



Say Dez!
BDE HOMELINK STUDIES



Welcome to the “Homelink” portion of the
“Say Dez!”
“Beginners Driver Education Curriculum”.

“Experiential” instruction is defined in this manner:

“One of five (5) things that make adult learning different from pedagogy is that adults learn better when they experience what they are learning. Experiential learning refers to the types of education that allows adults to be active, to do whatever they are learning.

They also want to apply their new learnings to life wisdom they have already have from their accumulation of experiences.

Experiential means education that involves or relates to experience.”

This is by Deb Peterson, a language professor.

However the “Experiential” is difficult to evaluate. Why? You as the student is just learning to drive therefore their driving experiences may not be sufficient to provide a feedback.

But here is a wonderful quote from John Wesley, an Englishman and Evangelist, founder of Methodism. (1703 - 1791). The quote is “If you cannot experience it, it is probably not true.”

The danger of asking you the student to turn in homework projects may border on collecting fiction. To prevent this from happening, there are several opportunities where you may learn by experience. This is the challenge for “Experiential” learning.

Expectations:

You the student will become familiar with the habits of road users in busy traffic at intersections.

1.) Lesson one
Road user behavior observation

Time: 2:00 hours

“Experiential” instruction homework assignment:

Find a major intersection within a reasonable distance from their home. This intersection must allow left turns, with left turn traffic lights. Traffic islands are not significant to the observation. If the geography of the intersection allows, find a comfortable and safe place to sit. (bring your own folding chair or sit in a car on the corner parking lot).

Observe the following and keep copious notes which will be transferred to a written report that must be handed in. This should be discussed as part of the in-class program when talking about intersections.

Here are the challenges:

- a.) What are the sequences of traffic light durations? (I.E.: how long is the amber light before the light turns red)
- b.) What is the duration of the four (4) way red before the green light?
- c.) What is the purpose of this sequencing?
- d.) Similarly what are the sequences of the left turn arrow lights?
- e.) Are there amber left turn arrow lights?
- f.) How many drivers run yellow lights?
- g.) How many drivers run red lights?
- h.) How many drivers make improper right turns on a protected left turn?
- i.) Armed with the knowledge of your observation how would you deal with this intersection while executing a left turn?
- j.) Rethink and rewrite your answer! Have you forgotten the pedestrian traffic?
- k.) What types of pedestrian lights are used at the intersection? Pictograph walking man or hand in stop position? Countdown crossing timer?

l.) What are the advantages or disadvantages of each type?

m.) Do you know what is a scrambled intersection? (This is one where all vehicular traffic stops and pedestrians may crisscross in any direction at the intersection.)

n.) Would this intersection benefit from one? Remember to look for pedestrians!

o.) How many pedestrians disobey the traffic lights?

p.) Armed with the knowledge of your observation how would you deal with errant pedestrians?

All major intersections have various other signs offering information to road users.

q.) What are these signs? List them all.

r.) Are they easy or difficult to recognize? Is the intersection “sign busy” making observation distracting?

s.) Armed with the knowledge of your observation how would you deal with the information presented to you?

t.) Are the buildings and businesses on the four corners distracting?

Please bring back your answers to class for lesson # 5 (Roads and Parking) session of the in-class instructions at your driving school. You will be tested on these questions by your in-class instructors at this time.

Do remember that this portion of the “Homelink” has to be done before you have your first in-car driving session.

2.) Lesson two
Vehicle behavior observation

Time: 30 minutes

For this there is a "caveat". Do not attempt it unless the available space in an empty parking lot is at least one third (1/3) of a football field. The exercise should be done with a front wheel drive vehicle since most students will be driving similar drive train vehicles. Before even attempting to drive a vehicle the student with a parent may experiment with the laws of physics without scaring or hurting anyone.

Begin with the student in the passenger seat and the parent driving. Presumably all the safety precautions have been taken, such as seat belt engaged, mirrors adjusted and of course an empty parking lot.

Begin with "Right" foot on the service brake. Engage "D". **Do not touch the gas pedal!** Let go of the steering wheel. Release the parking brake, then the service brake.

- a.) What just happened?
- b.) Where is the vehicle going?
- c.) Why is the vehicle going straight?

Bring the vehicle to a gentle stop by stepping on the service brake, hands back on the steering wheel. Next begin doing a tight left hand (driver's side) turn. **Do not touch the gas pedal!** Hold the steering wheel while doing at least two (2) complete circles.

- a.) What just happened?
- b.) Where is the vehicle going?
- c.) Why is the vehicle turning?

Let go of the steering wheel!

