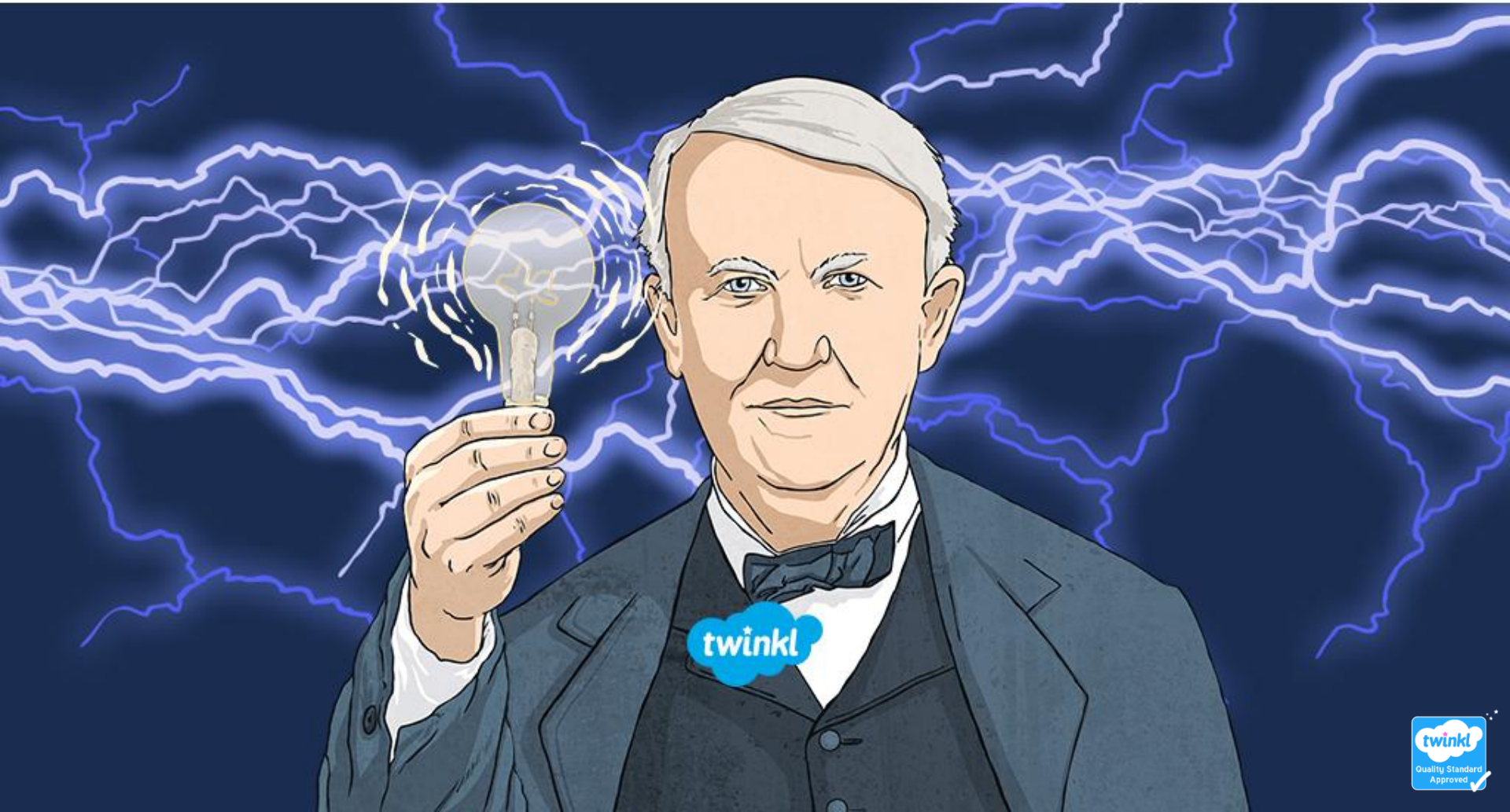
