

Accident Avoidance Workshops

driver trainin' the way it ought'a be!

Vehicle Specification sheet
To turn in when arriving at classroom

This packet is for the driver to print out and manage, (not the parent), with respect to the vehicle they will drive during the driving session. This will familiarize them with how to research vehicles when it comes time to make a buying decision, and introduce them to some of the terms they will be exposed to throughout the

Accident Avoidance Workshops. Don't be that "helicopter-parent" who even goes so far as to carry their kid's homework to class for them. Anyone's level of expectation is less from those who don't do for themselves.

- ☐ 1- Student's first and last name (please print):
- ☐ 2- Learner's permit or driver's license number:
- ☐ 3- Vehicle make: Model: Year:
- ☐ 4- Go to <http://www.kbb.com/compare-cars/>. Under "Select a Vehicle", select make, model, year and trim, and then click "Add".
- ☐ 5- Under "Selected Cars", click on the "Overview and Pricing" link, related to your vehicle.
- 6- Click on the "Specs" button, then under "Specifications", click on the "Tech Specs" tab, and record the following information:
- "Horsepower": hp. "Curb Weight": lb.
- "Height": INCHES. "Wheelbase": INCHES.
- CRITICAL!** "Turning Diameter" ft. (Probably in the 31.8 to 46.0 range)
- (Note: We do not recommend teens operate any vehicles less than 2,400 pounds, and understandably cannot have them attempting these exercises in high-horsepower vehicles [over 300 hp.]*
- ☐ 7- Determine "Power/Weight Ratio" (Horsepower divided by Curb Weight):
- :1 (Probably in the .050 to .080 range.)
- Determine "Height/Wheelbase Ratio" (Overall Height divided by Wheelbase):
- :1 (Probably in the .500 to .652 range.)
- ☐ 8- Give both of the above ratios to your parents to record in the beginning of their notes.
- ☐ 9- Does your vehicle have a switch to turn "Traction Control" on and off?
- ☐ 10- If it's a truck, is it still at factory height or has its height been altered?
- If altered, explain:
- ☐ 11- What one word best describes the color of the vehicle? (Tan, Gray, etc.):
- ☐ 12- Optional: Does your vehicle have a pet name, and if so, what is it?
- ☐ 13- Parent(s) name(s) who will be attending the driving session with you: (Please print)
- (If two students are attending with two parents, and they will be in separate vehicles, just list here the name of the parent who will be riding with this particular student.)
- A- B-

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Vehicle Specification sheet
For the family to keep

No need to turn in this page ... you just need to know the things it asks you, and be familiar with the terminology for class.

Determine the steering wheel's range of motion. How far is it from "Left Lock" to "Right Lock"? Get in the vehicle and turn the steering wheel all the way to the left. Now turn it all the way to the right counting revolutions as you go to the nearest $\frac{1}{4}$ turn. Most vehicles are somewhere in the 3 to 4 turn range from lock-to-lock.

Prior to the classroom session, YOU MUST determine which type of braking system your vehicle is equipped with a Conventional, or an Anti-lock braking system.

Conventional Brakes: (Tires skid under maximum braking)

Anti-Lock Brakes: (Brake pedal pulses under maximum braking.)

** DO NOT rely on the owner's manual for this information. The owner's manual only indicates whether or not your vehicle was AVAILABLE with Anti-Lock Brakes.*

What type of braking system a vehicle has is one of the biggest factors one considers in purchasing a vehicle, so I apologize in advance for insulting your intelligence by suggesting you may not know how to see if a vehicle has ABS. But on the outside chance that you are in the small percentage of those who never bothered to check, here's one way that is semi-reliable to do so: Turn the key on as far as it can go without going to that last position which actually starts the car. All of the instrumentation lights should light up. You need to look for a light like this:



As I'm sure you understand, if the light bulb is burned out, you won't see a light even if your vehicle IS equipped with ABS ... which is why this means is not necessarily conclusive.

If you have a truck, this means doesn't work either. Federal Law mandates trucks manufactured after March 1st, 1999 be equipped with ABS on the REAR as an absolute minimum. This is because the back of the truck is so light, and is more prone to spin out if the rear tires lock up. So you could turn on the key, and see the light ... but STILL not have ABS on the front.

