



# All About Windmills

# Windmills

Have you ever seen a windmill?  
Perhaps you have been inside one.

Have you wondered  
what they are used for?

Windmills can be found all over  
the country (and in other places  
around the world) but did you  
know that there are different  
types of windmill?





# What Are Windmills Used For?



Windmills are used to harness the wind's energy.

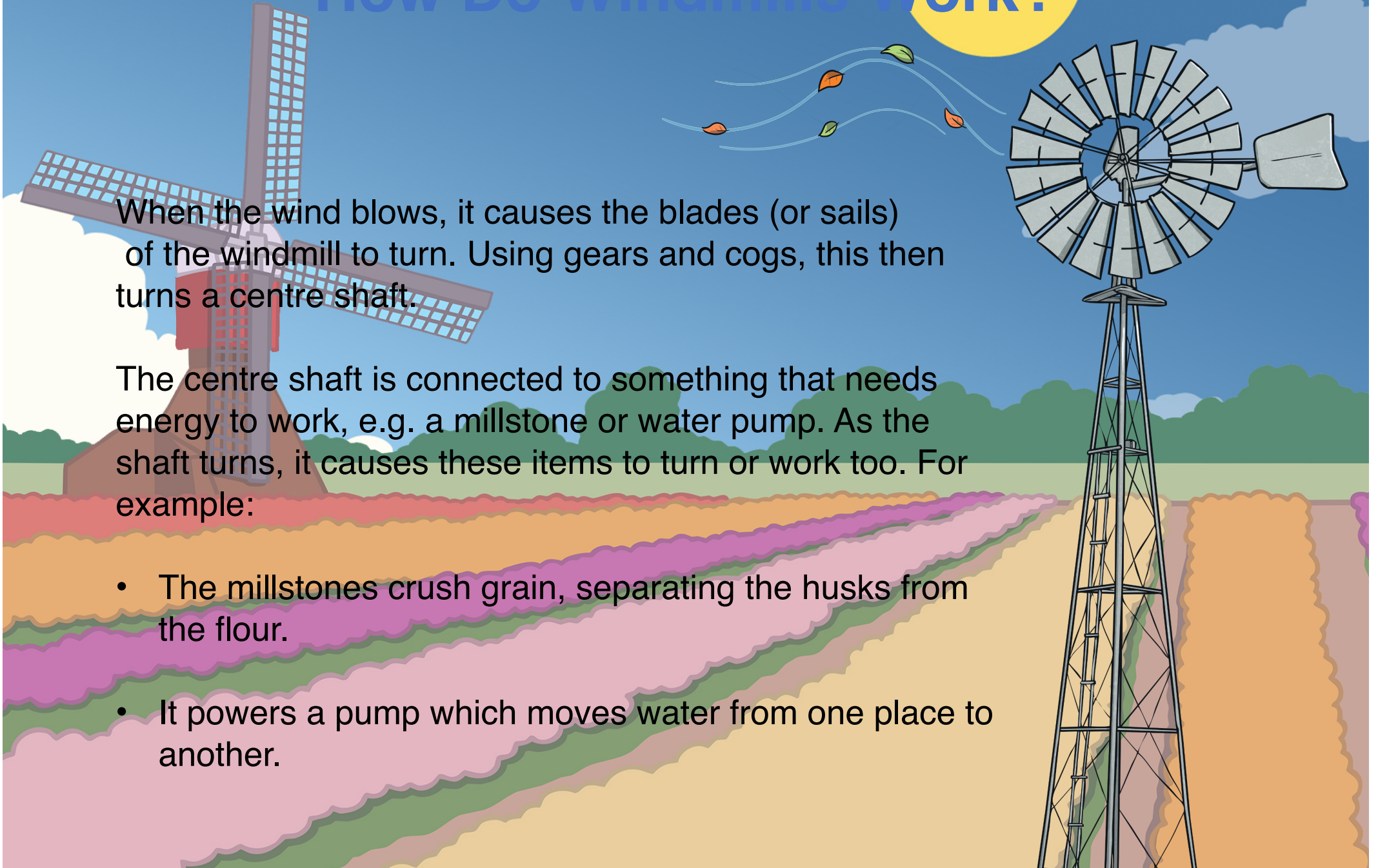
The energy can then be used to power machinery used to do different jobs, for example: to grind grain, make electricity or move water.

# How Do Windmills Work?

When the wind blows, it causes the blades (or sails) of the windmill to turn. Using gears and cogs, this then turns a centre shaft.