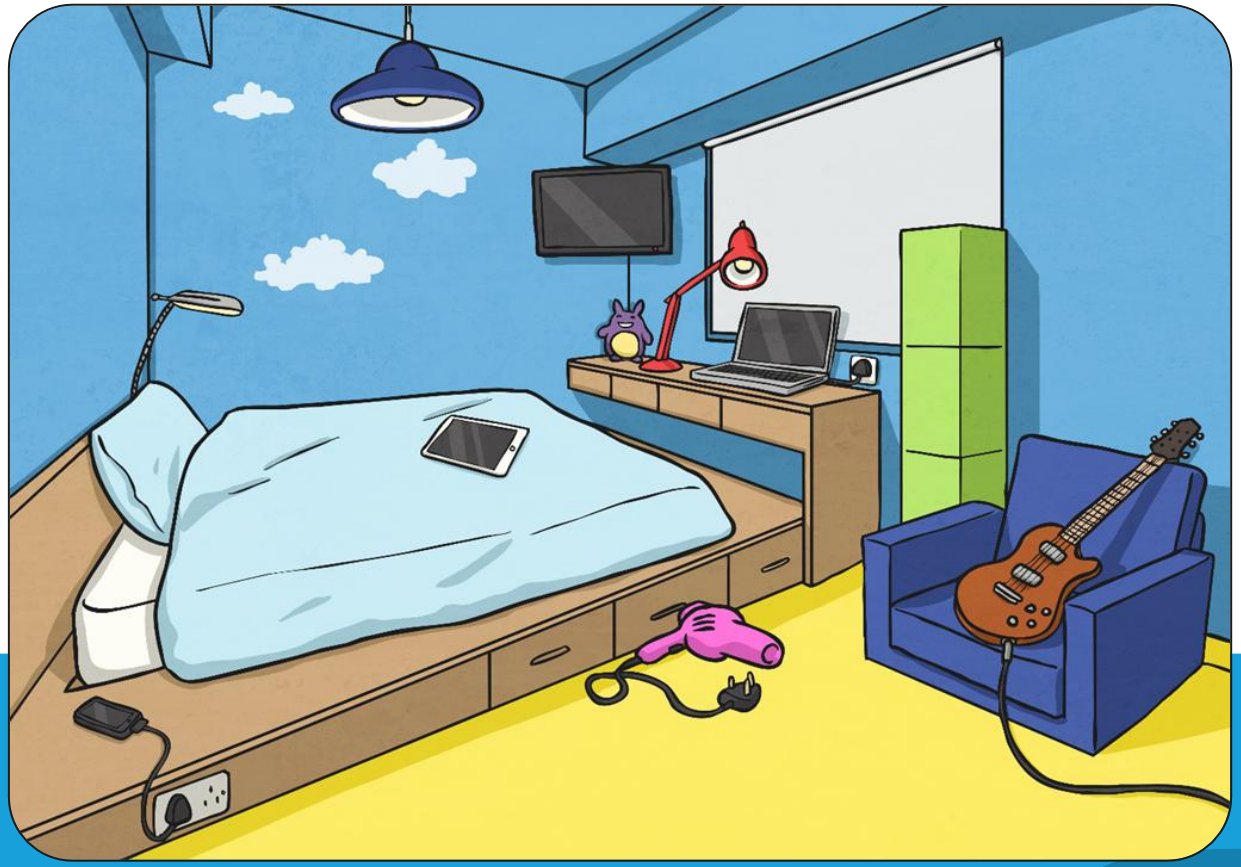
Thomas Edison



