

Planning a Trip in Your Electric Vehicle



Re-Energy
Learning Activity
Grade Level 7-12

Main Objectives

Now that learners understand how to choose a vehicle for their lifestyle, they are going to plan a trip with an EV. Learners can either use the EV they picked in the last activity for added difficulty or the Tesla Model 3. There are 3 scenarios the learners (or educator) may choose from.

Learning Outcomes

By the end of this activity, learners will:

- Understand the planning process involved in taking a trip with an electric vehicle
- Present their logistical plans in a visual format

Curriculum Connections

Alberta

- Science 10: Stewardship
- Social Studies 10-1: To what extent should we embrace globalization?
- Social Studies 10-2: Living in a Globalizing World
- Science 20: Science Technology and Society
- Science 30: Energy and the Environment

Length of Activity

1 - 2 hours

Materials List

Internet-enabled device
Map Finder (PlugShare, Tesla, ChargePoint, etc.)
Charge table (time to charge at various level, see 2019 EV Catalogue)

Procedure

Step 1: Choose one of the following scenarios for this activity:

Scenario 1: Your task is to plan a trip between two locations in Alberta over 200 km using a Tesla Model 3 and present your logistical plan (where to charge, when to charge, time to charge, etc.) to your peers and educator.

Scenario 2: Your task is to plan a trip between two locations in Canada over 500 km using a Tesla Model 3 and present your logistical plan (where to charge, when to charge, time to charge, etc.) to your peers and educator.

Scenario 3: Your task is to plan a trip between two locations in Canada using the same vehicle that you chose in Buying an EV Activity and present your logistical plan to your peers and educator.

Step 2: Learners will conduct research to figure out where to stop to charge their vehicles considering the distance and mileage.

Step 3 Present the Plans: Learners can choose how to present their logistical plans in any visual format.

Possible Trip Ideas

- In Alberta: Lethbridge to Edmonton; Calgary to Edmonton; Fort McMurray to Calgary; Vulcan to Kananaskis
- In Ontario: Toronto to Ottawa
- In Quebec: Montreal to Quebec City
- In BC: Vancouver to Victoria
- In Canada: Vancouver to Calgary; Toronto to Montreal; Barrie to Kingston
- Other options: Learners can choose locations, or the educator can put a certain km restriction on the problem (i.e., you must travel at least 300 km between point A and B)