Nope ... you're gonna have to actually TEST YOUR BRAKES to learn which braking system you have. Here's how: In a safe, controlled environment, such as an abandoned road or a wide open empty parking lot, slam on the brakes as hard as possible from a speed of about 20 to 25 mph. Slippery pavement, a dirt road or even a grassy surfaces work well. A vibrating brake pedal accompanied by shaking sound from under the hood would indicate you have ABS. If the tires lock up or skid ... you have conventional brakes.

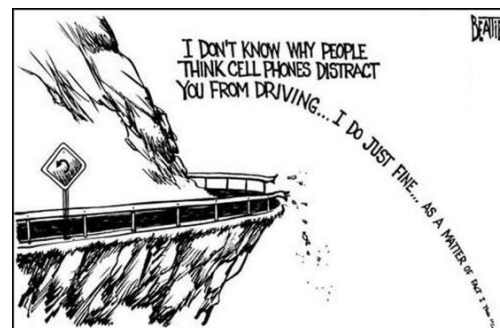


Student Name: _____

- 1- Reason #1 why you're here: _____.
- 2- 16 year olds are _____ times as likely to be involved in a crash.
- 3- One out of _____ (how many?) 16 year olds will crash a vehicle.
- 4- _____ is the science of how our BODIES come "wired from the factory".
- 5- What sort of activity is driving? It's a _____ - _____ skill.
- 6- One important psycho-motor skill that needs to be developed is the ability to make decisions based on...
_____.
- 7- The part of the brain that makes decisions based on _____
doesn't develop until _____.
- 8- In what % of teen accidents was excessive speed a factor? _____%
- 9- What percent of teen crashes are attributed to a "driver mistake"? _____%
- 10- Every crash is caused because SOMEBODY did SOMETHING that everyone else
_____ them to do.
- 11- There are 2 types of driving conditions:
a- _____ driving conditions, and _____ driving conditions.
- 12- What percent of drivers have fewer than 10 minutes of training in handling emergency
driving conditions? _____%
- 13- How long does the average crash take? _____
- 14- Most drivers freeze or lock up when faced with Emergency Driving Conditions because they have
_____ to play in that situation!
- 15- THE key to the **Accident Avoidance Workshops** is: "Driving by instinct _____!"
- 16- "Instincts" that we have that make driving inherently difficult:
 - 1- Your hands are hard-wired to your _____.
 - 2- Your brain does not process _____ information easily.



- 17- At any speed over 37 or 38 MPH, _____ can cause immediate loss of control.
- 18- The elemental difference between a regular crash and a fatal crash, is a Sudden _____ of _____.
- 19- A _____ CANNOT steer the car!
- 20- There are two types of braking systems: _____ and _____.
- 21- Hot-Tip from Uncle Homer #1: " _____!"
- 22- Another way to prepare for emergency situations?: Build a _____ database.
- 23- Your parents are worried about you getting behind the wheel simply because you have _____.
- 24- The #1 teen-fatality crash is caused by: _____.
- 25- What should your first reaction be if you drop a wheel off the side of the road? _____.
- 26- For how long did the driver of the vehicle Jason's was riding in lose his license? _____.
- 27- You don't wear a seat belt for your safety.... you wear it for _____.
- 28- You are _____ times as likely to crash if you are on the cell phone, and _____ times as likely if it's "hands-free".
- 29- Drivers are obligated by law to do everything possible to _____.
- 30- What percentage of accidents are attributed to "Distracted Driving"? _____%
- 31- "Distracted Driving; Cell phone" kills/injures how many each year? _____.
- 32- What are the 3 different types of distractions? _____.
- 33- Parking on the wrong side of the road can result in a fine of \$_____.
- 34- Which is better: 10&2 or 9&3? _____.
- 35- How fast is an airbag moving when it deploys? _____ mph.
- 36- Kinesthetically, what is the fastest way to turn the steering wheel? _____ - _____ - _____.
- 37- If you wear _____ - _____ to the driving session, we're sending you home.