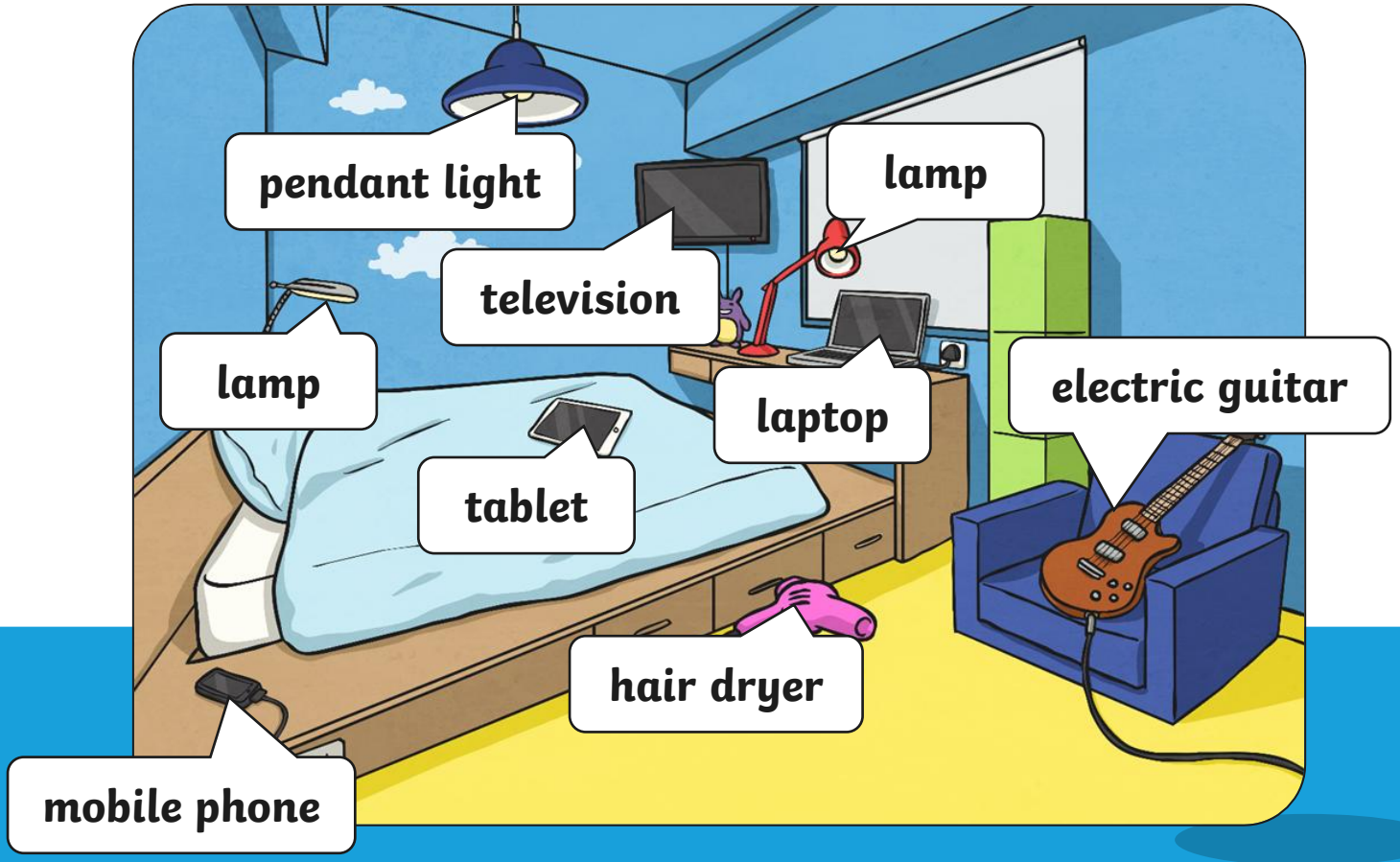
Electrical Appliances

Can you identify all the electrical appliances in this room?



Electrical Appliances

How many electrical appliances did you spot?



What If?

What if there was no electricity?

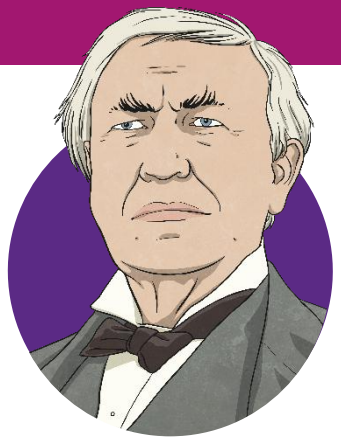
Discuss this question.

What If?

Though many scientists contributed to the discovery of electricity and the invention of electrical items, one scientist in particular made it possible for people like us to enjoy the benefits of electricity in our homes. That scientist was **Thomas Edison**.

Thomas Edison

Thomas Edison was born in 1847 and died in 1931.



He was an American inventor and businessman.

Thomas didn't settle into school well because he was very easily distracted. He was too much of a daydreamer and was often in trouble with his teacher. After three months, his mother decided to home-school him instead (brave woman)!

At the age of twelve, Thomas began to work on a train, selling newspapers and snacks. He loved doing experiments and even conducted some while at work!

Thomas Edison

Edison made his first invention when he was 22.

Later in his life, he was known as **'The Wizard'** because his inventions were so amazing.

