

# Thomas Estley Community College

## Year 8 Spring Term

### Knowledge Organiser



## What are Knowledge Organisers?

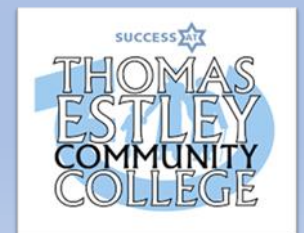
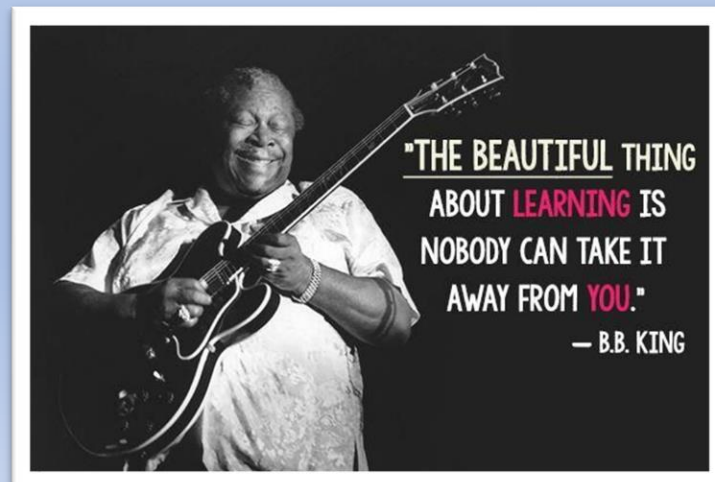
A knowledge organiser is an easy way that each subject can summarise the most important information. Each subject section will include key terms, short explanations, glossary words, diagrams etc making it clear to the student as to what is essential to learn. Each grid has an overall theme and these vary according to the subject being taught.

It will be the students responsibility to keep the knowledge organisers safe and refer to them over the whole academic year.

## How will these be used at Thomas Estley?

At Key stage 3, you will be given a knowledge organiser each term. You need to keep these safe in your learning packs that you were provided with at the start of the academic year.

Your subject teachers will use these in a variety of ways, for both class work, remote learning opportunities and homework. They will be used to help with revision for class quizzes and retrieval practice activities. They will also be used for flip learning activities, where subject teachers will ask you to learn some information and then go in to it in more detail in class.



# Revision Tips and Tricks!

## Record It

Record yourself on your phone or tablet reading out the information. These can be listened to as many times as you want!



## Teach it!

Teach someone your key facts and then get them to test you, or even test them!



## Flash Cards

Write the key word or date on one side and the explanation on the other. Test your memory by asking someone to quiz you on either side.

## Hide and Seek

Read through your knowledge organiser, put it down and try and write out as much as you can remember. Then keep adding to it until its full!



## Back to front

Write down the answers and then write out what the questions the teacher may ask to get those answers.



## Post its

Using a pack of post-it notes, write out as many of the keywords or dates as you can remember in only 1 minute!



## Practice!

Some find they remember by simply writing the facts over and over again.

## Read Aloud

Simply speak the facts and dates out loud as you're reading the Knowledge Organiser. Even try to act out some of the facts – it really helps you remember!



## Sketch it

Draw pictures to represent each of the facts or dates. It could be a simple drawing or something that reminds you of the answer.

# Computing:

## Data Representation

### Key Words

1 bit (b)	The smallest unit of data—a 0 or 1.
1 nibble (N)	4 bits
1 Byte (B)	8 bits (note the difference between b and B)
1 Kilobyte (KB)	1000 bytes. Note KB is different from Kb
1 megabyte (MB)	1000 KB
1 gigabyte (GB)	1000 MB
1 terabyte (TB)	1000 GB
1 petabyte (PB)	1000 TB
Base 2 number system	A number system where there are only 2 digits to select from, that is 0 or 1; also known as the binary number system.
Data types	In computing there can be different data types, including integers, characters and boolean (yes/no)
Base 10 number system	The number system that humans use. It contains 10 unique digits, that is 0 to 9. Also known as the decimal or denary number systems.
Multiplier (also known as place value)	The value of the place, or position, of a digit in a number

Representing information with sequences of symbols is necessary for storing, exchanging and processing information. Information in computers must be represented in a form convenient for processing.



Humans have invented lots of different ways to code information using different sounds, symbols or even lights!

Computers represent all data, including numbers, letters, symbols, images, videos and sounds using binary numbers. All binary numbers are made up of the digits 0 and 1.

0s and 1s are called **binary digits**, or **bits**. All characters are represented using sequences of bits.

Computers only use the two symbols 0 and 1 because all computers are built out of electrical switched which can only be on (1) or off (0).

Binary digits are like letters; they are the symbols that computers 'write' with.

Multipliers or weights are the amount each digit in a sequence is worth e.g the number 314 contains three 100s, one 10s and four 1s. 100, 10 and 1 are the multipliers or weights. Binary numbers use different multipliers or weights.

Multipliers	128	64	32	16	8	4	2	1
Example binary number	0	0	0	1	0	1	1	1

To convert from binary to decimal (also known as denary) multiply each binary digit with its multiplier, then add up the products to work out the decimal number.

For example in the binary number above:  $1 \times 16 = 16$   $1 \times 4 = 4$   $1 \times 2 = 2$  and  $1 \times 1 = 1$  and  $16 + 4 + 2 + 1 = 23$

To convert from decimal to binary go through the multipliers from left to right. If a multiplier needs to be included in the sum, set the corresponding binary digits to 1 and proceed with the number that remains

Decimal number	Binary number				
	16	8	4	2	1
13	1	1	0	1	

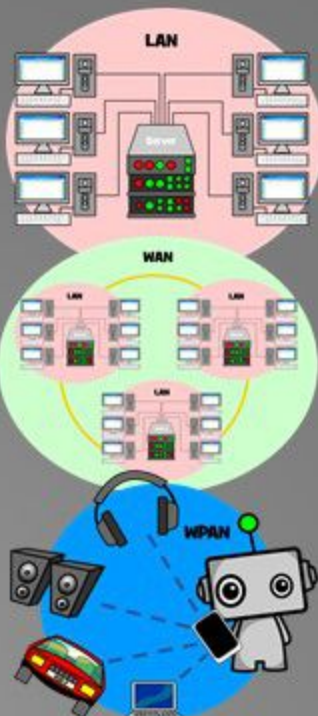
# Year 8 Knowledge Organiser: Networks

## Networks

**LAN – Local Area Network**, connects devices together over a small geographical location e.g. a building. They connect computers using a combination of Ethernet cables and switches and require a Network Interface Card.

**WAN – Wide Area Network** A computer network where devices are connected over a large geographical area (e.g. the internet). They require access to the internet via a router / modem.

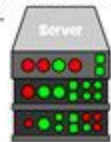
**WPAN – Wireless Personal Area Network** used to connect devices to your personal computer system without the use of wires. Most commonly uses Bluetooth. E.g. connecting a peripheral device to your laptop, connecting a mobile phone to a car, wireless headphones to your phone etc.



## LAN Hardware

### Server

Stores all user data and information within a network in a central location. This allows users to log into any work station access their files.



### Switch

Using Ethernet cables to connect to both the server and individual work stations, a switch directs information between the server and individual workstations.



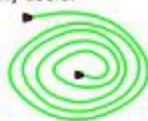
### Router

Allows wireless connection of mobile devices to a network if within suitable range. Allows several devices to be connected at the same time.



### Ethernet Cable

Networking hardware used to connect one network device to another. They can be used to share devices such as printers and scanners amongst many users.



## Network Security

**Firewall:** Controls which programs on your computer can send and receive data packets.

**Antimalware:** Scans your computer system and files for malicious software.

**Encryption:** Scrambles data to make it unreadable.

**Decryption:** Unscrambles it so that it is readable.



## Passwords

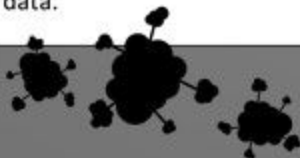
A strong password contains a mixture of numbers, letters, symbols and is at least 8 characters in length, for example:

**Ce91!\*8dj**

**Malware** combines the words '**malicious**' (meaning 'harmful') and '**software**'. It is a program designed to cause damage to a computer or a computer network.

### Viruses

A **virus embeds** itself within computer software. When the software is run it **creates copies of itself** using software as a host. A virus is capable of slowing down your digital device, can stop it running or even steal your data.



### Spyware

**Spyware** is a type of program that **secretly records** what you do on a computer. Spyware can be used to **steal personal information** such as capture passwords, email addresses or banking information. They can even control your webcam.



### Worms

**Worms** attack systems connected to the internet. Like a virus, a worm is capable of **copying itself**, causing similar damage to a virus. However, worms are **standalone software** and don't require existing software to host them.



### Trojan

A **Trojan** is a harmful piece of software, **pretending to be useful**. Commonly spread through **email attachments**, a user is typically tricked into loading it onto their computer. Attacks can vary from deleting files and stealing data to creating access points for hackers.



## Nutrients

- A **balanced diet** involves eating the right amount of nutrients for your body to function
- Not eating enough of a nutrient means you have an unbalanced diet, and this can lead to a **deficiency**

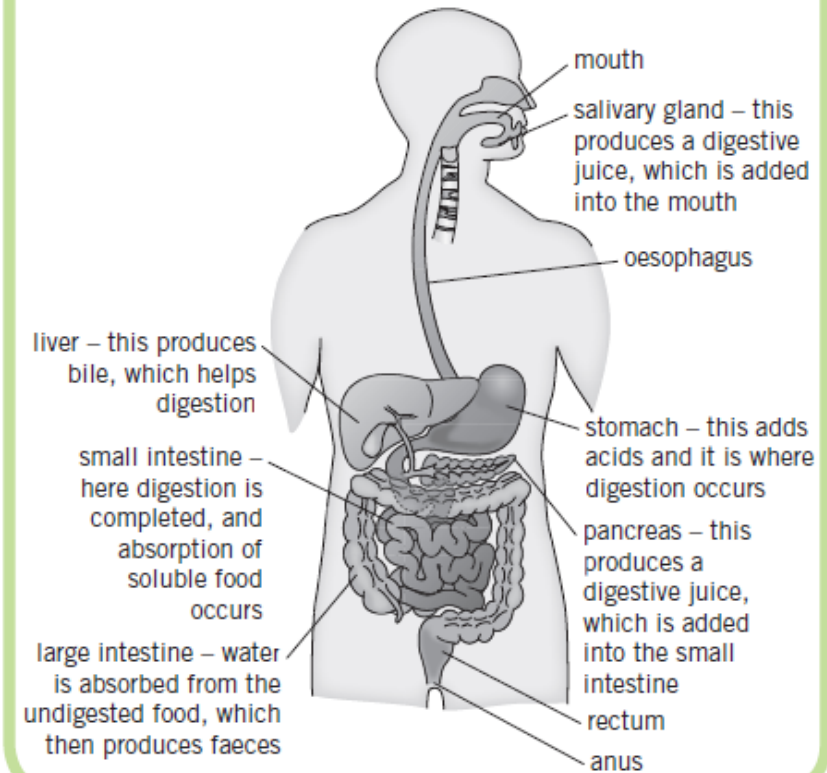
Nutrient	Role in your body
carbohydrates	main source of energy
lipids	fats and oils provide energy
proteins	growth and repair of cells and tissues
vitamins and minerals	essential in small amounts to keep you healthy
water	needed in all cells and body fluids
fibre	provides bulk to food to keep it moving through the gut

## Enzymes

- Enzymes** are biological **catalysts**, they speed up the digestion of **nutrients**
  - Each enzyme is specific to each nutrient
  - The way the enzyme and nutrient bind with each other is called a **lock and key model**
- 
- Carbohydrases** break **carbohydrates** down into simple sugars
  - Proteases** break **proteins** down into amino acids
  - Lipase** breaks **lipids** (fats) down into fatty acids and glycerol



## The digestive system



### Key terms

Make sure you can write definitions for these key terms.

