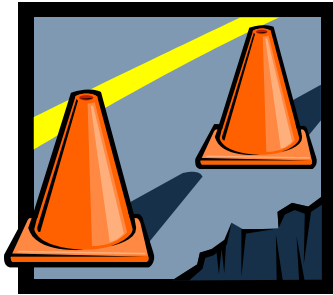


# Highway Work Zone Safety Lessons



“Life Behind The  
Cones And Barrels – How  
Roadway Workers Keep America  
Moving Poster Contest” Program

Missouri Department of  
Elementary and Secondary Education

## Information about the Lessons

Each year, the American Traffic Safety Services Foundation (the Foundation) sponsors a work zone safety poster contest as a public awareness campaign to decrease highway work zone deaths and injuries. Winning posters from each state are entered in the national contest. Monetary prizes are awarded to state and national winners. The awards are held in conjunction with the Federal Highway Administration's National Work Zone Safety Week in April.

In order to increase awareness of work zone safety practices, these lessons were developed to assist Missouri teachers who would like to offer this opportunity to their students. The content and format are suitable for children in grades 3-6; however, you may choose to adapt the information and assessments to fit the needs of younger students.

One or more teachers may decide to teach the lessons. A classroom teacher can use the three lessons in his or her class, or the teacher can collaborate with a health teacher (Lesson 2) and an art teacher (Lesson 3). **It is important to note that you do not need to be an art teacher to implement Lesson 3; all of the information you need to assist students in designing a poster is included.** If more than one class of students is submitting entries for the contest, please remember that each school building may submit 3 entries from each grade span, K-3 and 4-6, which is represented in that building.

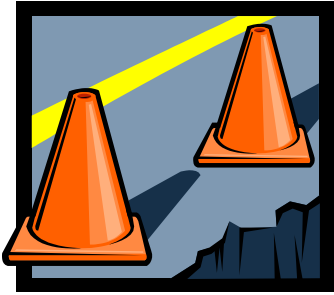
The lessons were designed to connect the Highway Work Zone Safety Poster Contest to the Missouri Department of Elementary and Secondary Education Grade-Level Expectations. The activities were created to enhance students' higher-level thinking skills and are presented in a format similar to the Missouri Assessment Program (MAP).

The chart on the following page represents some of the curriculum connections you can make as you implement these lessons.

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## Connecting to the Curriculum

| Activity  | Grade-Level Expectation  |
|---|--|
| Create a graphic organizer to compare and contrast 2 types of work zones.             | <p>CA R.1.1.3: Identify and explain connections between</p> <ul style="list-style-type: none"> <li>• text ideas—information and relationships in various fiction and non-fiction works (compare and contrast)</li> </ul> <p>CA W.3.B.3: Identify information in written text to complete an organizer.</p> |
| Label the warning device icons.   | CA R.3.A.1: Identify and explain information in text, pictures, title and charts   |
| Write an opinion about each state using orange for work zones.                        | <p>CA R.1.H.1: Develop and apply post-reading skills to respond to text</p> <ul style="list-style-type: none"> <li>• draw conclusions</li> </ul>   |
| Write a sentence about work-zone safety using specified vocabulary.                   | <p>CA R.1.E.4: Develop vocabulary through text, using</p> <ul style="list-style-type: none"> <li>• glossary and dictionary</li> </ul>  |
| Summarize safe driving information.   | <p>CA R.1.H.4: Apply post-reading skills to comprehend text</p> <ul style="list-style-type: none"> <li>• summarize</li> </ul> <p>CA W.3.D.5: Write a summary/retell the main ideas of written text.</p>  |
| Create a list of passenger tips.  | CA IL.1.C.4: identify relevant information and record main ideas and important details in own words  |
| Explain why it is important for passengers to be aware of work-zone safety practices. | <p>CA R.1.H.1: Develop and apply post-reading skills to respond to text</p> <ul style="list-style-type: none"> <li>• draw conclusions</li> </ul>   |
| Identify safety and warning devices.  | CA R.3.A.1: Identify and explain information in text, pictures, title and charts   |
| Identify icons and words on signs.  | CA R.2.A.2: Locate and apply specific information in title, pictures and table of contents   |
| Sequence the signs.   | <p>CA R.3.C.3: Use details from text to</p> <ul style="list-style-type: none"> <li>• organize a sequence of events</li> </ul>  |
| Create a slogan about work-zone safety.   | <p>CA R.3.C.3: Use details from text to</p> <ul style="list-style-type: none"> <li>• make inferences about problems and solutions</li> </ul> <p>CA W.3.A.3: Write narrative text that contains</p> <ul style="list-style-type: none"> <li>• precise and descriptive language</li> </ul>                    |
| Create a work-zone safety poster.   | CA IL.1.C.4: identify relevant information and record main ideas and important details in own words  |



# Highway Work Zone Safety Lesson 1

## How Roadway Workers Keep America Moving

Each year in the United States, more than 1100 people lose their lives in highway work-zone accidents and more than 40,000 people are seriously injured. Many highway workers are injured each year and some are killed in work-zone crashes.

