer can decide when to stop, turn, speed up, slow down, or change **routes**. Self-driving cars would change driving **dramatically**. It would make it possible for many people who wouldn't be able to drive a car on their own to be able to get around much more easily. Driverless cars would also make travel a lot more **efficient**, since the vehicles' sensors would keep them at an equal distance on the road while moving at high speeds. Using roads in this way would decrease traffic. One of the biggest benefits of driverless cars would be taking out the risk of human error on the road. With all the promise of safety and efficiency, many still have major safety concerns about self-driving cars. Letting go of the steering wheel isn't a choice a lot of people would make easily.

**Español** Google ha inventado un automóvil de conducción automática. Sus sensores observan el entorno del automóvil y envían **datos** a la computadora central. Con toda la información recibida, la computadora puede decidir cuándo detenerse, girar, acelerar, disminuir la velocidad o cambiar la **ruta**. Los automóviles de conducción automática cambiarían la manera de conducir **drásticamente**. Harían posible que muchas personas que no pueden manejar un automóvil se desplazaran mucho más fácilmente. Los automóviles de conducción automática también harían el transportarse más **eficiente**, ya que los sensores los mantendrían a una distancia igual en el camino mientras se desplazan a mayores velocidades. Utilizar los caminos de esta manera disminuiría el tráfico. Uno de los mayores beneficios de los automóviles de conducción automática sería eliminar el riesgo del error humano de los caminos. Con toda la promesa de seguridad y eficiencia, muchos aún tienen preocupaciones importantes en cuanto a seguridad de los automóviles de conducción automática. Soltar el volante no es una opción que muchas personas elegirían con facilidad.

# Computer, Take the Wheel

Will self-driving cars make roads safer?

## 4 Summarize

**Driverless cars are** \_\_\_\_\_.

**Drivers are often distracted by** \_\_\_\_\_.

**Self-driving cars might be safer because** \_\_\_\_\_.

## 5 Build Your Argument

**Claim** *Self-driving cars [will/will not] make roads safer*

**Reason** *because* \_\_\_\_\_.

**Evidence** *Driverless cars run by*

\_\_\_\_\_

**Reasoning** *which makes roads [safer/less safe] by*

\_\_\_\_\_

# Computer, Take the Wheel

Will self-driving cars make roads safer?

## 5 Build Your Argument

**Claim** *Self-driving cars [will/will not] improve road safety*

**Reason** *because* \_\_\_\_\_.

**Evidence** *Driverless cars run by*

\_\_\_\_\_

**Reasoning** *which* \_\_\_\_\_.

**Evidence** \_\_\_\_\_

*also [contributes/does not contribute] to safer roads*

**Reasoning** *because* \_\_\_\_\_.

## 6 Create Your CERCA

*Driverless cars run by* \_\_\_\_\_ *which*

\_\_\_\_\_.