



Commercial Motor Vehicle Safety for New Drivers

Presented by North Dakota Motor Carriers Association & Vision Zero

INTRODUCTION

This facilitator guide accompanies three interactive learning activities developed by the North Dakota Motor Carriers Association (NDMCA) in partnership with Vision Zero. Designed for new drivers, each activity uses game-based learning to realistically show new drivers how to safely share the road with commercial motor vehicles (CMVs). The activities were developed with input from North Dakota driver's education instructors and professional CMV drivers to ensure the activities are practical and easy to integrate into classroom instruction.

In each section of this guide, you will find:

- An overview of the interactive activity
- A mini lesson plan with discussion questions

LEARNING OBJECTIVES

After completing all three learning activities, students will be able to:

- ✓ Identify different CMVs
- ✓ Explain safe driving practices around CMVs
- ✓ Identify blind spots (No Zones) around large vehicles
- ✓ Demonstrate correct passing techniques
- ✓ Describe how speed and road conditions affect following and stopping distances
- ✓ Safely position their vehicle at intersections with turning CMVs
- ✓ Apply concepts to real-world driving scenarios

LESSON PREPARATION

The pre-work for these learning activities is intentionally minimal. It is recommended that facilitators review the discussion questions and also play each learning activity through several times, selecting both correct and incorrect options.

Facilitators can provide students access to the learning activities through links or QR code images.

LANE SAFETY

NO ZONES

STOPPING DISTANCES

[Facilitator Version](#)

[Student Version](#)

[Facilitator Version](#)

[Student Version](#)

[Facilitator Version](#)

[Student Version](#)



IMPLEMENTATION STRATEGIES & TIPS

These learning activities can be used in the Driver's Ed classroom and at community events. View implementation tips for each below:

>> Driver's Ed Classroom

- Have students complete the learning activities individually or with a partner.
- Alternatively, display the activities to discuss and complete as a class.

>> Community Events

- Display or distribute the QR codes so participants can access the learning activities on their mobile devices. For the best experience, users should rotate their devices to landscape mode.
- If a WiFi connected tablet or computer is available, use the booth-friendly version of the activities. This version is designed for self-guided participation at community events, conferences, and safety fairs.

ndmca.org/drivingsims-all/



ESTIMATED TIME

Each learning activity takes 20-35 minutes to complete.

- Pre-Activity Discussion: 5-10 minutes
- Interactive Activity: 10-15 minutes
- Post-Activity Discussion: 5-10 minutes

STUDENT ASSESSMENT

The interactive activities use a game-based scoring system that rewards safe driving decisions and deducts points for unsafe choices. If a student loses all of their points, they are returned to the beginning of the activity to try again.

Each activity concludes with a results screen displaying the student's final score. Students can enter their name in a fillable text field and select the Print Results button to print or save their results for submission to the instructor as proof of completion.

FACILITATOR SURVEY

After using the interactive learning activities with students, please complete the short facilitator survey found at <https://form.jotform.com/262014871729056>.

1

BLIND SPOTS (NO ZONES)

Blind spots, also known as No Zones, are areas around a commercial motor vehicle (CMV) where the truck driver has limited or no visibility. In this activity, students learn to identify the four No Zones, recognize visual landmarks that indicate when they are in a blind spot, and apply defensive driving strategies to quickly move through No Zones when necessary.

LEARNING OBJECTIVES

After completing this learning activity, students will be able to:

- ✓ Identify the front, rear, left, and right No Zones around a commercial motor vehicle
- ✓ Use visual landmarks on a CMV to recognize when they are entering or leaving a No Zone
- ✓ Demonstrate safe techniques for passing and driving near a CMV

MINI LESSON PLAN

• Pre-Activity Discussion Questions

- Do you think a semi truck or bus can see more or less of the road around it than a car? Why?
 - *Answer: Less. Commercial motor vehicles have much larger blind spots, or No Zones, than passenger vehicles.*
- If you can see a semi truck, does that mean the truck driver can always see you? Why or why not?
 - *Answer: No. The size and height of a semi-truck makes it harder for drivers to see vehicles directly in front of, behind, or alongside the truck.*
- If you're driving next to a semi truck, who's responsible for keeping track of traffic entering and exiting blind spots: you, the truck driver, or both? Why?
 - *Answer: Both. Everyone on the road shares responsibility for driving safely. Truck drivers check their mirrors and watch for surrounding traffic, while you are responsible for driving defensively by recognizing blind spots, passing safely, and avoiding lingering in a truck's No Zones.*

• Video Introduction

- To introduce this activity, show students the short accompanying video [found here](#).