Amylase Balanced diet Benedict reagent  
 Carbohydrase Carbohydrate Catalyst Deficiency  
 Enzyme Fibre Glucose Iodine Lipid Lipase Mineral  
 Nutrient Protease Protein Vitamin

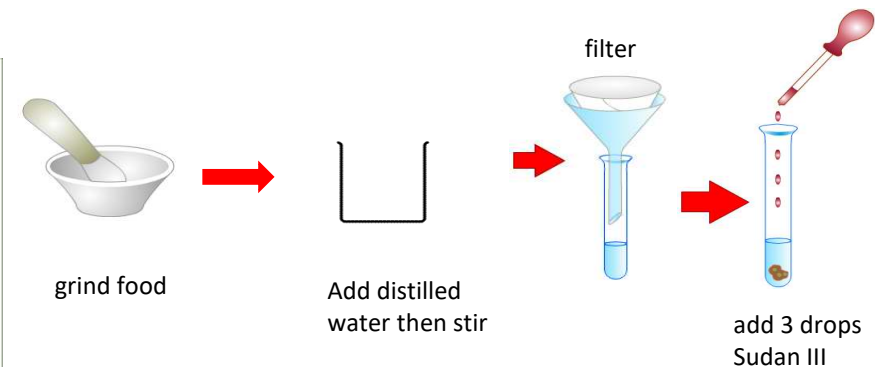
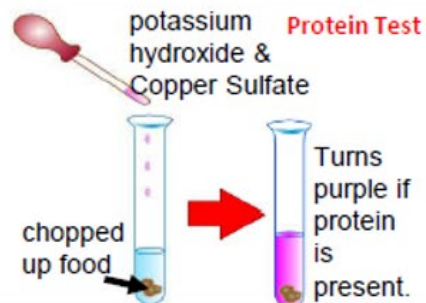
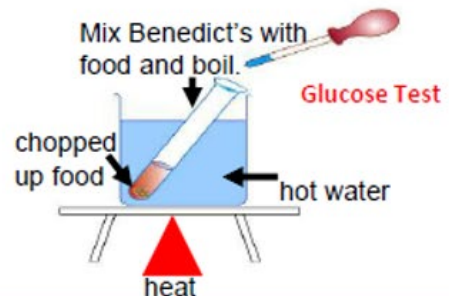
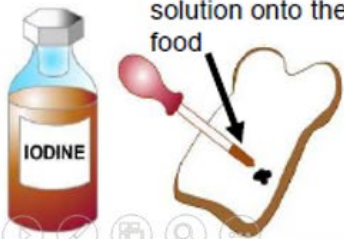
**Activate**  
 Question • Progress • Succeed

**B3** Animal Nutrition  
 Knowledge organiser

## Food tests

### Starch Test

Drop iodine solution onto the food

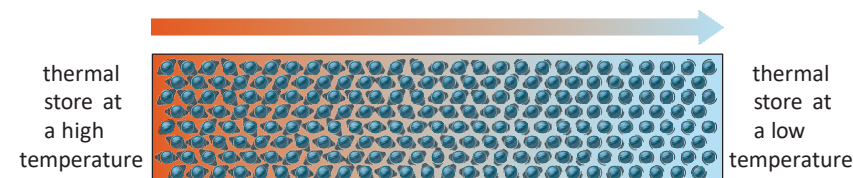


# C4 Heating and cooling

## Knowledge organiser

### Conduction

- **Conduction** is the transfer of thermal energy by the vibration of particles, it cannot happen without particles
- This means that every time particles collide they transfer thermal energy
- Conduction happens effectively in solids as their particles are close together and can collide often as they vibrate around a fixed point
- Metals are also good **thermal conductors** as they contain electrons which are free to move
- In conduction the thermal energy will be transferred from an area which has a high **thermal energy store** (high temperature) to an area where there is a low thermal energy store (low temperature)
- Gases and liquids are poor conductors as their particles are spread out and so do not collide often, we call these **insulators**

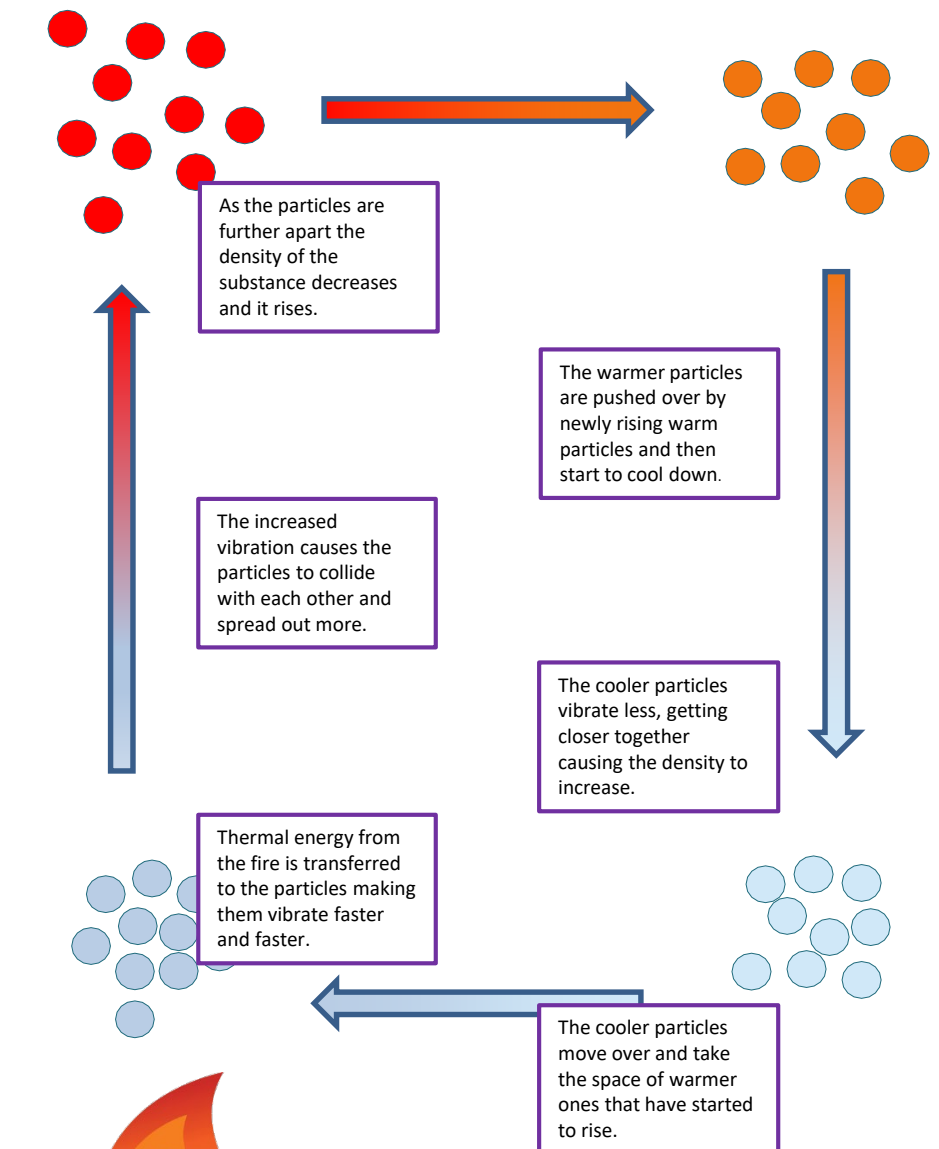


### Convection

- **Convection** is the transfer of thermal energy in a liquid or a gas, it cannot happen without particles
- As the particles near the heat source are heated they spread out and become less dense, this means that they will rise
- More dense particles will take their place at the bottom nearest the heat source creating a constant flow of particles
- This is known as a **convection current**
- Convection cannot happen in a solid as the particles cannot flow, they can only move around a fixed point



### Convection currents



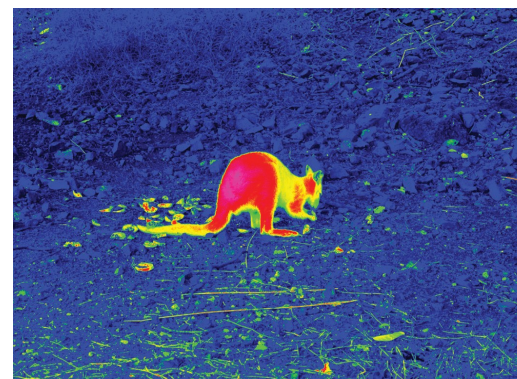
- Convection currents can be seen in any fluid as it gets heated. Most commonly you will see them in the air around us. As the sun heats the air convection currents cause air to rise. The air that moves in to take its place is what we call wind.

