

# ALCOHOL AND YOUR DEVELOPING CENTRAL NERVOUS SYSTEM

## Central Nervous System

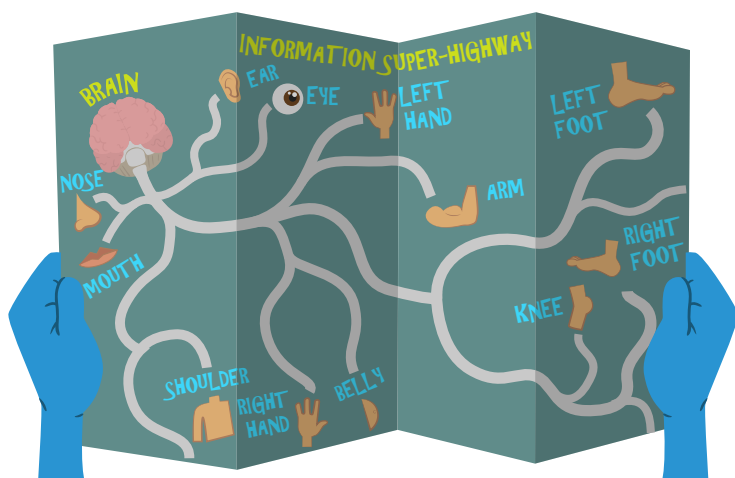
Length: 30-40 minutes | Designed for 5th and 6th grade

### Summary

This lesson is intended to further student's understanding of the central nervous system, neurotransmission, and how alcohol subsequently impacts function. In order to help students comprehend a complex topic, this lesson allows them to use their creativity and language skills with the scientific content.

### Objectives

- Conceptualize the functions of the central nervous system
- Describe the functions of neurotransmitters
- Communicate the way in which alcohol slows the central nervous system and identify specific effects it has on the body
- Understand that different factors, like weight and gender, contribute to the impact of alcohol on the body



### Vocabulary

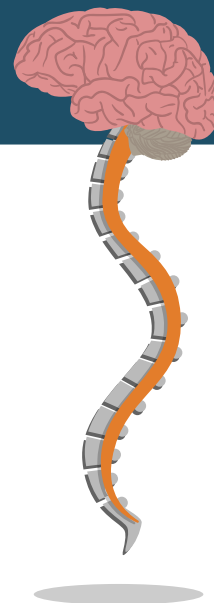
- central nervous system
- spinal cord
- impaired
- reaction time

### What you'll need

- [Central Nervous System Comprehension Questions](#)
- [Central Nervous System Vocabulary Cards](#)
- [Start a Conversation Reading](#)

### Comprehension Questions

- What parts of the body make up the central nervous system?
- What is a neurotransmitter?
- What are some of the physical effects of alcohol?
- Does alcohol affect everyone in the same way?



### For your next class...

How Alcohol Affects Your Cerebellum

To learn more about teaching units on the impacts of underage drinking and peer pressure, see additional lessons from *Ask, Listen, Learn*

[See all lessons](#)



For more info head to [AskListenLearn.org](https://www.AskListenLearn.org)

- 1 Introduce the unit by playing the video, **“How Alcohol Affects Your Central Nervous System”**. Have the “class neurotransmitter” (one student chosen at random) pass out the comprehension questions to all students (neurons).

2 minutes

- 2 When the video is over, have the students get into groups to discuss the questions. Have volunteers share their answers with the rest of the class.

5 minutes

- 3 Ask students if they can recall the metaphor used to explain alcohol being introduced to the central nervous system.

2 minutes

- 4 Activity: *Central Nervous System Metaphor Skit*

15 minutes

- 5 Activity: *Neurotransmission Matching Cards*

5 minutes

- 6 Bring the class together and reiterate the process of neurotransmission, or show the video again. Ask students why they think weight, gender, and how much you drink might affect how slow the central nervous system gets with alcohol.

3 minutes

- 7 Have the “class neurotransmitter” pass out the following reading at [responsibility.org/start-a-conversation/](https://responsibility.org/start-a-conversation/)

5 minutes

- 8 Bring class back together to review.

2 minutes

- 9 Have new “class neurotransmitter” pass out the vocabulary cards. For homework, ask the students to rewrite definitions for the vocabulary in their own words, and draw a picture to help them remember.