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A program by:

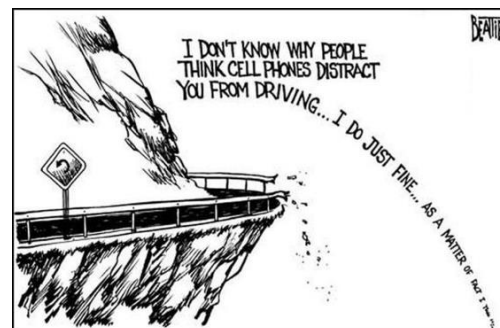


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A program by:



Parent Name: _____

From the pre-class research your student did on their vehicle specifications:

~ What is your student's vehicle's Power/Weight Ratio? _____:1

~ What is your student's vehicle's Height/Wheelbase Ratio? _____:1

Notes from the classroom session:

- 1- Upon completion of the material offered in the AAW, the statistical likelihood of your student being involved in a crash will be mathematically reduced by more than _____%
- 2- Reason #1 why you're here: _____.
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- 36- This weekend, what time do you need to arrive on the parking lot? _____:_____.
- 37- This weekend, what time do you need to be standing in front of your instructor? _____:_____.
- 38- Where do you park when you arrive at the Workshops?
Next to the _____!!!
- 39- What MUST you bring with you to the driving session in order to complete the program requirements?
_____.



Parent Name: _____

From the pre-class research your student did on their vehicle specifications:

~ What is your student's vehicle's Power/Weight Ratio? _____:1

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Pre-Driving Session
Preparation List

To make sure you're prepared:

Pre-Driving Session Vehicle Preparation:

- ☐ 1- Have your license/permit, registration and proof of insurance with you.
- ☐ 2- Be sure the vehicle is full of fuel. (The additional weight is important.)
- ☐ 3- Be sure the vehicle is not in a state of disrepair. (All doors functional, all lights work, etc.)
If the driver's window won't roll down ... come in another vehicle.
- ☐ 4- HAVE THE BATTERY CHECKED. Also check oil, automatic transmission fluid, brake fluid, power steering fluid and windshield washer fluids, and anti-freeze/coolant level.
- ☐ 5- Check the sticker inside your door jamb for proper tire inflation level, then over-inflate the front tires by 2 pounds, and the rear tires by 1 pound.
- ☐ 6- Remove all mirror bling, GPS systems, radar detectors, visual obstructions and any non-essential window decals.
- ☐ 7- No steering wheel ("Suicide") knobs or fuzzy steering wheel covers permitted.
- ☐ 8- Cones can damage front license plates when you hit them ... I'm just sayin'.
- ☐ 8- Remove the driver's side floor mat. (Unless it's made by **WeatherTech®**)
- ☐ 9- Plan on attending the entire event ... all the way through graduation ... to complete the requirements of the program and be eligible for a Defensive Driving Certificate.

Pre-Driving Session Driver preparation:

- ☐ 1- **Be sure to bring your Performance Record (the following pages) with you! PRIOR TO COMING TO THE DRIVING SESSION, both parent and student should read the entire Performance Record together and become familiar with the exercises and terminology, AND COMPLETE THE PRE-CLASS POSITIONING EXERCISE!**
- ☐ 2- Just like any classroom, come prepared. Be sure each person brings a pen with which to take notes. *(Don't forget, a parent must attend with the student.)*
- ☐ 3- Drivers (male or female) with hair long enough to touch their eyes, or obstruct their forward or peripheral vision, should wear something to restrain their hair.
- ☐ 4- Teach your student how to manually turn their headlights on and off.
- ☐ 5- We will spend quite a bit of time walking around the parking lot discussing the exercises. Be prepared to endure the elements. (Bring plenty of water to drink, your choice of rain gear, jacket, hat, gloves if necessary, and since part of the driving will require you putting your arm on the outside of your door, BRING A TOWEL if it's over 75 degrees!)
- ☐ 6- Be sure not to wear anything that restricts your movement, or interferes with your ability to control the vehicle. For example, your entire hand must be able to contact the steering wheel, so don't wear sleeves that extend beyond your arm, or have thumb-holes in them.
- ☐ 7- Get plenty of rest the night prior to the driving session, as you would for a workout. This will be a very draining day, you will need to be sharp, and plan on relaxing afterwards!
- ☐ 8- No flip-flops ... no sandals ... no open-toed shoes.

