Wolfreton
SCHOOL AND SIXTH FORM COLLEGE

THE CONSORTIUM
ACADEMY TRUST

Year 8 Knowledge Booklet
2024/25

Excellence, Endeavour, Respect

THE WOLFRETON WAY

What are Knowledge Organisers? Knowledge Organisers are revision materials containing the key information that you need to know, in order to be successful in your assessments. They are designed in a way to help you store key bits of information together and help you to visualise the layout of the page, which in turn helps you to memorise the information better. Knowledge organisers are a summary of everything you have learned in your lessons. The Knowledge Organisers will show you the exact facts, dates, events, characters, concepts and precise definitions that we need you to remember for that topic.

How to use Knowledge Organisers?
To use the Knowledge Organisers well, you should:

- Spend time (approximately 15 minutes) reading one topic within one subject of the knowledge organiser.
- You can rewrite some key notes, write on flashcards or draw mind maps to help you pull out key information.
- You can read your knowledge organisers aloud (this helps some people to remember more easily)
- You can read one section, cover up that section, and then test yourself. You can then check to see how much you have remembered. This is called 'Look, say, cover, write, check'.
- Regularly re-read and review (even when you think you know it!)

What is self-quizzing?
Research about study tells us that one of the most effective techniques for revision is to self-test. We know that this is what the most successful students do! When most students think about tests, they don't particularly like the idea. They associate testing with long, difficult exams sat in a classroom or in the exam hall. However, self-testing for revision should not be like this at all. It should be relatively quick and simple, and it isn't a big deal if you get a question wrong.

How to self-quiz?
To self-quiz effectively you will need the following:

1. Knowledge organisers (all in this book) and any other revision materials you may have
2. A blue/black pen and a red pen
3. A note book for self quizzing

You should complete all of your self-quizzing in a notebook, as guided by your subject teacher. Ensure that you complete all subjects and all topics over time – not just the subjects you enjoy the most or find easiest! Practice makes perfect!

Step by Step Self Quizzing
Look at a small section from the knowledge organiser.

1. Read aloud for 2 or 3 minutes
2. Cover up part of your knowledge organiser
3. Write it out from memory (in a black pen)
4. Self-check and correct any spelling mistakes, missing bits or mistakes (in a red pen).

Art - Year 8 Graffiti and Street Art

Knowledge on Street Art – Graffiti art? Or vandalism?	Teacher demo - Simple pen street art lettering techniques	Teacher demo - Street art single colour letter	Teacher demo - Street art lettering multi colour pencil crayon	Banksy vs. Robbo	The untold truth of Banksy
Teacher demo of decollage Street Art piece	Who is artist Ben Eine	Teacher demo Ben Eine style lettering	Teacher demo - Ben Eine painted lettering	Teacher demo – sound word ideas and development painting	Who is artist Keith Haring
Teacher demo - Keith Haring print	Who is artist Jon Burgerman	Teacher demo – limbering up with line	Who is artist 'Invader'		

Art - Year 8 Surrealism

Knowledge on Surrealism - Get Surreal Part 1					
Knowledge on Surrealism - Get Surreal Part 2	Teacher demo Automatic Writing	Creative bank account – Generating ideas	How to come up with design ideas	Developing design ideas	Teacher demo Exquisite Corpse
Teacher demo Exquisite Corpse Cube	Teacher demo surreal collages	Eugenia Loli images overview	Teacher demo pencil eye drawing	Teacher demo pen and water eye drawing	Teacher demo surreal initial ideas and development
Reading of the Jabberwocky	Who is artist Yayoi Kusama	Yayoi Kusama Alice in Wonderland publication overview	Dali Metamorphosis of Narcissus	An overview of Metamorphosis for drawing	Overview of Metamorphosis by Kafta

Computing Knowledge Organiser

81 – E-Safety Knowledge Organiser

1. SMART Rules for Internet Safety

- **S**: **Stay Safe** - Keep personal information private. Never share your full name, address, phone number, or school name.
- **M**: **Don't Meet Up** - Meeting someone you only know online can be dangerous. Always tell a trusted adult if someone asks to meet you.
- **A**: **Accepting Files** - Be cautious about accepting emails, files, or messages from people you don't know. They could contain viruses or harmful content.
- **R**: **Reliable?** - Not everything you read online is true. Check the information from reliable sources.
- **T**: **Tell Someone** - If anything makes you uncomfortable online, tell a trusted adult or use the report button on the site.

2. Overuse of Technology and Side Effects

- **Physical Health**: Eye strain, poor posture, and repetitive strain injuries.
- **Mental Health**: Anxiety, depression, and sleep disturbances due to excessive screen time.
- **Social Impact**: Reduced face-to-face interactions, isolation, and weakened interpersonal skills.
- **Academic/Work Performance**: Reduced productivity and concentration issues

3. What is a Digital Footprint?

- A digital footprint is the trail of data you leave behind while using the internet. This includes:
  - Websites you visit
  - Emails you send
  - Social media posts and interactions
  - Online purchases
  - Photos and videos uploaded

4. What Makes Up a Strong Password?

- **Length**: At least 12 characters long.
- **Complexity**: Includes a mix of uppercase and lowercase letters, numbers, and symbols.
- **Uniqueness**: Different from passwords used on other sites.
- **Randomness**: Avoid using easily guessable information like birthdays or common words.

5. Internet Security Threats

Phishing - A technique used to trick users into giving away personal information by pretending to be a trustworthy entity in an electronic communication.

Shouldering - Also known as shoulder surfing, it involves someone watching over your shoulder as you enter personal information or passwords.

Social Engineering - Manipulating individuals into divulging confidential information by posing as a trustworthy individual or entity.

6. What Information is Safe to Post Online

- General interests and hobbies
- Non-specific location information (e.g., city but not home address)
- Publicly shareable achievements (e.g., winning a competition, completing a project)
- Ensure privacy settings are configured to control who sees your

Computing - Logic

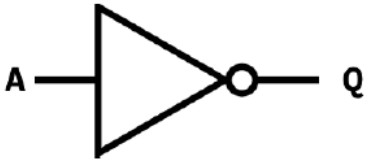
Simple logic diagrams using the operators "AND", "OR" AND "NOT"
Truth tables
Combining Boolean operators using "AND", "OR" and "NOT"
Applying logical operators in truth tables to solve problems

There are a number of different logic gates which produce different results when they receive inputs (1's and 0's.)

Computers are made up of circuits containing millions of switches. As electrical switches have two possible values (**ON** or **OFF**) , these values can be represented using binary values **1** or **0**. Each circuit contains logic gates and **BOOLEAN LOGIC** is used to evaluate the results of different combinations of 1's and 0's.

A **NOT** gate has a single input – **'A'**

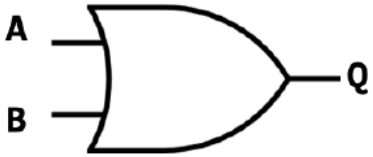
NOT gate



A	Q
0	1
1	0

An **OR** gate has two possible inputs – **'A'** and **'B'**

OR gate



A	B	Q
0	0	0
0	1	1
1	0	1
1	1	1

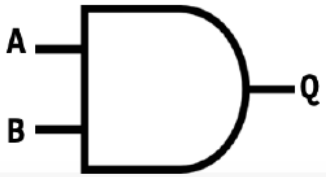
The possible values for each gate can be represented using a **TRUTH TABLE.**

An **AND** gate has two possible inputs - **'A'** and '**B**'

'**Q**' are the possible outputs

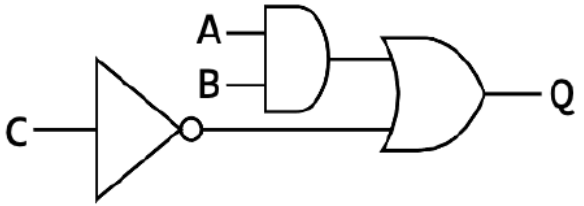
REVISION NOTE
You need to be able draw a truth table for a given circuit. You also need to be able to represent a circuit as a Boolean expression

AND gate



A	B	Q
0	0	0
0	1	0
1	0	0
1	1	1

Logic gates can be combined to create complete circuits. These can also be represented using truth tables. The circuit below is made up of three gates:



This an also be represented as a Boolean expression:

(A AND B) OR (NOT C)

A	B	C	Q
0	0	0	0
0	0	1	1
0	1	0	0
0	1	1	1
1	0	0	1
1	0	1	0
1	1	0	1
1	1	1	1

Computing Knowledge Organiser

Python—Edublocks Knowledge Organiser

Web address and log on:

www.edublocks.org

Login

Username@wolfreton.co.uk

School Password

Variables

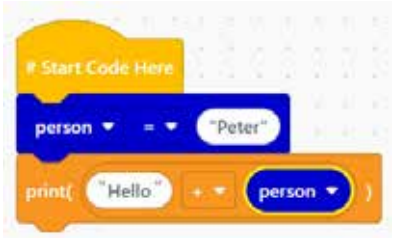
A named area to store data. The data can change.

Data is assigned to a variable.

