

ROLLOVER SIMULATOR:



Please use the pre-recorded video of our Rollover Simulator to share with your chapter or class. You can use the accompanying lesson plan as well.

As a part of our ongoing effort to educate the public, the Governor's Office of Highway Safety has secured a "Rollover Simulator" that allows us to come to your event or location and conduct demonstrations. Crash dummies are placed in the Ford Ranger pickup truck without wearing safety belts. A 35 mph rollover crash is simulated and the audience can observe the results of not being properly restrained. Crash dummies are then buckled in for a second simulation demonstrating the importance of wearing safety belts in a vehicle.



Rollover Simulator Lesson Plan

Grade Level:9-12

Time: 20-50min

Materials Needed:

Virtual Presentation

- Access to computer, and internet
- Virtual platform to view presentation as a class

Live/In-Person Presentation

- Request the Rollover Simulator using the form located at gahighwaysafety.org
- Space for students to view the GOHS Rollover Simulator presentation given by a GOHS Law Enforcement Liaison

Terms

- **Socialization:** a continuing process whereby an individual acquires a personal identity and learns the norms, values, behavior, and social skills appropriate to his or her social position.
- **Social Control:** the enforcement of conformity by society upon its members, either by law or by social pressure.
- **Deviance:** behavior that violates formally- enacted rules or informal social norms
- **Occupant:** a person who resides or is present in a vehicle
- **Seat belt:** a belt or strap securing a person to prevent injury, especially in a vehicle or aircraft.
- **Rollover Crash:** a type of vehicle crash in which a vehicle tips over onto its side or roof

Georgia Standard:

- SSSocSC1 Explain the process of socialization.
- SSSocSC2 Analyze deviance in society.
- SSSocSC4 Analyze the function of social institutions as agents of social control across differing societies and times.

Objectives:

- Study the history of Socialization in regards to safety features in vehicles and how they have changed.
- Study the potential dangers, risks, and statistics associated with Deviance in regards to a variety of road safety issues such as speeding, driving while distracted, and driving while drowsy.
- Analyze the function of mandatory safety laws in regards to Social Control
- Evaluate the strengths and weaknesses of safety features and laws on the roadway
- Discuss how, although vehicles are safer, we must still drive safely.

Activity

- Introduce the subject of the lesson plan by showing a picture of a crash scene
- Go over the Safety Timeline with students
- Show the students the video of the rollover simulator, or attend a rollover simulator presentation
- Go over the data with students and introduce the terms
- Generate class discussion using the discussion questions



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Discussion Questions:

- What safety feature would you invent for use in-vehicle that you believe would save the most lives and why?
- Is the use of seat belts social control? How?
- Is it possible that the invention of all these safety features have made us worse drivers? Why or Why not?
- Going 10mph over the speed limit is deviance, but has become a part of social norms? Why? How does that make our roadways unsafe? Discuss.
- Has safety education been a part of your socialization? How?

Safety Timeline

1885 Edward J. Claghorn of New York, secured the first seat belt patent

1910 New York introduces the first Drunk Driving laws, penalizing driver for operating a vehicle while under the influence of alcohol

1950 Nash Motors offers the first seat belts available in an American car (65 years after the first patent was created)

1955 Modern three-point seat belt was patented by Roger Griswold

1981 Students Against Driving Drunk was established in Wayland, Massachusetts

1988 Georgia enacts a seat belt law

2018 Georgia enacts Hands Free Law to end distracted driving

1901 Connecticut creates the first statewide traffic laws. The new laws regulate motor vehicles, limiting their speed to 12mph in cities, and 15mph on country roadsnt

1930 The three-way traffic light (Red, Yellow, Green) is introduced in the US

1951 Air bags were invented to help protect drivers and passengers from the impact of an automobile crash

1970 the National Highway Traffic Administration is established. NHSTA is responsible for reducing deaths, injuries, and fatalities resulting from motor vehicle crashes. NHSTA sets and enforces safety performance standards for motor vehicles and equipment

1984 New York passes the first US law regarding seat belt use in passenger cars

1998 All states have a Zero Tolerance law for drivers under the age of 21. The new law applies to drivers under age who operate a motor vehicle with a BAC (blood alcohol concentration) of .02 or more.



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Data:

- Georgia seat belt usage rate in 2019 was 95.9%
- National seat belt usage rate in 2019 was 90.7%
- Motor vehicle crashes are a leading cause of death for teens (15-18 years old) in the United States.
- In 2018, there were 2,121 people killed in crashes involving a teen driver (15-18 years old). Of these deaths, 719 were the teen driver — a 5% decrease from 2017.

Impaired Driving:

298 (16%) of teen passenger vehicle drivers involved in fatal crashes in 2018 had alcohol in their system. But alcohol isn't the only drug that can impair driving ability: Marijuana, like other drugs, affects a driver's ability to react to their surroundings. Driving is a complex task, and marijuana slows reaction times, affecting the driver's ability to drive safely. Illegal, prescription, or over-the-counter drugs can impair driving and have deadly consequences.

Seat Belts:

In 2018, almost half (45%) of the teen passenger vehicle drivers who died were unbuckled. Even more troubling, when the teen driver involved in the fatal crash was unbuckled nine out of 10 of the passengers who died were also unbuckled.

Distracted Driving:

Distractions while driving are more than just risky — they can be deadly. In 2018, among teen passenger vehicle drivers involved in fatal crashes, almost 10% were reported as distracted at the time of the crash. The use of mobile devices while driving is a big problem, but there are other causes of teen distracted driving that pose dangers as well, like adjusting the radio, applying makeup, eating or drinking, or distractions from other passengers in the vehicle.

Speeding:

In 2018, more than one-quarter (28%) of all teen drivers of passenger vehicles involved in fatal crashes were speeding at the time of the crash, and males were more likely to be involved in fatal crashes than females.

Passengers:

Teen drivers transporting passengers can lead to tragic results. Research shows that the risk of a fatal crash goes up in direct relation to the number of passengers in a motor vehicle. The likelihood of teen drivers engaging in risky behavior triples when traveling with multiple passengers.