A program by:



Student name: _____ Parent(s) Name(s): _____ Date: ____/____/____
Location: _____

Accident Avoidance Workshops

Performance Record for Monitoring Improvement

Please review everything on this document individually and together with your student before arriving at the weekend driving session so you arrive prepared to discuss!

Pre-class positioning: Once you arrive at the driving session and get parked in your designated parking spot, the student can use the following guidelines to get positioned correctly in the vehicle:

- 1- Positioning the BOTTOM of the seat:** Place your right foot up behind (underneath) the brake pedal as high as it can go, and try to straighten your leg out. If you CAN straighten your leg out, you are too far back. Pull the seat forward until you get to the point where, when you press on the floor up behind the brake pedal, it actually “jacks you up” in the seat a bit.
- 2- Positioning the BACK of the seat:** Adjust the back of the seat so if you lift your straightened arm up and drop your arm over the TOP of the steering wheel, it falls somewhere between your WRIST, and the HEEL of your hand. Most importantly, your shoulder CANNOT MOVE ... it must remain stationary!
- 3- Positioning the steering wheel:** The steering column, (or axis around which the steering wheel rotates) should be pointed no lower than the base of your neck, no higher than your chin.

#1: Parking Space Navigation:

You will receive a course diagram at the driving session showing you the route by which you will navigate through four boxes of 6 cones which represent parking spaces. The object is to hit as few cones (have as few accidents) as possible in doing so. Coaches count how many cones they hit: (Backing up is a 2 cone penalty!)

Cones hit, during the pre-test: _____ (Average is between 6 and 12 cones on first attempt.)

(Desired high, based on class performance: _____)

Cones hit during the post-test: _____

#2: Hand-over-hand Slalom (Speed Steering):

This exercise is all about STEERING ... it is NOT about speed, or trying to find the shortest line through the course. Through this exercise, your student is to focus on the most important 2 aspects of this exercise:

- 1- Turning the steering wheel as QUICKLY as possible.** Concentrate on using “hand-over-hand” steering!
- 2- Turning the steering wheel as FAR as possible.** The device that keeps you from turning your steering wheel any further than it can turn in either direction is called the “Lock”. You have already done the pre-work to determine how far it is from “Lock-to-Lock”. During the hand-over-hand slalom, you need to be turning the wheel all the way until it hits the lock. By doing so, you will be maximizing your vehicle’s maneuverability and making the tightest possible turns during the slalom.
- 3- DO NOT HIT THE YELLOW/GREEN CONES!** These cones are different than the ones in Parking Space Navigation ... They have metal rings embedded in their base that allow them to stand up more firmly. These metal rings CAN DAMAGE your tires if you run over them, so if you even think you’re going to hit one, stop, back up, and approach it differently. The object of this exercise is to use maximum steering to get AS FAR AWAY as possible as you can from these cones ... not as close as you can as if you were a slalom skier.

(When you’re done with this, read and prepare to discuss both exercises on the next page!)

#3: Emergency Braking Dry: *Coaches, keep this chart handy during this exercise, pen in hand!*

1- You will be asked if you're ready. Acknowledge with a "thumbs up" out the window.

2- When the green flag is held out, you are to

"accelerate moderately". (What does that mean?): You will let off the brakes, and step on the gas as though the light just turned green. (What mistake do many students make?): Don't just let off the brake and roll forward ... that's not how you would leave an intersection, be sure to accelerate moderately.

3- When the green flag **waves**, floor it!

4- When the red flag waves, **SLAM** on the brakes using **ONLY** your right foot.

5- Bring the car to a STOP AND STAY STOPPED!

(Coaches, don't forget as we covered in class ... if they hit the gas by mistake ... throw it in neutral.)

Note: Anti-lock braking systems (ABS), are made up of many moving components. The internal ABS components may have seized up rendering the system inoperable if they have remained unused or untested for long periods of time. This is why manufacturers recommend owners activate their ABS systems at least every few months to keep the parts moving freely. Therefore, it is possible to have ABS on your vehicle and yet skid the tires on the first few attempts at this exercise. This may or may not persist depending on how severely the internal components have seized, but even mildly seized components may release before the end of these exercises.