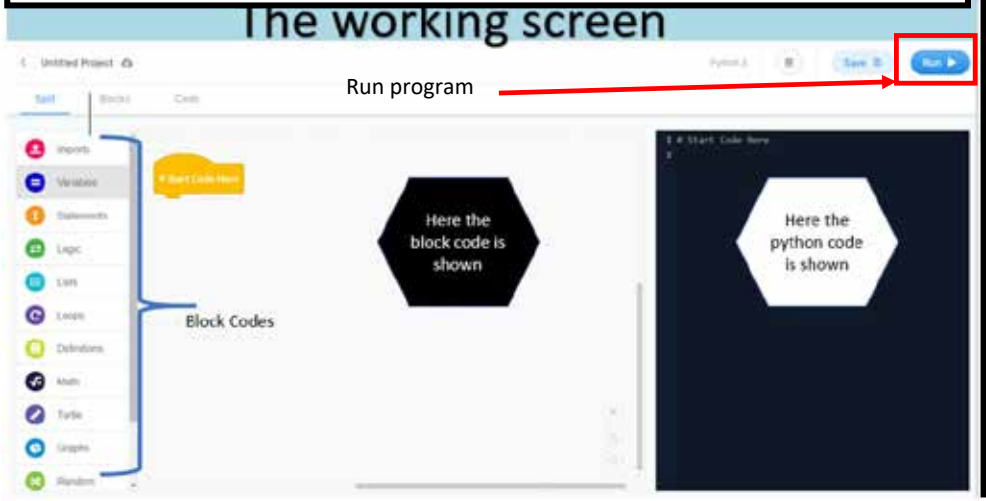
We can assign a value using this block:

We access the data using this block:

Example:



The working screen



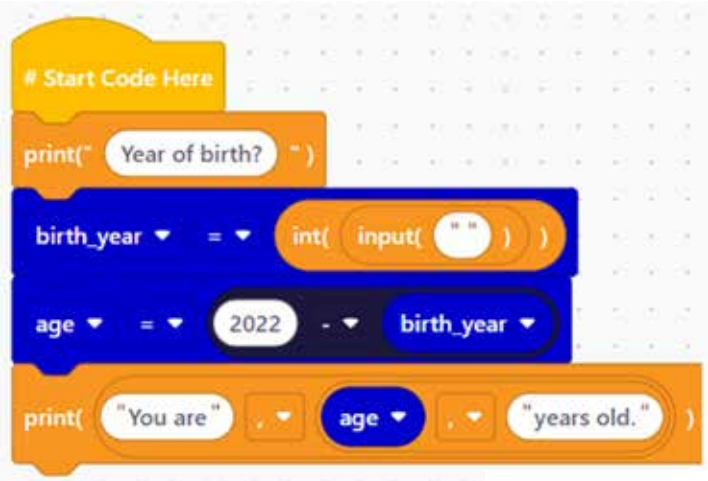
Sequence – The instructions for our code

Selection – Using logical tests to change the flow of the sequence

Iteration – Using loops to repeat sequences of code

Algorithm - is a list of rules to follow in order to solve a problem.

Programming languages - are used to give computers instructions on what to do.



EduBlocks Help

All programs need a start

print—outputs information to the screen

int() - converts the input into a whole number

birth_year—is a variable that contains a whole number

input( ) - is a function that allows the user to type in information

Commas—put a space between the data

Colour Key

Orange—Input and Output

Blue—Variables

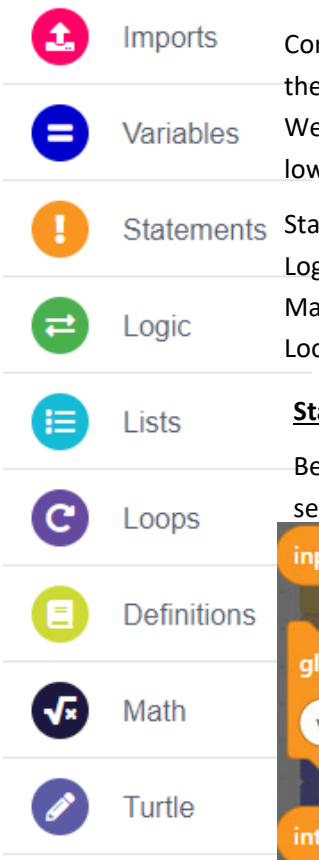
Purple—Maths

Green—If Statements and Logic

Comparative operators	
==	Equal to
!=	Not equal to (or different to)
>	Greater than
<	Less than
>=	Greater than or equal to
<=	Less than or equal to

Computing Knowledge Organiser

Blocks that We will Use



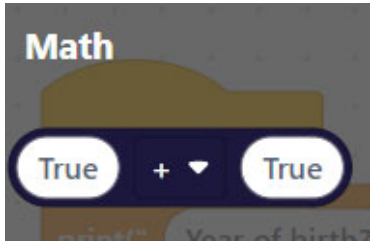
Commands can be found in there own section called **blocks**. We will be mainly using the following blocks:

Statements
Logic
Math
Loops

Arithmetic operators			
Operation	**Symbol**	**Example**	**Output**
Addition	+	2 + 10	12
Subtraction	-	9 – 6	3
Multiplication	*	5 * 4	20
Division	/	5 / 2	2.5
Floor Division	//	7 // 2	3
Remainder	%	7 % 3	1

Statement Block

Below is the statement block. You can see commands to input(“ ”), str( ), int( )



Maths Block

Below is the **maths** block. You can see commands to add and so on. EG True + True. This can be dragged into a variable block to add variables together

Here we can see the age being worked out by subtracting the birth year from 2022. This uses two commands, one at each side of the symbol.

int( )	Converts a string
str( )	Converts an integer
float( )	Converts a string
len( )	Returns the length of a string EG: len (“Jonathan”) = 8

Data Type	Explanation	Example
Integer	Whole Number	1, 56, 30
Float / Real	Number with a decimal point	10.45, 56,2, 4.5
Char	Single character	A, C, F
String	Collection of text, letters, numbers or symbols	“Jonathan”
Boolean	Stores the result of a decision	Yes or No True or False

Computing Knowledge Organiser

Understanding Computers

which receives information (data) and follows instructions (program) to produce information or signals.

What is a storage device? A storage device is used to permanently record or store data, for example a CD, Memory Stick or a Hard Drive.

What is Hardware? Object's that you can touch, like a Music CD, Disks, disk drives, display screens, keyboards, printers, boards, and chips.

What is an output device? An output device is a piece of computer hardware used display or output data which has been processed or stored in a computer, for example a printer or a speaker.

What is Software? You cannot 'touch' software. Software refers to the programs that run on a computer, for example Windows, MS Word, MS Excel, Kodu and Logo.

Fetch – Decode – Execute Cycle

Computer has a list of instructions in memory to carry out.

- ❑ CPU **Fetches** top instruction from the list
- ❑ Instructions is passed to **Decoder** to interpret
- ❑ **Decoder** passes on the instruction
- ❑ Instruction is **Executed** or carried out
- ❑ CPU **Fetches** top instruction from the list…

What is an input device? An input device is anything can be used to enter data into a computer, for example a keyboard or a mouse.

Central Processing Unit (CPU) - Core

The purpose of a CPU is to process data. It is where all the searching, sorting, calculating and decision-making takes place in the computer.

Processor Speed

The CPU speed, or processor speed, is the amount of cycles that a CPU can perform per second.

This is otherwise known as a Hertz.

One cycle per second = 1 Hertz (Hz) = 1 instruction carried out each second

1 Kilohertz (KHz) = 1000 cycles per second

1 Megahertz (MHz) = 1,000,000 cycles per second

1 Gigahertz (GHz) = 1,000,0000,000 cycles per second (1 Billion!)

ROM stands for Read Only Memory This holds the instructions for starting up the computer.

RAM stands for Random Access Memory. This is where the information and data currently in us is stored, so that it can be accessed quickly.

8 bits is called a Byte. 1000 Bytes is 1 MB.

ASCII - American Standard Code for Information Interchange

It is a character-encoding scheme originally based on the English alphabet. ASCII codes represent text in computers, communications equipment, and other devices that use text.

What is Binary?

Computers use electrical signals that are on or off, so they have to see everything as a series of binary numbers. This data is represented as a sequence of 1s and 0s (on and off). All data that we want a computer to process needs to be converted into this binary format.

CD/DVD – Data is encoded onto the CD using a series of 'pits' and 'lands' (1's and 0's). A pit (unreflective) is read as a 0 and a land (reflection) is read as a 1.
A CD is 700 MB, A DVD is 4.7 GB.

Binary Conversion

128	64	32	16	8	4	2	1
1	1	0	0	0	1	0	0

128 + 64 + 0 + 0 + 0 + 4 + 0 + 0

Binary Addition

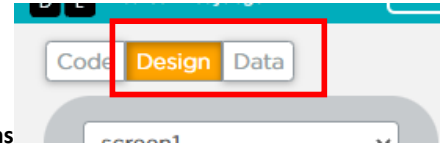
0+0=0, 0+1=1, 1+1=0 carry 1, 1+1+1=1carry1

Computing Knowledge Organiser

Key Words

- Decomposition – breaking down a problem into smaller chunks.
- User – the person using the app.
- Developer – the person making the app.
- Project brief – details about what the app is about.
- Event driven – run a section of code when the user does something.
- Variable – a named place to store some data.
- Code.org / App Lab – the development environment.
- ID – the name of the object on the app.

Developer sections



Code – Where functionality is added (make it do something)

Design – Where we can add on screen features, e.g. text and buttons.

Y8 Knowledge Organiser – App Lab

Button coding: - change a screen. Make sure the event has the button ID that will be pressed. The action is the block below (setScreen).

```
onEvent("btnHome", "click", function() {
  setScreen("HomeScreen");
});
```

Adding a screen:

Drag a new screen onto the app. Make sure you give it a name (ID).

Adding a label:

Drag the label onto the screen (abc). It needs an ID and also the text to display.

Variables – creating , setting and adding (same to take away).

```
var score;
var score = 0;
score = score + 1;
```

Setting a label to display a score. Use the label ID to set the value, ensure the variable does not have any speech marks.

```
setText("ScoreLabel", score);
```

Variables can be text or numbers, depending on the situation you want to use them in.

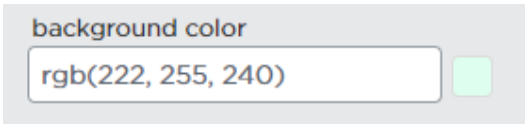
Selection – checking a value. You will still need an event to start the selection process. Use an IF block to check a value. == means the same as. You can use < and > too.

```
onEvent("btnHome", "click", function() {
  if (getText("nameInput") == "John") {
    setText("OutputLabel", "Hello John");
  }
});
```

Timers. Use the setTimeout to determine how long something will last in milliseconds.

```
onEvent("btnStart", "click",
  setScreen("GameScreen");
  setTimeout( function() {
    setScreen("ScoreScreen");
  }, 5000);
```

Design features – use these wisely to make your app look good!




```
onEvent("BlueDot", "click", function() {
  setPosition("BlueDot", randomNumber(10, 280), randomNumber(10, 420),
  setPosition("RedDot", randomNumber(20, 280), randomNumber(1, 420), 56
```

Moving objects via code. We can use the code to move an object when an event is raised. The setPosition block allows us to do this. We can use fixed or random numbers between two. Make sure you set the ID for this.

Design and Technology Knowledge Organiser

Knowledge Organizer - Food Safety

Key Vocab

Cross contamination, direct and indirect contact, Bacteria, danger zone,high risk foods, knife skills, simmering, boiling, oil based cooking,

Bridge & Claw method

Colour coded chopping boards

RED – raw meat/poultry

YELLOW – Cooked meat/ poultry/fish

BLUE – Raw fish

BROWN – Root vegetables

GREEN – Leafy vegetables, salads/fruit.