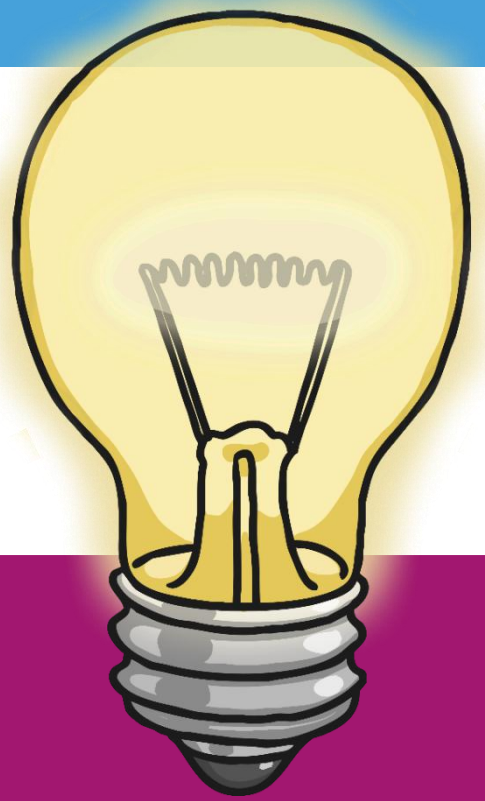
Many of his inventions were not new, but he developed and improved other people's inventions.

For example, he invented a carbon microphone for Alexander Graham Bell's telephone, which meant that conversations over the telephone could be heard much better.

Lightbulbs and Lewis Latimer

Edison's most famous invention was the light bulb. However, he did not actually invent it!

The lightbulb had already been invented, but Edison made improvements on its design and came up with a design for a practical incandescent lightbulb. Edison's design had a paper filament initially which burnt out too quickly.

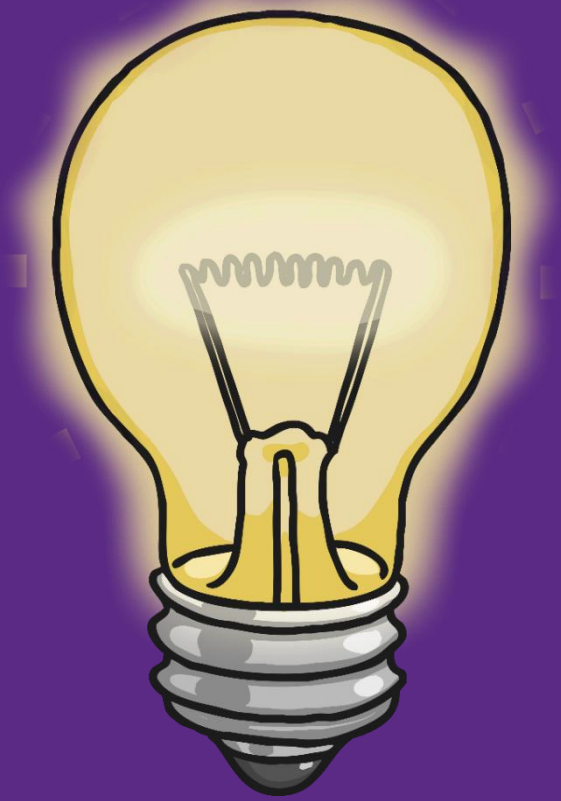


Edison and his team worked to find a better filament so that the lightbulb would stay lit for longer and be useful to people. They came up with various options which did last longer than the paper filament.

Lightbulbs and Lewis Latimer

However, the ground breaking discovery of using a carbon filament in lightbulbs was made by Lewis Howard Latimer.

Latimer's design meant that a lightbulb would stay alight for a much longer time. Latimer's lightbulb design was cheaper to produce than previous versions. As a result, Latimer not only made it possible for people to use lightbulbs that stayed alight for longer, but the price meant that more people could afford to light their homes in this way.

