



TRUCK SMART

DRIVER EDUCATION STUDENT WORKBOOK







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NO-ZONES

MODULE 1

What are “No-Zones” and why should they be avoided?

Learning Objective: Understand that semi trucks and buses have very large blind spots, recognize where they are located and avoid traveling in them.

Question 1: Do truck drivers have a better view of the road because they sit up higher than other cars?

Question 2: What are the main areas of a truck that you should avoid?

Draw and label the No-Zones around the truck.

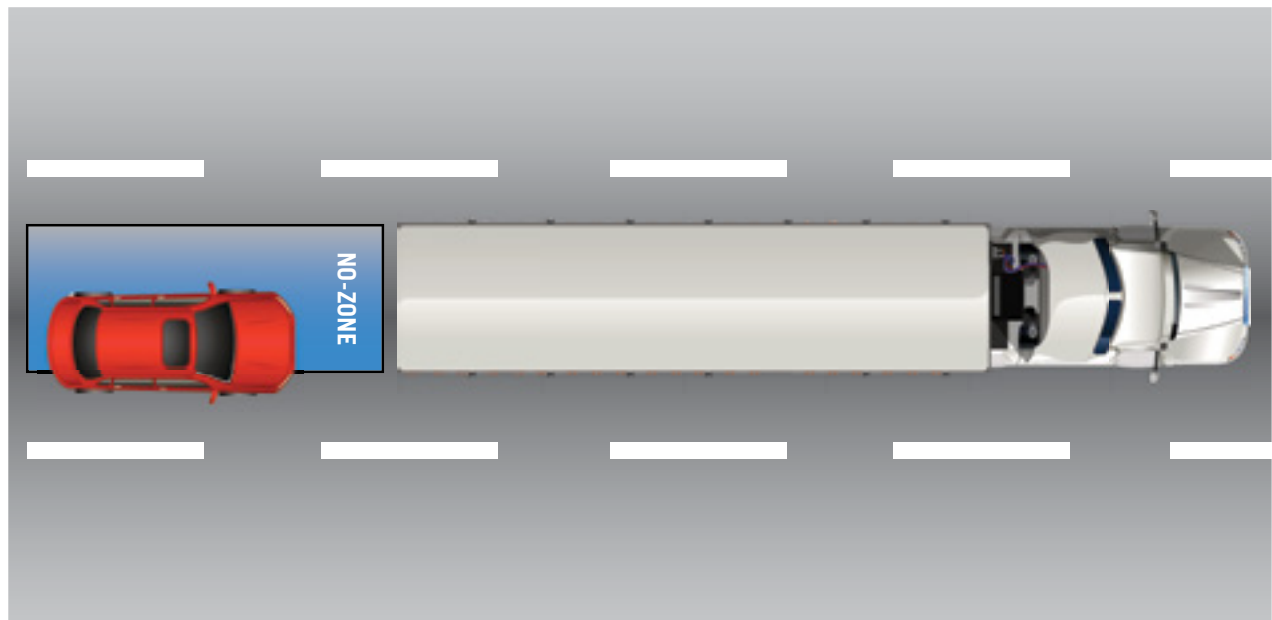


SIDE NO-ZONES

REAR NO-ZONES

FRONT NO-ZONES

Question 3: Can drafting a truck either from the side or from behind help me save gas?



Question 4: Trucks' mirrors seem big enough, so shouldn't they be able to see me without a problem?

Rule of Thumb:

Question 5: What should I do if I'm traveling behind a truck that's losing debris?



How well can you see what's on the other side of these trailers?