WHITE – Bakery items/dairy foods.

Wash hands regularly when handling, preparing, cooking and serving food to prevent cross contamination .

Always use oven gloves.
Turn saucepan handles to the side.
Turn off after use.

Wear a clean apron.
Tie back long hair.
Remove jewellery.
Cover cuts with a blue plaster.
Do not cough, sneeze or spit near food.
Remove false nails.
Do not lick fingers or utensils when cooking.

Fridge temperature 0-5°C
Store raw foods below cooked foods.
Check use by dates.

Mop up any spillages to stop people slipping.

Check hands are dry before using electrical appliances.
Do not overfill kettles.
Do not trail flexes over cooker hobs.

Cover food to protect it from flies.
Keep pet and animal feeding bowls separate from those used by people.
Do not allow pets on work surfaces!

Freezer temperature -18°C
Package food in freezer bags.
Label and date all foods
Stock rotate

Check bins have a lid.
Empty kitchen bins regularly.
Wash waste bins with detergent.
Wash hands after handling bins.

Design and Technology Knowledge Organiser

KNOWLEDGE ORGANISER – Healthy Eating

Key focus

Healthy eating guidelines set by the NHS for healthy eating of the nation

1. Base your meals on higher fibre starchy carbohydrates
2. Eat lots of fruit and veg
3. Eat more fish, including a portion of oily fish
4. Cut down on saturated fat and sugar
5. Eat less salt: no more than 6g a day for adults
6. Get active and be a healthy weight
7. drink plenty of fluids to stop you getting dehydrated. The government recommends drinking 6 to 8 glasses every day.
8. Do not skip breakfast

Eat less Fat

Too much fat can lead to us gaining weight and eventually becoming obese. It can also be a main cause of Heart disease

Saturated fat comes mainly from animals and is solid like butter

Unsaturated fat comes mainly from plants and is liquid i.e vegetable oil

Eat less salt

- Too much salt leads to high bloods pressure, risk of strokes and cardiovascular disease
- Salt that is sprinkled of food makes a small proportion of your salt intake
- Salt is sometimes listed on food packets as sodium
- High amounts of salt are found in processed food (ready meals, biscuits, sauces) and fast food!!

Key Vocab

Fibre, Dietary, Al Dente, Cardiovascular disease, Stroke, Tooth decay, Coronary heart disease, Obesity, Dietary guidelines, Fat soluble vitamins, Milk sugars, Monosaccharide Disaccharide, Protein alternatives, Saturated fats, Simmering, Temperature probe

Eat less sugar

Too much Sugar can lead to us putting on weight and also contributes to tooth decay.

Sugary foods include cakes, sweets and biscuits

Eat more Fibre

- Lack of Fibre: Can lead to
- Constipation
- Poor Digestive Health
- Poor absorption of nutrients
- Higher Risk of Cardiovascular Disease
- Weight Gain
- Poor Blood Sugar Control

Fibre can be found in seeds, stalks, stems and skins of plant foods

Design and Technology Knowledge Organiser

Knowledge Organizer – Nutrients

DIETARY FIBRE

Function: Helps remove waste from the body.

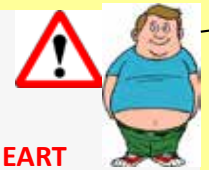
Main sources: Fruit, vegetables, nuts, pulses, wholemeal foods.

VITAMIN C

Functions: Helps absorb iron. Antioxidant vitamin.

Main sources: Fruit and vegetables.

FOODS HIGH IN FAT & SUGAR



IF EATEN IN EXCESS CAN LEAD TO CONDITIONS SUCH AS OBESITY, HEART DISEASE, TOOTH DECAY.

IRON

Function:
Transports oxygen around the body.

Main sources: Red meat, liver, green leafy vegetables, dried apricots, egg yolk, lentils.

Deficiency: anaemia

PROTEIN

Function:
1. Makes the body grow
2. Repairs the body
3. Provides energy

Main sources:
Meat, poultry, fish, eggs, milk, dairy foods, lentils, nuts, mycoprotein (Quorn), soya.

WATER

Function: vital for life!
Helps absorbs nutrients.
Controls body temperature.

STARCHY CARBOHYDRATES

Function: slow release of energy.

Main sources: Pasta, bread, rice, potatoes.

VITAMIN B

Function: Helps energy to be released from carbohydrate. Good for the nerves.

Main sources: Fortified breakfast cereals, milk, rice.

UNSATURATED FATS

Function: Energy, vitamins A,D, E & K.

Main sources: Vegetable oils and vegetable fats.

CALCIUM

Function: Strong bones and teeth.

Main Sources: Milk, cheese, yogurt, green leafy vegetables, canned fish.

Deficiency:
Children – rickets
Adults - osteoporosis

Design and Technology Knowledge Organiser

Metals Knowledge Organiser
Resistant Materials

ferrous: Metals that contain iron. Besides iron itself, all ferrous metals are alloys.

iron: Heavy and strong, iron is most commonly found nowadays in various alloys. Historically, iron was the key material which enabled the industrial revolution to thrive in the UK. Machines, bridges and weapons could all be cast in iron, allowing mass-production.

Used in heavy kitchen skillets, radiators and fireplaces in older houses.

The Iron Bridge (opened 1781) in Shropshire was the first bridge to use cast-iron structurally.

Photo courtesy of Martin Pettitt (@flickr.com) - granted under creative commons licence - attribution

ferrous alloys

mild steel: General purpose metal for general engineering. Good strength and cold-forging properties. Corrodes quickly without protection. Can be welded and braised.

Used in structural components, general workshop projects.

high speed steel: Very hard, resistant to frictional heat.

Used in lathe cutting tools, drills, milling cutters.

high carbon steel: Very hard, difficult to cut, easily joined by carbon treatment.

Used in hand tools, hammers, screwdrivers, chisels.

stainless steel: Hard, tough, resists wear, corrosion resistant, difficult to cut.

Used in dishes, sinks, teapots, cutlery.

non-ferrous: Metals that do not contain iron.

aluminium: High strength to weight ratio, light, soft, difficult to join.

Used in kitchen utensils, packaging, cans, foils, window frames.

copper: Bright and decorative colour when polished. Corrosion resistant. Soft and easy to work by hand. Good heat and electrical conductor.

gold: Soft, malleable, ductile, often alloyed to give more strength, doesn't corrode or tarnish.

Used in jewellery, electronics, hi-fi equipment, dentistry.

tin: Soft, corrosion-resistant pure metal. Silver-coloured and bright when polished. Can be worked by hand. Used to plate other metals.

non-ferrous alloys

brass: Corrosion resistant, casts well, work-hardens, polishes well.

Used in castings, boat fittings, ornaments.

bronze: Corrosion resistant, casts well, work-hardens, polishes well.

Used in castings, boat fittings, ornaments, statues.

pewter: Soft alloy of tin, copper, lead or silver. Low melt temperature makes it ideal for casting projects.

Used in sand-casting, old-fashioned tableware.

solder: Soft alloy, usually made from copper and tin. An added substance, called flux, allows the solder to flow over other metals when heated.

Used in jewellery manufacture, electronics.

Properties of Metals

Property	Definition	Found in
brittle	Hard, but easily broken or cracked.	cast-iron, steel with high carbon content.
conductor	Metal which allows heat or electricity to flow through it easily.	copper, gold, brass.
corrode	To become damaged by chemical reaction (normally water).	ferrous metals in the form of rust, some alloys become powdery.
corrosion-resistant	A metal which resists damage by chemical reaction.	copper, gold, bronze.
ductile	Can be deformed without losing toughness.	lead, copper, gold.
hard	Not easily bent or broken.	steel, iron, brass.
lightweight	A metal which has a good strength-to-weight ratio.	aluminium, duralumin.
malleable	Can be deformed by beating, bending or pressing into shape.	lead, copper, gold, silver, tin
soft	Metals with comparatively low melting temperatures. Easily scratched and malleable.	lead, copper, gold, tin.
tensile strength	A material with good tensile strength resists breaking under tension.	steel, iron, aluminium.
tough/durable/ strong	Able to withstand rough handling or treatment.	iron, stainless steel.

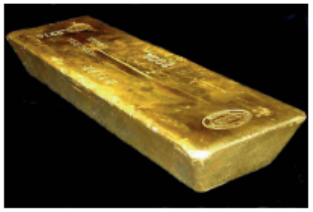
Design and Technology Knowledge Organiser

Metals Knowledge Organiser

base metal: Pure, non-precious metals, such as iron, copper and tin. Commonly electro-plated with other metals such as chromium to achieve a higher quality finish.

alloy: Metals which are a mixture of two or more elements, at least one of which is a metal. The purpose of an alloy is to create a metal with improved properties over the original.

precious metals: Pure metals which are valued for their ductility, colour and lustrous natural finish and other properties. Platinum, gold and silver are commonly used in jewellery design.



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Wasting

Wasting metals by cutting and shaping.

Metals can be very resistant to shaping by wastage and tools require special blades to cut metals accurately.

Sawing: hacksaw, junior hacksaw, abra file, jigsaw (with metal cutting blade).

Shearing: Thin sheet metal can be marked out and cut with special metal sheers or tin snips.

Filing: Edge shaping and finishing can be achieved by hand with a range of metal files.

Wasting metals by drilling and boring.

Metals need specially hardened bits for holes to be bored or milled successfully.

Drilling: Hand drill and pillar drill with high-speed bits.

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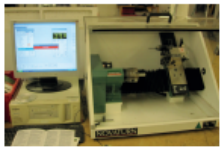
Turning: CAM or manual metal lathes can waste metal rod accurately by both boring and turning.

Milling: Using a flat-ended slot drill, a milling machine cuts laterally, giving a high degree of control to the three-dimensional wasting of metals.

Wasting Metals Using CAD/CAM

Computer controlled milling machines and lathes are used in schools and industry to waste and shape metals. Aluminium is the most common material used to mill in schools.



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Addition

Permanent bonding

Metals require specific joining methods based on the type of material and shape of product.

Adhesives

Some metals can be bonded permanently with solvent adhesives such epoxy resin.

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Welding/Brazing

Using high temperatures, welding creates fused joints which can be as strong as the material. Brazing uses lower temperatures to melt a soft alloy, which flows between the joint and creates a bond.

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Fixing and Fastening

Riveting

Riveting gives a quick and clean alternative to welding. It requires an overlap in the material.