### Energy and temperature

- The **temperature** of a substance is a measure of how hot or cold it is
- Temperature is measured with a **thermometer**, it has the units of degrees Celsius (°C)
- The **thermal energy** of a substance depends on the individual energy of all of the particles, it is measured in Joules (J)
- As all particles are taken into account, a bath of water at 30 °C would have more thermal energy than a cup of tea at 90 °C as there are many more particles
- The faster the particles are moving, the more thermal energy they will have
- When particles are heated they begin to move more quickly
- The energy needed to increase the temperature of a substance depends on:
  - the mass of the substance
  - what the substance is made of
  - how much you want to increase the temperature by

### Radiation

- **Radiation** is a method of transferring energy without the need for particles
- An example of radiation is thermal energy being transferred from the Sun to us through space (where there are no particles)
- This type of radiation is known as **infrared radiation**, it is a type of wave just like light
- The hotter an object is the more infrared radiation it will emit (give out)
- The amount of radiation emitted and absorbed depends on the surface of the object:
  - Darker matte surfaces absorb and emit more infrared radiation
  - Shiny and smooth surfaces absorb and emit less infrared radiation, instead reflecting this
- The amount of infrared radiation being emitted can be viewed on a **thermal imaging camera**



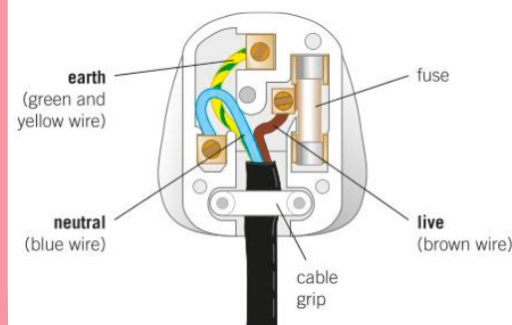
### Keyterms

Make sure you can write definitions for these key terms.

conduction    convection    convection current    density    insulator    infrared radiation    temperature  
 thermometer    thermal conductor    thermal energy store    thermal imaging camera    density

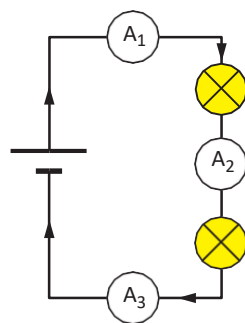
### Wiring a Plug

- Most appliances are attached to the electricity supply using a three pin plug.
- These are usually made from a hard wearing plastic as plastic is an **insulator**.
- There are three wires in the plug; the Earth, the live and the **neutral** wire.
- Plugs contain a fuse which breaks the circuit if the current flowing gets too high.
- We use brass for the pins as it is a good conductor and hard wearing.
- Copper is used for the wires as it is an excellent conductor.



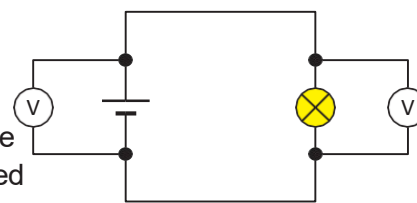
### Current

- Current** is the amount of **charge** flowing per second
- The charges that flow in a circuit are **electrons**, they are negatively charged
- Electrons** leave the negative end of the **cell** and travel around the circuit to the positive end of the cell
- Current has the unit of Amps (A) and is measured with an **ammeter** (which is placed in series or in the main circuit)



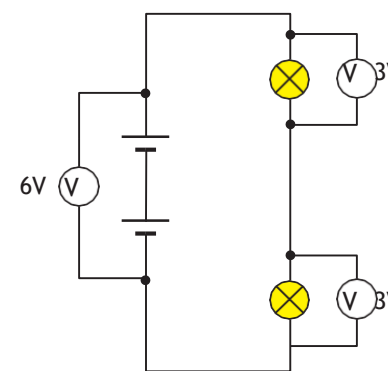
### Potential difference

- Potential difference** is the amount of energy transferred by the cell or **battery** to the charges
- The value of potential difference tells us about the force applied to each charge and then the energy transferred by each charge to the component which it passes through
- Potential difference has the unit of volts (V) and is measured with a **voltmeter** (which is placed in parallel to the circuit)



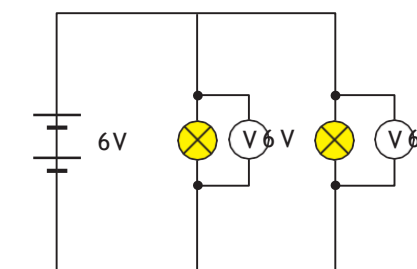
### Series circuits

- Series** circuits only have one loop
- If one component breaks, the whole circuit stops working
- Current is the same everywhere in a series circuit
- The total potential difference from the battery is shared between the components in a series circuit
- Adding more bulbs decreases the brightness of the bulbs



### Parallel circuits

- Parallel** circuits have more than one loop
- If one component breaks, the rest of the circuit will still work
- Current is shared between the different loops in the circuit
- The potential difference is the same everywhere in the circuit
- Adding more bulbs does not affect the brightness of the bulbs



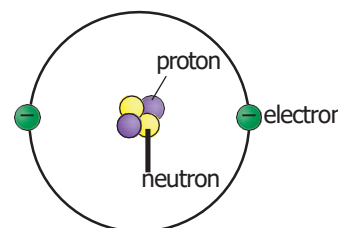
### Electrical signals in the body

- Nerve** cells are long and thin and carry electrical impulses around the body.
- Electricity from our surroundings can overpower these impulses and cause us harm.



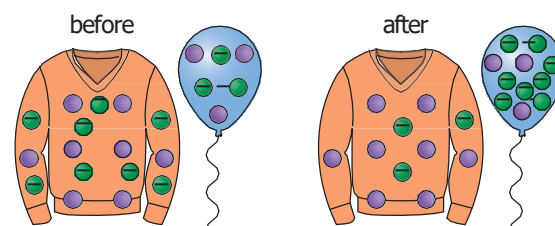
### The atom

- The **atom** consists of a central nucleus with electrons orbiting around the outside in shells
- Electrons** have a negative charge
- Protons** are inside the nucleus and have a positive charge
- Neutrons** are inside the nucleus and have a neutral charge



### Static electricity

- Static electricity is caused by the rubbing together of two **insulators**
- This causes electrons to be transferred, leaving one object with a positive charge, and one object with a negative charge

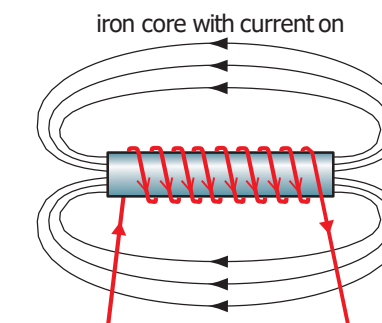


- Like charges will **repel**, opposite charges will **attract**



### Electromagnets

- Electromagnets** are made by wrapping a coil of wire around a magnetic **core**
- Electromagnets only work when electricity is flowing through the coil, which means that they can be turned on and off
- Electromagnets are also stronger than **permanent** magnets
- The electromagnet will produce the same magnetic field shape as a bar magnet



- You can increase the strength of an electromagnet by:
  - Increasing the number of turns on the coil around the core of the electromagnet
  - Increasing the current which is flowing through the coil of wire
  - Using a more magnetic material for the core, e.g. iron rather than aluminium

### Key terms

Make sure you can write definitions for these key terms.

Ammeter, atom, attract, battery, cell, conductors, current, electrons, electric charge, insulator, neutral, neutrons, potential difference, protons, repel, resistance, parallel, series, voltmeter

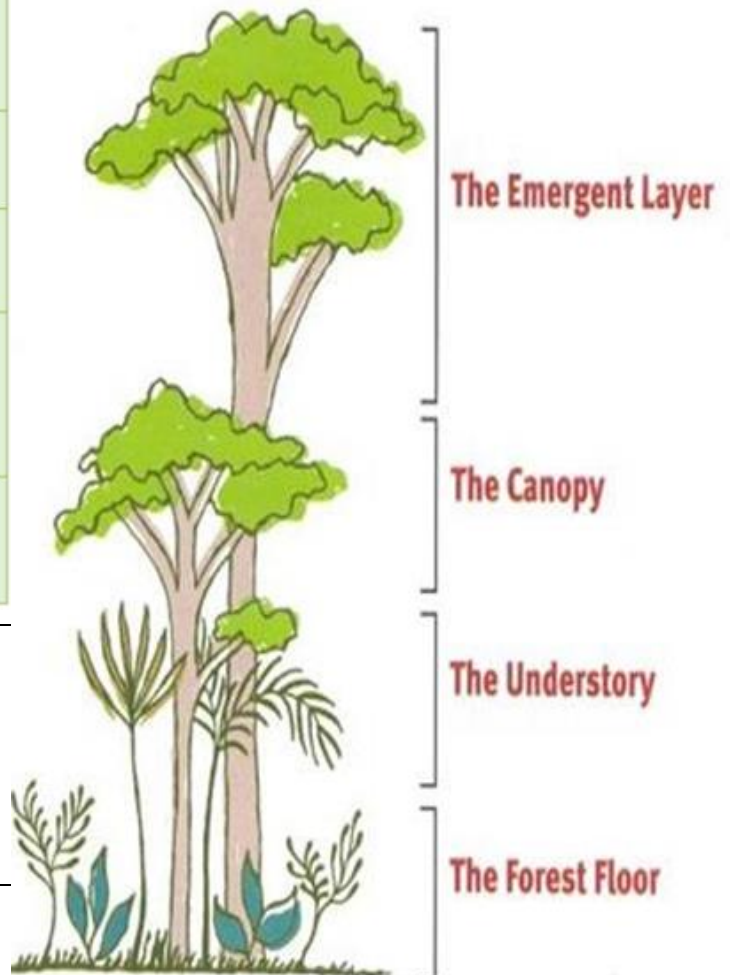


# ECOSYSTEMS



<b>Tertiary consumers</b>	These top (apex) predators feed on the animals below them in the food web and have no predators of their own.
<b>Secondary consumers</b>	These are small carnivores that prey on the primary consumers.
<b>Primary consumers</b>	These are herbivores that eat producers.
<b>Producers</b>	These are the plants in an ecosystem. They form the foundation of food webs. Without producers, the ecosystem can not support any other fauna.
<b>Decomposer</b>	These organisms break down dead organic matter, which helps to return nutrients to the soil

The TRF is a hot, wet ecosystem found between the Tropic of Cancer and Tropic of Capricorn. They cover 6% of the Earth's surface and receive 200cm of rainfall a year. Temperatures are a constant 27-32° C.



**Key revision:**  
<https://bitly.ws/35F3y>

Lesson title	Key idea
The world's issues	Global inequality exists, which influences life chances.
Industry impact on climate	When a country develops economically, this compromises the environment.
Bangladesh factory collapse	Exploitation of garment workers leads to tragedy, but could the government be responsible?
Impact of TNCs	How transnational companies exploit developing countries.
Nike	Case study examining Nike's unfair treatment of staff and how the company kept profits in USA.
Problem with plastic	Global plastic pollution, causes and impacts. How some countries are tackling the problem.
Protecting wildlife	Identifying vulnerable species and human impact of wildlife.
Water insecurity	Water as a resource and the issues caused by restricted access.
Sustainable cities	How can cities be made more environmentally friendly, whilst accommodating the growing urban population?
How has economy changed?	How changes to business and economy influence development..
Fair trade	Paying farmers a fair price for their goods and the positive impact this can have on rural communities, worldwide.



17 Sustainable Development Goals are in place to improve equality, lower poverty and give people better life chances, globally. They were decided in 2015. The main objective is a sustainable future, this is achieved when social progress, economic development and environmental protection.