Pass	Condition	Distance*	Speed
1	Dry		
2	Dry		
3	Dry		
4	Dry		

#4: Emergency Braking Wet / Lane Positioning:

DO NOT make the mistake of thinking we want you to drive down the parking lot and slam on the brakes when you get to the braking area. It is important that the braking distance we give you INCLUDES your reaction time, and that you keep your tires in the lane tracks! WE need to be the reason you slammed on the brakes ... not just because you made it to the braking zone.

Simply put, the same procedure as above, the driver simply obeys the flags just like in Emergency Braking Dry.

Also, be sure to read the following to your student so they understand the reason behind what we're doing to the driving conditions here:

"Dry": Self-explanatory

"New Rain": The material we put down is calibrated to replicate the same "coefficient of friction" you will experience when it first starts raining. That's when water flows down in to the pits of the road surface and the oil comes up to float on the water.

"Drizzle": After driving through material, some of the products may remain on your tires when you attempt the even-numbered passes, and therefore, it's not exactly "Dry" conditions anymore.

"Rain": As the exercise progresses, the material will once again recede in to the pits of the pavement and lose some of the effect of "NEW" rain, which simulates "Rain" conditions.

**Please be advised, these numbers will be shorter than what you can expect in the real world for two reasons:*

1- Being less travelled, parking lot condition is typically better than road conditions, which will offer a higher coefficient of friction.

2- In the real world, this number would need to include not just the car's braking distance and the driver's reaction time, but the driver's "perception time" as well. We simply cannot simulate that because the students do this exercise KNOWING we're going to wave the red flag!

Do not compare odd-numbered pass data to even-numbered pass data. In many cases, one side varies from the other in texture, slope, or condition. Also, one instructor may have a different reaction time than others in waving the flag.

Depending on the product used to reduce the coefficient of friction, residue left on your vehicle from the last exercise is most easily removed early with a degreasing soap such as Dawn. If it's allowed to stay on too long, WD-40 or Bug and Tar remover will work well to remove it too.



Pass	Condition	Distance*	Speed
5	New Rain		
6	Drizzle		
7	Rain		
We will be using data from pass #7 in exercise #5, so copy THESE numbers there RIGHT NOW!			
8	Drizzle		

Notice to students driving GM trucks (Suburbans, Tahoes, GM Pickups): After maximum braking, you may experience the rear-end locking up as indicated by one tire scuffing as you turn leaving the exercise. This is **normal**, and will reset automatically.

Notice to students driving vehicles equipped with electronic handling assistance, and/or stabilization packages: After engaging ABS, some of these vehicles are designed to limit acceleration in subsequent passes. If this happens, simply "reboot" between passes. (Turn vehicle off and then restart.)

(When you're done with this, read and prepare to discuss both exercises on the next page!)

#5: "Let's all go to the movies!"

Remember from the classroom session, there are two ways to prepare for Emergency Driving Conditions:

- 1- Conjure up your own scenarios and plan a response (Hit the squirrel!)
- 2- Build a database of MOVIES!

During this exercise, we will gather as a group, and make several movies in our heads.

A- If you haven't already done so when originally instructed, go back to the last page (Emergency Braking), and retrieve the data from the yellow-highlighted pass and record that data here:

Braking Distance: _____ **Speed:** _____

Student: Memorize this data because we're going to get out of the car and talk about it!

AND LASTLY ... fill in the blank



*So, ... knowing
what you now know
about braking
distances, guess my
braking distance
from 65 mph!
_____ ft.*

B- Once you've filled in ALL THREE SPACES above, then go read the enter next page on the "Accident Avoidance Part 1" exercise from top to bottom. And when you're done with THAT...hop out of your vehicle and come join me ...

... we're going to make some "movies".

The correct answer, for how long it takes to stop a fully-loaded tractor-trailer from 65 mph is:

_____ feet.

#6: Accident Avoidance Part 1:

(Coaches: Below are the instructions for your review prior to the exercise):

You only control 2 things in the car: Speed and Direction.

