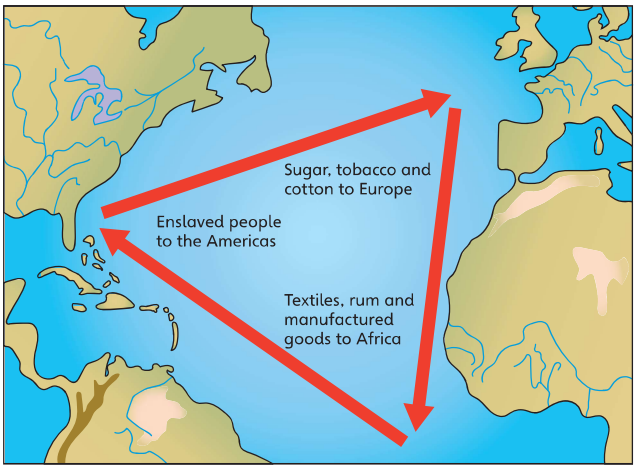
Knowledge organiser



Vocabulary	
Americas	North, South and Central America
Cowrie shells	Rare kind of seashell, which Europeans used as money to trade with African rulers
Empires	Groups of countries or areas that are ruled by another country
Enslaved people	People who are the legal property of someone else, and are forced to obey them
Guild	Group of people who all do the same job, usually a craft, in which beginners learn the skills to become masters
Looted	Took property by force
Moat	Long trench dug around an area and filled with water to keep invaders out
Oba	King or chief
Officials	People with authority and public duties
Plantations	Large area of land where crops are grown

Key misconception
The Benin Kingdom is not the same as the modern-day country called Benin.

Timeline of events	
900 CE	Lots of villages join together and make a kingdom known as Igodomigodo, ruled by the Ogiso.
Approximately 900–1460 CE	A 15 km moat and 16,000 km of walls are constructed around the kingdom.
1180 CE	The Oba royal family takes over from the Ogisos and begins to rule the kingdom; they are treated like gods.
1440 CE	Led by Oba Ewuare the Great, Benin wins more land.
1485 CE	The Portuguese visit the Benin Kingdom.
1514 CE	Oba Esigie sets up trading links with the Portuguese and other European visitors.
1700 CE	A series of civil wars in Benin leads to the kingdom declining in power.
1807 CE	Britain passes a law to end the slave trade, which further weakens the kingdom.
1897 CE	Benin City (in modern-day Nigeria) is destroyed by British troops, and comes under Britain's control.

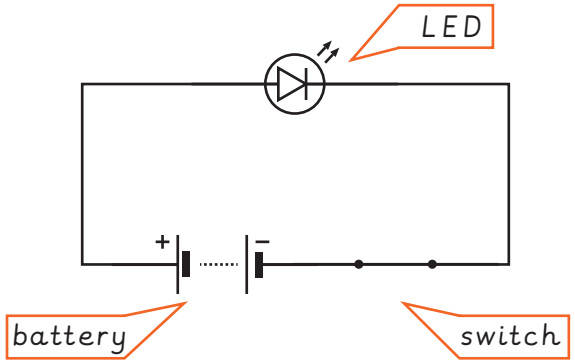
Electrical Systems - Greeting cards

Battery	A cell or connected group of cells which store electrical energy.
Buzzer	A component which makes a loud noise as electricity passes through it.
Circuit	A collection of components which make an electrical system.
Component	One of several parts of which something is made.
Conductor	A material that allows electricity or heat to pass along it or through it.
Copper	A metal material that is one of the best conductors of heat and electricity. It is often used to make wires and pipes.
Design	To make, draw or write plans for something.
Design criteria	To help designers focus their ideas and test the success of them.
Function	How an object or product operates or works.
Graphite	A conductive, black carbon material that is used to make pencil leads.
Innovative	Introducing or using new ideas or ways of doing something.
Insulator	A material that doesn't allow electricity or heat to pass along or through it.
LED	A light emitting diode which lights up as electricity passes through.
Modify	Changing something to improve or fix it.
Parallel circuit	An open circuit where the current follows two or more paths.
Series circuit	A closed circuit where the current only follows one path.
Switch	A component which opens and closes to turn the circuit on or off.
Target audience	A particular group of people who the product is aimed at.
Test	To find out whether something works as it should.
Wire	A conducting material which transfers electricity within a circuit.

Key facts

Electricity needs a complete **circuit** to flow around.
Switches work by closing the gap in a circuit.
Bulbs, cells, buzzers, motors and **switches** are all types of **components.**

Series Circuit Diagram



More circuit symbols

wire	
switch open	
switch closed	

Did you know?