**Key revision:**  
<https://bitly.ws/35EvY>

*Sustainable development = the way that we make the world a better place now, without destroying the possibilities for the future generations.*

# Year 8 Resistant Materials Knowledge Organiser

## Design for maintenance and repair



### Advantages of repairable products and those that can be maintained:

Can be updated, to be more efficient, lengthening their useful life time.  
It is cheaper to repair than replace an entire product.  
Repairable products are environmentally friendly

A **standard component** is a pre-manufactured product that is used in the manufacturing of another product. As well as saving time, using a standard component can ensure a consistent product is produced. Users can remove standard fittings to help them repair or replace parts. **Nuts, bolts, washers, zips, buttons are just some examples.**

## CAD - Computer aided design.



2DDesign, Google Sketch-up

- Advantages
- Easy to make changes
  - Show clients 3D models of your idea
  - Files can be emailed across the world instantly
  - You can test your idea in a virtual environment
- Disadvantages
- Software can be expensive
  - You need training

## CAD Tools

**Large Tool Set**

Select (Spacebar)	Make Component
Paint Bucket (B)	Eraser (E)
Line (L)	Freehand
Rectangle (R)	Rotated Rectangle
Circle (C)	Polygon
Arc	2 Point Arc (A)
3 Point Arc	Pie
Move (M)	Push/Pull (P)

## Computer aided manufacturing machines

Laser cutter  
3D printer



Accurate, can be used to make multiple copies



**Design movement** : A design movement is a group of designers with a common cause view or idea who then produce designs based upon their views or ideas. Memphis Design movement, Art Deco, modernism and Art Nouveau are examples from the 20<sup>th</sup> century.

## Input Components



These devices form the crucial control needed for a product to operate. Most input components need to be bought but some can be manufactured especially for a project. For instance, a pressure sensor.

**Light dependent resistors (LDRs)** are a type of variable resistor whose resistance increases with light.

**Switches** are simple input devices which allow electrical current to flow when pushed.

**Motion sensors** use infrared to detect changes in the environment to activate the system.

**Thermistors** are a type of variable resistor whose resistance changes when it becomes hot or cold.

## Process Components



These devices are used in combinations to turn the signal from the input component into the signal to the output component. Careful designing and a good knowledge of the way circuits are designed is crucial

**Resistors** limit current flow in an electronic circuit and have to be placed before some components to prevent damage.

**Integrated circuits (ICs)** are manufactured for many different uses and functions. A tiny circuit is encased in silicone (a semiconductor material). Although they look complex, they follow the same logic as simple circuits. Because of their reduced size, smaller products can be achieved as more technology can be made to fit into smaller spaces.

**Microcontrollers** are tiny integrated circuits used widely in automatically controlled devices such as engine management in cars. These can be combined with drivers to control devices such as motors. Raspberry Pi and BBC micro:bit computers are examples used in schools.

### Analysing products

When a designer is developing a new design, it is useful to analyse existing products to see how successful they have been and identify any areas in which they could be improved

## Solder



## Soldering iron



## Side cutters



## Tenon saw



**Printed circuit board** . Electronically connect components using copper tracks .

A **hazard** is any source of potential damage, harm or risk.

A **precaution** is a measure taken to prevent something dangerous or harmful happening

## Output Components

The output is the end function of the product. In most cases, the output can be classed as light, sound, motion or a combination of two or more functions.

**Light emitting diode (LED)** come in different colours and levels of brightness. They have replaced the filament bulb in many everyday uses.

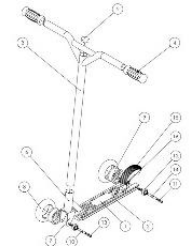
**Light bulbs** are not as widely used because of LEDs in an everyday context but minilight bulbs do not require soldering, so can still be useful.

**Buzzers** use electric current to create their own sound. Used in alarm systems.

**Speakers** allow a sound signal from a circuit to be amplified.

**Motors** are magnetic devices and are behind nearly all moving parts in electronic systems.

**Exploded drawings** show how a product is assembled. Each component is usually labelled.



### Anthropometrics

Anthropometrics is the practice of taking measurements of the human body and provides categorised data that can be used by designers.

**Ergonomics** is a consideration that leads to a product being designed in a way to make it easy to use. Size, weight, shape, position of buttons and controls are all aspects that contribute to it being ergonomically designed.

**Soldering** is a permanent addition method for electronic components.

**Short-circuit** In a circuit, often as the result of a solder bridge, electricity will flow in the shortest path back to the battery.

**Insulator** A material that does not conduct electricity and can therefore be used as a coating to components, circuit boards and wires. PVC is a example.

**Conductor** A material which allows heat or electricity to pass through it easily. Copper is an example .

## Year 8 Music Spring term

### Characteristics of The Blues

What are the key musical features of Blues music?

- Use a three line verse structure, with the first line repeated (AAB);
- Singers **improvised** the words;
- Most songs have four beats in a bar;
- Use **blue notes** in the melody;
- Based on the 12 bar blues progression.

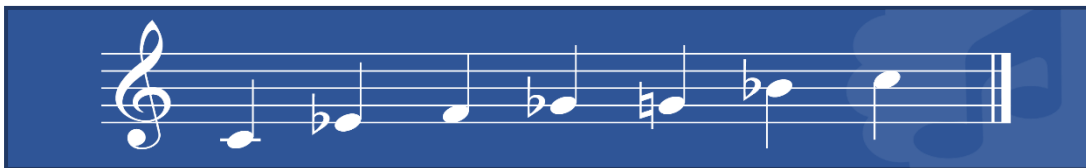
### 12 bar blues

1	2	3	4
C	C	C	C

5	6	7	8
F	F	C	C

9	10	11	12
G	F	C	C

### Blues scale



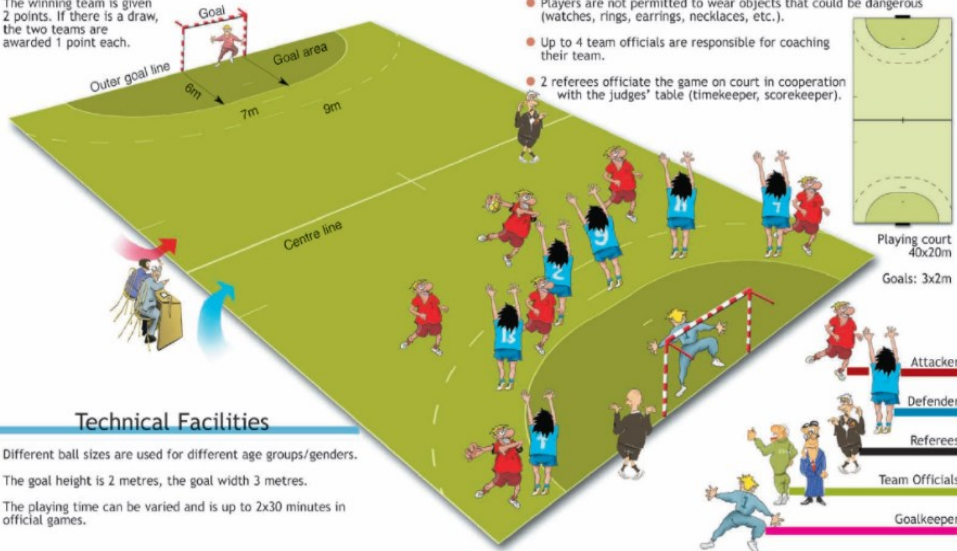
# Year 8 Knowledge Organiser Spring Term

How well do you understand handball?  
Get ahead of the game

If you've already done your Netball rotation, keep the positions in your head. If your Netball is still to come you need to learn these

## The Basic Principles of Handball

- Handball is a team sport based on "fair play" principles.
- On court there are two male or female teams playing against each other, both trying to score goals with a handball.
- The team that has scored the most goals when the playing time is over is the winner.
- The winning team is given 2 points. If there is a draw, the two teams are awarded 1 point each.



## Teams/Players/Team Officials/Referees

- Each team consists of up to 14 players. On court a team has 6 field players and 1 goalkeeper.
- Within each team the players are interchangeable during the game.
- All field players of a team wear identical, coloured uniforms. Goalkeepers wear uniforms that differ from those of the field players.
- Players are not permitted to wear objects that could be dangerous (watches, rings, earrings, necklaces, etc.).
- Up to 4 team officials are responsible for coaching their team.
- 2 referees officiate the game on court in cooperation with the judges' table (timekeeper, scorekeeper).

## Fitness Tests

Cooper Run



30M Sprint



Sit & Reach



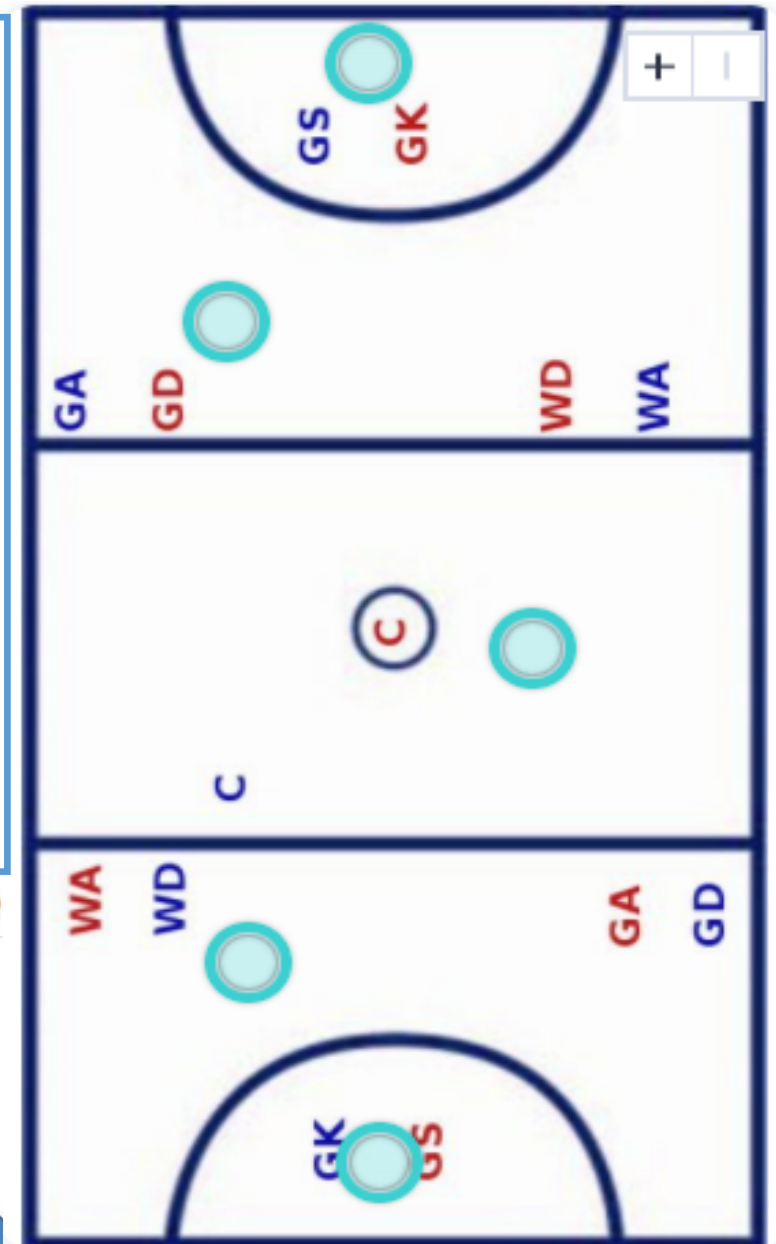
Vertical Jump



Agility Run



Speed Bounce



## Technical Facilities

- Different ball sizes are used for different age groups/genders.
- The goal height is 2 metres, the goal width 3 metres.
- The playing time can be varied and is up to 2x30 minutes in official games.