Temporary Fixing

Nuts and bolts, machine screws, self-tapping screws.

Washers are often needed to create a secure, vibration proof fastening.

Deforming and Reforming

Cold Forming

Thin sheet material and narrow-gauge rod and wire can be deformed using a range of cold-forming processes. Simple bends can be made using a vice and ball-peen hammer.

Bending

Thicker rod materials can be bent and shaped when heated to red-hot. Quenching the material will harden the bend.

Casting

In industry, casting can produce highly successful products. Some schools have sand casting facilities, which allow an alloy to be re-formed into a three-dimensional shape.

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Design and Technology Knowledge Organiser

TYpography

Is the art of letter style and design. The different styles are called **typefaces**.

Many of the types are given the name of the designer who created them, or the name of the design era it originated from. E.g. Times New Roman, Tudor,

Victorian, Old English, Bauhaus, Caesar, Edwardian,

Serif and Sans-Serif
Letters with serifs look like this: T

While letters without serifs (sans-serifs) do not have the additional stokes, so look like this: T

Year 8 Graphic Communication Packaging Knowledge Organiser

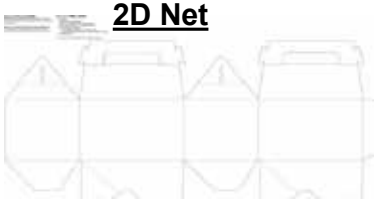
BASIC RULES FOR A SUCCESSFUL LOGO

1. A successful logo is usually very simple in design.
2. The logo is easy to understand, even at a distance.
3. A maximum of three colours are used.
4. Any writing is presented in a simple way and is easy to read.
5. A simple drawing or symbol is sometimes used.

Considerations for typefaces

Packaging Design Considerations

2D Net



3D Net

Tier 3 vocab

Serif
San serif
Typography
DaFonts – CAD
Logo
Brand Crowd - CAD
Client
Net
2D/3D

Drama Keywords

Vocal expression: How an actor uses his or her voice to convey character.	**Vocal Elements:** • Pitch - High or Low • Pace - Fast or Slow • Tone - Hard, heavy, soft, light • Volume - Loud or quiet.	**Pause:** A short period of silence or stillness in a performance when the drama is communicated non-verbally.	**Mannerism:** A familiarity of speech or behaviour.	**Interaction:** The action or relationship between two or more characters.	**Fourth wall:** The illusion of an invisible wall of a set through which the audience sees the action of the play. Breaking the fourth wall refers to the moment when an actor directly addresses the audience through the fourth wall, breaking the illusion.	**Dialogue:** Spoken conversation used by two or more characters to express thoughts, feelings and attitudes.
Mime: A stylised form of movement which creates and illusion without speech or props.	**Clocking the audience:** Clocking is when an actor looks straight at the audience giving them a chance to understand what the character is thinking.	**Passing the focus:** Moving the audience's attention from one character on the stage to another.	**Body Language:** Messages given by the position or movement of the body to express how a character is feeling.	**Mime:** A stylised form of movement which creates and illusion without speech or props.	**Focus Point:** what the actor is attempting to recreate. (I.e. a cinema scene)	**Dynamics:** Variations in levels of energy, physical movement, pace or emotional intensity.
Staging: A general term for the choices made by directors and actors about using or adapting performance spaces as in 'staging a play'. It can also refer to the movement and positioning of actors to communicate character relationships and create interesting stage pictures.			**Gesture:** A movement which clearly communicates meaning.	**Reference point:** A reference point is a place or object used for comparison to determine where something is.		

Animal Farm

English Knowledge Organiser

Plot summary:

1 Old Major's speech- Mr Jones, the owner of Manor Farm falls asleep in a drunken stupor. All the animals of Manor Farm meet in the big barn where Old Major delivers a speech arguing for a rebellion against the men. The Animals sing 'Beasts of England', a song from Old Major's dream.
2 The rebellion- Old Major dies and the pigs adapt his speech, forming the principles of Animalism. The pigs plan the rebellion even though some animals (like Mollie) are concerned. The rebellion happens faster than expected after Mr. Jones forgets to feed the animals. The animals of Mr. Jones house and leave it as a museum. Napoleon steals milk.
3 The pigs emerge as leaders- The animals complete the harvest faster than ever. Snowball sets up the Sunday assemblies where Napoleon and Snowball often argue. Snowball's committees fail, yet he is able to bring literacy to the animals with minor success. Napoleon teaches the sheep 'four legs good two legs bad' and takes the dogs for 'education'. Cow's milk and windfall apples are given to pigs, Squealer convinces the animals that this is a good idea.
4 Battle of the Cowshed- News of the rebellion spreads, Frederick, Jones and Pilkington complain about Animal Farm's success. In October, a group of men try to seize the farm. Led by Snowball's brilliance, the animals repel the attack, which is names 'The Battle of the Cowshed'.
5 Snowball's expulsion- Mollie deserts the farm. The pigs grow in influence, suggesting ideas on which the animals must vote. Snowball and Napoleon continue to disagree, especially over the construction of a windmill. When the Windmill is put to vote, Snowball is expelled from animal farm. Later, Napoleon announces that the Windmill will be built.
6 Building the windmill- The animals work harder than ever, Boxer proves himself to be an inspiration. Napoleon begins trading with humans and hires Mr Whymper. Jones gives up trying to reclaim the farm. The animals begin sleeping with beds, and Muriel and Clover notice a change in the commandments 'with sheets'. Squealer persuades the animals that this is acceptable. In November, a storm topples the half complete windmill. Napoleon blames this on Snowball.
7 Rebuilding the windmill and the executions- The animals struggle against starvation. After learning that they must sacrifice their eggs, the hens stage a demonstration. Napoleon denies their rations and 9 hens starve as a result. The animals are led to believe Snowball has been returning to the farm – his role at the battle of the Cowshed is adapted by Squealer. In spring, Napoleon calls a meeting and several 'traitors', who confess to being in league with Snowball, are executed, including protesting hens and pigs. Beasts of England is outlawed.
8 Trading with humans and the destruction of the windmill- Clover and Benjamin notice a change in the commandments: 'killing without cause'. The next year brings more work and less food, despite Squealer's figures and statistics to the contrary. More executions occur. Napoleon's is seen in public less often. Napoleon trades Frederick and Pilkington off against each other, and sells a pile of timber to Frederick, who tricks Napoleon with forged banknotes. Napoleon pronounces the death sentence on him. Frederick, with 14 other men, attack the farm and blow up the windmill, which rallies the animals to fight back. Several animals die, Boxer is injured but Squealer convinces the animals of their victory. The pigs find a crate of whiskey, Napoleon fears he is dying and proclaims that drinking alcohol is punishable by death. He then recovers and orders the retirement paddock to be planted with barley.
9 Boxer's fate- Once again, the animals are faced with rebuilding the windmill. 31 pigs are born, and Napoleon orders for a schoolhouse to be built for their education. Rations are yet again reduced. Animal Farm is proclaimed a republic with Napoleon as president. Boxer is injured working and Napoleon sends for a vet. A van arrives, Boxer is taken away but Benjamin reads the its side and learns that Boxer is being slaughtered. Squealer manages to convince the animals otherwise. Boxer is never seen again.
10 Pigs and humans come together- ears pass. Muriel, Jessie, Pincher are dead. Clover is 14. No animal has ever retired. The farm has grown in size and population. Two windmills are complete. Clover notices the pigs walk on two legs. The commandments are delated and replaced with "All animals are equal but some are more equal than others." The pigs start carrying whips and wearing Mr Jones' clothes. In the final scene, human farmers visit the farm and meet the other pigs. Toasts are exchanged and Napoleon changes the farm's name back to Manor farm. The pigs and humans play cards. A quarrel brakes out. On looking animals cannot discriminate between pigs and humans.

Key characters		**Key themes**	**Context and Literary Tradition**	**Stylistic features & relevant terms**
Mr Jones	*Drunken owner of Animal Farm. Embodies the tyranny of man.*	Leadership and Corruption Control over the intellectually inferior Lies and deceit Foolishness and naivety Violence Pride and Ceremony Dreams, hopes and future plans	An allegorical tale with direct links to the history of the Soviet Union in the early 20th century.	Dystopia Propaganda Scapegoat Tyrant Allegory Moral Symbolism Omniscient narrator Fairy Tale Tragedy
Old Major	*Wise, old pig. Inspires the rebellion with his rhetoric.*		The book charts the corruptions of **Communist** ideals of equality, where workers are promised equality and freedom and are eventually repressed and treated as bad, if not worse, as under the previous rule of the **capitalist 'Tsar'.**	
Boxer	Devoted citizen and immensely strong. Innocent and naïve.		**Old Major** represents **Karl Marx**, putting forward the communist ideals which will free them from the **tyranny of capitalism** (represented by **Jones**).	
Napoleon	*Expels Snowball. Executes animals. Establishes himself as dictator. Controls with fear. Becomes Jones.*		**Snowball** represents **Trotsky**, a passionate component of **Animalism (Communism**) who is expelled by **Napoleon (Stalin).**	
Snowball	*Devoted to animalism and the education of lesser animals. Hero at the battle of the cowshed.*		**Napoleon** follows a similar rise to power as **Stalin**, using fear and propaganda to control the masses, including show trials and executions.	
Squealer	*Mouthpiece of Napoleon. Uses propaganda to control the animals.*		By the end of the novel, the **ideals of communism** have been so far abused and forgotten, that Napoleon meets and forms agreements with former oppressors.	
Clover	*Maternal, caring and loyal. Senses hypocrisy but cannot articulate it.*		Orwell was a British journalist and author, who wrote two of the most famous political novels of the 20th century 'Animal Farm' and 'Nineteen Eighty-Four'. When Orwell saw a kid whipping a horse, he had an idea: "It struck me that if only such animals became aware of their strength we should have no power over them, and that men exploit animals in much the same way as the rich exploit the working class". This inspired him to write the novel.	
Dogs and Sheep	*Instruments of fear and control, educated by Napoleon.*			