So when you're faced with an emergency, you only have 2 options to avoid the crash:

Change of speed

Change of direction

SO, THIS IS THE FIRST HALF OF THE LAST EXERCISE

It's all about change of SPEED!!!

1- When told to "go", you will accelerate to, and maintain within 1 mph of the targeted speed.

You will be given a target speed from your instructor.

Write it here:

_____ mph.



You are to use our radar screen as your speedometer, so your eyes are up during this exercise instead of looking down at your vehicle's speedometer.

2- When we throw our hands up, AND NO SOONER ...

1-BRAKE, JUST LIKE YOU DID in Target Practice,

That is, show **maximum braking**, just like you did before.

ABS: Show pulsing brakes all the way until you're stopped ... **and stay stopped!**

Non-ABS: Show *straining*, but not *skidding* tires until you're stopped ... **and stay stopped!**

Helpful hints:

1- The radar won't pick you up until you get to about 11 mph, so don't just let off the brake and roll forward waiting for it to pick you up ... *because it won't until you get to that speed.*

1- Having just completed an exercise going much faster than your target speed, you will find yourself reaching your target speed more quickly than you anticipate ... *be ready for it. If you get going too fast, just back off the accelerator and slow down by coasting ...*

... DO NOT HIT THE BRAKES TO ADJUST YOUR SPEED!

2- It takes **more leg power** to engage ABS or skid the tires from **lower** speeds. So you will have to **HIT THE BRAKES HARDER** than you have up to this point to achieve maximum braking!

(Coaches, don't forget as we covered in class ... if they hit the gas by mistake ... throw it in neutral.)

(As you're sitting in line during this exercise, read and prepare to discuss the last exercise on the next page!)

#7- Accident Avoidance, Part 2: (Coaches will be doing the scoring on this.)

We just finished the first half of this last exercise which was all about change of **(speed)**.

1- BRAKE just as you have been doing all day. But this time, there's stuff in your way ... *(instructor moves cones)* ... so change of speed alone won't cut it ... you will have to add change of..." **(direction)**.

This is why the signal will look different this time *(Instructor demonstrates)* so it also shows you which direction you need to turn when it's time to turn.

(Pause while instructor clarifies the difference between braking and stopping.)

So, WHILE you're still hard on the brakes and your vehicle is decelerating, you've got navigating to do. To turn:

2- EVALUATE when you want to time your turn. Too soon: Hit one of the two cones ... too late ... hit one of the 7.

3- LOOK Why? What do you steer the car with?... **(your eyes)**, and while you're looking...

4- STEER ... fast or slow? **(fast)** How far? **(all the way to the lock)** in the direction you were sent, eventually, continuing to bring the car to a... **(stop and STAY STOPPED!)**

So the four steps are: BRAKE, EVALUATE, LOOK, STEER! **(BRAKE, EVALUATE, LOOK, STEER)(repeat ... repeat ...)**

(Coaches, don't forget as we covered in class ... if they hit the gas by mistake ... throw it in neutral.)

Coach's score sheet:

Attempt: **#1 #2 #3** (✓ = "yes" ... ✗ = "no")

"The Raspberries":

Check if they met proper speed:	☐	☐	☐	☐
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Check if they braked at the right time (Flagman):	☐	☐	☐	☐
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The "Trophy":

Check if they know the limits of maximum braking:	☐	☐	☐	☐
Check if they know the limits of maximum steering:	☐	☐	☐	☐

If they achieve BOTH, that means they have earned the letter **(K)**, and they **(K)now the limits of their vehicle!**
(If they earn their letter (K) during one of their 3 attempts, then when you return to the queue, please place their

AAW CERTIFIED sticker on the window as shown here):

Additional prizes: (The abbreviations here match what is shown on the course diagrams):

If they miss the TP, GM and CCs, they earned the letter **(A)** because they **Avoided** all the big cones that matter!

If they missed all the GCs as well, they earned the letter **(O)** because they met a major **Objective** of the exercise!