### What is A Work Zone?

A highway work zone is an area where highway workers are maintaining or building a roadway. There are two types of highway work zones: **stationary** and **mobile**.

A stationary work zone has clearly-marked boundaries. Drivers get information about how to drive through the area from signs or flaggers. There may be lane changes and detours in a stationary work zone.



A mobile work zone involves maintenance vehicles that may be mowing, plowing snow or striping the pavement. These trucks move at slower speeds than the regular traffic, so extra caution is required. Drivers may need to change lanes in a mobile work zone.

### Warning Devices

Drivers are given warnings at three different times: before the work zone begins, throughout the work zone and at the end of the work zone. There are a variety of ways to warn drivers of the work. Highway workers use cones, signs, barricades and warning lights as signals to driver to slow down and pay attention.

The color orange is used for work zone signs in every state. Orange signs, barrels, cones and vests tell drivers to slow down and use caution.







#### These words are related to highway work zones:

|        |              |
|--------|--------------|
| Lane   | Shoulder     |
| Median | Construction |
| Detour | Traffic      |

## Show What You Know!

- How are the 2 types of work zones similar? How are they different? On a separate page, **create a graphic organizer** to compare and contrast the two types of work zones.
- Some of the warning devices are pictured in the chart below; however, the names are incorrect. Write the correct names in the boxes in the middle column.

|   |  |                  |
|---|--|------------------|
|    |  | <b>Sign</b>      |
|    |  | <b>Barricade</b> |
|   |  | <b>Light</b>     |
|  |  | <b>Cone</b>      |

- Why do you think every state uses the same color, orange, for work zones?

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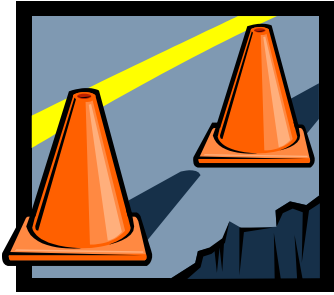
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- Write a sentence about work zone safety. Use at least 3 of the words from the list of words about highway work zones in Lesson 1. Look in the dictionary for the meaning of any word you do not know.

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## Highway Work Zone Safety Lesson 2

### What Drivers Can Do to Help Make Work Zones Safer

In Missouri, between 2000 and 2004, 104 people lost their lives in highway work-zone crashes. In 2005, another 15 people were killed while driving in a work zone. Serious injuries also occur in work-zone crashes. In 2005, 940 people suffered injuries, a decline from the year before when 1,167 people were injured. Highway workers were also killed and injured.

According to the Missouri Department of Transportation, also known as MoDOT, **not paying attention, driving too fast and following a car too closely** are the main causes of work-zone crashes.

You may have seen MoDOT trucks on the highway or watched a flagger direct traffic through a work area. MoDOT also provides the Motorist Assist program, a source of help to drivers who need assistance on the highway.



Since our highways need to be maintained and improved, we will see more work zones throughout the state. The MoDOT Web site shows current information about where work zones are located throughout the state. To view the map, go to [www.modot.org/workzonemap](http://www.modot.org/workzonemap).

### MoDOT's Tips for Drivers Traveling through Work Zones:

**Buckle Up!** Safety belts save lives.

**Pay Attention!** Turn the radio down and don't use a cell phone.

**Stay Alert!** Dedicate your full attention to the roadway.

**Follow Signs!** They will guide you through work zones safely.

**Expect the Unexpected!** Watch for flaggers, workers and equipment.

**Don't Speed!** Follow the posted limits and adjust for weather conditions.

**Be Nice!** Merge as directed, don't tailgate and don't change lanes in a work zone.

**Show What You Know!**

1. Write a paragraph summarizing what a driver needs to do to travel safely through a work zone.

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2. Make a list of **Tips for Passengers** similar to the **Tips for Drivers**.