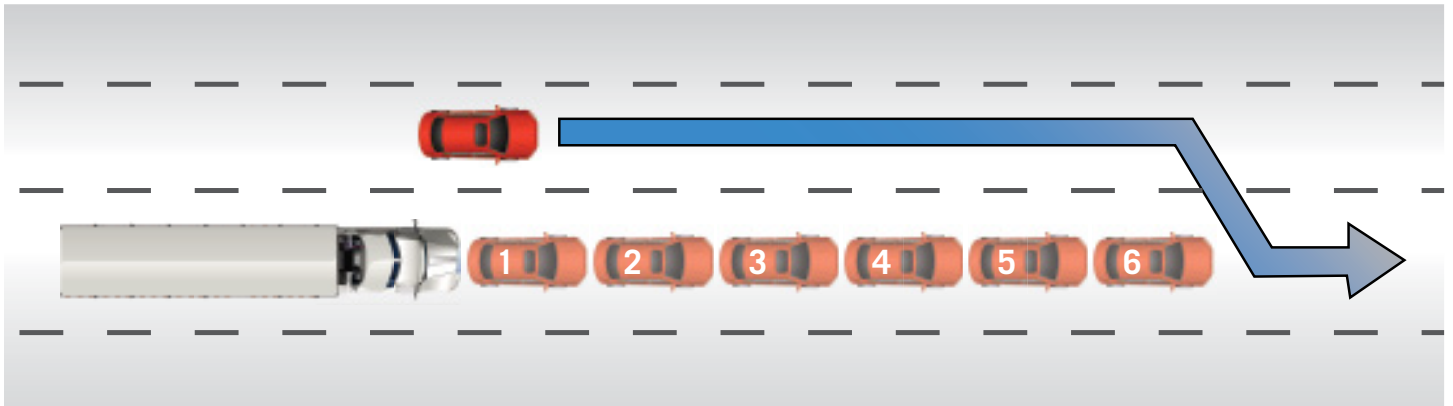
DON'T CUT OFF TRUCKS

MODULE 2

Learning Objective: Understand how to pass a truck safely and learn to respect them.

Question 1: When is it okay to pull in front of a truck?

Rule of Thumb:



Question 2: Trucks have large braking systems, so is it okay to slow back down once you move over?

Question 3: Passing trucks is scary; should I always be concerned?

STOPPING DISTANCES

MODULE 3

Learning Objective: Understand that it takes trucks almost twice the distance as a car to come to a stop.

MOTOR VEHICLES

Width: 5' – 6' wide
Height: 4'6" – 5' high
(for passenger vehicle) or 6'6" high
(for SUVs and some pickup trucks)
Length: 12' – 18' long
Weight: 3,000 – 4,000 lbs.

12-18 Ft. Length



SEMI TRUCKS

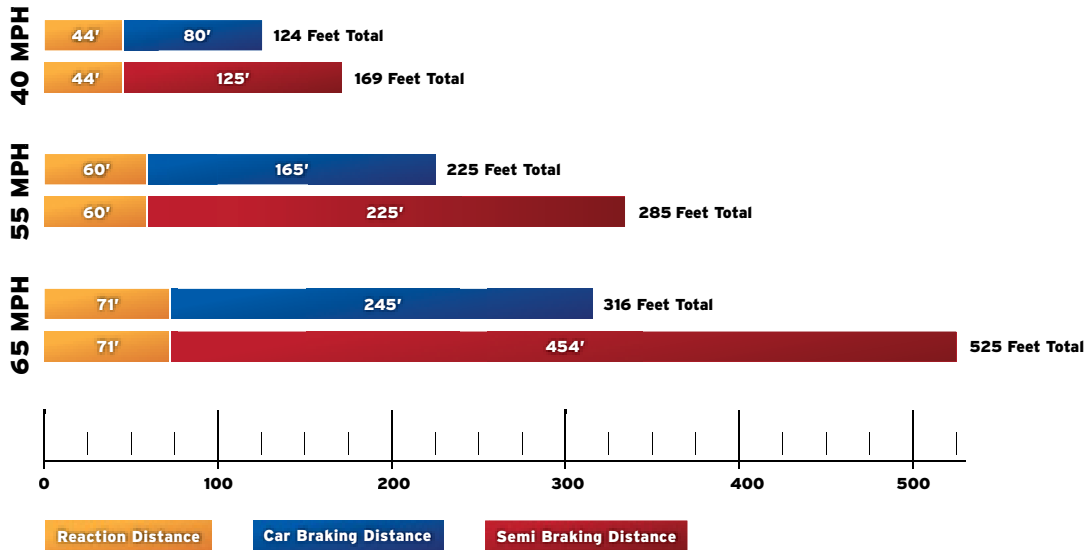
Width: 8'6" wide
Height: 14' high (measured from level ground to top of load or vehicle)
Length: Lengths vary from 45' for a single motor vehicle to 65' for a truck-trailer combination
Weight: 80,000 lbs. gross weight

