



Doddiscombsleigh
Primary School

Oak Class
Knowledge Mats

Sticky Knowledge

**As Geographers we are learning about...
Will we ever run out of energy?**

Key questions

- How is energy produced?
- What are the advantages of using renewable energy sources?
- What are the costs of using non-renewable energy sources?
- How can we help?



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Key Vocabulary

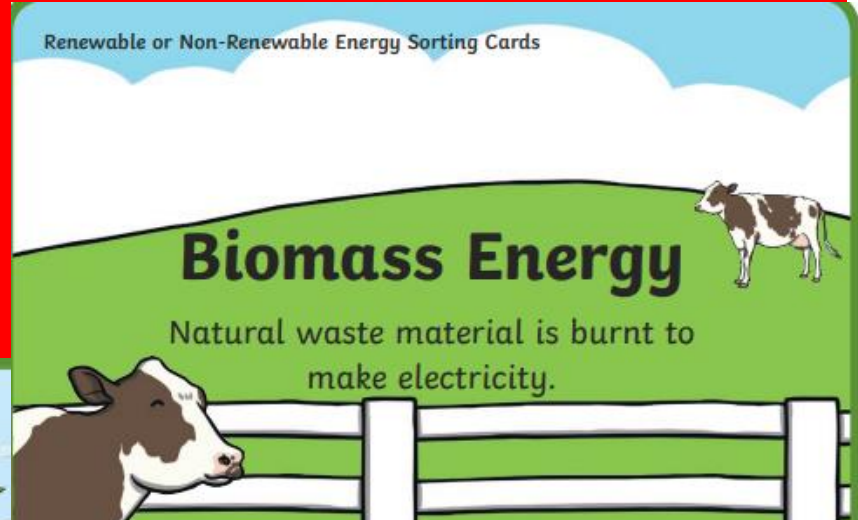
Renewable Energy

An energy source that replenishes itself.

Non-renewable Energy

Energy that comes from sources that will run out or will not be replenished for thousands or even millions of years.

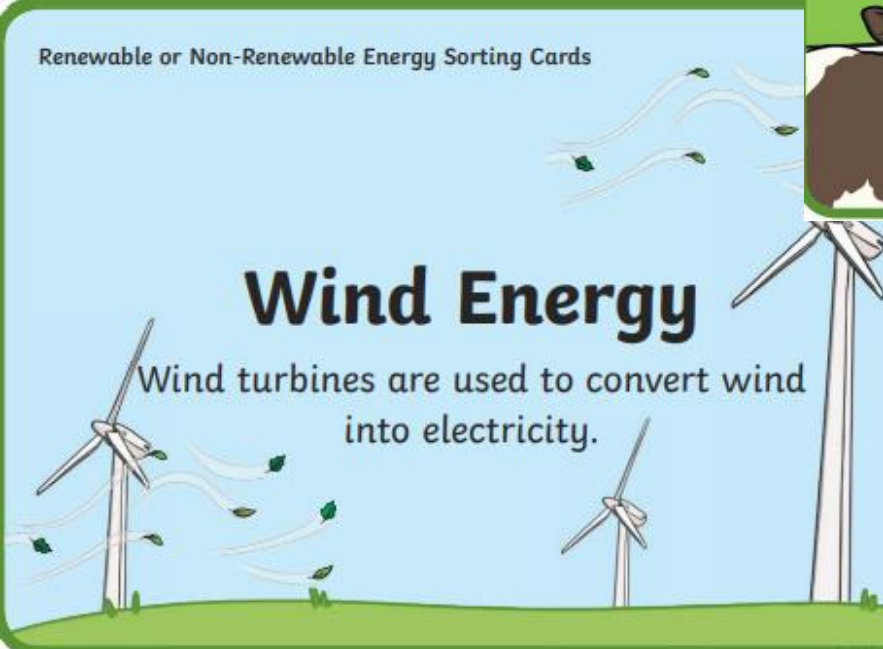
Renewable or Non-Renewable Energy Sorting Cards



Biomass Energy

Natural waste material is burnt to make electricity.