• Interactive Activity

- This activity has 6 sections:
 - Introduction
 - Learn the No Zones
 - Knowledge Check: Right/Left/Rear No Zones
 - Learn to Safely Pass
 - Knowledge Check: Passing CMVs
 - Conclusion & Final Score

• Post-Activity Discussion Questions

- What surprised you most about No Zones?
- What landmarks can help you tell if a truck driver can see your vehicle?
- If you need to pass a semi truck, what steps can you take to do it safely?
- Why isn't passing on the right side of a semi-truck recommended?
- Where are you most likely to encounter scenarios like these while driving?
- Did anything in the activity change the way you think about driving near large trucks?

2

LANE SAFETY

Commercial motor vehicles require significantly more space than passenger vehicles, especially when turning. In this interactive activity, students practice defensive driving skills by safely positioning their vehicles in the lanes around a semi truck in a variety of real world scenarios. They learn when to give a CMV extra space to complete right and left turns, recognize hazards such as the squeeze box, and make safe decisions when sharing the road with large trucks.

LEARNING OBJECTIVES

After completing this learning activity, students will be able to:

- ✓ Identify situations where CMVs need extra space to turn
- ✓ Demonstrate safe vehicle positioning at intersections with CMVs
- ✓ Apply defensive driving strategies when approaching or stopping near a CMV

MINI LESSON PLAN

• Pre-Activity Discussion Questions

- Do a truck's blind spots disappear when it's stopped at an intersection, or are they still there? Why do you think that is?
 - *Answer: The blind spots are still there, whether the CMV is moving or stopped. The blind spots are caused by the CMV's size and height, not motion.*
- CMVs tend to turn wide and slow. Is it safer to try to get around the CMV quickly or wait until it has completed the turn? Why?
 - *Answer: It's always safer to wait. Trying to quickly get around a CMV can put you into a blind spot.*
- Semi trucks sometimes swing out wide before making a turn. Why do you think that is?
 - *Answer: Semi trucks need extra space to turn. Swinging out wide gives the trailer room to follow the truck without hitting curbs, signs, or vehicles.*

• Interactive Activity

- This activity has 8 sections:
 - Introduction
 - 6 Interactive Scenarios
 - Conclusion & Final Score

• Post-Activity Discussion Questions

- What surprised you most about how CMVs turn?
- What should you do if you see a truck signaling for a turn at an intersection?
- What are some ways driving near a CMV is different from driving near a passenger vehicle?
- Where are you most likely to encounter situations like these while driving?
- Did anything in the activity change the way you think about driving near large trucks?

3

STOPPING DISTANCES

Commercial motor vehicles require significantly more distance to stop than passenger vehicles, especially in poor weather conditions. In this interactive activity, students practice defensive driving skills by safely following, passing, and merging around a semi truck in a variety of weather conditions. They learn how rain, snow, ice, and melting conditions affect stopping distances, determine when it is safe to merge back in front of a CMV after passing, and compare the stopping distance needs of passenger vehicles and fully loaded semi trucks to make safer driving decisions.

LEARNING OBJECTIVES

After completing this learning activity, students will be able to:

- ✓ Determine a safe following distance behind a CMV based on road and weather conditions
- ✓ Demonstrate safe passing and merging techniques around a CMV based on road and weather conditions
- ✓ Predict the stopping distance needed for passenger vehicles and CMVs based on road and weather conditions

MINI LESSON PLAN

• Pre-Activity Discussion Questions

- What road and weather conditions do you need to be prepared for as a North Dakota driver?
 - *Answer: Responses may include rain, heavy rain, snow, ice, slush, fog, strong winds, gravel roads, construction zones, etc.*
- When you're driving in town at 25 mph, how much distance do you think your car needs to stop? How about on the interstate at 80 mph?
 - *Answer: At 25 mph, around 65 to 85 feet, which is about $\frac{1}{4}$ to $\frac{1}{3}$ of a city block. At 80 mph, around 460 to 485 feet, which is well over the length of a football field. These distance estimates are for good road conditions. Under the same road conditions, a fully loaded semi truck can need double the distance—or more—to stop!*
- What are some factors that could change that stopping distance?
 - *Answer: Responses may include vehicle speed, weather conditions, vehicle weight, driver reaction time, tire condition, brake condition, road surface, etc.*

• Interactive Activity

- This activity has 6 sections:
 - Introduction
 - Learn the Following Distance Rules
 - Learn About Road & Weather Conditions
 - 4 Interactive Scenarios
 - Stopping Distance Quiz
 - Conclusion & Final Score

- Post-Activity Discussion Questions

- What surprised you most about how weather affects stopping distances for both cars and CMVs?
- Why is it important to leave more space between your vehicle and a semi truck in rain, snow, or icy conditions?
- How do you know when it's safe to merge back in front of a CMV after passing it?
- What factors should you consider before deciding whether it's safe to pass a CMV in poor weather?
- What's one thing you'll do differently the next time you're driving near a CMV in bad weather?