English Knowledge Organiser

Key quotations	Useful vocabulary	SPaG Focus			
"Four legs good, two legs bad." "All animals are equal, but some animals are more equal than others" "If you have your lower animals to contend with," he said, "we have our lower classes!" "The pigs did not actually work, but directed and supervised the others. With their superior knowledge it was natural that they should assume the leadership." "At this there was a terrible baying sound outside, and nine enormous dogs wearing brass-studded collars came bounding into the barn. They dashed straight for Snowball, who only sprang from his place just in time to escape their snapping jaws." "The pigs now revealed that during the past three months they had taught themselves to read and write" "The birds did not understand Snowball's long words, but they accepted his explanation, and all the humbler animals set to work to learn the new maxim by heart." ""Is it not crystal clear, then, comrades, that all the evils of this life of ours spring from the tyranny of human beings?" "The flag was green, Snowball explained, to represent the green fields of England, while the hoof and horn signified the future Republic of the Animals which would arise when the human race had been finally overthrown." "All that year the animals worked like slaves. But they were happy in their work; they grudged no effort or sacrifice, well aware that everything that they did was for the benefit of themselves and those of their kind who would come after them, and not for a pack of idle, thieving human beings."	Stout Tremendous Rebellion Prosperity Vivacious Comrade Elementary Tyranny Communist Consume Cynical Benevolent Majestic Capable Control Victorious Overthrow Slaughter Seize Cruelty Overwhelm Succession Unity Conquer Resolution	Capital Letter Parenthetic Comma Parenthesis for brackets Semi-colon Ellipsis Speech Marks Continuous Verb	Adverb and Adverbial Phrase Article Antonym Compound Words Modifier Suffix Prefix	Singular and Plural Preposition Pronoun Synonym Transitive Verb Future Tense Present Tense Past Tense	Compound Sentence Complex Sentence Subject Object Subordinate Clause Homophone Homonym
		Responding to the (extract, question, etc)			
		• Can I interpret the key ideas that the George Orwell is communicating through his text? (*What?)* • Can I explore and develop explicit and implicit techniques that create meaning for the reader? (*How? For what effect?))* • Can I identify George Orwell's techniques such as foreshadowing and non-standard English, and explore their effect on the reader? • Can I explore and comment on George Orwell's intention within the text? • Can I respond personally to the text and suggest alternative interpretations? • Can I use evidence selectively to support/justify my ideas? • Can I explore and explain the use of techniques/conventions? • Can I explore how George Orwell uses language to develop/create point of view and tone and atmosphere? • Can I focus on individual words to suggest how they create meaning for the reader and might influence them? • Can I explode quotations and refine my skills for writing a lot about a little. • Can I develop my ideas fully and fluently? • Can I link my comments to the context of the text when appropriate?			

English Knowledge Organiser

Novel knowledge organiser – Storm Catchers by Tim Bowler

Important information

The Plot: Ella, a 13-year-old girl from a wealthy family, is kidnapped from her home on a stormy night. She makes sure that her 3-year-old brother, Sam, is hidden and safe before she is caught. Her fifteen-year-old brother, Fin, is determined to find his sister as he feels responsible for leaving her that night knowing she was so afraid of being left alone. As Fin and Sam find clues that lead to Ella's whereabouts, dark family secrets are uncovered as a dangerous showdown on the rocky cliffs takes place.

Reviews: "suspenseful and scary" by *The Sunday Times;* "full of atmosphere, energy and emotional shrapnel" by *The Guardian*.

Genre: crime, mystery, suspense, psychological thriller with some Gothic features. Teen fiction.

Setting: the novel is set on the often stormy, rocky coast of Cornwall. The family live in a large house on the cliff-top near a cove (a beach) and small marina. The house has a secret passageway and is quite remote. There is a coastal path and an abandoned lighthouse nearby.

Themes: crime, family, betrayal, supernatural, integrity, loyalty

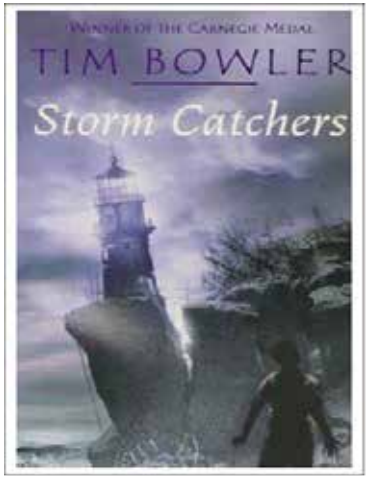
Characters:

Ella Parnell	13 years old. A nervous, underconfident person. Loves her family.
Fin Parnell	15 years old. Small for his age. Is confident and intelligent.
Sam Parnell	3 years old. Has imaginary friends. He is presented as an 'unusual' 3-year-old.
Susan Parnell	Mother of the above 3 children. She is calm and loves her children. Family orientated.
Peter Parnell	Husband of Susan, father of Fin, Ella and Sam. Wealthy and successful in business as he owns a chain of supermarkets across Cornwall. He is respected: a pillar of the community. He is also a magistrate (a local judge).
Billy Meade	Fin's friend. Is intelligent but unfocused. Is a gossip. Has a sister, Angie.
Mr & Mrs Meade	Billy & Angie's parents. Neighbours and family friends of the Parnells.
Kellman	A drifter who suddenly turns up in Trevally after a 10-year absence.
Mr Aldridge	A friendly neighbour who regularly walks his dog past Polvellan, the Parnell's house.
Lindy Prescott	Ricky's mother. Used to work for Peter Parnell.
Ricky Prescott	Lindy's son.
Imogen Prescott	Lindy's daughter,

Context:

The novel is set 'now'. The family are wealthy with the money coming from a chain of supermarkets that Dad, Peter Parnell, has built up over 20 or more years. It is set in the coastal countryside in Cornwall. They live in a small village where everyone knows each other.

The Parnells are a happy, well-liked and respected family who seem to have everything …



Key vocabulary:

Polvellan – the name of the Parnell's house

Headland - a narrow piece of land that projects from a coastline into the sea.

Bracken - a tall fern with which grows in the countryside & costal cliffs.

Bluff – a steep cliff.

Crests (of waves) - the curling foamy top of a wave.

Spindrift - spray blown from the crests of waves by the wind.

Dinghy – a small boat which can be rowed, have sails or an outboard motor on the back.

Cruisers – a type of fast sailing boat.

Manoeuvred - a movement or series of moves requiring skill and care.

Descriptive methods:

Appealing to the 5 senses – 'the place smelt mouldy' … 'Still no sound apart from the whistling wind.' page77

Adjectives & onomatopoeia – 'The stairway was cheerless and dark …'; 'old wooden cabinets'; 'steep metal steps' pages 76 & 77. **Onomatopoeia**: tap, crash, rumbled, shrieked, screamed.

Exiting verbs – 'sea *smashing* on the rocks'; 'She *raced* towards it, the wind *driving* her on, and still the terror *perused* her.' page 87

Similes – 'a huge man built like a bear' about the kidnapper, page 3; 'The deserted lighthouse perched like an eagle on the crumbling cliff edge.' Page 75

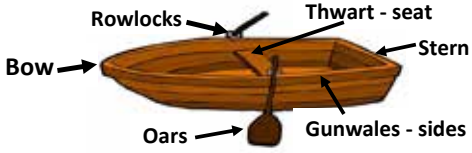
Metaphors – 'He shot her a glance.' Page 80; 'but the anger she'd seen in him earlier … was still boiling inside of him.' page 88

Personification – 'the anger of the sea subsided'; 'pulling the boat into the teeth of the waves' page 21

Pathetic fallacy – 'There's a storm coming.' repeated throughout the novel; 'The storm was now at its height and great billows were rolling in from the ocean.' page145

Structure methods:

* Parallel plots
* Slow release of information
* Information withheld
* Short sentences to build tension



English Knowledge Organiser

Plot Summary

The Tempest (I.i)
Alonso, the King of Naples, is on a ship with his son Ferdinand and his companions Sebastian, Antonio, Stephano and Trinculo. They are struck by a terrifying, howling storm. They abandon ship and swim to a nearby island but are washed ashore in different places. The island seems to be abandoned.

After the Storm (I.ii)
From a nearby island, Miranda watches the huge tempest. She lives with her father Prospero and has little memory of her life before the island. Prospero tells his daughter of their past: he was the Duke of Milan twelve years ago, but he was so involved with his books and secret studies that he did not realise his brother Antonio was stealing power from him. One night, Antonio ordered soldiers to take Prospero and Miranda and put them on a boat to their death. But they were washed ashore this island safely and have lived there ever since. Prospero has been ruler of the island. Prospero has created the storm to bring his brother to the island.

Ariel and Caliban (I.ii. cont./II.i)
Prospero is a powerful magician who controls the spirit Ariel who completes tasks for him. Prospero has agreed to release Ariel after this last mission. Caliban is a deformed savage slave who is also under Prospero's control. He is the son of an old witch, Sycorax, and is a native of the island. Prospero taught Caliban how to speak but Caliban resents the control Prospero has over him.

Kind Alonso (II.i)
King Alonso and his younger brother Sebastian, as well as Antonio (the usurping Duke of Milan), wander around the island. King Alonso weeps as he believes his son Ferdinand is dead. Sebastian and Antonio plot to kill Alonso so that Sebastian can be king. They are stopped by Ariel's magical intervention.

Caliban, Stephano and Trinculo (II.ii, III.ii)
The monster Caliban is found by Stephano and Trinculo. They give him alcohol to drink and he gets drunk. Caliban offers to serve Stephano because he believes he is a god because of the heavenly drink! Caliban explains to them how Prospero has treated him and that he will be their guide on the island if they overthrow him. The three drunks go to find and kill Prospero.

Ferdinand and Miranda (I.ii, III.i)
Ferdinand has survived the storm. He is safely on the island and is found by Miranda. They fall instantly in love. Prospero wants to test that the love is real. Ferdinand has to endure hard labour to prove his intentions are honourable. Miranda pities Ferdinand and wants to marry him. Prospero blesses their marriage.

The End (IV.i, V.i)
A marriage for Ferdinand and Miranda is arranged and celebrated with a masque attended by spirits. It is interrupted when Prospero recalls the threat from Trinculo, Stephano and Caliban. Prospero and Ariel send spirit dogs to scare them away. King Alonso, Sebastian and Antonio meet Prospero. He explains what has been happening on the island. He shows them Ferdinand and Miranda who are now married. King Alonso is filled with regret and asks for forgiveness from Prospero which he grants.

Epilogue
Prospero declares that he will be giving up his magic. Ariel is released from his service. The party travel back to Milan. We do not know what has happened to Caliban.