- 10 Pass out index cards and ask students to write down two things they learned and one thing they would like to learn more about.

## ACTIVITY IDEAS

### Central Nervous System Metaphor Skit

- 1 Have students get into groups or pairs and create their own metaphor to explain what happens when alcohol meets the central nervous system. Have the students create and write out brief skits to present their metaphor to the class.

5 minutes

- 2 Regroup with the entire class and have each group perform their skit and explain why this particular metaphor describes what happens when alcohol is introduced to the central nervous system.


10 minutes

### Neurotransmission Matching Cards

(5 minutes)

- 1 There are seven sets of cards in trios. Pass out sets students in groups of 3-4.
  - Word
  - Definition
  - Image from the video
- 2 Students will mix up all of the cards on their desks and place them facedown. Players will take turns flipping the cards, trying to make correct matches of three. Whichever group has the most correct trios in 5 minutes wins!

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# ALCOHOL AND YOUR DEVELOPING CENTRAL NERVOUS SYSTEM

Central Nervous System

## Vocabulary Words

### Central Nervous System

The central nervous system is made up of your brain and spinal cord. The brain sends information to different parts of your body through the spinal cord, via neurotransmitters.

### Spinal Cord

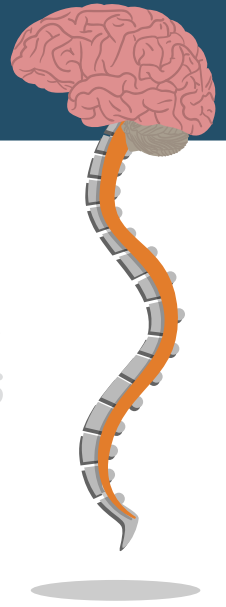
The main path for information, connecting the brain with other parts of the body. The spinal cord is made up of nerve fibers that run through the spine.

### Impaired

Damaged or weakened.

### Reaction time

The amount of time it takes to respond to something.



CENTRAL  
NERVOUS  
SYSTEM



BRIGHT  
LIGHT

TIME TO  
BLINK



SPINAL CORD

REACTION TIME

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# VOCABULARY WITH PHONETICS

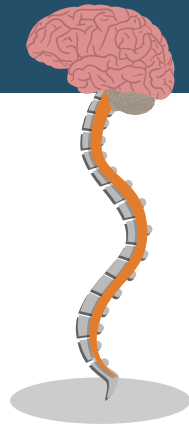
Central Nervous System

## Central Nervous System

cen•tral ner•vous sys•tem



CUT  
OUT



## Spinal Cord

spi•nal cord

## Impaired

im•paired

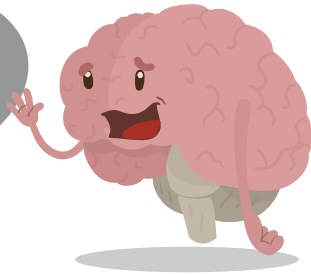
## Reaction Time

re•ac•tion time

# VOCABULARY WITH PHONETICS

## Central Nervous System

Use these  
Flashcards For  
extra practice!



The central nervous system is made up of your brain and spinal cord. The brain sends information to different parts of your body through the spinal cord, via neurotransmitters.

Damaged or weakened.

The main path for information, connecting the brain with other parts of the body. The spinal cord is made up of nerve fibers that run through the spine.

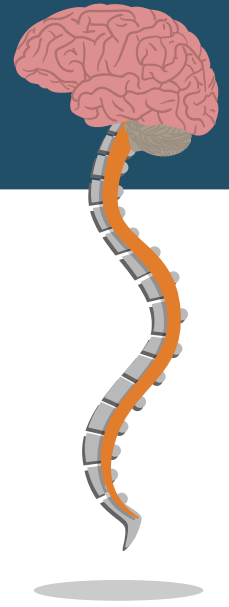
The amount of time it takes to respond to something.

# ALCOHOL AND YOUR DEVELOPING CENTRAL NERVOUS SYSTEM

## Central Nervous System

### Comprehension Questions

Be sure to write your answers in full sentences and cite evidence from the video.



- 1 What parts of the body make up the central nervous system?