- a.) What just happened?
- b.) Where is the vehicle going?
- c.) Why is the vehicle going straight?

Now for the "piece de resistance"! Begin a left turn (driver's side) backwards (reverse). **Do not touch the gas pedal!** Hold the steering wheel while doing at least two (2) complete circles.

- a.) What just happened?
- b.) Where is the vehicle going?
- c.) Why is the vehicle turning?

Let go of the steering wheel!

- a.) What just happened?**
- b.) Where is the vehicle going?**
- c.) Why is the vehicle still turning left?**

Please make sure to write copious notes of this experience. These notes are to be handed in. They are to be discussed during the class when dealing with the "Laws of Physics".

Again the emphasis is that this must be done prior to having the student sit behind the steering wheel. These exercises will give the best example of the laws of physics. It demonstrates that the vehicle will go in the line of least resistance. Forward it will go straight, backwards it will go to the outside of the turn.

Please bring back your answers to class for lesson # 7 (Laws of Physics) session of the in-class instructions at your driving school. You will be tested on these questions by your in-class instructors at this time. Do remember that this portion of the "Homelink" has to be done before you have your first in-car driving session.

3.) Lesson three
Tires, their purpose and behavior

Time: 1 hour 15 minutes or 75 minutes

Expectations:

- Awareness of the construction of a tire
- Awareness of the different types of tires and their purpose
- Awareness of how proper maintenance is a safety factor

Information Materials & Resources:

Wikipedia has excellent information on the history of tires.

Please bring back your answers to class for lesson # 7 (Laws of Physics) session of the in-class instructions at your driving school. You will be tested on these questions by your in-class instructors at this time.

Hints:

Each of the four (4) tires on your vehicle is in contact with the road with an approximately area size of an males size 12 shoe's sole. Your life depends on these four (4) patches.

Examine how a driver may abuse the tires on a vehicle.

Examine how the age of a tire may have effect vehicles safety.

What information may you find on the sidewall of a tire?

What effect temperature have on tire behavior?

4.) Lesson four

Automobile lights, their history, purpose and behavior

Time: 1 hour 15 minutes or 75 minutes

Expectations:

- Reinforcing one of the six (6) conditions of driving , the ability to see.
- Awareness of functioning lights offer safety to the driver and to those with whom the road is shared.
- Awareness that lights are an effective means of communication with other drivers.

Information Materials & Resources:

Wikipedia has excellent information on the history of automobile lights

The report must be short and concise, limited to Ontario viewpoints as to their colours, location and their use. The topic is broad and overwhelming if outside of "Ontario centric" requirements.

Please bring back your answers to class for lesson # 8 (Adversities & Emergencies) session of the in-class instructions at your driving school. You will be tested on these questions by your in-class instructors at this time.

Hints:

There are exterior and interior light on a vehicle.

Find the location of all lights.

Explain their purposes.

Headlight must conform to specific functions. What are they?

Purpose and locations of brake lights. What and where are they?

Purpose and locations of directional signals. What and where are they?

Purpose and location of marker lights. What and where are they?

Purpose and location of interior lights. What and where are they?

5.) Lesson five
Traffic lights, their history, purpose and behavior

Time: 1 hour 15 minutes or 75 minutes

Expectations:

- Learn why the colours were chosen
- Learn how traffic lights operate
- Understanding the timing sequencing of traffic lights
- Learn how some jurisdictions address colourblindness

Information Materials & Resources:

Wikipedia has excellent information on the history of traffic lights

M.T.O. has an excellent brochure on traffic lights. Depending on the community your are teaching in, it may have specific information on local traffic light behavior.

Driving is not a “chaotic” or “undisciplined” activity. It must be an orderly behavior. Road users are expected to abide by conventions pertaining to sharing the road. Again this must be limited to an “Ontario centric” experience/viewpoint.

Hints:

Why are they in a “Christmas Tree” (vertical) configuration?

In some jurisdiction each of the colours have a different shapes. Why?

What prompted the proliferation (look up the meaning of the word) of the left turn lights at intersections?

What are the variations in pedestrian crossing lights?

6.) Lesson six
Vehicle ergonomics

Time: 1 hour 15 minutes or 75 minutes

Expectations:

- Students need to realize that the vehicle must fit the driver and not the driver the vehicle.
- They must modify their way of sitting behind the steering wheel
- How mirrors must be adjusted to the driver's physique.
- Understanding why and where various controls are placed in a vehicle.
- Understanding why and where the instrument cluster is located.

Information Materials & Resources:

Wikipedia has excellent information on the ergonomics of vehicle design. Students should talk to custom body conversion shops for enlightenment. This can be done on the internet or in person. " Does my vehicle fit me?" Comfort within the vehicle is of the utmost importance in operating it safely.