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A special note to the participants: Coaches, please re-emphasize the fact that it's not important how well your student "scores" in these three attempts. Everyone knows NOBODY perfects ANYTHING in 3 tries. The objective of this program IS NOT to get a sticker ... or to earn any of the three letters for that matter ... the objective is for the student to be given the opportunity to use full-braking and full steering simultaneously, and have the opportunity to get a better "feel" of what the car can, and cannot do. Our objective is to expose the students to a whole new set of skills we hope they will want to perfect after they leave, to learn the technique behind those skills, and to show the coaches how to coach it. The reason we don't put emphasis on the cones is because if we're even a fraction of a second off in giving them the signal, then WE can be the reason they hit cones. That's why the sticker is awarded based ENTIRELY on their ability to use full braking and full steering ... because then the instructor is not part of that equation. As you can see, for this exercise, you don't need the cones ... and you don't need us. The coach can just ride with their student across an empty parking (ideally on a rainy day), at the speed we gave you ... and suddenly, points and yells out "Left!" or "Right!" You all know what full braking looks like ... and what full steering looks like ... and when both are achieved ... it's STICKER-TIME!

No, those who succeed at any portion of this exercise in their first 3 attempts don't impress me. Anyone can get lucky. But when they do it for the 300th time, having nailed it the last 65 times ...
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Student name: _____ Parent(s) Name(s): _____ Date: ____/____/____
Location: _____

Accident Avoidance Workshops

Performance Record for Monitoring Improvement

Please review everything on this document individually and together with your student before arriving at the weekend driving session so you arrive prepared to discuss!

Pre-class positioning: Once you arrive at the driving session and get parked in your designated parking spot, the student can use the following guidelines to get positioned correctly in the vehicle:

- 1- Positioning the BOTTOM of the seat:** Place your right foot up behind (underneath) the brake pedal as high as it can go, and try to straighten your leg out. If you CAN straighten your leg out, you are too far back. Pull the seat forward until you get to the point where, when you press on the floor up behind the brake pedal, it actually “jacks you up” in the seat a bit.
- 2- Positioning the BACK of the seat:** Adjust the back of the seat so if you lift your straightened arm up and drop your arm over the TOP of the steering wheel, it falls somewhere between your WRIST, and the HEEL of your hand. Most importantly, your shoulder CANNOT MOVE ... it must remain stationary!
- 3- Positioning the steering wheel:** The steering column, (or axis around which the steering wheel rotates) should be pointed no lower than the base of your neck, no higher than your chin.

#1: Parking Space Navigation:

You will receive a course diagram at the driving session showing you the route by which you will navigate through four boxes of 6 cones which represent parking spaces. The object is to hit as few cones (have as few accidents) as possible in doing so. Coaches count how many cones they hit: (Backing up is a 2 cone penalty!)

Cones hit, during the pre-test: _____ (Average is between 6 and 12 cones on first attempt.)

(Desired high, based on class performance: _____)

Cones hit during the post-test: _____

#2: Hand-over-hand Slalom (Speed Steering):

This exercise is all about STEERING ... it is NOT about speed, or trying to find the shortest line through the course. Through this exercise, your student is to focus on the most important 2 aspects of this exercise:

- 1- Turning the steering wheel as QUICKLY as possible.** Concentrate on using “hand-over-hand” steering!
- 2- Turning the steering wheel as FAR as possible.** The device that keeps you from turning your steering wheel any further than it can turn in either direction is called the “Lock”. You have already done the pre-work to determine how far it is from “Lock-to-Lock”. During the hand-over-hand slalom, you need to be turning the wheel all the way until it hits the lock. By doing so, you will be maximizing your vehicle’s maneuverability and making the tightest possible turns during the slalom.
- 3- DO NOT HIT THE YELLOW/GREEN CONES!** These cones are different than the ones in Parking Space Navigation ... They have metal rings embedded in their base that allow them to stand up more firmly. These metal rings CAN DAMAGE your tires if you run over them, so if you even think you’re going to hit one, stop, back up, and approach it differently. The object of this exercise is to use maximum steering to get AS FAR AWAY as possible as you can from these cones ... not as close as you can as if you were a slalom skier.

(When you’re done with this, read and prepare to discuss both exercises on the next page!)