Sit Ups



Wall Throw



Stork Stand



Ruler Drop



SLJ



## IS A PLAYER OFFSIDE?



## Develop Passing Technique



Head up and over the ball to picture the pass. Arms spread for balance.

Place the non-kicking foot at the side of the ball.

Strike through the ball with the inside of the foot

Kicking foot should follow through the ball to the target

Football Skill Development

# UNIT 11: Talking about food

## Likes/dislikes and why [Part 1]

Singular			
<b>Me encanta</b> [I love]	<b>el agua</b> [water]	<b>porque es</b> [because it is]	<b>asqueroso/a</b> [disgusting]
<b>Me gusta mucho</b> [I like a lot]	<b>el arroz</b> [rice]		<b>delicioso /a</b> [delicious]
<b>Me gusta</b> [I like]	<b>el café</b> [coffee]		<b>dulce</b> [sweet]
<b>Me gusta un poco</b> [I like a bit]	<b>la carne</b> [meat]		<b>duro /a</b> [tough]
<b>No me gusta</b> [I don't like]	<b>el chocolate</b> [chocolate]		<b>grasiento/a</b> [oily, greasy]
<b>Odio</b> [I hate]	<b>la ensalada verde</b> [green salad]		<b>malsano/a</b> [unhealthy]
<b>Prefiero</b> [I prefer]	<b>la fruta</b> [fruit]		<b>picante</b> [spicy]
	<b>la leche</b> [milk]		<b>refrescante</b> [refreshing]
	<b>la miel</b> [honey]	<b>rico/a</b> [delicious]	
	<b>el pan</b> [bread]	<b>sabroso/a</b> [tasty]	
	<b>el pescado</b> [fish]	<b>sano/a</b> [healthy]	
	<b>el pollo asado</b> [roast chicken]		
	<b>el queso</b> [cheese]		
	<b>el zumo de fruta</b> [fruit juice]		
Plural			
<b>Me encantan</b> [I love]	<b>los chocolates</b> [chocolates]	<b>porque son</b> [because they are]	<b>asquerosos/as</b> [disgusting]
<b>Me gustan mucho</b> [I like a lot]	<b>las gambas</b> [prawns]		<b>deliciosos /as</b> [delicious]
<b>Me gustan</b> [I like]	<b>las hamburguesas</b> [burgers]		<b>dulces</b> [sweet]
<b>Me gustan un poco</b> [I like a bit]	<b>los huevos</b> [eggs]		<b>duros /as</b> [tough]
<b>No me gustan</b> [I don't like]	<b>las manzanas</b> [apples]		<b>grasientos/as</b> [oily, greasy]
<b>Odio</b> [I hate]	<b>las naranjas</b> [oranges]		<b>malsanos/as</b> [unhealthy]
<b>Prefiero</b> [I prefer]	<b>los plátanos</b> [bananas]		<b>picantes</b> [spicy]
	<b>los tomates</b> [tomatoes]		<b>refrescantes</b> [refreshing]
	<b>las verduras</b> [vegetables]	<b>ricos/as</b> [delicious]	
		<b>sabrosos/as</b> [tasty]	
		<b>sanos/as</b> [healthy]	
<p><b>Author's note:</b></p> <p>[1] the adjectives above ending in 'o' change to 'a' with feminine nouns. Ex. <i>Me gusta <u>la</u> carne porque es <u>grasienta</u></i></p> <p>[2] however, the adjectives ending in 'e' never change</p> <p>[3] when in used in the plural, all the adjectives above add an 's'.</p> <p>Ex.: <i>Me gustan <u>las</u> verduras porque son <u>grasientas</u></i></p>			



# Unit 12

## Talking about food: Likes/dislikes [Food- Part 2]

<p><b>Meals</b></p> <p><b>Desayuno</b> [At breakfast I eat]</p> <p><b>Almuerzo</b> [At lunch I eat]</p> <p><b>Meriendo</b> [At tea time I eat]</p> <p><b>Ceno</b> [At dinner I eat]</p> <p><b>Bebo</b> [I drink]</p>	<p><b>el agua</b> [water]</p> <p><b>el arroz</b> [rice]</p> <p><b>el atún</b> [tuna fish]</p> <p><b>el café</b> [coffee]</p> <p><b>la carne</b> [meat]</p> <p><b>el chocolate</b> [chocolate]</p> <p><b>la ensalada verde</b> [green salad]</p> <p><b>la fruta</b> [fruit]</p> <p><b>la leche</b> [milk]</p> <p><b>la miel</b> [honey]</p> <p><b>la paella</b> [paella]</p> <p><b>el pescado</b> [fish]</p> <p><b>el pollo asado</b> [roast chicken]</p> <p><b>el queso</b> [cheese]</p> <p><b>el salmón</b> [salmon]</p> <p><b>el zumo de fruta</b> [fruit juice]</p>	<p><b>porque es</b> [because it is]</p>	<p><b>asqueroso/a</b> [disgusting]</p> <p><b>agrio/a</b> [acidic, sour]</p> <p><b>amargo/a</b> [bitter]</p> <p><b>delicioso/a</b> [delicious]</p> <p><b>dulce</b> [sweet]</p> <p><b>duro/a</b> [tough]</p> <p><b>grasiento/a</b> [oily, greasy]</p> <p><b>ligero/a</b> [light]</p> <p><b>jugoso/a</b> [juicy]</p> <p><b>malsano/a</b> [unhealthy]</p> <p><b>picante</b> [spicy]</p> <p><b>refrescante</b> [refreshing]</p> <p><b>rico/a en vitaminas</b> [rich in vitamins]</p> <p><b>sabroso/a</b> [tasty]</p> <p><b>sano/a</b> [healthy]</p> <p><b>soso/a</b> [bland]</p>
<p><b>What I like/dislike</b></p> <p><b>Me encanta[n]</b> [I love]</p> <p><b>Me gusta[n] mucho</b> [I like a lot]</p> <p><b>Me gusta[n]</b> [I like]</p> <p><b>Me gusta[n] un poco</b> [I like a bit]</p> <p><b>No me gusta[n]</b> [I don't like]</p> <p><b>Odio</b> [I hate]</p>	<p><b>los bocadillos de queso</b> [cheese sandwiches]</p> <p><b>los calamares</b> [squid]</p> <p><b>las gambas</b> [prawns]</p> <p><b>las hamburguesas</b> [burgers]</p> <p><b>las manzanas</b> [apples]</p> <p><b>los melocotones</b> [peaches]</p> <p><b>las naranjas</b> [oranges]</p> <p><b>los plátanos</b> [bananas]</p> <p><b>las salchichas</b> [sausages]</p> <p><b>los tomates</b> [tomatoes]</p> <p><b>las verduras</b> [vegetables]</p>	<p><b>porque son</b> [because they are]</p>	<p><b>asquerosos/as</b> [disgusting]</p> <p><b>agrios/as</b> [acidic, sour]</p> <p><b>amargos/as</b> [bitter]</p> <p><b>deliciosos/as</b> [delicious]</p> <p><b>dulce</b> [sweet]</p> <p><b>duro</b> [tough]</p> <p><b>etc...</b></p>



# Unit 14

## Saying what I (and others) do in our free time

<b>juego</b> [I play]	<b>al ajedrez</b> [chess] <b>al baloncesto</b> [basketball] <b>a las cartas</b> [cards] <b>al fútbol</b> [football] <b>al tenis</b> [tennis] <b>con mis amigos</b> [with my friends]	<b>a menudo</b> [often]  <b>a veces</b> [sometimes]  <b>casi nunca</b> [hardly ever]
<b>hago</b> [I do]	<b>ciclismo</b> [cycling] <b>deporte</b> [sport] <b>equitación</b> [horse riding] <b>escalada</b> [rock climbing] <b>esquí</b> [skiing] <b>footing</b> [jogging] <b>natación</b> [swimming] <b>los deberes</b> [homework] <b>pesas</b> [weights] <b>senderismo</b> [hiking]	<b>cuando hace mal tiempo</b> [when the weather is bad]  <b>cuando hace buen tiempo</b> [when the weather is good]  <b>dos veces por semana</b> [twice a week]
<b>voy</b> [I go]	<b>a casa de mi amigo/a</b> [to my friend's house] <b>a la montaña</b> [to the mountain] <b>a la piscina</b> [to the pool] <b>a la playa</b> [to the beach]  <b>al gimnasio</b> [to the gym] <b>al parque</b> [to the park] <b>al polideportivo</b> [to the sports centre]  <b>de marcha</b> [clubbing] <b>de pesca</b> [fishing] <b>en bici</b> [on a bike ride]	<b>raramente</b> [rarely]  <b>todos los días</b> [every day]







**THE LANGUAGE GYM**



# Introduction to Year 8 Drama

Students will develop Skills through the devising process of both Plot and Performance, with a focus on Physical and Vocal skills. They will develop their own work through the stimulus 'Pandoras Box'.

Students will understand...

- Posture, Gesture, Mannerisms, Movement and Gait.
- Pitch, Projection, Phrasing, Pause and Pace.
- A variety of Theatrical devices, through the application of a Practitioner's methodology.

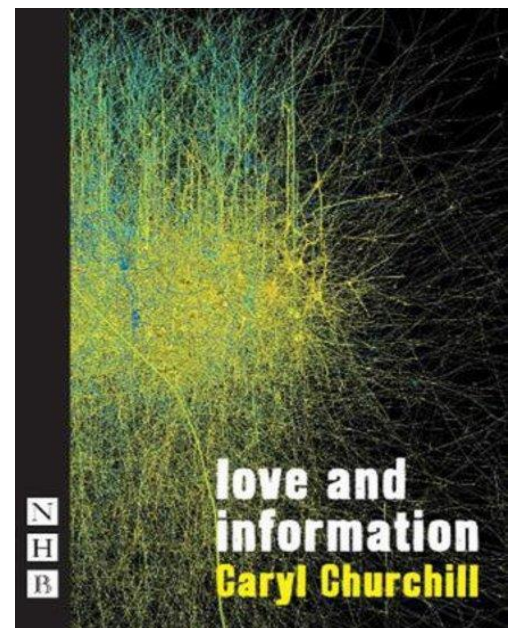


# Love and Information

Students will explore, interpret and devise work through the stimulus of the play 'Love and Information' by Caryl Churchill.