Hint:

Creature comfort while driving a vehicle is of primary importance.

What bearing comfort has on safety?

Without going to vehicle conversion shops, what are thing that you as the driver may do to make your vehicle comfortable?

What bearing your clothes and shoes have on vehicle ergonomics?

7.) Lesson seven
“Auto\$mart - A New Point of View”
© by Natural Resources Canada
Time: 1:30 hours

Expectations:

Understand that the climate of the planet is being ruined by fossil fuel burning cars. While technology to lower the carbon footprint of our vehicles is a slow progress with the automobile manufacturers, we can still do something about driving in a more fuel efficient manner.

Information Materials, Resources:

Access video, click on line below..

<http://oee.nrcan-rncan.gc.ca/transportation/business/autosmart/index.cfm?attr=8>

Strategies:

View the five (5) videos...

Module 1 - What is Fuel Efficiency and Why is it Important?

Module 2 - Fuel-Efficient Driving

Module 3 - The Importance of Proper Maintenance

Module 4 - Choosing the Right Vehicle for Your Every Day Needs

Module 5 - The Benefits of Fuel Efficiency

The video series "**Auto\$mart – A New Point of View**" informs Canadians about the environmental, safety and financial impacts of their driving, maintenance and vehicle-purchasing practices.

The series consists of five episodes, each running five to eight minutes, which can be viewed in any sequence. Viewers don't necessarily have to watch all the episodes to learn about fuel efficiency. Questions for viewers appear at the end of each episode.

"**Auto\$mart – A New Point of View**" follows four main characters from different backgrounds as they go through driver training. Each character comes to see an aspect of driving from a new point of view. The characters may not always agree with one another, but in the end they're all convinced that fuel efficiency is something every driver should think about.

Questions

“Auto\$mart - A New Point of View”

The answers to the following questions may only be found in the in-class instructors guide book. For the students, they must go on-line for the answers.

Module 1 - What is Fuel Efficiency and Why is it Important?

- 1.) Why is carbon dioxide (CO₂) called a greenhouse gas (GHG)?
- 2.) What are some of the potential consequences of climate change?

Module 2 - Fuel-Efficient Driving

- 1.) What are some easy ways to improve fuel efficiency just by how you drive?
- 2.) What are some environmental benefits of fuel-efficient driving?
- 3.) What are some financial or personal benefits of fuel-efficient driving?

Module 3 - The Importance of Proper Maintenance

- 1.) How often should you have your vehicle serviced?
- 2.) Where do you find the correct information about the proper inflation pressure for your tires?
- 3.) What are some important maintenance items?
- 4.) What steps can you take to prepare your vehicle for winter driving?

Module 4 - Choosing the Right Vehicle for Your Every Day Needs

- 1.) Where can you find out more about a vehicle's fuel efficiency?
- 2.) What are some of the alternative fuels and advanced technology vehicle types available today - or being developed - that reduce emissions?
- 3.) When purchasing a vehicle what questions do you need to ask yourself to determine your everyday needs?

Module 5 - The Benefits of Fuel Efficiency

1. What are five (5) things you can do to be a fuel-efficient driver and reduce your impact on the environment?
- 2.) What are some of the benefits to you and the environment of being a fuel-efficient driver?

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**“Auto\$mart - A New Point of View”
(continued)**

Please bring back your answers to class for Lesson # 4 (Basics & Knowing Your Vehicle) session of the in-class instructions at your driving school. You will be tested on these questions by your in-class instructors at this time.

Do print your answers out, because they must be kept in your student’s file for audit purposes.

8.) Lesson eight
Operating and Owning a vehicle

Time: 30 minutes

Preamble:

A vehicle is an a demanding aberration in life. If catered to, it will be your friend for a long time. If ignored, it will devour you with a vengeance.

Simply put, an automobile is the most expensive item that you will own in your lifetime, but in the end you will have nothing to show for it. It is a bottomless pit into which money has to be poured to keep it going.

At this point ask yourself: **“Who are my best friends?”**. If you have not answered **“Me, Myself & I”**, you are wrong! Look after yourself! Be honest with yourself and do not cheat yourself by not looking after your vehicle. This means a financial responsibility towards the vehicle when needed, and saving money when needed. This requires a change of personal habits such as perhaps choosing a more economical route to travel, driving on less congested routes, or even not driving if there is no urgent need for it.