65 Ft. Maximum Overall Length Limit

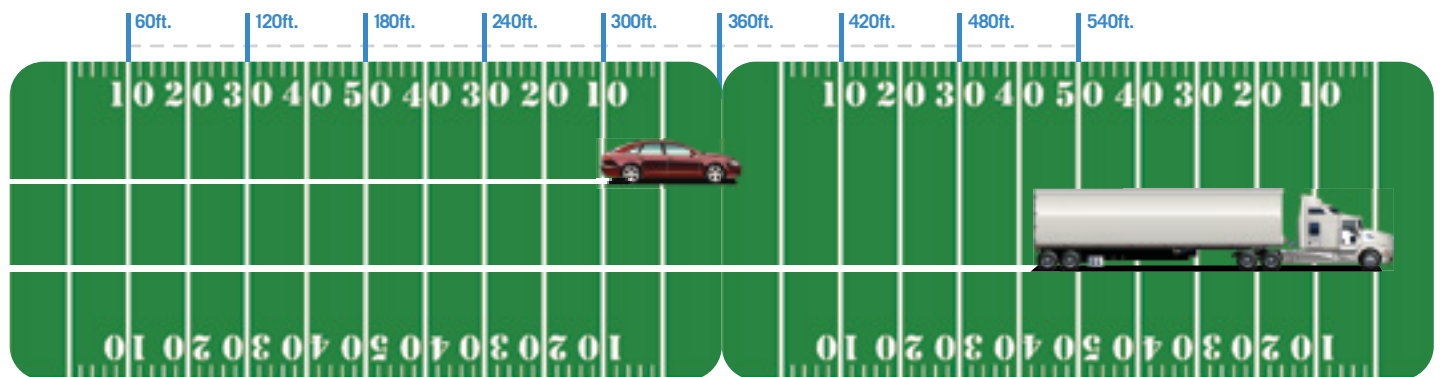


Question 1: How is weight a factor in determining the length of time it takes for a truck to come to a stop?

Total Stopping Distances



Comparison of Stopping Distances at 65 mph



Question 2: How do you figure stopping distance?

For passenger vehicles:

$$\begin{aligned} & 1. \underline{\hspace{2cm}} \\ & 2. \underline{\hspace{2cm}} \\ + & 3. \underline{\hspace{2cm}} \end{aligned} = \text{Stopping Distance}$$

For trucks:

$$\begin{aligned} & 1. \underline{\hspace{2cm}} \\ & 2. \underline{\hspace{2cm}} \\ & 3. \underline{\hspace{2cm}} \\ + & 4. \underline{\hspace{2cm}} \end{aligned} = \text{Stopping Distance}$$

Define the components of the above equations:

1. _____

2. _____

3. _____

4. _____

Question 3: How much space should I leave in front of my car if I'm stopped behind a truck on the road?

WIDE TURNS

MODULE 4

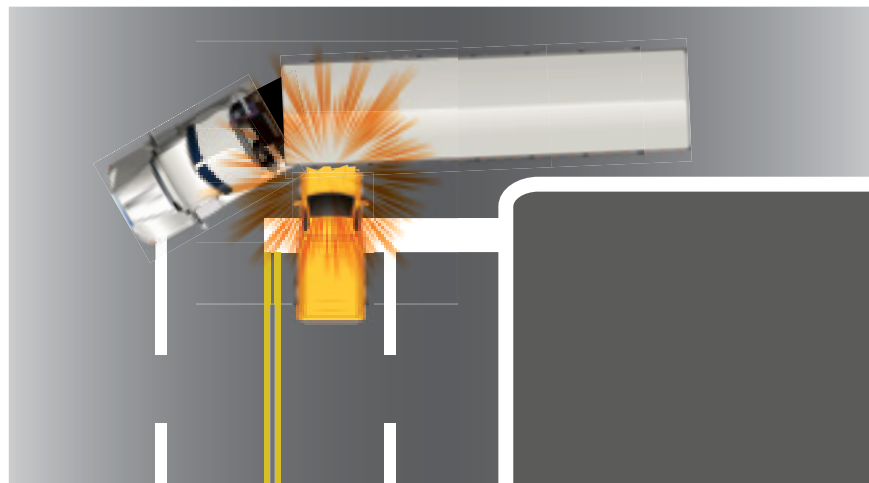
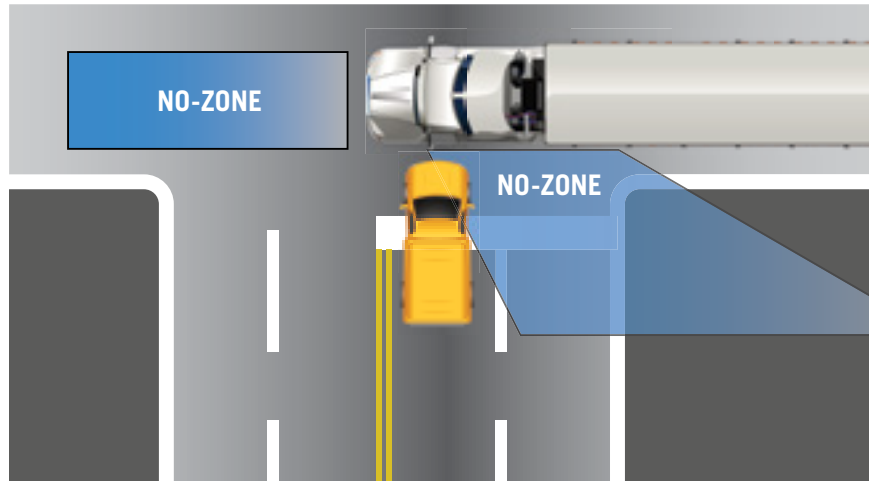
Learning Objective: Become more aware of how trucks maneuver at intersections and drive defensively around them.