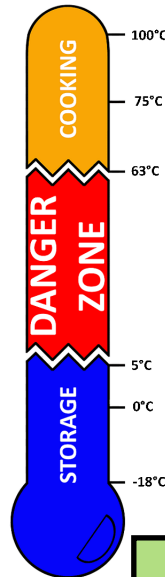
Students will understand...

- Context.
- Sequence, Voice and Movement.
- Characterisation and Direction.
- Performing and Evaluating.
- Staging, levels, Multi role, Split role and Proxemics.
- Duologues, Monologues and Collaborative work.



# Year 8 - Nutrients

Food safety and hygiene is about protecting people and reducing the risk of food poisoning.



<https://www.youtube.com/watch?v=zE0ypKtFuWQ>

The Eatwell Guide shows the types and proportions of foods people need for a healthy and well-balanced diet.



<https://www.youtube.com/watch?v=7MIE4G8ntss>

<https://www.nhs.uk/live-well/eat-well/the-eatwell-guide/>

<https://www.youtube.com/watch?v=8aWqZd9RScQ>

Carbohydrates are *macronutrients*.

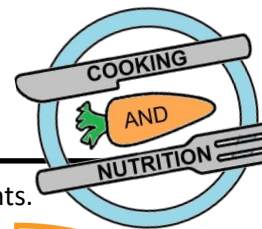
The main function is to **provide energy** to the body.

2 main types = **starchy** (complex) and **sugary** (simple)

**Complex** = long lasting energy;  
**Simple** = short burst of energy

<https://www.youtube.com/watch?v=PByM12M1n3A>

<https://www.youtube.com/watch?v=Xto8ZqCYDvY>



## Key vocabulary

- safety / hygiene
- nutrients / sources / function
- carbohydrates / protein / amino acids
- HBV / LBV / protein complementation
- fibre / vitamins / minerals / fat / water
- deficiency / excess
- convection / conduction / radiation



<https://www.youtube.com/watch?v=fiFi-d0RwKo>

Proteins are *macronutrients*.

They're used by the body for **growth, repair** and maintenance of **muscle and tissue**.

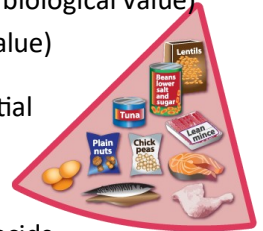
2 main types = **HBV** (high biological value) and **LBV** (low biological value)

**HBV** = contain all 9 essential amino acids;

**LBV** = contain some but not all 9 essential amino acids

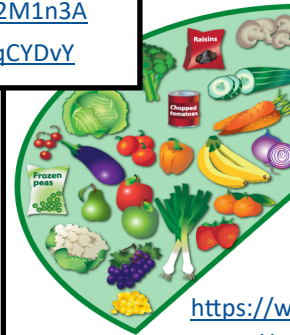
<https://www.youtube.com/watch?v=61Lelea02ao>

<https://www.youtube.com/watch?v=KSKPgaSGSYA>



## vitamins and minerals

are *micronutrients*. They have a wide range of health benefits.



<https://www.youtube.com/watch?v=K5pW7rpMTQw>

<https://www.youtube.com/watch?v=kteZneJm1EI>

<https://www.youtube.com/watch?v=1u5HOURq7kQ>

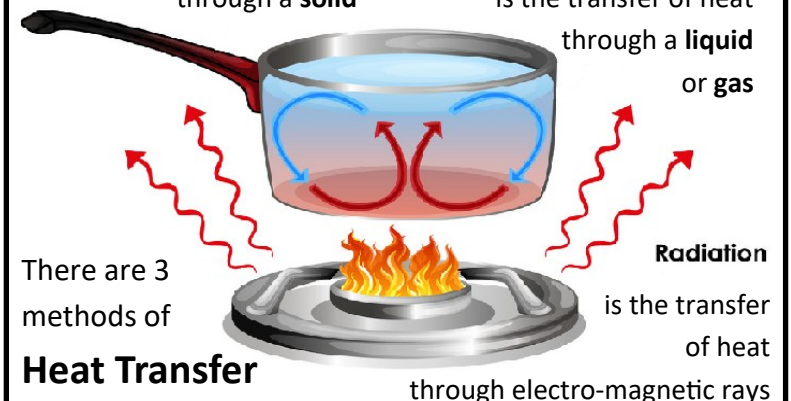
**Conduction** is the transfer of heat through a **solid**

**Convection** is the transfer of heat through a **liquid** or **gas**

There are 3 methods of


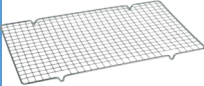





## Heat Transfer

<https://www.youtube.com/watch?v=vg5k6t6uZwE>



# Year 8 - Cooking skills

## Equipment

				
Rolling pin	Pastry cutter	Cooling rack	Baking tray	Tin opener
				
Juicer	Garlic press	Pasty mould	Electric whisk	Sieve

## Skills and Processes

### Bridge hold and Claw grip



**Used in:** fruit salad, pasta salad, sausage rolls, Spanish omelette, potato wedges and salsa

### Rubbing in technique



**Used in:** jam tarts, bread rolls, Chelsea buns, cheese and onion pasties

### Kneading



**Used in:** bread rolls, pizza wheels, Chelsea buns

### Creaming



**Used in:** Dutch apple cake

## Key word

## Meaning

### Gluten

The protein found in wheat, which is responsible for the elastic texture of dough.

### Kneading

Working bread dough with the hands to stretch the gluten so it is elastic (helps the yeast to make bread rise).

### Gelatinisation

When liquid is added to starch grains making them swell. Used to thicken sauces eg. cheese.

### Simmering

When water or food in a saucepan bubbles gently (stays below boiling point).

### Vegan

Don't eat or use ANY animal products.

## Independent skills I need to learn in Year 8

**Use the bridge hold and claw grip** to cut food safely and accurately.

**Use a range of other preparation techniques** eg. peeling, chopping, slicing, dicing, grating etc.

**Organise** all my ingredients and follow a recipe.

**Use the cooker** (eg. hob and oven) safely.

**Temperature control** know when to turn heat up and down accordingly.

## Food safety

Using **colour coded chopping boards** and equipment prevents **bacteria** spreading and causing **food poisoning**.

### PREVENT CROSS CONTAMINATION

USE CORRECT COLOUR CODED CHOPPING BOARDS & KNIVES

RAW MEAT

RAW FISH

COOKED MEATS

SALAD & FRUITS

VEGETABLES

DAIRY PRODUCTS



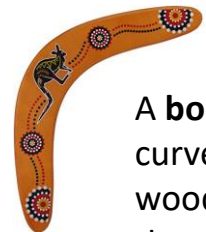
**Harmonious colours** are next to each other on the colour wheel.

**Monochrome** means varying tones of **ONE** colour.

The **didgeridoo** is a long wooden wind instrument played by Australian Aborigines to produce a long deep sound.



**Complementary colours** are opposite each other on the colour wheel.



A **boomerang** is a curved flat piece of wood that can be thrown so that it will return to the thrower, traditionally used by Australian Aborigines as a hunting weapon.



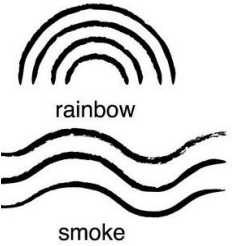
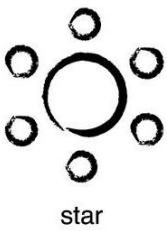
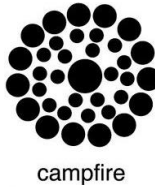
**Clapping sticks** are a traditional percussion instrument used during ceremonies and songs.



The **Bull-roarer** is a sacred object used in Aboriginal religious ceremonies, consisting of a piece of wood attached to a string, whirled round to produce a roaring noise.



**Symbols** are used to tell the stories of the Dreamtime.



Media	Best practice
<b>Coloured Pencils</b>	<ul style="list-style-type: none"> <li>Apply using a soft circular motion</li> <li>Start with the lightest colours and build up colour/tonne</li> <li>Harmonious colours add depth</li> <li>Complimentary colours add definition</li> <li>A sharp pencil will create a crisp finish</li> <li>Avoid applying a thick stripy line of tone around the edge of shapes, blur it by applying soft pressure on the edge</li> </ul>
<b>Watercolour</b>	<ul style="list-style-type: none"> <li>Mix your own variations of colour instead of using them straight out of the palette to make your work look more individual</li> <li>Avoid adding too much water to your paint or the paper will start to bobble/wave</li> <li>Apply colour in layers to build up tone</li> <li>To blend colours on the page work quickly and place wet next to wet</li> <li>When you want colour to stay separate make sure you don't apply wet next to wet</li> <li>Consider layering mark-making on top of dry layers to add interest</li> <li>Change your water regularly to avoid cross contamination</li> </ul>
<b>Papier Mache</b>	<ul style="list-style-type: none"> <li>Rip OR cut (not both)</li> <li>Use 2cm strips to cover whole surface of boomerang</li> <li>Overlap to avoid leaving gaps</li> <li>Use a thin layer of PVA</li> </ul>
<b>Tonal Pencils</b>	<ul style="list-style-type: none"> <li>Know your pencils- B are soft and dark (the higher the number the softer and darker they are)</li> <li>H are hard pencils and so create a thinner and lighter line (the higher the number the harder and lighter they are)</li> <li>Rest your hand on a paper towel to avoid smudging</li> <li>Make sure your work transitions smoothly from light to dark</li> <li>Use a soft circular motion</li> </ul>
<b>Oil Pastels/Wax Crayons</b>	<ul style="list-style-type: none"> <li>Start with the lightest colours</li> <li>Press on heavily to apply a strong coverage</li> <li>Blend colours together by slightly overlapping</li> <li>Be gestural with the marks you apply</li> </ul>
<b>Pen / Biro</b>	<ul style="list-style-type: none"> <li>Work from left to right (or right to left if you are left handed) to avoid smudging</li> <li>Use a paper towel to blot any excess ink of the nib</li> <li>Work quickly to avoid letting too much ink collect on the page</li> <li>Experiment with thickness of line and mark-making techniques</li> </ul>

The **Dreamtime** is the Aborigines belief of how the world and its creation began. Aboriginal culture includes ceremonies, body art, music, art and story telling.



**Aborigines** are the original inhabitants of Australia.

**Composition** is the placement or arrangement of visual elements in a piece of work.

## Year 8 CRE – Careers

### Key Words

Impact  
Aspiration  
Career  
Education  
Qualification  
Teamwork  
Resilience  
Independence

### Positives and Negatives

- What are your strengths?
- What are your weaknesses?
- How could those strengths be applied to a workplace?
- How could those weaknesses stop you from getting a job?
- What is self-awareness?

