



Welcome!

Welcome to the Sunny Schools resource pack. It has been designed by teachers for teachers.

Sunny Schools tackles the issues of climate change and energy in schools, while bringing alive the science of renewables with a global dimension.

Activities are practical, investigative and discursive, encouraging pupils to think for themselves and to follow their learning with positive action, leading to participation in a more sustainable school and community life.

The programme is interdisciplinary and has strong elements of Social Studies, English and Literacy, Science, Technologies, Health and Wellbeing, Religious and Moral education and Mathematics. All activities are clearly linked to Curriculum for Excellence and can be used across Second and Third Level. Ideally the programme should run across a school term or half term, but equally could be used as part of the Eco Committees work within a school. Please visit www.solar-aid.org/sunnyschools for useful curriculum links.

Aims

Pupils participating in **Sunny Schools** are expected to:

- have an increased understanding of climate change and how it will affect them and others around the world;
- have an increased understanding of how renewable energy works, and how solar power can help people around the world;
- take positive action, demonstrating a desire to change their behaviour and reduce their carbon footprint.

Structure

The programme is divided into six closely linked units. Each unit comprises of a stimulus, accompanying suggested lesson activities and suggested follow-up actions. The unit titles are:

UNIT 1: Climate change

UNIT 2: Energy

UNIT 3: Carbon footprints

UNIT 4: Renewable energy

UNIT 5: Solar around the world

UNIT 6: Reflection

Where can I find...?

All materials can be found on the **Sunny Schools** webpage. Some of the key foundation resources may have been printed for ease of use. These include:

Unit cards
Activity Sheets
Student Investigations and Quiz
Photocards and Case Studies

Sunny Schools Reward Map
Renewable Energy Fact Sheets
Glossary
Quick links sheet

Extra resources that you will find on the **Sunny Schools** website include:

SolarAid video
Sunny Schools Certificates
Technologies Solar cooking project
Technologies Building an Eco-house project
Quick links sheet, for easy access to websites

Photocards and case studies to view on IWB
Assembly Sheet
Book List
Template Letter for parents
Extra solar resources for schools with panels

Assessment tools

- Quiz - to assist with assessment of pupils' learning, for use at the beginning and end of the programme.
- Learning Logs - pupils are encouraged to keep learning logs as informal records of their experiences. **Sunny Schools** teachers have found this very helpful in understanding their pupils' emotional responses as well as their academic progress. Allowing them time for reflection at the end of each session is invaluable to their learning.





Subject and curriculum links

The programme as a whole is interdisciplinary and suggested links to Curriculum for Excellence can be found in the blue band across each unit card. Some links include:

English, listening and talking: check out hot-seating in Unit 1, debates in Unit 1 and 4, energy journey in Unit 2, group definitions in Unit 2, assembly in Unit 5, reflection in Unit 6, discussion in all units.

English, reading: check out all three Student Investigations, renewable energy activities and fact sheets in Unit 4, case studies in Unit 5.

English, writing: check out mind mapping in Units 1 and 6, poetry in Unit 1 and Student Investigation 1, persuasive writing in Units 1 and 4, diary writing in Units 2 and 5 and Student Investigation 3, definition writing in Unit 2.

Maths: check out measuring in Unit 5, graphs in Unit 1 and D&T Solar cooking, calculations in Unit 4

Science: check out surveys in Unit 2, measuring watts in Unit 3, electricity and circuits in Unit 4.

Geography: the programme as a whole covers a large portion of the geography curriculum. Specific skills include: comparing localities in Units 1 and 5, surveys in Units 2 and 3, using atlases and maps in Units 1 and 5.

Technologies: check out the two projects, 'Solar Cooking' and 'Building and Eco-home'.

Schools with solar

There is a whole folder of extra resources to help you explore your school's solar panels and electricity generation.

Teacher background knowledge

Background information about climate change:

Met Office Guide to Climate Change (available to download and print): <http://tinyurl.com/metccguide>

WWF Teacher's information pack 'Tackling Climate Change': <http://tinyurl.com/wwfccguide>

Please note SolarAid takes no responsibility for the content of external websites.

SolarAid

Sunny Schools is a UK education project from SolarAid, a leading international development charity tackling global poverty and climate change by bringing affordable, clean, renewable energy to rural Africa.

Millions of children in Africa are currently using kerosene lamps to study with at night. Kerosene is expensive so parents have to tell their children to stop studying because they cannot afford light. It is also deadly. Kerosene lamps are a major contributor to indoor air pollution which causes 400,000 deaths in Africa every year. That is more than malaria.

SolarAid's solution is simple: harness the extraordinary power of the sun with robust, reliable solar technology so pupils have a chance to study for a better future without putting their lives and health at risk. We work with schools to help students gain access to clean, safe solar lighting. More study time means more students sitting exams and gaining better results. Plus precious funds previously wasted on kerosene can help pay for better food, books and welfare.

The answer is so simple. But we need help. Schools across the world are fundraising to support children in Africa to access clean, safe light to study by. We can send information about the school supported, including its name, location and a report on the impact solar is having in that area. If you think you can help children in Africa get clean safe solar light, or for more information about SolarAid, please visit www.solar-aid.org.

If you have any questions or feedback, please get in touch at: info@solar-aid.org