There are mandatory statues that go along with the ownership of a vehicle. Governments through public pressure realized that the demand an automobile puts on the environment. Thus to curb this abuse there are mandatory emission tests for vehicles. See the M.T.O. web site for particulars. Further to it, when disposing all or part of the vehicle, very strict codes must be followed. These pertain to the disposal to all parts and contents of a vehicle. To name a few are fluids, batteries, tires, and of course the “corpse” of the vehicle.

For many, home maintenance of a vehicle is discouraged because of inadequate disposal of used fluids, used batteries and used tires. Do pay attention to your local and provincial bi-laws pertaining to these matters.

Because the demands of society, the law is a “living” entity that is constantly changing its standards and regulations to protect you the driver, the public and the environment. It is your duty to know the changes and the new laws as they apply to you and to your vehicle.

Expectations:

Knowing how to drive and owning a vehicle has increased benefits for the individual. With increased benefits there are increased responsibilities. For example make a comparison of a pedestrian, a bicyclist and a vehicle owner's benefits and responsibilities!

Homework Assignment:

"Ok, now I have my G license, why should I bother to learn more?"

As a driver goes from G1 to G2 then to G what are corresponding benefits and responsibilities? Later some may go to higher licenses such as AZ or BZ or the ultimate combination of ABM Z.

"List the benefits of each license"

The licenses are G1, G2, G, F, E, D, C, B, A.

"What does the Z endorsement on a driver's license mean?"

"What are the responsibilities attached to each of the licenses?"

Please bring back your answers to class for lesson # 2 (Physical Health) session of the in-class instructions at your driving school. You will be tested on these questions by your in-class instructors at this time.

Do print your answers out, because they must be kept in your student's file for audit purposes.

To research the answers please go to the MTO webpage at:

<http://www.mto.gov.on.ca/english/safety/>

For answers to "Graduated Licensing" go to this webpage:

<http://www.mto.gov.on.ca/english/dandv/driver/gradu/index.shtml>

Additional information on technological advances

Alternative fuels

As technology advances, researches are looking to try to improve the motor vehicle. Most of us will be driving cars, but there are other modes of transportation. They include trucks, buses on the roads. There are other modes of transportation, such as rail, boat and air transport. The topics, though aimed at vehicular transport, are important to all of the other modes. In this module, we shall discuss alternate choices.

Expectations

The aim is to have the students pass their classroom experiences onto their respective families. With them they should have a discussion on future choices that the family may make.

Keep in mind that the student's first probable purchase is a used vehicle. Maybe the next one will be a hybrid or an improved electric vehicle.

Information Materials & Resources:

1.) Alternative Fuels

http://oee.nrcan.gc.ca/transportation/personal/vehicle_fuels.cfm?attr=16
http://en.wikipedia.org/wiki/Alternative_fuel

2.) F.A.Q. about fuel efficiency

<http://oee.nrcan.gc.ca/transportation/personal/faq.cfm?attr=8>

3.) Down the road

<http://www.jdpower.com/corporate/news/releases/pressrelease.aspx?ID=2008087>

4.) Future

<http://autos.canada.com/news/story.html?id=e884edd3-835b-4ad0-a722-d3ca7979a94>

Video(s):

To see the video about “ecoTECHNOLOGY for Vehicles”, please click here.
<http://www.tc.gc.ca/programs/environment/etv/videos/etvoverview/video.htm>

Strategies:

As economical circumstances change, have a reality check against wishful thinking.

Down the Road

J.D. Power and Associates Reports:

As Automotive Manufacturers Intensify Their Focus on Small Vehicle Production, Consumers Express Desire for Advancements in Alternative Powertrain Technology

Small Cars and Hybrids Lead the Automotive Environmental Index Top 30

<http://www.jdpower.com/corporate/news/releases/pressrelease.aspx?ID=2008087>

The above web site gives an excellent insight on Alternative Powertrain Technology.

Future Rests on Longer Range Electric Cars

Source: Driving/Canada

<http://autos.canada.com/news/story.html?id=e884edd3-835b-4ad0-a722-d3ca7979a942>

SYNOPSIS: *David Booth takes issue with electric car advocate claims that 200 miles range is sufficient for most driving needs.*

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Biography

David Booth, a columnist and senior writer for the *National Post's* weekly Driving section, is one of Canada's leading automotive journalists. His irreverent musings can be found in his column, Motor Mouth, which appears every week on Page 2. Booth also provides new vehicle previews and road tests every week. Booth has been writing for the *National Post* since its inception in 1998.

Battery technology needs breakthrough for electric vehicle sales to amp up

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SYNOPSIS: *Today's Trucking news analyses the problem with available battery technology.*

<http://www.todaystrucking.com/news.cfm?intDocID=23165>

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