Planning a Trip in Your Electric Vehicle

Re-Energy
Learning Activity
Grade Level 7-12

Main Objective

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

Step 1: Choose a scenario
Step 2: Conduct research
Step 3: Presenation

Materials Required

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

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Activity

Step 1: Choose a Scenario

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.

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)

Step 2: Conduct Research for the Trip

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

Step 3: Present the Trip Plan

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