A4 ACTIVITY 4: EXPLORING ELECTRIC VEHICLES (EVS)

Background

Petrol and **diesel** have been the principal transport fuels ever since the invention of the **internal combustion engine** in the late nineteenth century. This tradition relies on **fossil fuels** and creates CO_2. Today we are looking for alternatives. **Battery powered motors** already exist, but the limited achievable travel distance means that electric cars are not yet rivalling **petrol** or **diesel** cars in terms of practicality or performance.

Since the first safe prototype, a **lithium ion battery**, was built in 1985, the replacement of petrol or **diesel** powered vehicles with electric alternatives has become increasingly likely.

In this activity students **compare and contrast** an **electric car** with a **petrol** or **diesel** one.

Suggested approaches:

- Ask students to brainstorm about their understanding of electric cars in groups. A summary of ideas could be written up for further reference.
- Show this Eco Eye video on electric vehicles. After seeing the video the students can revisit the earlier discussion and see how the video affects their original findings.

What to do:

1. Divide the class into three groups:

   Group A is the sales group. The members must devise a campaign to sell an electric car and present a sales pitch to the class.

   Group B is another sales group. They are selling traditional cars and must draw up a number of arguments against electric cars in favour of petrol driven cars. They must present a sales pitch focusing on the advantages of traditionally powered cars over electric vehicles.

   Group C is a client group. The members do not know whether to buy an electric car or a traditional car. They must draw up a list of questions for the sales groups.

2. Students should use the information on SEAI's website to get information on electric vehicles and grants available to help them prepare their case.

   The groups should present their cases to the class within a given time frame, and this should be followed by a questions-and-answers session.

3. The groups can disperse, and a final discussion can take place where students give their individual opinions about electric vehicles and the teacher evaluates the presentations with the class.

Resources:

- The SEAI website has a cost comparison calculator which will compare running costs of EVs with petrol and diesel cars.
- The ESB webpage on electric cars could prove useful.
- Visit the Irish EV Owners Association website for some of the latest news and opinions from EV drivers.