

Engineering challenge: Our island is going renewable – challenge 3

Introduction

The inhabitants of an island are considering stopping using fossil fuels to generate electricity. Before going ahead with this step they need to do some research and planning and have asked you to help them with this process. Over the coming week you and your team will be involved in a number of challenges, which will culminate in an exhibition where you will display the results of the learning you have been doing in sciences, technologies and geography.

Your exhibition stand should help the islanders understand some of the issues they will need to consider if they are going to stop using fossil fuels to generate electricity.

Challenge

Create an exhibition stand displaying the findings of your investigations into the feasibility of using renewable energy on the island to help inform the islanders about the issues around energy such as:

- energy usage and consumption
- options for generating energy from renewable sources
- best locations for particular technologies
- a scaled model of the island to demonstrate the potential impact that the technologies could have on the landscape

You could include examples or photographs of the working models you have been making in class, charts, diagrams, written explanations, PowerPoint presentations, leaflets, annotated maps, etc.

Success criteria

Your team must be able to:

- explain what each member of the team contributed to your exhibit
- answer questions about your exhibit

What will make an excellent exhibit that will help to inform the islanders of the issues around their decision to go renewable?

Success criteria for this challenge will be negotiated with all the teams.

Evidence

Your exhibit will present the evidence that you have met all aspects of the three challenges.

Reflection

- What did you learn from this engineering challenge?
- How did your group manage the task?
- Which things did your group do well?
- Is there anything you would change about how your group worked?
- Where else could the skills that you have used in this engineering challenge be applied?