

Name: _____ Date: _____



RENEWABLES CHALLENGE Lesson 2 | Home Activity

Energy Availability

In class, you have looked at an example of a school that uses renewable energy to reduce the greenhouse gases it produces. The school uses more than one source of renewable energy to make sure that it has enough energy during different times of the day, different times of year, and during different weather conditions.

In this activity, we are going to think about the availability of different types of renewable energy, or when they are available, and which would be most helpful for your school.

There are several factors that affect the **availability** of energy, but we are going to focus on **local weather conditions**.

First discuss with the people in your house which region your school is in using the table below to help you. Circle which region your school is located in choosing from the north, east or west of Scotland.

North	Highlands, Western Isles, Orkney and Shetland
East	The Borders, the Lothians, Falkirk, Clackmannanshire, Fife, Tayside and Grampian
West	Strathclyde, Central (except for Clackmannanshire and Falkirk), Dumfries & Galloway, Argyll Islands (e.g. Arran) and the Southern Hebrides (e.g. Tiree, Mull, Jura and Islay)

The table below gives information about the weather in each region of Scotland each year.

Region	Hours of sunshine per year	Average wind speed
North	1080	6mph
East	1263	5.5mph
West	1251	5.5mph



Using the location of your school and the information in the table above, answer the following questions.

How many hours of sunshine does your region get per year?

Hours of sunshine per year:

What is the average wind speed in your region?

Average wind speed:

Which region do you think would be best for using solar energy?

Which region do you think would be best for using wind energy?

