

Neil's Training Wheels, LLC

NOTES



Lesson 1: License to Drive

- Even to practice drive you must have an instructional permit in your possession.
- All vehicles driving on MN roads MUST have insurance.
- Driving in MN is a privilege.
- The Graduated License System
 - Instructional Permit
 - Provisional
 - Under 21 Class D License
- 3 Types of IDs/Licenses in MN
 - Standard Drivers License
 - Real ID
 - Enhanced Drivers License
- Classes of Licenses in MN
 - Class A- Semi trucks
 - Class B- Cement trucks, dump trucks School Buses (must have school and passenger endorsement)
 - Class C- Hazardous Material Endorsement
 - Class D- Regular MN Drivers license for cars, pickups and SUV's.
This is the one you are getting.

Lesson 2: Traffic laws, lanes/road markings and signage



- The above sign means beginning of a No Passing Zone
- A Flashing yellow light means to proceed through the intersections with caution.
- A yellow traffic light means the traffic signal is changing from green to red. Use caution proceeding through the intersection.
- A solid white line on a road is used to discourage lane changing.
- A red flashing light means stop.
- If an emergency vehicle approaches behind you when you are in a roundabout, exit the roundabout immediately and pull over.

- This sign below means that a lane was added, traffic may enter but



merging isn't necessary.

- According to MN speed laws, you should drive at a speed no faster than is reasonable under existing weather and road conditions.



- 30mph displayed on rear of slow-moving vehicles
- When an emergency vehicle is parked on the right side of a multilane road, you should safely move to the lane furthest away from the emergency vehicle.



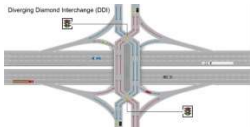
- If you are facing the above sign, you must yield.
- Unless different limits are posted, the speed limit for residential area is 30mph.



- When you see the above sign, you CANNOT enter the area.
- The below sign means lane ends merge left.



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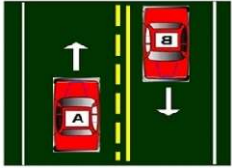
Fewer conflict points.

- A double yellow line indicates that passing is prohibited in both directions.
- A green road sign guides and informs drivers.
- A flashing yellow light means that a motorist must yield the right of way to oncoming traffic before turning.
- The below sign instructs you to watch carefully at the intersection ahead, you may need to yield.





- This sign warns of a railroad crossing ahead. Slow down and look carefully for trains.



Vehicle A may pass because they have a dotted yellow line on their side.



- See above sign, when 2 vehicles come upon an uncontrolled T intersection (pic above), the vehicle that is turning must yield to all cross traffic.
- In MN to make a turn on a red light, you must come to a complete stop, unless prohibited by a No Turn on Red sign, and turn when safe to do so.
- According to MN speed laws, you should drive at a speed no faster than is reasonable under existing weather and road conditions.




- This sign means only vehicles with physically disabled license plates or parking certificates may park here.
- The below sign means a motorist must stop before the crosswalk to yield to pedestrians crossing from either side.



- This sign means you should check your brakes, you are about to go down a steep hill.

- The below sign means drive cautiously a construction worker ahead



-  This sign means you may turn left from either traffic lane at the intersection ahead.

Lesson 3: Automobile & all its Systems & Maneuvers

- Regarding infant car seats:
 - The back seat is the safest place.
 - Children under the age of 4 must be properly restrained in an approved safety seat.
 - It is not safe to hold a child in your lap while riding in a motor vehicle, even if you use a seatbelt.



- This sign means the road ahead could be slippery when wet.
- The below sign means a sharp change in the direction of the road ahead.



- The above sign prohibits or restricts certain types of vehicles or maneuvers to prevent accidents. Generally, includes a red circle with a diagonal line going through it. Examples include no turning signs, no-entry signs, and no parking signs.
- When driving a vehicle equipped with an airbag, try to have at least ten (10) inches of space between the driver and the steering wheel.



- This sign below means you are near a school so prepare to stop for children and all pedestrians.

Lesson 4: Natural Laws and the Automobile

Kinetic Energy - Energy in motion. Kinetic energy increases with mass (weight) and velocity (speed).

- **Question:** How does this scientific law affect you if you are driving the following: a pickup truck with a heavy load; a car going at a high rate of speed; or pulling a trailer?
- **Answer:** It increases stopping distance and will cause a greater collision if involved in an accident.

Gravity

- The invisible force that pulls objects toward the ground.
- Gravity affects the speed of your car.
- If you're going uphill, the car slows down.
- If you're going downhill, the car will gather speed.
 - When going downhill, you can use your foot brake or use "engine braking," i.e., downshifting or taking your foot off the accelerator to cause engine "drag."
 - When going uphill, you must use your accelerator to overcome the gravity that is slowing you down.
 - You may also need to downshift to get more "pulling" power.

Center of Gravity

- It is another way gravity affects your car.
- All the weight of an object is centered around a point called the Center of Gravity (COG.)
- Most cars have a low center of gravity.
- Buses and delivery trucks, for example, have a high center of gravity.

- **Question:** Which vehicle is more likely to turn over in an accident, a small sports car or a sports utility vehicle (SUV)?
- **Answer:** The SUV because it has a higher COG.

Friction/Traction

- Resistance between two objects when they rub against each other.
- Friction between the car's tires and the road surface is typically called "traction." Without traction, you would not be able to stop, turn, or even keep your car moving.

Question: What types of road surfaces allows the greatest traction?