### What contributes to who you are?

- Religion
- Family
- Genetics
- Gender

- Nationality
- Appearance
- Culture
- Interests
- Background
- Location

### Key Questions To Ask Yourself

What do I enjoy doing?

What am I good at?

What GCSE options might I be interested in?

What qualifications do I need to get the job I want?

Do I need any extra training?

What skills do I need?

## History Year 8 'Knowledge Organiser: Charles I and the English Civil War.



### Summary:

#### **Why did the King dissolve parliament and rule for 11 years without them?**

King Charles 1<sup>st</sup> believed in the Divine Right of Kings. Parliament had refused to grant him more personal money, and had also criticised his marriage (to a Catholic) and his religious reforms.

**Why did Civil War break out in 1642?** Religious divides, different beliefs about power and arguments over the King's finances. Charles had ruled for 11 years without Parliament, raised taxes without their consent and made religious changes they hated. Parliament criticised the King, issued the Grand Remonstrance, with Charles even trying to use soldiers to arrest his leading critics in Parliament. Charles felt he had no choice left if he was to defend his authority from Parliament. Parliament felt they had a right to fight and protect their rights and freedoms from the King.

**Why was Charles executed in 1649?** He lost the civil war, started a second civil war by getting the Scottish to invade and was accused of treason.

### Key words

Civil War	A war between different groups in the same country
Puritans	Thought the Church of England needed to go further the remove Catholic practices; wanted a 'purified' church
Ship Money	A tax traditionally only imposed on coastal towns in times of war. Charles imposed this tax on the whole country at a time of peace
Court of Star Chamber	A special, medieval law court which sat in secret and needed no evidence or witnesses. Charles used it to remove opponents
Grand Remonstrance	List of demands presented to Charles 1 <sup>st</sup> by Parliament. One of the key trigger events leading to the Civil War.
Cavaliers	The insulting nickname given to the Royalists who fought for the king. Literally means 'horsemen'
Roundheads	The insulting nickname given to those who fought for Parliament
New Model Army	Full time, highly disciplined, professional army that fought for Parliament
Regicides	Literally 'king killers' – the name given to those who signed Charles' death warrant
Republic	A country ruled by an appointed or elected leader, <b>not</b> a monarchy.

### Timeline:

1625	Charles I becomes King. Marries Henrietta Maria.
1629	Charles I dissolves Parliament and rules without them.
1635	Charles I imposed the tax 'Ship Money' across the country.
1640	Charles was forced to recall Parliament as he needed more money to fight the Scottish.
1641	The Grand Remonstrance. Charles retaliates by marching 400 soldiers into the House of Commons to arrest the MP's responsible.
1642	Civil War between King and Parliament begins on August 22 <sup>nd</sup> .
1642 - 1646	Siege of Plymouth. Roundhead forces held Plymouth against Royalist attack.
1644	Battle of Marston Moor and the Battle of Lostwithiel
1645	New Model Army created. Battle of Naseby.
1646	End of First Civil War.
1648	Second Civil War begins. Battle of Preston. Parliament victory.
1649	Trial of Charles I, followed by his execution. England a republic.
1653	Oliver Cromwell appointed Lord Protector

### Key terms

Charles and Money	Charles had a lavish lifestyle and was running out of money – he was bankrupt. He tried raising taxes without consulting Parliament.
Charles and Religion	Charles married a Catholic in 1625, Henrietta Maria of France. Charles forced the Scottish church to look more Catholic, and introduced a new prayer book in 1637. Charles allied Protestant England with Catholic Spain.
Charles and Power	Charles believed in Divine Right, he did not want Parliament telling him what to do. In 1640 Charles lost a war with the Scottish which made him look weak. In 1642 Charles took control of the army without Parliament's permission.
Divine Right of Kings	A belief that the monarch was chosen by God, and that their power and authority came from God. Only answerable to God.

### Key people

James I	King of England and Scotland between 1603 - 1625
Charles I	Ruled between 1625 - 1649
Henrietta Maria	Wife of Charles 1 <sup>st</sup> , daughter to Henri IV of France. Catholic.
Thomas Fairfax	Parliamentarian General and creator of the New Model Army
Oliver Cromwell	Ruled England as Lord Protector from 1653 to 1659

**Concept: Cause and Effect**

# UNIT 14

## Saying what I (and others) do in our free time

<p><b>je joue</b> [<i>I play</i>]</p>	<p><b>au basket</b> [<i>basketball</i>]  <b>au foot</b> [<i>football</i>]  <b>au tennis</b> [<i>tennis</i>]  <b>aux cartes</b> [<i>cards</i>]  <b>aux échecs</b> [<i>chess</i>]  <b>avec des amis</b> [<i>with some friends</i>]</p>	<p><b>de temps en temps</b>  [<i>from time to time</i>]</p> <p><b>deux fois par semaine</b>  [<i>twice a week</i>]</p> <p><b>pendant le week-end</b>  [<i>during the weekend</i>]</p> <p><b>tous les jours</b>  [<i>every day</i>]</p> <p><b>tous les samedis</b>  [<i>every Saturday</i>]</p> <p><b>tous les soirs</b>  [<i>every evening</i>]</p> <p><b>tous les week-ends</b>  [<i>every weekend</i>]</p> <p><b>une fois par mois</b>  [<i>once a month</i>]</p>
<p><b>je fais</b> [<i>I do</i>]</p>	<p><b>du footing</b> [<i>jogging</i>]  <b>du ski</b> [<i>skiing</i>]  <b>du sport</b> [<i>sport</i>]  <b>du vélo</b> [<i>cycling</i>]  <b>de l'équitation</b> [<i>horse riding</i>]  <b>de l'escalade</b> [<i>rock climbing</i>]  <b>de la natation</b> [<i>swimming</i>]  <b>de la randonnée</b> [<i>hiking</i>]</p>	
<p><b>je vais</b> [<i>I go</i>]</p>	<p><b>au centre commercial</b> [<i>to the mall</i>]  <b>au centre sportif</b> [<i>to the sports centre</i>]  <b>au gymnase</b> [<i>to the gym</i>]  <b>au parc</b> [<i>to the park</i>]  <b>à la campagne</b> [<i>to the countryside</i>]  <b>à la montagne</b> [<i>to the mountain</i>]  <b>à la pêche</b> [<i>fishing</i>]  <b>à la piscine</b> [<i>to the pool</i>]  <b>à la plage</b> [<i>to the beach</i>]  <b>chez des amis</b> [<i>to my friends' house - plural</i>]  <b>en boîte</b> [<i>clubbing</i>]</p>	



# Unit 15

## Talking about weather and free time


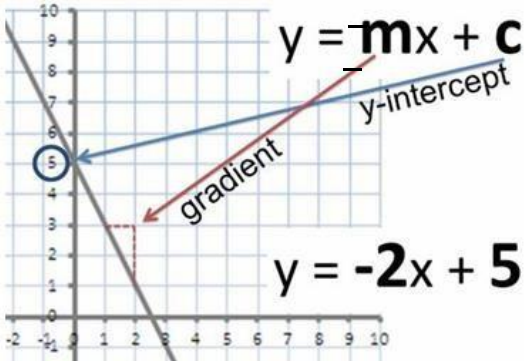
<p><b>Quand j'ai le temps</b> <i>[when I have time]</i></p> <p><b>Quand le ciel est dégagé</b> <i>[when the sky is clear]</i></p> <p><b>Quand il y a des nuages</b> <i>[when it is cloudy]</i></p>	<p><b>je joue</b> <i>[I play]</i></p> <p><b>mon amie Marie joue</b> <i>[my friend Marie plays]</i></p>	<p><b>au basket</b> <i>[basketball]</i></p> <p><b>au foot</b> <i>[football]</i></p> <p><b>au tennis</b> <i>[tennis]</i></p> <p><b>aux cartes</b> <i>[cards]</i></p> <p><b>aux échecs</b> <i>[chess]</i></p> <p><b>avec mes amis</b> <i>[with my friends]</i></p> <p><b>avec ses amis</b> <i>[with her friends]</i></p>
<p><b>Quand il fait beau</b> <i>[when the weather is good]</i></p> <p><b>Quand il fait mauvais</b> <i>[when the weather is bad]</i></p> <p><b>Quand il fait chaud</b> <i>[when it is hot]</i></p> <p><b>Quand il fait froid</b> <i>[when it is cold]</i></p>	<p><b>je fais</b> <i>[I do]</i></p> <p><b>mon ami Lionel fait</b> <i>[my friend Lionel does]</i></p>	<p><b>du footing</b> <i>[jogging]</i></p> <p><b>du ski</b> <i>[skiing]</i></p> <p><b>du sport</b> <i>[sport]</i></p> <p><b>du vélo</b> <i>[cycling]</i></p> <p><b>de l'équitation</b> <i>[horse riding]</i></p> <p><b>de l'escalade</b> <i>[rock climbing]</i></p> <p><b>de la natation</b> <i>[swimming]</i></p> <p><b>de la randonnée</b> <i>[hiking]</i></p> <p><b>mes/ses devoirs</b> <i>[my/his homework]</i></p>
<p><b>Quand il y a du soleil</b> <i>[when it is sunny]</i></p> <p><b>Quand il y a du vent</b> <i>[when it is windy]</i></p> <p><b>Quand il y a du brouillard</b> <i>[when it is foggy]</i></p> <p><b>Quand il y a de l'orage</b> <i>[when it is stormy]</i></p> <p><b>Quand il pleut</b> <i>[when it rains]</i></p> <p><b>Quand il neige</b> <i>[when it snows]</i></p>	<p><b>je vais</b> <i>[I go]</i></p> <p><b>mon amie Anna va</b> <i>[my friend Anna goes]</i></p>	<p><b>au centre commercial</b> <i>[to the mall]</i></p> <p><b>au centre sportif</b> <i>[to the sports centre]</i></p> <p><b>au gymnase</b> <i>[to the gym]</i></p> <p><b>au parc</b> <i>[to the park]</i></p> <p><b>à la campagne</b> <i>[to the countryside]</i></p> <p><b>à la montagne</b> <i>[to the mountain]</i></p> <p><b>à la pêche</b> <i>[fishing]</i></p> <p><b>à la piscine</b> <i>[to the pool]</i></p> <p><b>à la plage</b> <i>[to the beach]</i></p> <p><b>chez mon ami</b> <i>[to my friend's house]</i></p> <p><b>chez son ami</b> <i>[to her friend's house]</i></p> <p><b>en boîte</b> <i>[clubbing]</i></p>
<p><b>Parfois</b> <i>[sometimes]</i></p> <p><b>Pendant la semaine</b> <i>[during the week]</i></p> <p><b>Le week-end</b> <i>[at the weekend]</i></p>	<p><b>je reste</b> <i>[I stay]</i></p> <p><b>mon ami Philippe reste</b> <i>[my friend Philippe stays]</i></p>	<p><b>chez moi</b> <i>[at my home]</i></p> <p><b>dans ma chambre</b> <i>[in my room]</i></p> <p><b>chez lui</b> <i>[at his home]</i></p> <p><b>dans sa chambre</b> <i>[in his room]</i></p>