- 1. \_\_\_\_\_
  - 2. \_\_\_\_\_
  - 3. \_\_\_\_\_
  - 4. \_\_\_\_\_
- 
- 

3. Write a paragraph explaining why it is also important for passengers to be aware of work zone safety.

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4. List the safety and warning devices you recognize in this photograph of a highway worker.

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5. Which two signs mean the same thing? \_\_\_\_\_ & \_\_\_\_\_



A.



B.



C.

6. Follow the directions to put the road signs in the correct order:

- A. Put an "A" under the sign that you would see before entering a work zone.
- B. Put a "B" under the sign that you would see while you are traveling through a work zone.
- C. Put a "C" under the sign that you would see at the end of a work zone.



\_\_\_\_\_



\_\_\_\_\_

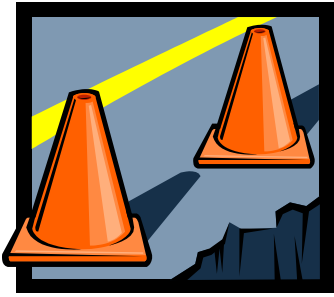


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7. Make up a slogan to tell drivers and passengers about work zone safety.

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# Highway Work Zone Safety

## Lesson 3

### Design a Work Zone Safety Poster

Posters send a message to the people who see them. Posters can educate and entertain. In some ways, posters are artistic advertisements; but they did not start out that way.

Long ago, posters made people aware of proclamations from the king or advertised the plays of Shakespeare. These posters were text posters, meaning they only used words, no graphics.

During World War I, posters were used to recruit soldiers. These posters used a figure known as “Uncle Sam” who pointed his finger and said, “I WANT YOU!” The icon, created in 1916, is still recognizable today.



Many classrooms have posters on the walls. Usually the posters in a classroom are motivational posters and references posters. Motivational posters may encourage students to be good citizens, while reference posters may show the multiplication tables or a timeline in American history.

Sometimes, students are asked to create, or design, a poster. These posters can also motivate and educate. In order to create a visually appealing poster with a message or topic, it is important to follow some of the design principles that graphic artists use.

### Poster Design Tips

- The colors you choose can create a mood for the poster.
- Using a variety of shapes or color creates interest.
- Repeating shapes, line, color or other elements creates unity.
- Space can be positive (there is something filling the space) or negative (there is nothing in the space, and it is blank). Use both kinds of space.
- Emphasize the text by making it stand out. The content of the message, the size of the letters, and where you place the words contribute to the appeal of the poster.
- Practice by doing a series of sketches of different ideas. Experiment with combining the elements to make a distinctive design.

# Show What You Know!

Now that you have learned about highway work zone safety and design tips for creating a poster, it is time to prepare an entry for your school’s Missouri Highway Work Zone Safety Poster Contest.

The theme of the contest is “Life Behind The Cones And Barrels – How Roadway Workers Keep America Moving Poster Contest” program. You may use the slogan you created in Lesson 2 or you may decide to develop a new idea.

### The Format

Students in grades K-6 may submit a poster for judging at your school. Posters should be created on paper, cardboard or foam board no larger than 8 ½” X 11”.

### The Message

Your poster may show what a highway worker sees or what drivers and passengers can do to stay safe while traveling through work zones. Some of the key points to remember are:

- Slow down to posted speeds.
- Merge as soon as signs instruct.
- Unplug from distractions such as cell phones and unnecessary conversations.
- Turn lights on in work zones and display an orange ribbon to show workers you support their safety.

### Self-Evaluation

Use this scoring guide to evaluate your poster before giving it to your teacher.

| Criteria          | 4  | 3  | 2  | 1  |
|-------------------|--|--|--|--|
| <b>Creativity</b> | The theme of the poster was unique.  | The theme was not original but was used in a unique way.   | The theme was not original but represented work zone safety.   | The theme was difficult to understand.                                     |
| <b>Elements</b>   | Excellent use of color and space; the poster is balanced.  | Good use of color and space; the poster is balanced.   | Good use of color and space; the poster does not show balance. | Color and/or space not used effectively; the poster does not show balance. |
| <b>Message</b>    | The poster represents all 4 points in the bulleted items above <b>or</b> represents at least 2 points in a unique way. | The poster represents 3 points in the bulleted items above <b>or</b> represents 1 point in a unique way. | The poster represents 2 points in the bulleted items above.    | The poster represents 1 point in the bulleted items above.                 |
| <b>Text</b>       | Spelling and grammar are correct.  | 1 spelling or grammar error.   | 2-3 spelling and/or grammar errors.                            | More than 4 spelling and/or grammar errors.                                |