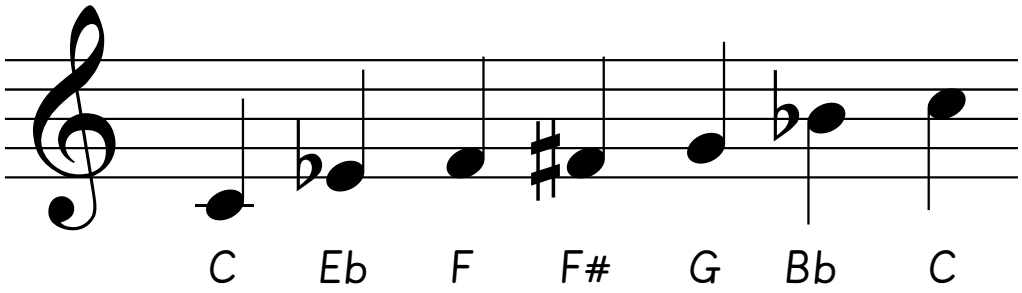
Electricity travels at the speed of light.
That's more than 186,000 miles a second!

Music - Blues

Blues music is often sad and emotional, which is why we say we have 'the blues' when we feel sad. Its main features are the 12-bar blues and the blues scale, and it includes a lot of improvisation.

The Blues scale

The Blues scale to accompany our 12-bar Blues is made up of these notes:

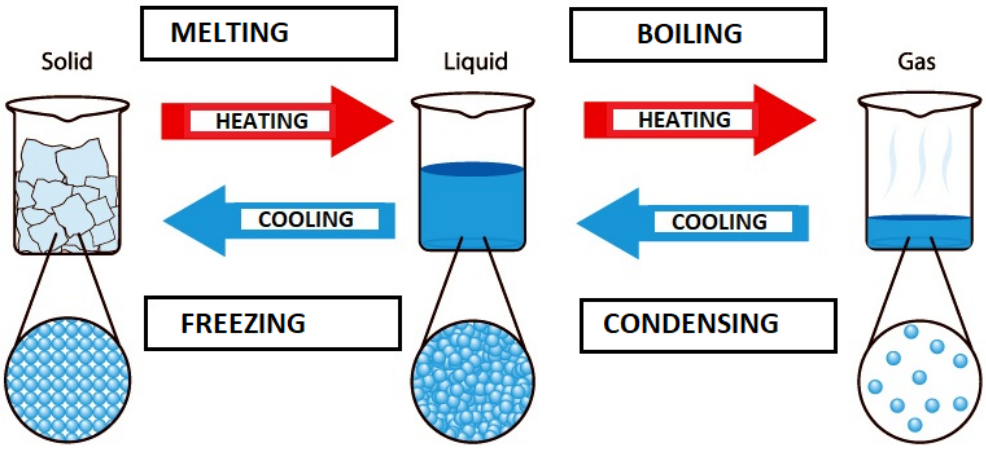


Vocabulary

12-bar blues	A series of chords played in a specific order.

1 C C C C	2 C C C C	3 C C C C	4 C C C C
5 F F F F	6 F F F F	7 C C C C	8 C C C C
9 G G G G	10 F F F F	11 C C C C	12 C C C C

chord	Two or more notes that are played at the same time and work in harmony.
scale	Any set of musical notes which are in order of their pitch.
ascending scale	A scale in which the pitch of the notes goes up.
descending scale	A scale in which the pitch of the notes goes down.
blues scale	A set of notes used to play a melody over a 12-bar blues.
improvisation	Making up music as it is played or performed.
bent notes	A musical note that varies in pitch usually going up slightly at the end.
bar	A section of music with a specific number of beats (in blues there are usually 4 beats in a bar).
quaver	A note which last for half a beat.



In solids: particles are very close together in a regular pattern. Particles cannot move but can vibrate.

In liquids: particles are close together and in an irregular arrangement. The particles can slide past each other.

In gases: particles are far apart from each other and in an irregular arrangement. They are moving constantly in all directions.

Physical Changes

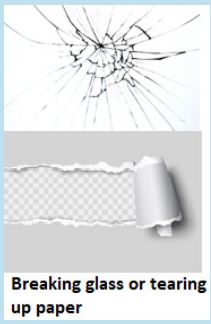
Physical changes take place when a substance changes form or arrangement. They are often reversible.

Examples:

1. Changing state
2. When two substances are mixed When a substance or material is broken apart.


Ice melting


Mixing substances with water


Breaking glass or tearing up paper

Chemical Changes

Chemical change is when a change takes place and a new substance is formed. They are often not reversible.

Examples:

1. When something is burned
2. When food is cooked
3. When metal rusts


Match is burned


A burger is cooked


Iron rusts

Chemical and physical changes

similarities	differences
• Both cause a change in appearance • Amount of matter does not change for both	• Chemical creates to a new material, physical does not • Chemical is hard to reverse, physical is easy to reverse

Type of variable	How to identify it
Independent variable	The thing that you change
Dependent variable	The thing you observe to see how it is affected
Control variables	The things you have to keep the same to make sure it is a fair test

When a scientist makes a conclusion, they must make sure:

1. Their results support their conclusion (evidence)
2. They have checked for any mistakes in their results
3. Their results are repeatable and reproducible

Repeatable		To repeat method and get the same results
Reproducible		Another person completes the same method and gets the same results