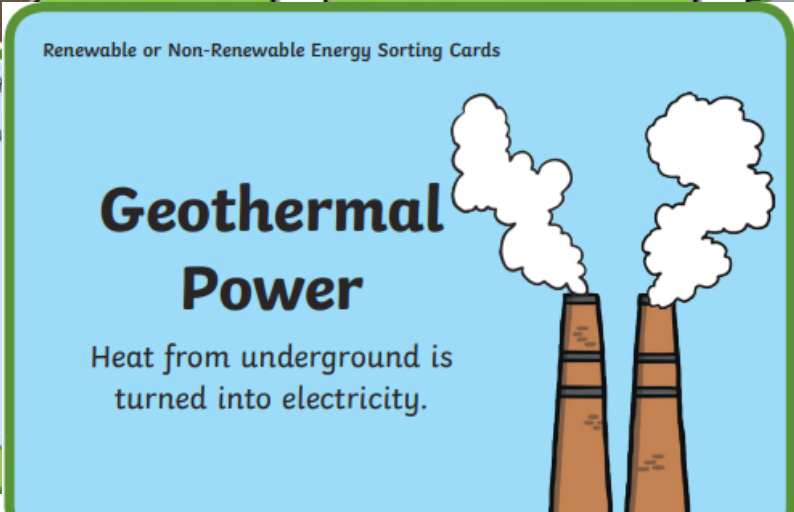
Renewable or Non-Renewable Energy Sorting Cards



Wind Energy

Wind turbines are used to convert wind into electricity.

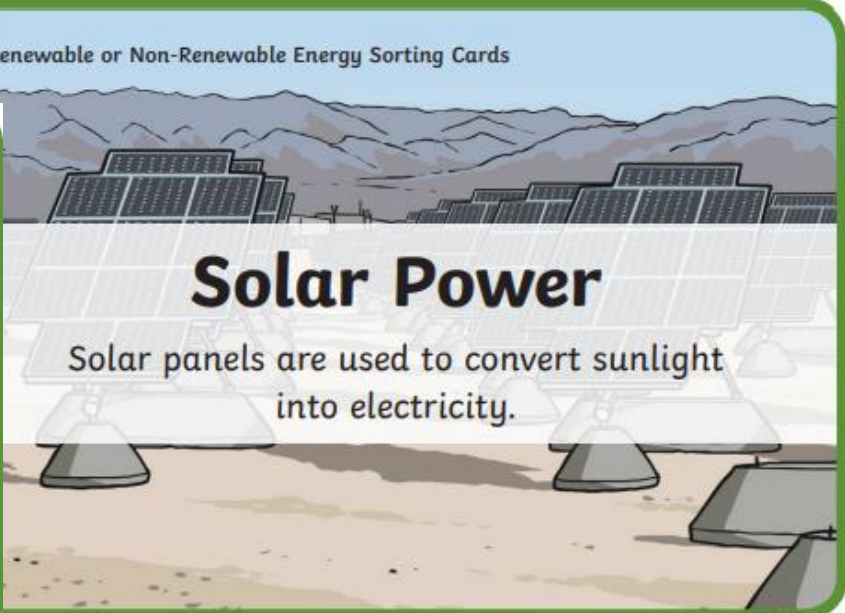
Renewable or Non-Renewable Energy Sorting Cards



Geothermal Power

Heat from underground is turned into electricity.

Renewable or Non-Renewable Energy Sorting Cards



Solar Power

Solar panels are used to convert sunlight into electricity.



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As Scientists we are learning about...
Can you throw your shadow? (Y3/Y4)
How Can you light up your life?
(Y5/Y6)



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Key questions

How does light travel to the eye?

How do we see objects?

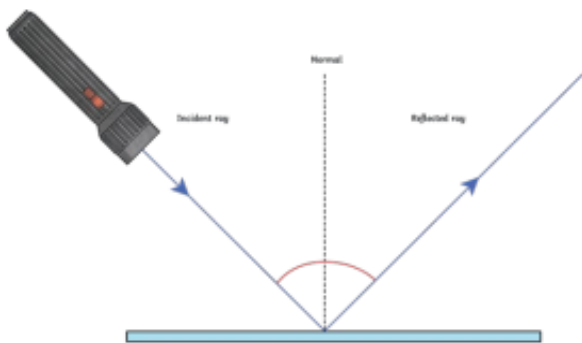
How do you make a shadow longer/shorter?

What happens when you shine a light at a

Translucent, opaque or transparent object?

The law of reflection says that the angle that a ray of light hits a surface (the angle of incidence) is equal to the angle that the ray of light bounces off a surface (the angle of reflection).

Draw a line showing the angle at which the ray of light bounces off the mirror, using the law of reflection.



How does light travel?

Light travels as a wave, in a straight line. Unlike waves of water or sound waves, it does not need a medium to travel through. This means light can travel through a vacuum - a completely airless space.

Explain why the spoon appears to be bent.

Light bends when it moves from air to water, which is called refraction. This is why the spoon looks as though it is bent.



Key Vocabulary

Light source

An object that makes its own light.

Reflection

When light bounces off a surface, changing the direction of a ray of light.

Incident ray

A ray of light that hits a surface.

Reflected ray

A ray of light that has bounced back after hitting a surface

Shadow

An area of darkness where light has been blocked.

Refraction.

When light bends when it passes from one medium to another.