

HANDBOOK STRUCTURE

In the first part (p. 17), you will find **important background information** (theory) about solar energy, why it plays a central role in our lives, some technical information about its use and the risks related to the sun.

In the second part (p. 34), you will find a wide range of **activities** as well as **games**.

At the end of the handbook, you will find **additional resources and links**.

A separate document with practical worksheets for activities is available at solafrica.ch/scout-badge.

In this handbook, each part (background information and activities) is also separated into **four sections**:

A. Sun is life

B. Impacts of the sun on health and environment

C. Use of solar energy

D. Go solar!

These four sections should lead you through the book, helping you to find the information you are looking for.

A. Sun is life is an introduction to the sun, solar energy and how they are related to our lives.

B. Impacts of the sun on health and environment is about possible risks coming from the sun and how we can deal with these.

C. Use of solar energy is about the technologies used to harness the energy from the sun.

D. Go solar! gives inputs on how each and everyone can use solar energy and be an example for others, as well as the possibilities for whole communities to use solar energy.

The workbook

This handbook is written to help group leaders teach and organise activities related to solar energy.

A lot of practical material is available to make it even easier. In the workbook, you can find instruction sheets, templates and other resources for printing or copying.

The workbook can be downloaded from www.solafrica.ch/scout-badge.

OBJECTIVES AND AGE LEVELS

The general objective of the Scouts Go Solar Handbook for Leaders is to promote interest and understanding about the use of renewable energies as a strategy to protect the environment and respond to climate change.

You may also acquire:

- * Teamwork and independent study skills
- * Imagination and creativity
- * Observation skills
- * Cultural and environmental awareness
- * Numerical and literacy skills
- * Technical skills
- * Research skills
- * Presentation and public speaking skills
- * The ability to present an argument and debate

The activities are divided into three age levels, with each level labelled according to the appropriate age group. As some activities may be interesting to more than one age group, the teacher or leader should use his/her judgement and select the most suitable activity for the group.

Level 1: Five to 10 years old

Basic understanding is gained by curiosity driven experimentation

Level 2: 11 to 15 years old

Complex tasks that strengthen and demand more practical, analytical and interactive skills

Level 3: 16 years old and above

Combine and connect their analytical, practical and interactive skills, develop solutions adapted to specific situations

Solar Scout Badge

Target groups:

Scouts of all different ages

Aim:

To learn the basics in solar energy, the different solar technologies, and to be able to use solar energy and technologies (depending on age group)

Requirements:

This is a proposal for a Solar Challenge Badge Programme that can be adapted according to your needs.



Activities	Level 1	Level 2	Level 3
SODIS / solar water disinfection	✓	✓	✓
Collect water from vegetation /purify water (condensation)		✓	✓
Build a box cooker/oven	✓	✓	✓
Solar art	✓	✓	✓
Sunglasses	✓	✓	✓
Coloured water heating bottles	✓		
Solar lamp		✓	✓
Compass		✓	✓
Sundial	✓	✓	✓
Greenhouse effect			Create and explain to your group
Cooking	Hot drinks, easy recipe (melt chocolate/ cheese)	More complex recipe, drinks	Cook a solar lunch for a small group
Community Service		e.g. build a solar installation on your local school, community/scout centre, etc.	