The Energy Debate Card Sorting Activity

You will consider the arguments for and against nonrenewable and renewable energy resources.

You will use:

Materials

- Energy Sources Cards
- Scissors

1. Look at the Energy Sources Cards. Use scissors to cut out each card. The cards have the names of different types of energy sources, renewable and nonrenewable labels, and for each energy source there are two arguments for its use and two arguments against its use.

2. Sort the cards so that each energy source has a nonrenewable or renewable label, and two arguments for its use and two arguments against its use.

3. Start by separating the cards that have the energy sources written on them. You should then decide whether each is a renewable or nonrenewable energy source.

4. Think about the following questions.

    - How does the energy source generate electricity?

    - Where does the energy source come from?

    - Is it a renewable or nonrenewable energy source?

- What are the arguments for using the energy source?

- What are the arguments against using the energy source?

HYDROELECTRIC POWER	Constant flow of water provides constant source of energy	Cheap electricity produced once built	Requires a lot of land and may require river to be re-routed	Damage to existing habitats through flooding to build reservoir
BIOMASS	Sources (plants, waste) readily available	Can often be used where fossil fuels are used (e.g. in cars, power stations)	Often requires fossil fuels to produce it (e.g. in harvesters and other machinery)	Land used to produce it may be taken from other purposes (such as forests or food crops)
FOSSIL FUELS	Efficient at producing electricity	Produce relatively cheap electricity	Produce carbon dioxide (CO_2) when burned – contributes to greenhouse effect	Produce pollutants on land and in atmosphere
NUCLEAR POWER	Efficient at producing electricity so electricity is relatively cheap	Clean – no waste gases produced	Large amounts of waste radioactive material must be stored	Risk of radioactive material escaping into atmosphere
Renewable	**Renewable**	**Renewable**	**Renewable**	**Non-renewable**
Renewable	**Renewable**	**Renewable**	**Renewable**	**Non-renewable**