Characters

- Alonso – King of Naples
- Sebastian – Alonso's brother
- Ferdinand – Alonso's son
- Antonio – Prospero's brother. Antonio stole Prospero's title as Duke of Milan.
- Gonzalo – the old counsellor to the King of Naples
- Trinculo – a jester
- Stephano – a drunken butler
- Prospero – the rightful Duke of Milan
- Miranda – Prospero's daughter
- Ariel – an airy spirit; a slave of Prospero's who earns his freedom
- Caliban – a savage and deformed slave of Prospero's; a native of the island

'The Tempest' Knowledge Organiser

Keywords

- colonialism – when one country establishes itself in another country. When someone **colonises** a new country, they are called a **coloniser**. The original inhabitants of the land are called **natives**.
- usurp – to take control of someone else's power when you do not have the right to. Someone who usurps is called a **usurper**.
- tempest – a violent storm.
- treason – a crime that harms your country or government. Someone who commits treason is a **traitor**.
- callous – when someone is cruel and does not care about other people.
- pathos – a situation that makes us feel sympathy or sorrow.
- dual nature – having two sides.
- nurture – to encourage or support the development of someone or something.
- Tragicomedy – a play that has some features of a tragedy and some features of a comedy.

Background Information

Shakespeare was born in the Elizabethan era, named after Elizabeth I. After she died, James I became king. This period of history is called the **Jacobean** era, because Jacob is the Latin for James. Shakespeare lived and worked in both eras.

Italian city states - A city-state is an area that is ruled by a major city. During the Elizabethan and Jacobean era, Italy wasn't one unified country, but a number of small independent city-states.

Sea exploration was booming in the Elizabethan era as people 'discovered' new parts of the world. Queen Elizabeth I was obsessed with their discoveries and was happy to pay for their travels. Led by her example, the rest of the country were also fascinated by their stories and goods.

Geography Knowledge Organiser

YEAR 8 | **RUSSIA** | **GEOGRAPHY KNOWLEDGE ORGANISER**

1. INTRODUCTION TO RUSSIA

Russia is part of both Europe and Asia. Divided roughly along the Ural Mountains line. About 75% of the Russian population lives in the European continent. On the other hand, 75% of Russian territory is located in Asia.

Russia's Physical Geography

The Russian landscape varies from desert to frozen coastline, tall mountains to giant marshes. Much of Russia is made up of rolling, treeless plains called steppes. Siberia, which occupies three-quarters of Russia, is dominated by sprawling pine forests called taigas.

Russia has about 100,000 rivers, including some of the longest and most powerful in the world. It also has many lakes, including Europe's two largest, Ladoga and Onega. Lake Baikal in Siberia contains more water than any other lake on Earth.

Russia's biomes		
Alpine	Polar deserts	Grasslands
Tundra	Deciduous forest	Coniferous forest

Temperate grassland
- Large areas of flat grassland are known as plains or steppes
- They have very few trees
- Cold in winter and hot in summer
- Temperate grasslands are too dry to allow forests to grow
- Predators (e.g., polecats) prevent other animals from eating all the grass

Tundra
- Found in northern Russia
- Very low temperatures all year
- Permafrost – permanently frozen ground
- Fairly dry
- Precipitation will fall as snow
- Small and low plants
- Animals must be able to survive the extreme conditions, e.g., polar bears, and arctic foxes

Russia's Human Geography

There are about 120 ethnic groups in Russia who speak more than a hundred languages. Russia has a population of 144.3 million.

There are many ethnic groups living in Russia, including:
- 81% ethnic Russians
- 4% Tatars
- 1.6% Ukrainians
- 1.1% Bashkir
- 1% Chuvash
- 1% Chechens

The remaining 10.3% is made up of other ethnic groups.

St Basil's Cathedral

The Cathedral of Vasily the Blessed, commonly known as Saint Basil's Cathedral, is a Christian church in Red Square in Moscow, Russia and is regarded as a cultural symbol of the country. The building is now a museum.

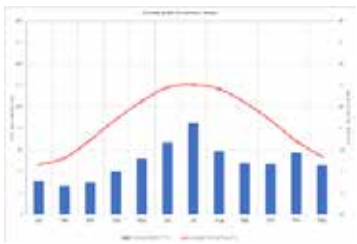
2. THE CLIMATE OF RUSSIA

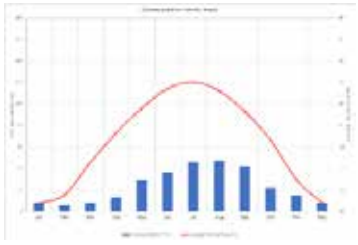
Russia is the largest country in the world. It covers an area of 17,098,242 km². The country spans 11 time zones.

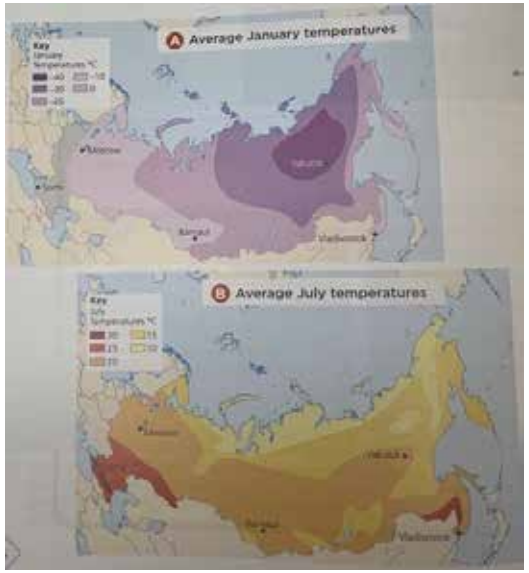
The climate is largely cold and continental, but wide variations in temperature and precipitation exist due to the size of the country. Russia is humid near Europe and much colder in the Arctic Circle.

As a biome is an area with distinctive vegetation and climate, some plant species are unable to thrive in certain environments. An example is in the Tundra biome, found in the far north of Russia, small shrubs and mosses grow. Larger species of vegetation struggle to exist in the cold dry conditions found here.

Below you can see a climate graph of Moscow (left) and Yakutia (right).







3. ANIMAL ADAPTATIONS IN YAKUTIA

Yakutia is an area of Eastern Russia (a bit like a very large county). It is home to an indigenous group of people called the Yakuts. The Yakuts are the indigenous people of the Republic of Sakha in the northeast of Siberia. Today there are about 400,000 Yakuts living in this vast region that covers an area of about 3,103,200 square km, roughly five times the size of France! Over 40% of Yakutia is located within the Arctic.

It has an extreme climate and in some areas temperatures average -50°C in January and can reach +39°C in July. The town of Verkhoyansk in northern Yakutia, once recorded a temperature of -67.8°C. This is the coldest temperature ever registered in the northern hemisphere. The main traditional occupations of the Yakuts were, and in many rural areas still are, cattle and horse breeding. It was generally women who looked after cattle while men looked after horses. Virtually every Yakut speaks their own native language and there are books, magazines and newspapers published in it. There are also TV and radio programs that are broadcast in the Yakut language.

The Yakut horse is remarkable in that it can search for food outside in winter temperatures as low as -60°C and doesn't require barns for shelter.

Although it is considered as a horse and not a pony, the typical Yakut is rather small and compact, with a straight neck and short, wide feet, a direct result of its adaptation to the extreme climate to which it is exposed. In addition to this compact conformation which retains heat better, he is endowed with a very thick mane and tail and an exceptionally thick winter coat. His body mass becomes completely rounded during the short summer months, a sign that it is accumulating fat which will help it to survive the long winter months, during which it can lose as much as 20% of its weight! The fat can be as much as 35 kg. (77 lb.) on the total weight of a well-fed adult horse. Even its internal biomechanism has learned how to transform itself in order to regulate the rhythm and the volume of its breathing, passing from 20 breaths a minute during the summer to 10-12 during the winter. The horse is equally blessed with an exceptional sense of smell, which means he can find whatever there is to graze during the Arctic semi-darkness, and with hard enough hooves to scrape away the ice to reach the rare morsels of grass.

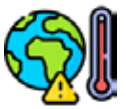
Geography Knowledge Organiser

YEAR 8	GEOGRAPHY OF THE ENVIRONMENT	GEOGRAPHY KNOWLEDGE ORGANISER

1. INTRODUCTION TO GEOGRAPHY OF THE ENVIRONMENT

Environmental geography is the branch of geography that describes the interactions between humans and the natural world.

Examples of environmental issues:
- Acid rain
- Global warming
- Energy consumption
- Waste
- Plastic pollution
- Noise pollution




2. CLIMATE CHANGE

Climate change is any major change in the weather of a region over a long period of time e.g., increasing average temperature or rainfall.

Global warming is the recent increase in global temperatures.

Human Enhanced Greenhouse Effect

Causes: diesel cars, farming e.g., slash and burn, burning fossil fuels.

Effects: Ice sheets melting, sea levels rising, flooding coastal regions, more extreme weather, longer and more frequent droughts, difficulty growing crops, water supplies, physical health e.g., smog related issues such as asthma, heart disease and lung cancer.

3. AUSTRALIAN BUSHFIRES

Bushfires are a type of wildfire – fires that burn through wild vegetation like woodland, scrubland, grassland or savannahs. These fires are unpredictable and difficult to control.

Bushfires are particularly common in areas that experience hot, dry weather, like Australia, Greece, Africa and parts of the USA, like California.

The Australian Bushfires 2019-2020

The fires burnt from June 2019 to September 2020. Extreme temperatures and dry weather made the fires spread widely. Hot, dry weather combined with prolonged drought and strong winds created perfect conditions for fire to spread rapidly.

4. CARBON FOOTPRINT

Carbon footprint is a measure of the amount of greenhouse gases released into the atmosphere as a result of the activities of a particular individual, organisation or community.

Contributing to your carbon footprint
- Traffic congestion
- Power stations
- Watching TV

Reducing your carbon footprint
- Insulating houses
- Large windows facing midday sun
- Triple glazing
- Use public transport or walk/cycle for short journeys
- Eat local food

5. WIND ENERGY

Benefits of wind energy: clean source of energy, do not produce fossil fuels, farmers can continue farming, low running cost once built, no pollutants, UK is windy (offshore wind)

Hornsea One is a wind farm located in the North Sea, generating enough green energy to power over 1 million UK homes.

The wind farm comprises of 174 turbines and covers an area of 157.2 square miles, which is over 5 times the size of the city of Hull. A Hornsea 1 turbine can power a UK home for over a day with a single rotation.

Hornsea Two wind farm comprises of 165 turbines and became fully operational on 31 August 2022.

Hornsea Three will comprise of 231 offshore wind turbines.