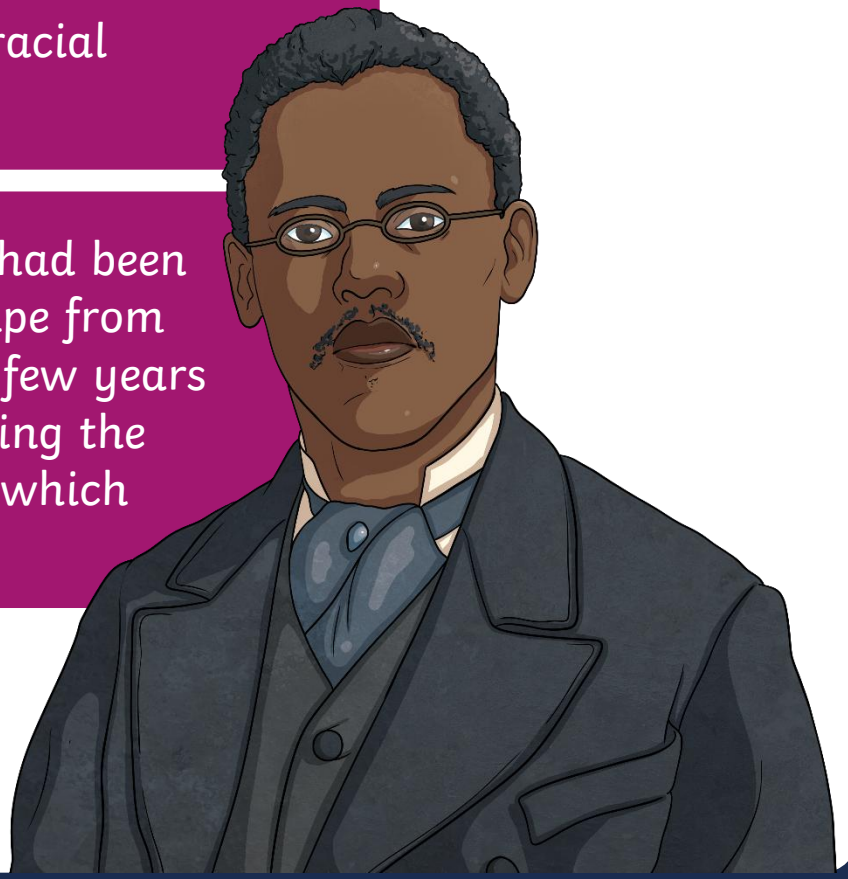


Lightbulbs and Lewis Latimer

Lewis Latimer's achievements were incredible, especially as he was mostly self-taught and lived in a time when there was even more racial discrimination than there is today.

Before Latimer was born, his parents had been enslaved people who managed to escape from their owners. Latimer received only a few years of schooling as a child and, after leaving the Navy, he secured a job at a company which provided patents for inventions.

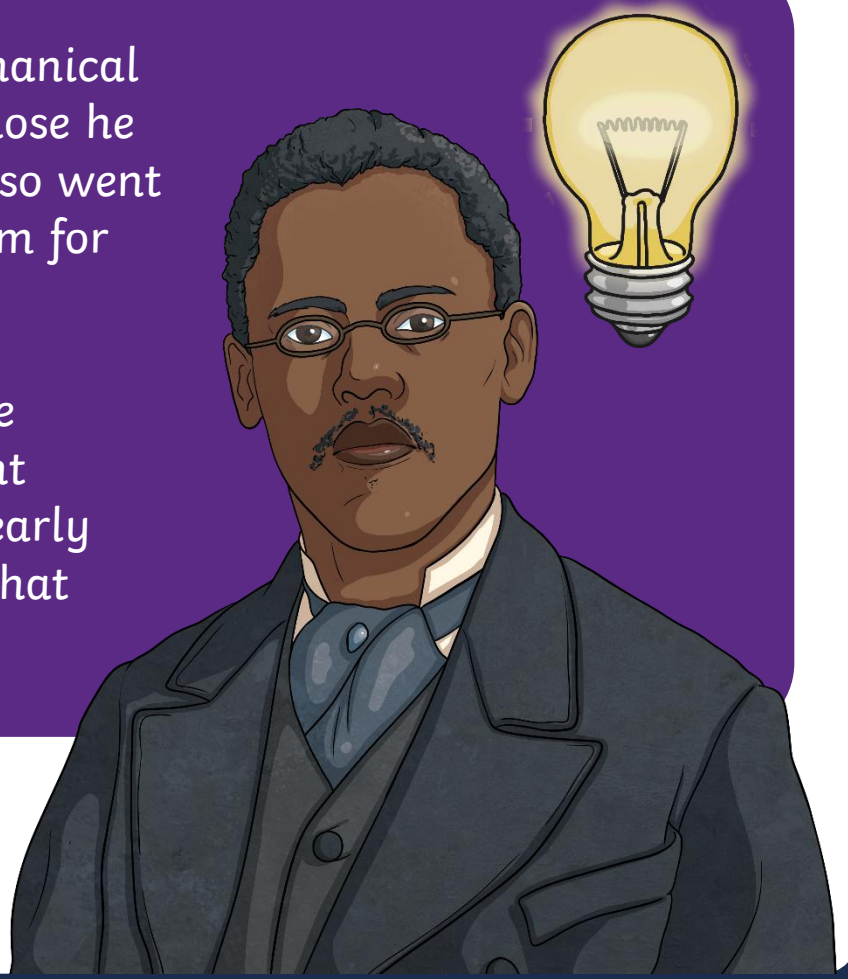
(Patents are licences which give the owner the right to be the only one allowed to make and sell an invention.)