#3: Emergency Braking Dry: *Coaches, keep this chart handy during this exercise, pen in hand!*

1- You will be asked if you're ready. Acknowledge with a "thumbs up" out the window.

2- When the green flag is held out, you are to

"accelerate moderately". (What does that mean?): You will let off the brakes, and step on the gas as though the light just turned green. (What mistake do many students make?): Don't just let off the brake and roll forward ... that's not how you would leave an intersection, be sure to accelerate moderately.

3- When the green flag **waves**, floor it!

4- When the red flag waves, **SLAM** on the brakes using **ONLY** your right foot.

5- Bring the car to a STOP AND STAY STOPPED!

(Coaches, don't forget as we covered in class ... if they hit the gas by mistake ... throw it in neutral.)

Note: Anti-lock braking systems (ABS), are made up of many moving components. The internal ABS components may have seized up rendering the system inoperable if they have remained unused or untested for long periods of time. This is why manufacturers recommend owners activate their ABS systems at least every few months to keep the parts moving freely. Therefore, it is possible to have ABS on your vehicle and yet skid the tires on the first few attempts at this exercise. This may or may not persist depending on how severely the internal components have seized, but even mildly seized components may release before the end of these exercises.

Pass	Condition	Distance*	Speed
1	Dry		
2	Dry		
3	Dry		
4	Dry		

#4: Emergency Braking Wet / Lane Positioning:

DO NOT make the mistake of thinking we want you to drive down the parking lot and slam on the brakes when you get to the braking area. It is important that the braking distance we give you INCLUDES your reaction time, and that you keep your tires in the lane tracks! WE need to be the reason you slammed on the brakes ... not just because you made it to the braking zone.

Simply put, the same procedure as above, the driver simply obeys the flags just like in Emergency Braking Dry.

Also, be sure to read the following to your student so they understand the reason behind what we're doing to the driving conditions here:

"Dry": Self-explanatory

"New Rain": The material we put down is calibrated to replicate the same "coefficient of friction" you will experience when it first starts raining. That's when water flows down in to the pits of the road surface and the oil comes up to float on the water.

"Drizzle": After driving through material, some of the products may remain on your tires when you attempt the even-numbered passes, and therefore, it's not exactly "Dry" conditions anymore.

"Rain": As the exercise progresses, the material will once again recede in to the pits of the pavement and lose some of the effect of "NEW" rain, which simulates "Rain" conditions.

**Please be advised, these numbers will be shorter than what you can expect in the real world for two reasons:*

1- Being less travelled, parking lot condition is typically better than road conditions, which will offer a higher coefficient of friction.

2- In the real world, this number would need to include not just the car's braking distance and the driver's reaction time, but the driver's "perception time" as well. We simply cannot simulate that because the students do this exercise KNOWING we're going to wave the red flag!

Do not compare odd-numbered pass data to even-numbered pass data. In many cases, one side varies from the other in texture, slope, or condition. Also, one instructor may have a different reaction time than others in waving the flag.

Depending on the product used to reduce the coefficient of friction, residue left on your vehicle from the last exercise is most easily removed early with a degreasing soap such as Dawn. If it's allowed to stay on too long, WD-40 or Bug and Tar remover will work well to remove it too.



Pass	Condition	Distance*	Speed
5	New Rain		
6	Drizzle		
7	Rain		
We will be using data from pass #7 in exercise #5, so copy THESE numbers there RIGHT NOW!			
8	Drizzle		

Notice to students driving GM trucks (Suburbans, Tahoes, GM Pickups): After maximum braking, you may experience the rear-end locking up as indicated by one tire scuffing as you turn leaving the exercise. This is **normal**, and will reset automatically.

Notice to students driving vehicles equipped with electronic handling assistance, and/or stabilization packages: After engaging ABS, some of these vehicles are designed to limit acceleration in subsequent passes. If this happens, simply "reboot" between passes. (Turn vehicle off and then restart.)

(When you're done with this, read and prepare to discuss both exercises on the next page!)

#5: "Let's all go to the movies!"

Remember from the classroom session, there are two ways to prepare for Emergency Driving Conditions:

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- 2- Build a database of MOVIES!

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