- 2 What is a neurotransmitter?



- 3 What are some of the physical effects of alcohol?



- 4 Does alcohol affect everyone in the same way?



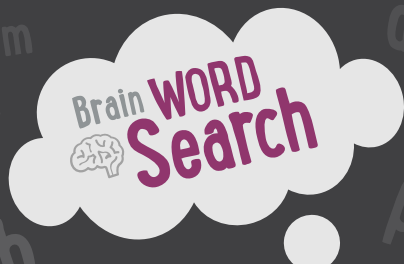
- 5 Summarize the overall message of this video.

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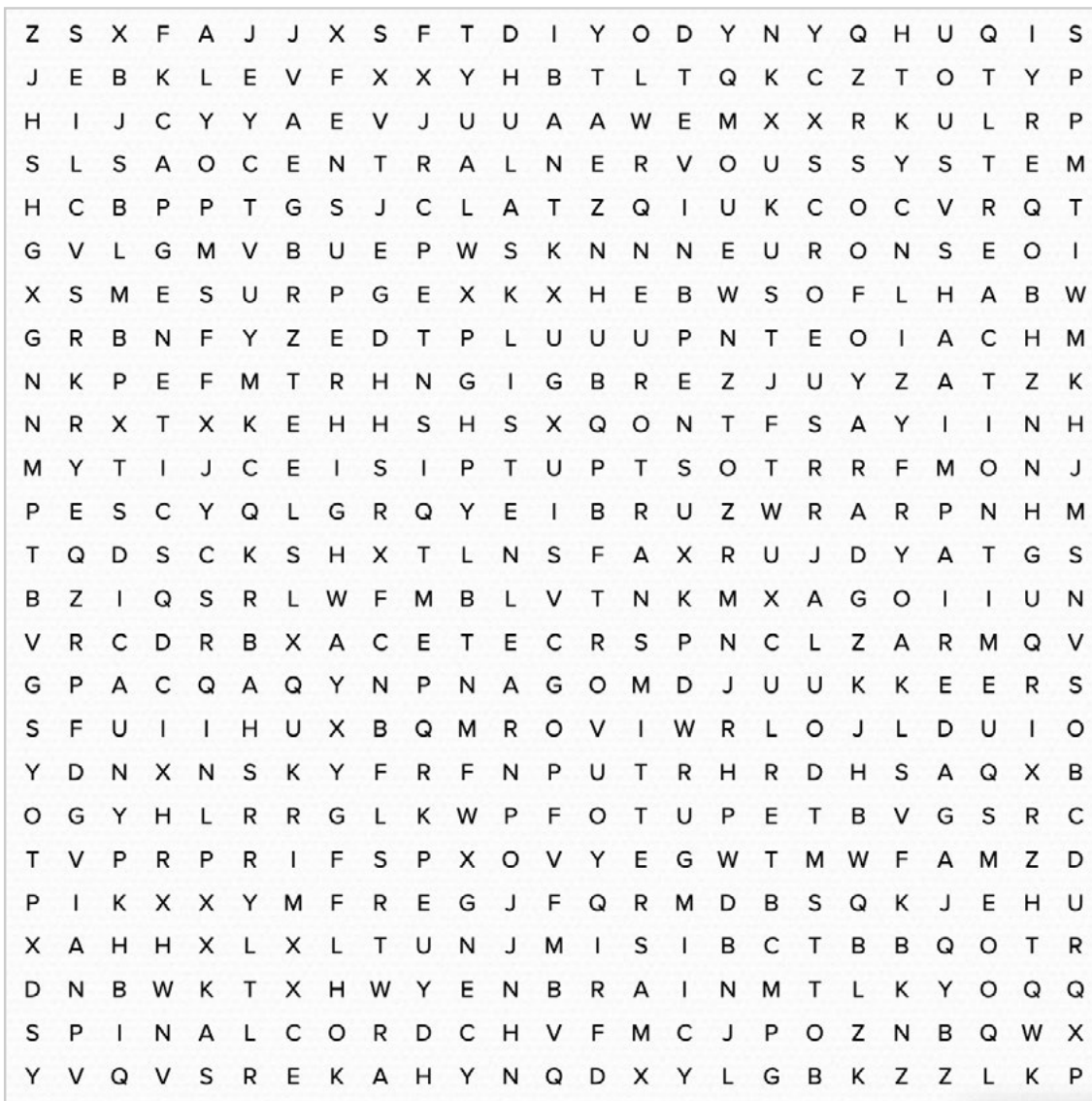
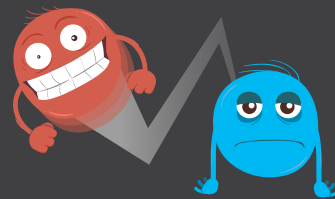
[See all lessons](#)