6. OCEANS AND PLASTIC POLLUTION

Half of all plastics ever manufactured have been made in the last 15 years.

Every year, about 8 million tons of plastic waste escapes into the oceans from coastal nations.

The solution is to prevent plastic waste from entering rivers and seas in the first place, many scientists and conservationists say. This could be accomplished with improved waste management systems and recycling, better product design that takes into account the short life of disposable packaging, and reduction in manufacturing of unnecessary single-use plastics.

Can it. Tap it. Stow it. Remove it. Recycle it. Reuse it. Refuse it. Reinvent it.

7. SUSTAINABLE TOURISM

Sustainable is meeting the needs of the present without compromising the ability for future generations to meet their needs.

Sustainable tourism involves taking steps to reduce the negative impac tourism. It allows tourism to benefit tourists, local communities and lo environments.

Tourism can cause positives e.g., jobs of local people and increased income. And negatives e.g., attractions becoming overcrowded, litter and pollution.

Boracay is an island in the Philippines. On April 4th 2018, the Philippine government announced that Boracay would be closed for up to six months starting on April 26th.

8. WILDERNESS AREAS UNDER THREAT

Wilderness: a natural environment that has been largely undisturbed by human activity.

Importance of wilderness areas:
- Produce and filter freshwater
- Home to thousands of species of plants and animals
- Forest biomes absorb CO_2 reducing global warming
- Provide recreational opportunities e.g., hiking, riding

Threats to wilderness areas:
- Mining
- Oil extraction
- Hunting
- Tourism
- Commercial farming
- Spread of settlements and roads


The Big Question Review

What are the big issues affecting our global environment?

Geography Knowledge Organiser

YEAR 8 | **THE MIDDLE EAST** | **GEOGRAPHY KNOWLEDGE ORGANISER**

1. LOCATION OF THE MIDDLE EAST

The Middle East consists of 18 countries and is located in Western Asia with the Tropic of Cancer passing through some parts of it. Some of the seas surrounding the Middle East include the Mediterranean, the Caspian, the Red Sea and the Arabian Sea. Some examples of countries in the Middle East include Saudi Arabia to the southwest, Pakistan to the east and Turkey to the northwest.

Middle Eastern Climate

The climate in the Middle East is consistent throughout the region with only two seasons: winter and summer, which are jokingly referred to as hot and hotter.

- Summer: May – September (High 40°C's)
- Winter: October – April (around 20°C)

Physical Geography

It extends over 2,000 miles from the Black Sea in the north to the Arabian Sea in the south, and about 1,000 miles from the Mediterranean Sea in the west to the mountains of Iran. The region represents an area of over 5.0 million square miles.

Some natural features include Arabian Desert, Kara Kum Desert, Zagros Mountains, Hindu Kush Mountains, Taurus Mountains, Anatolian Plateau, Major Rivers and Lakes: Tigris River, Euphrates River, Nile River, Dead Sea, Lake Urmia, Lake Van, Suez Canal.

Human Geography

The Middle East has a population of 368,927,551.

Tourism plays a big part in strengthening economy of the Middle East.

Some examples of tourist arrivals include:

- United Arab Emirates : 7.12 million tourists a year
- Turkey: 39.81 million tourists a year
- Saudi Arabia: 18.62 million tourists per year

2. CONFLICT IN THE MIDDLE EAST

There are 5 main reasons for various conflicts in the Middle East:

Borders

Some tensions have been created by regional borders, which were first created by Britain and France when they were trying to colonise the region. This has led to divisions between groups such as the Kurds, who are divided across 5 different countries in the Middle East.

Israel was also created in 1948 as a place for Jewish people to live in peace following World War II. This led to the country of Palestine becoming divided and this has caused ongoing tension and conflict in this region.

The Arab Spring

In 2011, protestors took to the streets in Tunisia and Egypt to demonstrate against their governments. Unemployment, rising prices and corruption were common. These protests eventually led to a change in government in both countries. They also led to more protests in Yemen, Bahrain, Libra and Syria. In these countries, however, protesters were met with violence and the demonstrations failed. The ongoing wars in Yemen and Syria are a result of these protests.

Oil

At the heart of many of the problems in the Middle East is oil. Although it provides wealth for this region, it has also led foreign nations in Europe and particularly the USA, to interfere in Middle East politics. This has made the conflicts worse and has resulted in an increase in terrorist events around the world e.g. 9/11.

Religion

There is a religious division in the region between two different types of Muslims – Shia Muslims and Sunni Muslims (see the maps on this page). Two of the most powerful countries in the region are Saudi Arabia and Iran. Saudi Arabia is the leading Sunni power and Iran is the leading Shia power. Neighbouring countries look towards one of these two countries for religious and political support.

The Iraq War

The balance of power in the region between the two Islamic groups (Sunni Muslims and Shia Muslims) changed after the Iraq War in 2003. The Iraqi Government, led by Saddam Hussein, was formed mainly by Sunni Muslims, who were a minority within their own country. When Saddam Hussein was overthrown (he was sentenced to death and executed), Shia Muslims were put in power, creating two strong Shia countries – Iran and Iraq.

3. THE SYRIAN REFUGEE CRISIS

Syria is located to the northwest of the Middle East. The Tropic of Cancer is close to it, and it is bordered by the Mediterranean Sea to the west. Turkey borders Syria to the north, Iraq to the east/southeast and Jordan to the south.

Since March 2011, a civil war has been taking place in Syria. Protestors armed themselves and violence with the government forces broke out. Many Syrians' homes have been destroyed by bombs. Lots of parents fear for their children's lives. When the war first broke out, thousands of Syrians fled to the nearby countries of Turkey, Jordan and Lebanon.

There has been a mass migration of people from Syria. These people have little or no choice to leave and are known as 'refugees. Many of the refugee camps in countries such as Turkey have very poor living conditions. Tents can be cold in winter. The refugees are not allowed to work and there are no schools for children. Many Syrian children have lost family, suffered injuries and missed years of school.

Countries such as the UK and Germany have been very welcoming to Syrian refugees. Often, they are provided with homes and the children attend local schools. Some people in countries like the UK and Germany are worried about the number of refugees arriving. Some of the refugees can find it hard to adapt to a new way of life, language and culture.

4. CIVIL WAR IN SYRIA EFFECTS

The civil war in Syria has had many devastating effects. Some of these include:

Social	Economic	Environmental
• 306,887 people killed in the war as of 2022. • 6.8 million internally displaced people in Syria. • Nationwide loss of electricity for people. • 11 million people fled their homes. • Syrian migrants exploited for money by people traffickers offering transportation across the Mediterranean Sea.	• A cost of £2.5 billion in military aid for other countries (USA, UK). • From 2010 to 2018, Syrian exports fell from $8.7 billion to $0.7 billion, a decrease of 92%. • Syrians provide a low-wage workforce to do the jobs people do not want to do in the destination country.	• Due to a loss of electricity, Syrians deforested areas for fuel wood. • Soil degradation and soil erosion have increased due to conflict in areas, increasing desertification. • Lack of food due to war.

5. OIL IN SAUDI ARABIA

Oil was first struck in Saudi Arabia on 3rd March 1938 in the Dammam oilfield. This was identified as the largest source of petroleum in the world. This discovery radically changed the physical, human, and political geography of Saudi Arabia, the Middle East, and the world.

Today, oil accounts for roughly 92% of the Saudi budget. Saudi Arabia is one of the largest producers and exporters of oil in the world.

Oil has brough many positives to Saudi Arabia, including:

- Millions of pounds of the Saudi Arabian economy, helping improve infrastructure, industry and overall economic development
- Increased access to electricity, providing more jobs in industry, allowing people to move away from jobs in farming
- Higher incomes allow for more food for hungry families

However, some negatives include:

- Corruption related to control of oil, sometimes leading to wars e.g. The Persian Gulf
- Oil spills damage the environment and contaminate soil and water
- Oil is a fossil fuel which will run out at some point, making the income made from it unsustainable

Geography Knowledge Organiser

YEAR 8 | **GLACIATION** | **GEOGRAPHY KNOWLEDGE ORGANISER**

1. GLACIERE FORMATION

An **ice age** is a period of long-term reduction in the temperature of Earth's surface and atmosphere.
We are currently at the end of an ice age which began 2.6 million years ago. This is called the Pleistocene.
• During ice ages there are cooler periods called 'glacial periods' when the ice advances to cover more of the earth's surface. Each glacial period last for roughly 10,000 years.
• In between the glacial periods are warmer periods, called 'interglacial periods', when the ice retreats to cover less of the earth's surface. Again, each one lasts around 10,000 years.
• Today, 10% of the earth's surface is covered by ice. The only large ice sheets are the ones in Greenland and Antarctica.

Glacier: A moving body of ice.
Glaciers are found at high altitudes across the globe, even on high mountains close to the equator. They are also found at lower altitudes close to the North and South Poles.
Glaciation: The formation of glaciers and the process by which they shape the landscape around them.
Valley glacier, ice sheet, ice cap, snow patches.

How do glaciers form?
Layers of snow, nevee is compressed snow, compaction causes a glacier to grow.

2. GLACIAL LANDSCAPES: EROSION

Glacial Budget: the difference between accumulation (gaining snow) and ablation (losing snow) over one year.

Types of glacial erosion:

Plucking: is when melt water from a glacier freezes to the base rock and lumps of cracked and broken rock. When the ice advances downhill, rock is plucked from the back wall. , Abrasion = happens when rocks which have frozen to the base and the back of the glacier scrapes the bedrock.

Freeze-Thaw: is when melt water or rain gets into cracks in the bedrock (usually the back wall). At night the water freezes, expands and causes the crack to get larger. Eventually the rock will break away.

Erosional Landforms:

Corries/tarns: A corrie is a steep arm-chair feature in the mountains. A tarn is a lake at the bottom of the corrie (e.g. Helvellyn, Lake District, England).

Aretes: Steep-sided ridges where two corries form back-to-back (e.g. Striding Edge, Lake District, England).

Pyramidal Peak: A pointed mountain with at least three back-to-back corries (e.g. Mt Snowden, Snowdonia, Wales).

3. GLACIAL LANDSCAPES: DEPOSITION

Glaciers can move material over very large distances. This is called **transportation.**

The material is frozen in the glacier, carried on its surface, or pushed in front of it. It's called bulldozing when the ice pushes loose material in front of it.

When the ice carrying the material melts, the material is dropped on the valley floor – this is called deposition. It also occurs when the ice is overloaded with material so does not have enough energy to continue carrying all of it.

