

# Citizenship

## Renewable Energy and Community Debates



### Overview of Session



Session Length | 60 mins



Age Group | 7-11 Years

#### Learning Outcomes

Students will understand the term renewable energy. Students will explore issues around renewable energy sources, particularly issues related to when and where renewable energy sources are placed. They will think about reasoned arguments for and against, listen to and present their own arguments based on research and prior knowledge. Students will require prior knowledge of persuasive arguments.

#### Learning Outcomes

- To understand the roles played by public institutions.
- To explore political and social issues.
- To understand the precious liberties enjoyed by the citizens of the UK.

## Lesson Overview

The aim of this lesson is to help students to develop skills in evaluating viewpoints before presenting reasoned arguments, in line with the Citizenship programme of study for KS3. The subject links to the science curriculum and will develop students' knowledge of renewable energy sources.

Northern Powergrid distribute electricity which is sourced by National Grid from a variety of places. The network consists of 63,000 substations and 60,000 miles of overhead lines and underground cables and are committed to exploring more efficient ways of distributing energy through renewable sources. This is becoming increasingly necessary as communities become more conscious about environmental issues. Northern Powergrid is focused on creating a smarter Powergrid that meets customers' demands now and in the future by embracing new technologies, developing environmental projects and reducing their carbon footprint.

## Key Terms and Principles

Renewable energy, hydro-electric power, solar, wind turbines, biomass, geothermal, wave or tidal energy, greenhouse gases, electricity, pollution, research and evaluate, presenting arguments, debate ideas in groups and as a class.

## Resources

- PowerPoint presentation
- ICT for research
- Frame for persuasive speech (additional support sheet if required)
- Starter task sheet
- Resident role worksheet
- Map of local area

# OK, Let's Go!



# Part 1: Introduction



Suggested length | 15 mins

Introduce who Northern Powergrid is.

## Scenario

A town council wants to make their town as self-sufficient as possible. The council has decided that wind turbines will be used as much as possible to generate electricity for the town. Where should they be placed? To get a range of opinions, they are asking the local residents what they think.

### Differentiation

Nominate a group of students to represent the 'local council'. They could research into wind turbines, other types of renewable energy etc. to be able to counter-argue and defend their proposal.

## Task

Students will understand the term renewable energy in more detail looking at the arguments for and against. Discuss and define as a class:

- What is renewable energy?
- What sources/ types of renewable energy exist?
- What are the positives and negatives of each renewable energy source?

Students are to complete the worksheet with six renewable energy sources and then list the positives and negatives of each.

Firstly, ask the students to complete the sheet with what they know already. Then share with the class and add any further ideas that they have missed.

Discuss any positives and negatives they have discovered on this page that haven't yet been covered.

### Differentiation

This task can be made less challenging by having the types of renewable energy already listed.



## Tip

For more information on renewable energy, visit the following website:  
[www.bbc.co.uk/bitesize/ks3/geography/human\\_processes/sustainable\\_futures/revision/5/](http://www.bbc.co.uk/bitesize/ks3/geography/human_processes/sustainable_futures/revision/5/)

## Resources



- Worksheet

## Part 2: Body of Lesson



Suggested length | 30 mins

### Introduction

- Introduce students to today's focus: wind turbines – including the advantages and disadvantages.
- Remind the students of the scenario: The local council aspires to be the first 'green' town and has received funding to invest heavily in renewable energy. The problem is, the council have decided on wind turbines without taking into consideration any of the local residents' feelings.
- In groups, students are going to be given the character of a local resident and campaign for, or against, the use of wind turbines as well as come up with a reason as to where they should be placed.
- Students are to be given a map of the town and there will be obvious places the wind turbines should go. However, they must take into consideration the feelings of the town's residents. They must, by the end of the lesson, argue where the turbines should go and why, and what other renewable energy resources could be used instead, if any.
- Other groups will be able to speak to and question each local resident as part of this roleplay. Ultimately, there will be an overall winner (to be chosen by the teacher, or decided via a class-wide vote)

### Resources



- Map of the town



### Extension

One group could play the role of the local council and would explain why turbines are a good idea and why the proposed place to locate them has been chosen. They could use their discussion time to research wind turbines, their benefits and how they might be able to defend themselves against any disadvantages raised at the town meeting.

### Task

- Students will need to come up with where, if anywhere, they think the wind turbines should be placed in the town. Alternatively, they need to come up with other options (must be renewable energy).
- By the end of the activity, they should have an argument as to where the wind turbines should be placed and why, taking into account the local residents. They then need to prepare to present their arguments at the community meeting.

# Presentations at the Community meeting



Suggested length | 15 mins

- At the community meeting the council group will begin by presenting the current plan and argument. Then the other groups will present their arguments and will be questioned on them.

To conclude, whoever has put the best argument forward will win the council's vote.

## Next Steps



**Homework idea:** students could develop their persuasive writing skills and write a letter to the local council putting across their point of view as a resident regarding the proposed plans.