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# Central Nervous System



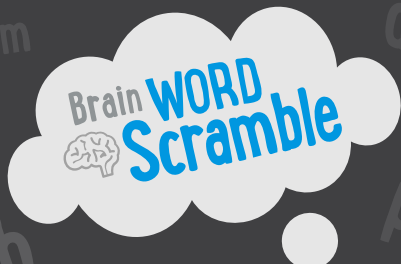
neurotransmitters  
neurons  
spinal cord  
impaired

reaction time  
brain  
genetics  
superhighway

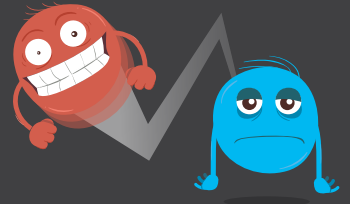
central nervous system  
brain  
ask listen learn

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# Central Nervous System



1  
ar sm nr tet in sr tu oe

2  
ne ou sr n

3  
spl ai n rd co

4  
me ap dri i

5  
ate ro cni te im

6  
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7  
ci st ne ge

8  
uh ys w gh ra ie p

9  
sa k ns li et le na r

10  
te la rnc uvs ne ro se yts m

1. neurotransmitters 2. neurons 3. spinal cord 4. impaired 5. reaction time 6. brain 7. genetics 8. superhighway 9. ask listen learn 10. central nervous system

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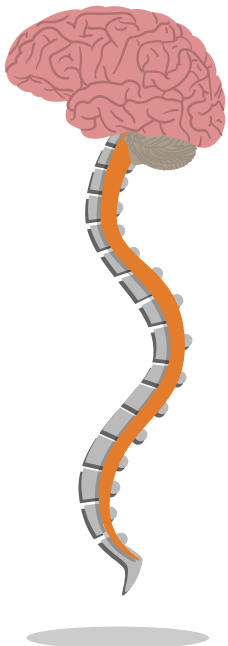
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## STANDARDS ALIGNMENT

## LESSON 2

## Alcohol and Your Developing Central Nervous System

Content	Student Objectives	Classroom Activities	Assessment
<ul style="list-style-type: none"> <li>Further understanding of neurotransmitters</li> <li>How alcohol affects the central nervous system</li> </ul>	<p><i>Students will be able to:</i></p> <ul style="list-style-type: none"> <li>Conceptualize the functions of the central nervous system</li> <li>Describe the functions of neurotransmitters</li> <li>Communicate the way in which alcohol slows the central nervous system and identify specific affects it has on the body by writing and performing a skit</li> <li>Understand that different factors, like weight and gender, contribute to the impact of alcohol on the body</li> </ul>	<ul style="list-style-type: none"> <li>Video and class discussion</li> <li>Central Nervous System Metaphor Skit</li> <li>Website text reading and discussion</li> </ul>	<p><i>Formative:</i></p> <ul style="list-style-type: none"> <li>Written discussion questions</li> <li>Vocabulary homework</li> </ul> <p><i>Formative/Summative:</i></p> <ul style="list-style-type: none"> <li>Performed skits</li> </ul>



## Standards

## CCSS:

- RI.5-7.1
- RI.5-7.2
- RI.5-7.4
- RI.5-7.7
- RI.5-7.10
- RST.6-8.1
- RST.6-8.2
- RST.6-8.4
- W.5-7.10
- WHST.6-8.10
- L.5-7.4
- L.5-7.5
- SL.5-7.1
- SL.5-7.2
- SL.5-7.4

## NHEA:

- 1
- 3
- 4

## NGSS

- MS.LS1.3
- MS.LS1.5

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Kids and alcohol don't mix.

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