Question 1: Why do trucks need to make wide turns?



Question 2: How should I drive around a truck turning right or left?

Question 3: What does it mean to crowd an intersection? Why can't I do it?



Question 4: If trucks are so heavy, shouldn't they be sturdier when turning?

CRASH CASE STUDY

Part 1: News Article Sky County Daily News Dispatch

Local Teen Killed In Wreck!

By: John Rowski

A 16-year-old local teenager was killed this morning in a crash at Deep Creek Parkway and Ivanhoe Boulevard in town. The identity of that victim is being withheld until all of the family is notified. The crash was reported shortly after 8:30 a.m. on July 31.

The crash occurred in the 900 block of Southwest Ivanhoe Boulevard at the intersection with the Deep Creek Parkway access ramp. Southwest Ivanhoe Boulevard is a two-lane, one-way road at that point. It is part of a four-lane divided highway.

According to the on-scene police sergeant, the 18-wheeler was in the right lane on Southwest Ivanhoe Boulevard attempting to exit on to Deep Creek Parkway. The 18-wheeler made a wide right turn, and as it did, the pickup attempted to pass the 18-wheeler on the right side.

The pickup made glancing contact with the 18-wheeler. The pickup then veered to the right, went off the road and rolled. The sergeant said witnesses reported that the pickup driver was traveling at a high rate of speed.

A representative from the Sky County Medical Examiners Office pronounced the driver of the pickup dead at the scene. A passenger (16 years old) in the pickup did not suffer any major injuries. The driver of the 18-wheeler was not injured.

The identity of the passenger of the pickup and the driver of the 18-wheeler are not available yet.

The Police Department, Fire Department and Department of Public Safety worked the crash. The incident is still under investigation.



Photo Not of Actual Crash

Part 2: Filed Police Report

Facts of the Crash

Two large commercial motor vehicles (CMV's) were traveling south on Ivanhoe Boulevard in the #1 lane (left lane). The teenager driving the pickup truck came up in the #2 lane (right lane) at a minimum of 65 mph (speed limit is 55 mph), and was passing the commercial motor vehicle (truck) just as the CMV was starting to make a right turn into the #2 lane. The pickup truck glanced off the tractor-trailer and left the roadway to the right, rolled, and the driver was crushed as the cab of the pickup truck collapsed. This driver was wearing a seat belt, but his upper body came out of the window area. The truck driver was driving the speed limit, used his turn signal, but apparently did not see the pickup truck.

The investigating officer revealed that the pickup was being followed by another vehicle (his friends) and they had been playing a game of "cat and mouse." While they were not racing, the car had passed the pickup and was now passing to the right of the two tractor-trailers when the crash occurred. The investigating officer further revealed that the teenager driving the pickup was driving at a minimum of 60 – 65 miles per hour, but the damage suggested he may have been driving faster. The teenager probably didn't see the turn signal because it was on the lead vehicle of the two CMV trucks. The investigating officer indicated that evidence showed had the teenager been driving at the speed limit, he could have avoided the crash.

