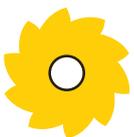

Little Sun Foundation Project 4

Renewable & non-renewable energy



REQUIRES A
LITTLE SUN



INDOOR
ACTIVITY



FOCUS ON:
SCIENCE



Suggested age: 10 to 12

Project 4

Renewable and non-renewable energy

Summary

This project explores the difference between renewable and non-renewable forms of energy creation, it identifies the various types of renewables that currently exist and where they may already be used.

Outcomes

- Through personal and group led investigations students gain new knowledge about renewable forms of energy creation and how they will be a part of their future.
- Students will develop their observational, critical thinking and problem-solving skills to explore this topic.

Suggested age range: 10 to 12 years

Subjects Covered: Science, Technology, Environment, Art

Materials: Hand-outs, paper, pens, a candle, Little Suns

Time required: Preparation: 5 minutes
Teaching: 40 minutes

Preparation:

- Read through the program
- Prepare the Renewables & Non-renewables info sheet
- Collect an example of a non-renewable (a candle) and a renewable (Little Sun) energy source

Introduction

Humans have invented various technologies for harnessing the energy that we use for powering many of the things around us. Some of those sources of power are renewable and others are not, this class teaches children to understand the difference and identify them when seen in our communities.

Feel

Show the students an example of a **non-renewable**, such as a candle being used.

Ask:

What can you use this for?

What happens when you use it?

What happens when it runs out?

Possible answers:

"I lit the candles for my sister's birthday cake and when the candles were finished I couldn't use them again."

Ask:

What do you know about other 'non-renewable' sources of energy? For example: Oil and gas. Power stations. Coal

Show the students a **renewable** way of using energy such as a Little Sun.

Ask:

What can I use this for? What happens when it runs out?

Possible answers:

'I could use the lamp for reading my book at night. When it runs out of power, we can recharge it in the sun.'

Ask:

What do you know about other renewable sources of energy?

For example: Solar energy.

Wind energy. Hydro-electric energy. And biomass.

Ask:

What is the difference between a non-renewable and a renewable form of energy?

What are some good things and bad things about each?

Possible answers:

'A non-renewable runs out and a renewable doesn't. One good thing about a non-renewable like a candle is that it's available everywhere. Some bad things are that I have to keep buying new ones and it creates smoke. However, a renewable like a solar lamp can be recharged again and again. But it has a lot of working parts that could maybe break down one day.'

Act

Using the renewables and non-renewables activity poster, identify renewables and non-renewables in the world around you.

You may extend this class or provide homework with the following activity:

Print the story sheet and ask each student to draw a picture on one side of the paper and a short story on the other. They should respond to the question 'What will the future of solar look like and what things will solar provide power for?'

The purpose of this activity is to enhance your students' understanding of the global importance of clean energy access in a playful and creative way.

Know

Humans have created different technologies which can use naturally occurring forces from the sun, the wind, water and the earth to create renewable energy.

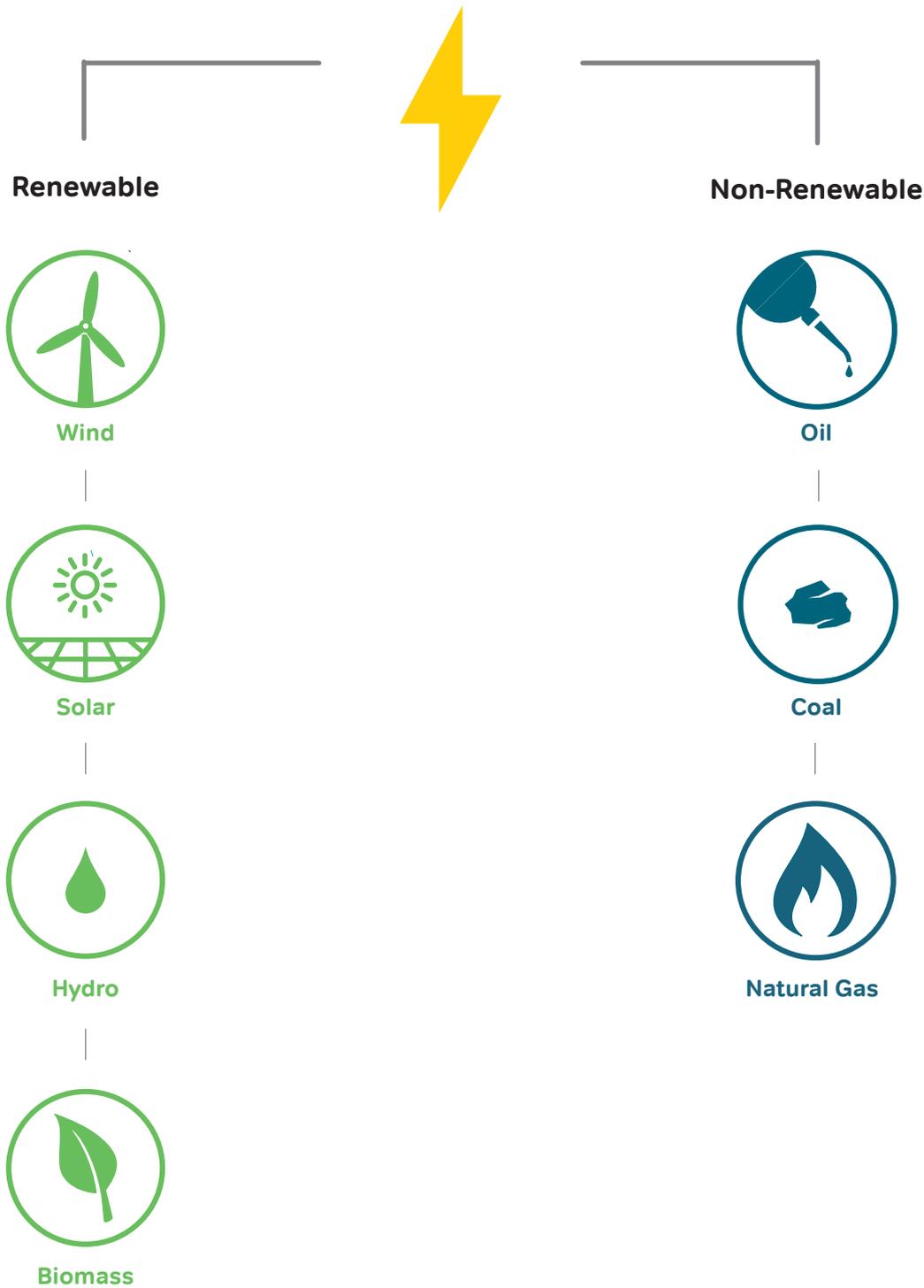
Extension Activity

Students can go around their houses or their school and identify renewable and non-renewable forms of energy creation.

Ask:

What can you, your teachers and parents do to use more renewable sources of power creation at home or school?

Renewables & Non-Renewables





Story sheet

Draw a picture of your solar powered future...

Tell a story about this future...

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