# UNIT 16

## Talking about my daily routine

<p><b>Vers...</b> <i>[around...]</i></p> <p><b>A...</b> <i>[at]</i></p> <p>...cinq heures <i>[5]</i></p> <p>...six heures <i>[6]</i></p> <p>...sept heures <i>[7]</i></p> <p>...huit heures cinq <i>[8.05]</i></p> <p>...huit heures dix <i>[8.10]</i></p> <p>...huit heures et quart <i>[8.15]</i></p> <p>...huit heures vingt <i>[8.20]</i></p> <p>... huit heures vingt-cinq <i>[8.25]</i></p> <p>... huit heures et demie <i>[8.30]</i></p> <p>...neuf heures moins vingt-cinq <i>[8.35]</i></p> <p>...neuf heures moins vingt <i>[8.40]</i></p> <p>...neuf heures moins le quart <i>[8.45]</i></p> <p>...neuf heures moins dix <i>[8.50]</i></p> <p>... neuf heures moins cinq <i>[8.55]</i></p> <p><b>A midi</b> <i>[12 pm]</i></p> <p><b>A minuit</b> <i>[12 am]</i></p>	<p><b>du matin</b> <i>[in the morning]</i></p> <p><b>de l'après-midi</b> <i>[in the afternoon]</i></p> <p><b>du soir</b> <i>[in the evening]</i></p>	<p><b>je me brosse les dents</b> <i>[I brush my teeth]</i></p> <p><b>je me coiffe</b> <i>[I do my hair]</i></p> <p><b>je me couche</b> <i>[I go to bed]</i></p> <p><b>je déjeune</b> <i>[I have lunch]</i></p> <p><b>je dîne</b> <i>[I have dinner]</i></p> <p><b>je fais mes devoirs</b> <i>[I do my homework]</i></p> <p><b>je m'habille</b> <i>[I get dressed]</i></p> <p><b>je joue sur l'ordinateur</b> <i>[I play on the computer]</i></p> <p><b>je me lève</b> <i>[I get up]</i></p> <p><b>je prends le petit-déjeuner</b> <i>[I have breakfast]</i></p> <p><b>je regarde la télé</b> <i>[I watch telly]</i></p> <p><b>je rentre à la maison</b> <i>[I go back home]</i></p> <p><b>je me repose</b> <i>[I rest]</i></p> <p><b>je sors de chez moi</b> <i>[I leave my house]</i></p> <p><b>je vais au collège en bus</b> <i>[I go to school by bus]</i></p>	<p><b>ensuite...</b> <i>[then]</i></p> <p><b>après...</b> <i>[after]</i></p> <p><b> finalement...</b> <i>[finally]</i></p>
---	--	---	--

## Y8 Spring Maths Knowledge Organiser

Topic	Key fact	Hegarty maths clip number
Expanding single brackets	 $2(y - 3) = 2 \times y - 2 \times 3 = 2y - 6 \checkmark$	160 - 161
Plotting linear graphs using a table of values	<ul style="list-style-type: none"> <li>▪ Need minimum 3 pairs of coordinates.</li> <li>▪ Start at <math>x = 0</math>.</li> <li>▪ Do the positive <math>x</math> co-ordinates first. ▪ X co-ordinate: along the corridor ▪ Y co-ordinate: up the stairs.</li> <li>▪ <math>Y = mx + c</math> will be a straight line.</li> </ul>	206
Identifying gradient and y- intercept	<p>The number in front of <math>x</math> is called the gradient and tells us how many up (+) or down (-) the graph goes for every 1 across (right).</p> 	207
Calculating with Decimals	<p>Addition and subtraction: line up the decimal point.          Multiplication: Change to whole numbers and remember to put the point in at the end.          Division: If dividing by a decimal times both numbers by 10, 100 or 1000. Do not put decimal back in.</p>	47 - 51
Four Operations with Fractions	<p>To add and subtract fractions you need to write all fractions in a sum with the same denominator by writing equivalent fractions.          Multiplying: Cancel down whenever possible, then multiply the numerators together and multiply the denominators together.          Dividing fractions: KFC          (Keep the first, Flip the second and Change the sign to x)</p>	65 -78
Sharing in a given ratio	Always find 1 part	332 to 334
Ratio problems	Set out in columns and put information below the appropriate column	335 to 338
Proportion	<p>Direct proportion: as one quantity increases so does the other          Inverse proportion: as one quantity increases the other decreases</p>	339 to 342

<b>Multi-step Angle Reasoning</b>	<p>Angles on a straight line add up to <math>180^\circ</math>. Angles in a triangle add up to <math>180^\circ</math>.</p> <p>Angles in a quadrilateral add up to <math>360^\circ</math>.</p> <p>Vertically opposite angles are equal.</p> <p>Angles around a point add up to <math>360^\circ</math>.</p>	477 - 480, 484 - 491, 812 - 815
<b>Pie Charts</b>	<ul style="list-style-type: none"> <li>Find the angle for each category:</li> <li><math>360^\circ \div \text{total frequency} = \text{the number of degrees per piece of data}</math></li> <li>To work out each category's associated angle we multiply the number of degrees per piece of data by each frequency.</li> </ul> <div data-bbox="1018 264 1212 430" style="text-align: center;"> </div> <p data-bbox="1018 434 1236 492"><b>Top Tip:</b> Always draw each angle clockwise, using the previous line drawn to start.</p>	427 - 429

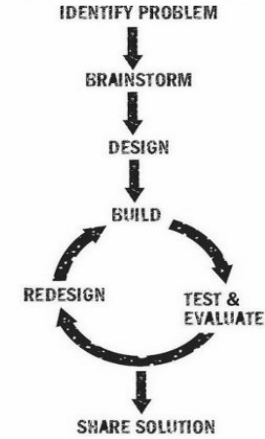
**Key Vocabulary**

- Numerator - the top number in a fraction.
  - Denominator - the bottom number in a fraction.
  - Mixed number - a number consisting of an integer and a proper fraction.
  - Improper fraction - an improper fraction is a fraction where the top number (numerator) is greater than or equal to the bottom number (denominator); it is top-heavy.
  - Direct proportion - one quantity increases at the same rate as the other quantity increases.
  - Inverse proportion - one quantity increases at the same rate as the other quantity decreases.
  - Rate - a price or charge set according to a scale or standard hotel rates.
  - Quantity – the amount of something.
  - Expand – to multiply the term before bracket by the terms in the bracket.
  - Expression – collection of terms. E.g  $4x + 8p$ .
- 
- Gradient – the steepness of a curve
  - Linear Graph – straight line graph  $y = mx + c$
  - Y-intercept – where the graph crosses the y axis

<b>Mean, Median, Mode and Range (recap averages)</b>	<p>Mean: Add up all the numbers and then divide by the number of items.</p> <p>Median: Put in order and then find the middle. If two middle values then add the two middle numbers and divide by 2.</p> <p>Mode: The number that appears the most. There can be more than one mode.</p> <p>Range: The difference between the largest and smallest numbers.</p>	404 -410 And 419 – 421
--	--	------------------------------

# The Design Process

## THE DESIGN PROCESS



"The design process involves continually evaluating and redesigning to develop ideas"

### Product Analysis

<b>A</b>	is for <b>Aesthetics</b>	
<b>C</b>	is for <b>Cost</b>	
<b>C</b>	is for <b>Customer</b>	
<b>E</b>	is for <b>Environment</b>	
<b>S</b>	is for <b>Size</b>	
<b>S</b>	is for <b>Safety</b>	
<b>F</b>	is for <b>Function</b>	
<b>M</b>	is for <b>Material</b>	

"Research like product analysis helps to inspire our own ideas"

## Primary and secondary data

**Primary sources** of information are gathered by the designer and used to help improve their designs.

**Secondary sources** of information use data already found by other people or organisations that are relevant.

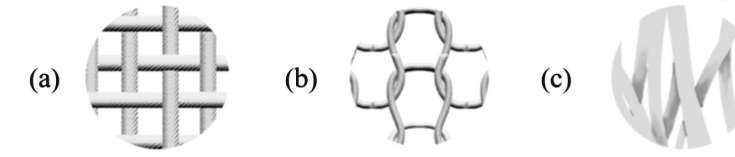
## User centred design.

User centred design consider who the target market will be and thinks about their needs and wants. Examples of this could be:

- designing fastenings for small children to use
- creating products for the partially sighted, which might include bright colours or large buttons
- redesigning products using the ergonomic data of a wheelchair user

# Year 8 - Textiles Design and Technology

## Fabric Construction



<p><b>(a)</b></p> <p>Strong, non stretch, different weaves: plain, twill, satin. Use for shirts, jeans, bed linen</p>	<p><b>(b)</b></p> <p>Cheaper to produce, stretch due to loop structure, can snag and cause runs. Used for sportswear, tights and jumpers</p>	<p><b>(c)</b></p> <p>Very cheap, not strong (unless bonded), can be easily torn. Use for disposable products e.g. jay clothes, disposable hats, felt.</p>
---	--	---

## Cotton V's Polyester

Material	Source of origin	Sustainable?
Cotton		More sustainable than Polyester, because the plants can continually grow. Uses a large amount of water to grow, clean and process the fibres. Pesticides and dyes can be poisonous and cause pollution. Organic cotton is produced more
Polyester		Made from a fossil fuel (coal/oil) so not sustainable. Can be recycled though. Each time polyester is washed microfibre are release which is polluting the oceans and getting into the eco system.

## The 6Rs

Rethink	Do we make too many products? Design in a way that considers people and the environment.	
Refuse	Don't use a materials or buy a product if you don't need it or if it's bad for people or the environment	
Reduce	Cut down the amount of material and energy you use as much as you can.	
Reuse	Use a product to make something else with all or parts of it.	
Recycle	Reprocess a material or product and make something else.	
Repair	When a product breaks down or doesn't work properly, fix it.	

## The Impact Of Fast Fashion



Textile production produces harmful emissions and other pollution from chemicals and dyes.



Poor-quality clothing leads to more textile waste. Plastic based fibers release harmful gases in landfills.



Textile production uses scarce resources. The industry uses 100 billion cubic meters of water annually – about 4% of global freshwater withdrawal.



Microplastics enter the water system when synthetic materials are washed. Ocean species consume these plastics, and so do people eating seafood.

### Key Terms:

**Fast Fashion**—clothes that are made quickly and cheaply to meet everchanging fashion trends. Often linked to poor working conditions.

**Sustainability** — when materials or products can be made without damage to people of the environment. E.g. Organic cotton and Bamboo.

**Fairtrade**— trade between companies in developed countries and producers in developing countries in which fair prices are paid to the producers

