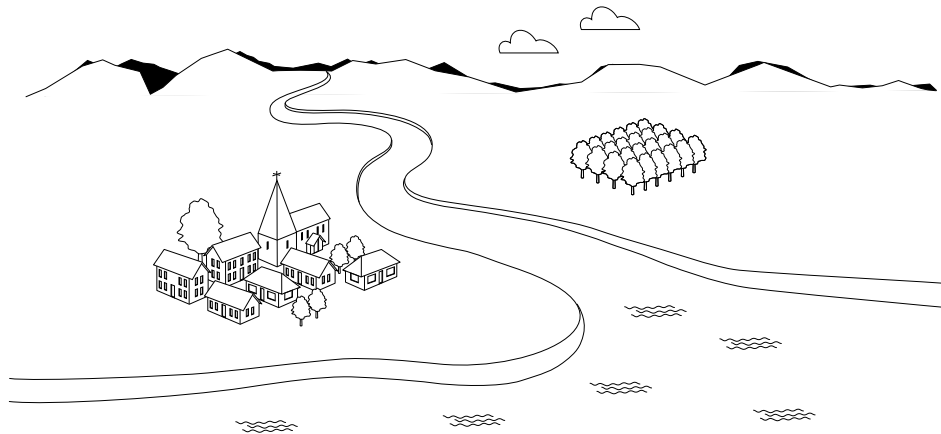


Choose sites for renewable energy projects

Aim

To choose the best sites for six renewable energy projects



What to do

You are in charge of building the six new **renewable energy projects** listed in the table below.

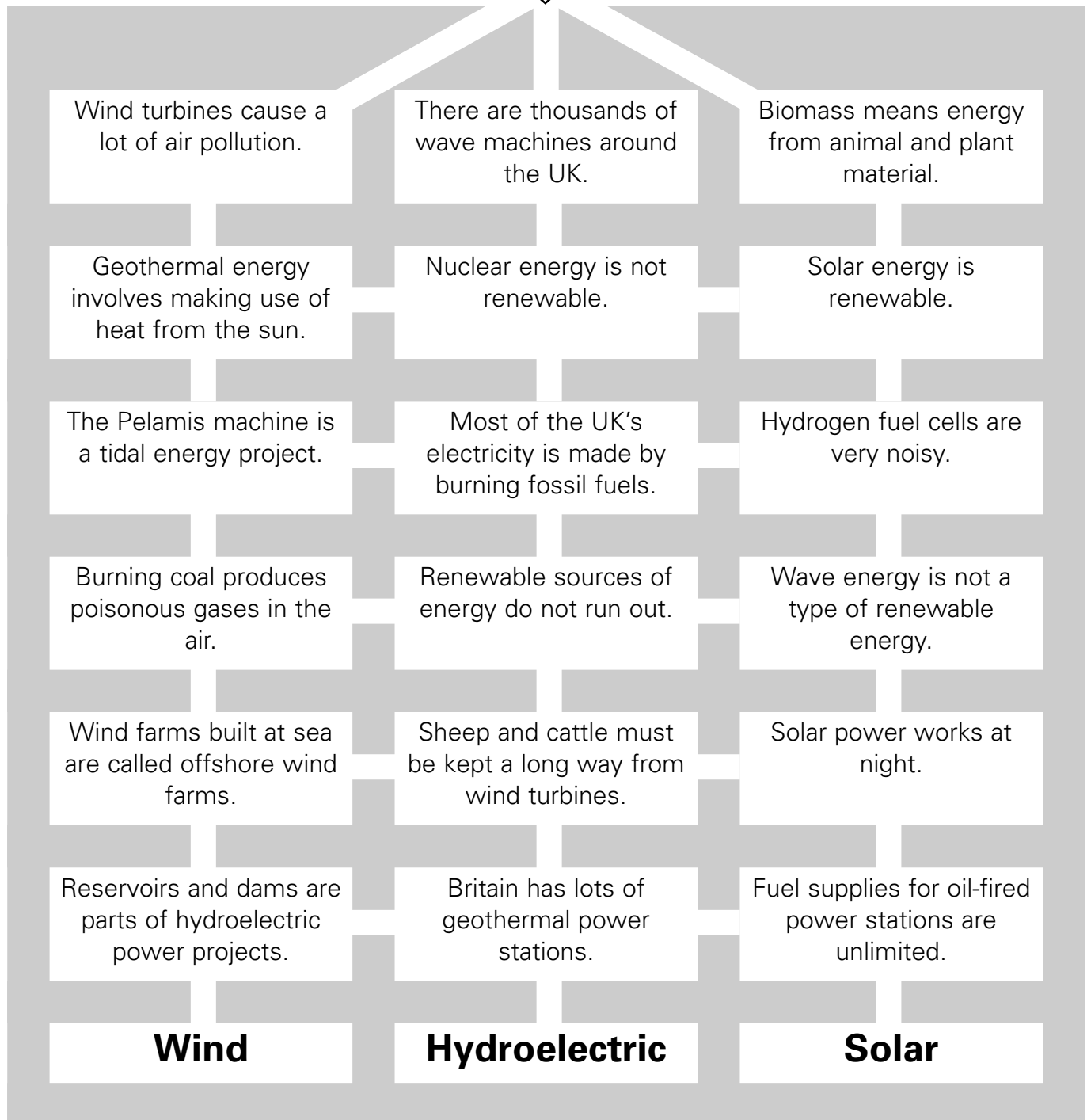
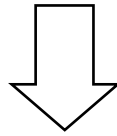
Where is the best place to locate each one? Mark a **number** on the picture for each project and write down the **reason** why you chose this place.

Number on picture	Renewable energy project	Why you chose this location (try to give two reasons for each)
1	A wind farm	
2	A wave machine	
3	A biomass wood-burning project	
4	A tidal barrage	
5	5000 solar PV panels	
6	A hydroelectric dam	

The renewable energy maze

There is only one correct way through this maze – it follows all the **true statements**. Colour your way through the maze. Which type of renewable energy do you reach?

START HERE



Compare types of renewable energy

Here are the eight types of renewable energy.

Wind Waves Solar Biomass Tidal
Hydroelectric Geothermal Hydrogen fuel cells

1. Which renewables depend heavily on the weather?

2. Which renewables can work on a small scale (e.g. to provide energy for just one building)?

3. Which renewables have the smallest effect on the environment?

4. Which renewable projects are very expensive to build?

5. Which renewables are the most suitable for the UK?

6. Identify the renewable (circle the answer).

- | | | | |
|---|---------------|------------|---------------|
| a) It uses PV cells. | Hydroelectric | Solar | Biomass |
| b) It needs a supply of gas. | Fuel cells | Geothermal | Wave |
| c) It produces gas from rubbish. | Biomass | Wind | Hydroelectric |
| d) It uses heat from the Earth. | Fuel cells | Biomass | Geothermal |

Renewables and the environment

1. Draw lines to match each type of renewable energy on the left with the boxes that show how the environment is affected. You may match each renewable with more than one box.

Wind energy

Wave energy

Solar energy

Hydroelectric energy

Biomass energy

It is very visible, even from a distance. It could spoil the landscape for some people.

It does not have a bad effect on wildlife.

It blends in well with surroundings and does not spoil views.

There is some air pollution.

It is a very clean source of power. It causes almost no pollution.

Building the project could have a big effect on animal and plant habitats.

It is a very quiet technology.

It uses up a lot of land.

2. Write down which renewable you think is best for the environment. Explain why.