Although the trucker is being charged, the teen contributed significantly to the outcome of the crash. Furthermore, the teen's actions not only cost him his life, but will forever change the life of the truck driver.

The weather was clear and dry, and the sun was not a factor.



Photo Not of Actual Crash

CASE FACTS

The teenager probably didn't see the turn signal because it was on the lead vehicle of the two CMV trucks.

Crash Case Study

Local Teen Killed in Wreck

(Student Worksheet)

STUDENT NAME:
INSTRUCTOR:
DATE:

1. Who was involved?

2. What happened?

3. What time of the day did the crash happen?

4. Where did the crash happen, what type of road?

5. Why did the crash happen?

6. How could the crash have been avoided?

7. What were the road conditions?

8. Were there any driver errors?

9. What were the speed conditions?

10. What Truck Smart principles could have been applied to avoid this crash and needless death?

Truck Smart Quiz

(Student Version)

1. *The typical passenger vehicle weighs:*
 - a. 1,000 to 2,000 pounds
 - b. 3,000 to 4,000 pounds
 - c. 6,000 to 8,000 pounds
 - d. 10,000 to 12,000 pounds

2. *A typical fully loaded tractor-trailer weighs:*
 - a. 80,000 pounds
 - b. 70,000 pounds
 - c. 60,000 pounds
 - d. 50,000 pounds

3. *A typical passenger vehicle traveling at 65 mph under ideal conditions takes:*
 - a. 102 feet to stop
 - b. 240 feet to stop
 - c. 316 feet to stop
 - d. 525 feet to stop

4. *A fully loaded tractor-trailer traveling at 65 mph under ideal conditions takes a minimum of:*
 - a. 102 feet to stop
 - b. 240 feet to stop
 - c. 316 feet to stop
 - d. 525 feet to stop

5. *Total stopping distance for a passenger vehicle is a combination of what three things?*
 - a. Perception time, braking distance and stopping distance
 - b. Perception time, reaction time and braking distance
 - c. Braking distance, brake lag time and vehicle speed
 - d. Vehicle speed, braking distance and condition of the road

6. *It is okay to pass a snowplow pushing snow, as long as you have four-wheel drive.*
 - a. True
 - b. False

7. *The rear blind spot behind a semi-truck extends approximately 200 feet.*
- True
 - False
8. *You know you are not in a blind spot if you can see a truck's side mirrors.*
- True
 - False
9. *What should you do when you are merging on the freeway?*
- Accelerate to legal speed
 - Look for upcoming trucks and cars in neighboring lane
 - Responsibly and safely merge into the flow of traffic
 - All the above
10. *How many car lengths should you allow before pulling in front of a truck?*
- Two car lengths for every 10 mph
 - Two lights in the rearview mirror or steer clear
 - One car length for every 5 mph
11. *It is illegal to pass a truck pulling multiple trailers.*
- True
 - False
12. *Trucks often pull into the left lane to let traffic pass on the right when making right turns.*
- True
 - False
13. *Trucks and buses require more distance and time to stop and maneuver than cars do.*
- True
 - False
14. *Truck drivers have better visibility because they sit up so high.*
- True
 - False

15. *The no zones, or blind spots, of a semi-truck are:*
- a. On the right and left side of the semi
 - b. Directly in front of the semi
 - c. Directly in back of the semi
 - d. All of the above
16. *It is safe to draft or tailgate large trucks or buses to save gas.*
- a. True
 - b. False
17. *After passing a truck and returning to the lane in front of the truck, do not slow down.*
- a. True
 - b. False
18. *A semi has more brakes so it can stop faster than a car.*
- a. True
 - b. False
19. *Following a semi too closely can result in:*
- a. Crashing into the back of the semi when it makes a sudden stop
 - b. Debris being kicked up off of the roadway by the semi and striking your car
 - c. Debris or objects falling off of the semi when it makes a sudden stop
 - d. All of the above
20. *It is legal to stop beyond the white stop line at an intersection as long as you watch for traffic and pedestrians.*
- a. True
 - b. False



Information provided courtesy of Arizona Dept. of Public Safety, Arizona Trucking Assoc. and CVSA

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