Lightbulbs and Lewis Latimer

Lewis Latimer taught himself mechanical drawing and, as well as helping those he worked for to secure patents, he also went on to invent things and patent them for himself.

Latimer's biggest discovery was the carbon filament in the incandescent lightbulb but he also invented an early air conditioning unit and a toilet that could be used on a train.



Edison and Electricity

Edison made what many consider to be his greatest achievement in the early 1880s. He introduced the world's first truly useful electric distribution system, which could distribute electric light, heat and power.

This invention made it possible for electricity to be used in people's homes for the first time and changed the world forever.

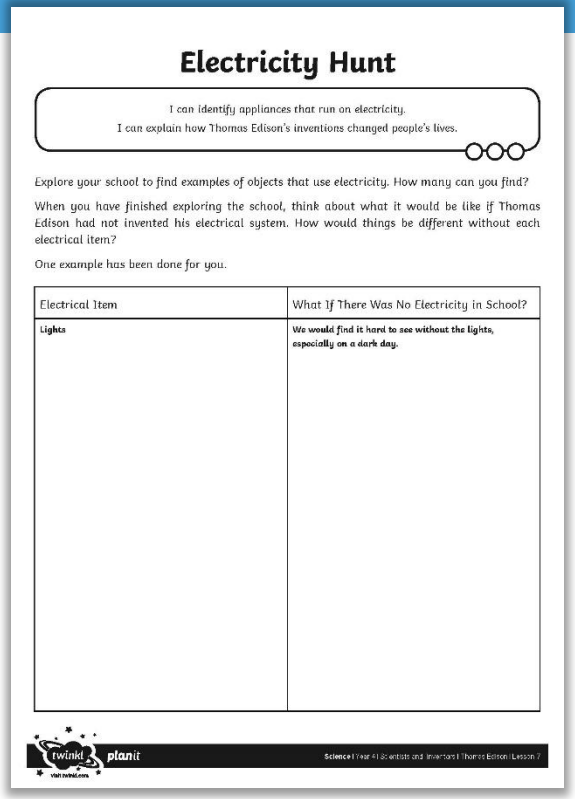
Electricity Hunt

Thomas Edison's inventions made it possible for people to use electricity in their daily lives.

I would like you to go on an electricity hunt around your home. Use the first column on your **Electricity Hunt Activity Sheet** to note down the different uses of electricity you observe as you explore your home.

Without Thomas Edison's inventions, your home would be very different!

Explain how on the second column of your activity sheet.



Electricity Hunt

I can identify appliances that run on electricity.
I can explain how Thomas Edison's inventions changed people's lives.

Explore your school to find examples of objects that use electricity. How many can you find?

When you have finished exploring the school, think about what it would be like if Thomas Edison had not invented his electrical system. How would things be different without each electrical item?

One example has been done for you.

Electrical Item	What If There Was No Electricity in School?
Lights	We would find it hard to see without the lights, especially on a dark day.

Research task

As an extra task I would like you to research the link between Cragside Victorian house and electricity.

This is a fantastic National Trust location in Northumberland that some of you may have been lucky enough to visit.

Mixed-Up Inventions

The names of some of Thomas Edison's inventions or improvements have been mixed up!

Can you rearrange the letters in each word to make the correct names?

norcab hopcormine

ciletricety istonidritub mytess

thilg lubb

Mixed-Up Inventions

Did you unscramble each invention?

Can you describe what each invention did?

carbon microphone

electricity distribution system

lightbulb