

Lesson 1: Electricity Consumption

I'm a
Scientist
Decipher my data!



Cross Curricular Links

Science, Environmental studies



Key Vocabulary

ac/dc photo-voltaic kWh



Learning Objectives

- Understanding that different methods are used to generate electricity
- Understanding difference between generation and distribution
- Understanding units of consumption
- How different machines differ in the way they consume electricity



Key Questions

Materials Required:

- "The Electric Journey" information sheet
- Sets of cards (one for each group in class)

Intro/Recap (use information sheet):

- How is electricity generated? How many different ways can you think of?
- Where is electricity generated? How does it get to the school?
 - o What is the difference between electricity generated at school (pv panels) and that which comes from far away
- How do we measure electricity?
 - o Volts, amps, watts, kWh

Main – Card Sorting Exercise:

- Split your class into groups
- Print out one set of cards per group
- Ask them to sort the cards:
 - o In order of what consumes most electricity:
 - First, in a minute...
 - Then, over the course of a day.
 - o by grouping DC machines and AC machines
 - o by grouping machines that are mostly on and mostly off

Plenary:

- Discuss the answers, why don't all the groups agree - consumption varies from school to school
- Where are these machines in your school? When do they get used? What are essential? Which could we do without?