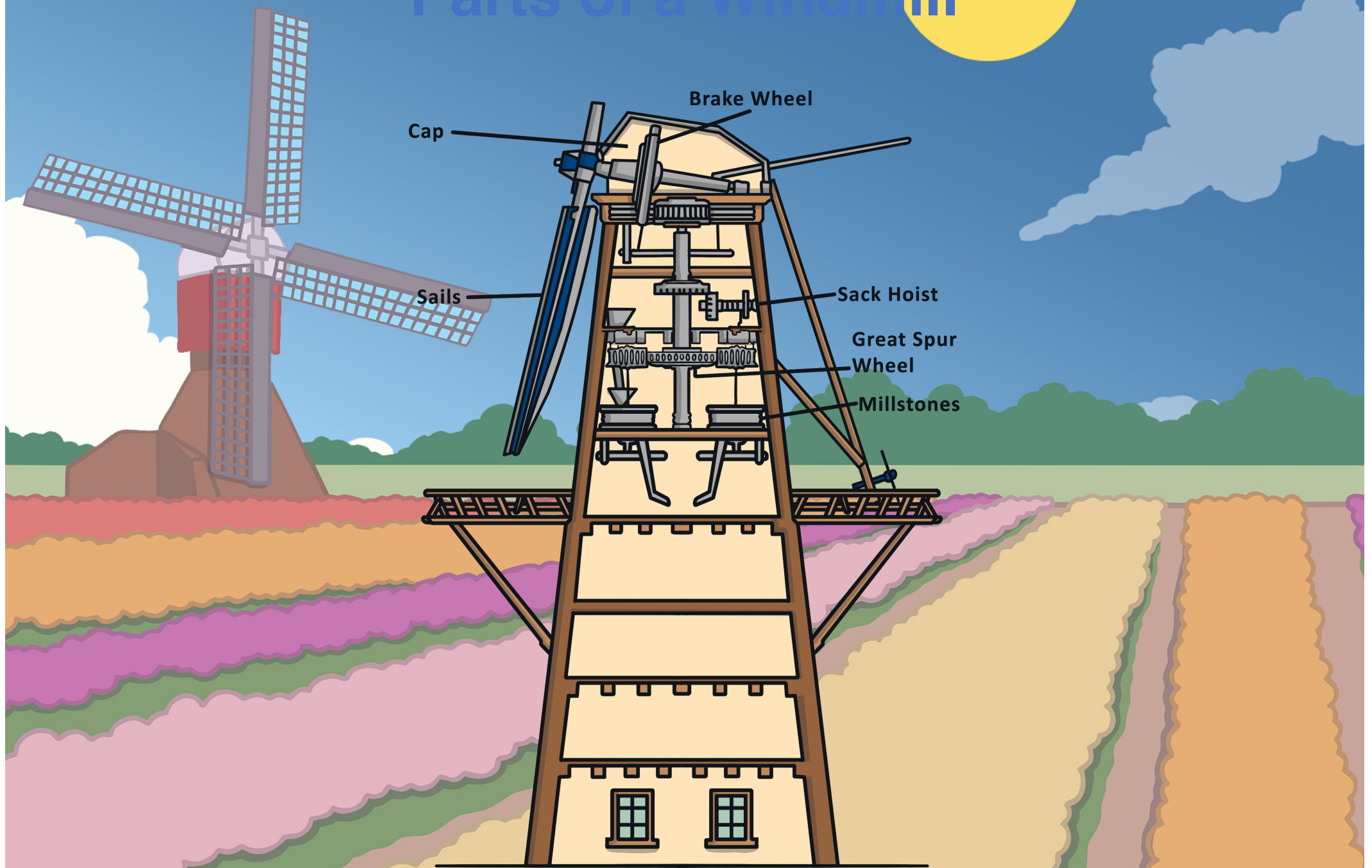
The centre shaft is connected to something that needs energy to work, e.g. a millstone or water pump. As the shaft turns, it causes these items to turn or work too. For example:

- The millstones crush grain, separating the husks from the flour.
- It powers a pump which moves water from one place to another.





# Parts of a Windmill



# The History of Windmills

Windmills were invented as a way of using nature as power rather than having to use human energy.

The first windmills had rectangular shaped blades.

Windmills were used in England (and other parts of Europe) from the 12<sup>th</sup> Century.

The first windmills were made from wood, but have since been made from bricks, stones and even steel.

Traditional windmill use has fallen since people began to use steam power and later, electrical power.





# Different Types of Windmills

The main types of windmill are:



**Post Mill**



**Tower  
Mill**



**Smock  
Mill**



# Windmills Today

Most windmills today are used to produce electricity without causing pollution. Wind turbines are a type of modern windmill. They are used to create mechanical power that can be changed into electricity which is used to power homes and technology.

Because wind occurs naturally, it will never 'run out' so will be used well into the future.





# Fun Facts

Fan Mills are much smaller than the other types of windmill and are mainly used to pump water.

Some wind turbines have arms that are longer than a football pitch.



Some non-working windmills have been converted into homes. Would you like to live in a windmill?

There are lots of stories with windmills in them and songs about windmills: A Windmill in Old Amsterdam, The Little Red Hen, etc. Can you think of any more?

# Windmill Craft

Why not try one of these windmill craft ideas?