Answer: Pavement and concrete.

Question: What types of weather conditions severely hamper traction?

Answer: Rain, snow, ice.

Law of Inertia

- An object in motion will continue to move in a straight line unless some force acts against it.
- An object at rest will remain at rest unless some force acts on it.
- Control of your vehicle is affected by Inertia.
- Inertia is the tendency of a car in motion and the people inside the car to resist any change in velocity or direction.
 - You feel this when you apply your brakes or when making a turn.
 - In order to steer a car through a curve, you must overcome the effects of Inertia.
 - The forces necessary to overcome Inertia are created by the steering system, the brakes, and the accelerator as well as the traction between the tires and the road.

Force of Impact

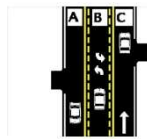
- The force with which a moving vehicle hits another object.
- *Force of Impact is determined by 3 factors:*
 - Speed. This is the greatest factor in accidents!
 - Weight of the Vehicle.
 - Distance a moving vehicle travels between the initial impact with an object and the point where the car comes to rest.
- For example, a car will travel through a wood fence (with less damage) as opposed to hitting a brick fence (more damage incurred.)

Lesson 5: Basic Vehicle Control & Dealing with Road Rage

- If your vehicle starts to skid on ice or snow, steer in the direction you want to go, keeping your foot off the accelerator and brake.
- While waiting to turn at an intersection, you must keep your tires straight.
- Your chances of being killed or injured are greater if you DO NOT wear a safety belt.
- Dealing with Road Rage
- Pre-inspection of vehicle

Lesson 6: Rules of the Road

- The only time you are not required to stop when approaching a school bus with flashing lights when you approach the bus from the front on the opposite side of a separated roadway.
- In MN, a left turn on a red light is only allowed when turning from a 1-way to another 1-way.
- You can be issued a ticket if you use your cell phone at a traffic light, using it if you have a provisional license and if you are texting and driving.
- When passing a bicyclist, you must be 3 ft away or more.
- Parking is not allowed:
 - Within 10 feet of a fire hydrant
 - Beside a yellow curb
 - Beside a red curb
- When driving through a highway work zone you should reduce your speed and adjust lane position away from the workers.
- When a transit bus merges in front of you, you must yield the right of way to the transit bus.
- A driver can only move into the bicycle lane to perform a right turn.
- If you miss your exit on the freeway, go to the next one.
- See below, lane B must be used to make a center lane turn.



- A zipper merge is a good thing because it creates a sense of fairness and equity to drivers.
- When entering a public road from an alley you must stop first before entering the public roadway.
- If another vehicle is trying to pass you on a two-lane roadway, stay in your lane and do not increase your speed.
- Certain buses and trucks are required to stop at all railroad crossings. Do not cross the center of the road to pass.

Lesson 7: Time-Space Management

- It can be difficult to judge the distance and speed of an approaching motorcycle.
- In normal driving conditions 3 seconds is the MINIMUM following distance.
- In normal city driving, a driver should scan 12-15 seconds ahead. This is equivalent to one city block or 1/4 mile if driving on a rural road. Highway driving may require more time.

Lesson 8: Aware of Your Surroundings

- When changing lanes, you must SMOG. (Signal, Mirror, Over the shoulder and Go}
- In a driving emergency, immediately slamming on the brakes may NOT be the best or safest action to take.
- Because of its size, a truck:
 - Has blind spots to the front, sides and rear of vehicle.
 - Appears to be traveling at a slower speed than it really is.
 - Takes longer to pass than a car.
- Drivers that are distracted fail to recognize potential hazards.
- Drive defensively.
- SIPDE- Scan, Identify, Predict Decide, Execute
- Dealing with distracted drivers
 - Identifying
 - Children near the road
 - Complex risk environments
 - Minimizing risk
 - Fighting distracted driving

Lesson 9: Accidents, Alcohol & Drugs & Physical Impairments & Organ Donation

- Carbon Monoxide can make you unconscious and lead to death within a few hours.
- A driver will violate the MN Open bottle Law if they have an open container of alcohol in the passenger area of the vehicle.
- When you make a left turn onto a 2-way street you should turn into the first lane available to the right of the centerline.
- In the state of Minnesota, the sentence for a first time DWI could be 90 days in jail and/or a 1,000.00 fine.
- In Minnesota, the **legal blood-alcohol concentration (BAC) limit** is 0.08%; however, you can be arrested and charged with a DWI for a BAC of:
 - Less than 0.08%, depending on the circumstances of the violation.
 - 0.04% if you are driving a **commercial vehicle**.
 - Less than 0.08% if you are **underage**.
- If you are younger than 21 years old, you may receive a DWI or drinking and driving offense if:
 - You are caught driving with a BAC of **less than 0.08%**.
 - The criminal and administrative penalties you may face for your first offense include: Fines of \$700 and/or 90 days in jail AND loss of driving privileges for a citation of underage drinking
 - DWI offense with fines up to \$3,000 and/or 1 year in jail and a suspension of your driver's license.

- DWI and underage drinking and driving offenses will remain on your driving record for at least 15 years. Depending on the severity of your offense, your blood-alcohol concentration, and the number of times you have committed an alcohol-related offense, your penalties may be harsher.
- Implied consent Law- Every driver agrees to abide by all the laws of their state when he/she signed for their driver's license.
- When two people drink the same amount of alcohol, they will have the same blood-alcohol-concentration, regardless of other factors like weight or age.