Project 6
Make your own Solar powered lamp

Suggested age: 10 to 12
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Summary
This project explores solar powered light through hands on contact with a portable solar device. Using students’ knowledge of solar power they will design and make their own solar lantern.

Outcomes
• Through creative design and object making students will create their own working solar powered lantern.

Suggested age range: 10 to 12 years
Subjects Covered: Science, Technology, Environment, Art, Design
Materials: Little Sun or a solar powered light kit, paper or a paper lantern, crafting materials such as scissors, glue, paper and pens
Time required: Preparation: 5 minutes
Teaching: 40 minutes or more depending on the chosen complexity.

Preparation:
• Read through the program
• Prepare the Little Suns or the Solar powered light kits
• Prepare the paper lanterns if they are to be used
• Prepare the crafting materials such as scissors, glue, paper and pens

Introduction:
Solar powered light comes from the sun. It is processed through solar panels and then stored in batteries to be used later when it’s needed.

This project teaches students how solar energy works and the associated design challenges of creating beautiful, practical and clean light sources.
FEEL

Ask the students to spend time with their Little Sun or another light source around them. Ask them to focus their attention on the various qualities of the light source, how it looks and feels, what it is used for, when is it used the most and who primarily uses it.

Hand out Little Suns or a solar powered light and ask the students to explain how the solar powered light works, what are the various qualities of this light source?

ACT

Ask the students to take their Little Sun or their solar powered light and their lantern or the materials they will use to create the lantern and design a final light. Consider how it will look and feel, how light is distributed or dispersed through the lantern, what it will be used for and who will use it. Students can make quick sketches to think through their design before they start constructing the lantern.

Using the tools they have available ask the students to create a working solar powered lantern.
KNOW

Creating beautiful, practical and clean light sources is a challenging but rewarding activity that requires knowledge from the fields of science, technology, environment and art.