Deposits laid down by ice are called till which is an assortment of material of various shapes and sizes.

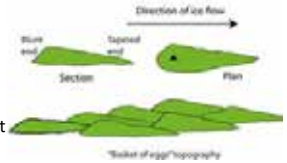
Boulder clay till can be found in areas of the UK, it is easily eroded, and is one reason why the Holderness coast is so vulnerable to coastal erosion.

Depositional Landforms:

Erratic: Large rocks deposited by the glacier (e.g. Norber).

Moraine: Unsorted angular rocks (till).
Lateral, medial and terminal.

Drumlin: Elongated hills of glacial deposits. An obstacle causes the glacier to deposit material. There is a stoss end and a tapered shape. A group of drumlins is called a basket of eggs.



4. THE LAKE DISTRICT

The Lake District is a glaciated landscape located in North-West England in the county of Cumbria. Glaciated landforms include Helvellyn, Red Tarn, Striding Edge, Keppel Cove and Thirlmere.

5. HUMAN ACTIVITY IN GLACIAL LANDSCAPES

Glaciated landscapes provide opportunities for humans:
• Tourism in Geiranger Fjords, Norway
• Hydro-Electric Power in Dinorwig, Wales
• Tourism and Water Transfer in the Lake District, England.

Tourism in the Lake District example:
Physical attractions (e.g. Lake Windermere)
Cultural attractions (e.g. Beatrix Potter's house)
Social impacts (e.g. walkers can damage farmland and dogs can disturb sheep)
Economic impacts (e.g. 15 million tourists visited in 2016)
Environmental impacts (e.g. pollution from boat engines causes problems for wildlife in Lake Windermere)
Management strategies (e.g. dual carriageways have been built to connect tourist areas to the motorway to ease congestion).

6. CHANGING GLACIERS

Over the last 60 years, global average glacier ice has reduced by 22%.

Many of the Alps' popular resorts lie at relatively low levels (around 1,000m high). They are all in danger of running out of snow as the world warms up.

The UN estimates that in 30 years' time the snowline will have risen by 300m and that up to half of all resorts in Europe will be forced to close by 2050.

This will be very difficult as hotels, restaurants and shops are forced to close due to lack of business. Switzerland could lose up to £1 billion a year if its resorts close.

Resorts at lower levels have considered alternative options. Some are transporting tourists up the mountains to higher levels for skiing. Artificial snow can be cannoned onto the slopes; however, this can be expensive and have a serious effect on vegetation. Some resorts have diversified into cross-country skiing, hiking, climbing, sledding or snowshoeing. Resorts could also be linked together by ski lifts but this might be harmful to the environment.

Scientists are trying to reduce ice melt on the Rhone glacier by covering it with a reflective sheet, however this is small-scale and does not address the issue of increased global warming, causing the glacier to retreat at a rapid rate.

Geography Knowledge Organiser

YEAR 8 | **GLOBAL DEVELOPMENT** | **GEOGRAPHY KNOWLEDGE ORGANISER**

1. WHAT IS DEVELOPMENT?

Development means people reaching an acceptable standard of living or quality of life.

Quality of life means the general well-being of people, which includes income, health, education, employment and the environment.
Every country in the world is at a different stage of development. If a country is developing, it is changing for the better. This is a long and difficult process.

Absolute Poverty: People are living without the bare essentials.

Relative Poverty: People have the bare essentials, but have less income than the majority of the population in their country.

2. WOLRD DEVELOPMENT

The Human Development Index (HDI) is a way of measuring development which looks at 3 different aspects:

- Living standards (GNI per capita)
- Health (life expectancy)
- Education (average number of years of schooling)

The HDI has a value between 0 and 1. The higher the number, the greater the level of development.

Physical, economic and historical causes mean that development across the world is uneven. Examples are war, drought and corrupt governments.

3. POPULATION

Population: The number of people living in a particular place is known as the population.

Population density: When the population of an area is described as densely populated there are lots of people in one area.

When the population is described as **sparsely** populated there are few people in one area.

Cities grow faster in LICs than in HICs. This is due to push factors like fewer jobs in the countryside, and pull factors such as better healthcare in cities.

As the world's population rises it will bring challenges. This includes food shortages, a strain on healthcare and education services. This could result in overcultivation (over farming) of farmland to meet the demands of food for the population. There would be an increased demand for housing and a housing shortage. This could result in an increase in house prices.

4. CAUSES OF POVERTY IN SIERRA LEONE

Sierra Leone is a country on the southwest coast of West Africa. It shares its southeastern border with Liberia and is bordered by Guinea to the north.

Sierra Leone is an LIC and many people in the country live in poverty.

Causes of poverty in Sierra Leone

The **civil war** (1991-2002) lasted 11 years, which left over 50,000 dead. Often after attacks on a village, surviving children would be abducted and were trained as child soldiers. Now, many refugees who fled the country during the civil war are returning to Sierra Leone.

Mining (blood diamonds): during the civil war, rebels took over areas where diamonds were mined and 'taxed' the gems that were found. The mines are very harmful to the environment as they cause landslides and result in a loss of habitat. People still work in mines today and these conditions are very poor. The workers only receive very low wages.

Unemployment/crime: Unemployment levels are high in Sierra Leone. 60% of the population live on less than £1 a day.70% of youth (aged 15-35) are unemployed. People aged 15-35 are 1/3 of the total population of Sierra Leone. Young people find it very difficult to get a job as they do not have the skills and education they need. People who are unable to afford the bare essentials turn to crime because they are desperate to survive.

Education: Only 48% of the total population can read and write. One reason for this is because of the civil war. This meant many children at the time did not go to school. These children are now adults who are still unable to read and write .There is very little government spending on education.

5. SLUMS IN SIERRA LEONE

In Freetown, the capital city of Sierra Leone, many people live in low quality housing, which is unofficial. They often don't have electricity or running water. Toilets are shared between many houses and are unsafe, with open sewers. It is very difficult for people to access healthcare, with only one hospital. Many people did not go to school and unemployment is at 80% in the city.

Since the whole country faces many challenges, the government does not support people in the slums.

Hull is twinned with Freetown and lots of charities have worked to help people there. This includes the following:

HEALTH POVERTY ACTION · WaterAid · BritishRedCross · STREET CHILD

7. POVERTY IN A HIC (LAS VEGAS, NEVADA IN THE USA)

Las Vegas is located in southern Nevada, which belongs to the United States of America. Las Vegas is a city right in the Mojave Desert in Clark County. It is close to the borders of the states of Arizona and California.

Why is there poverty in Las Vegas?

- People live an unhealthy lifestyle - gambling, smoking, drinking and drugs.
- High unemployment rates.
- Increasing price of food, drink and shelter.
- People go to Las Vegas to gamble.
- Some people become addicted and lose their jobs, car and money.
- No state taxes means little or no money for social services e.g. not enough hospitals.

The consequences are that people will not be able to access healthcare and have a low life expectancy. A lot of people are homeless and live on the streets or in tunnels under the city.

6. MIGRATION FROM LIC TO HIC: MEXICO TO USA

Migration is the movement of people from one place to another on a permanent basis.
It can be from country to country e.g. Mexico to USA.
International migrants are called **immigrants** (come into a country) and **emigrants** (leave a country).
Forced migration is where people known as refugees migrate to escape danger or natural disasters e.g. Syria to UK.
Voluntary migration is where people move to improve their lives.

Mexico push factors
- not enough jobs (55% employment)
- low income
- poor housing
- little education.

USA pull factors
- more jobs available
- better healthcare
- the "American dream"

IMPACTS ON MEXICO	IMPACTS ON THE USA
• Certain villages such as Santa Ines have lost 2/3 of its inhabitants.	• Mexican culture has enriched the US border states with food, language and music.
• The Mexican countryside has a shortage of 'economically-active' people (workers).	• The incidents of TB has been increasing greatly due to the increased migration. Illegal migration costs the USA millions of dollars for border patrols and prisons.
• Young people tend to migrate leaving the old and the very young behind.	• Mexicans are seen as a 'drain' on the USA economy.
• Legal and illegal immigrants together send some $6 billion a year back to Mexico.	• Migrant workers keep wages low which affects Americans.
• Many men emigrate leaving a majority of women who have trouble finding marriage partners. This has created a gender-imbalance in some areas of Mexico.	• Migrants have caused problems in cities due cultural and racial issues. • Mexican migrants benefit the US economy by working for low wages.

Geography Knowledge Organiser

YEAR 8 | **PLASTIC POLLUTION** | **GEOGRAPHY KNOWLEDGE ORGANISER**

1. THE GREAT PACIFIC GARBAGE PATCH

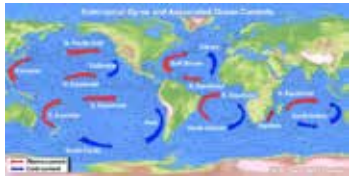
The Great Pacific Garbage Patch is located in the North Pacific Ocean to the west of California between latitudes 35° north and 42° north and longitudes 135° west and 155° west.

8 million tonnes of plastics end up in our oceans each year. Most of it finds its way into one of the 5 massive garbage patches in the world's oceans.

The biggest of them all is called the Great Pacific Garbage Patch with ocean currents driving plastics to this area. Half of this patch is made up of fishing lines, fishing nets and fishing ropes due to the fishing in the area. The other half is full of hard plastics such as bottles and plastic wrappers.

Ocean gyres are large system of circular ocean currents formed by global wind patterns and forces created by Earth's rotation. The five major circulation patterns formed by the currents on this map are the world's five major ocean gyres: North Atlantic, South Atlantic, Indian, North Pacific, and South Pacific. (The Indian Ocean Gyre is actually two, split slightly below the Equator.)

In 1992, a shipping container of 28,000 plastic bath toys fell overboard on its way from Hong Kong to the United States. Scientists have learnt a lot about ocean currents due to this.



2. PLASTIC POLLUTION

Some 13 billion bottles of water are bought in the UK every year. 59% are collected for recycling. Plastic bottles that are not recycled cost £22million to dispose of.

Effects of plastic pollution

Recent research has estimated that more than half of all sea turtles have eaten plastic. Turtles eating just one piece of plastic have a 20% chance of dying, eating 14 pieces raises this to a 50% chance. Young turtles are at a greater risk, confusing plastic for food. Turtles can confuse plastic bags floating in the ocean for jellyfish, which are their natural prey.

3. KENYA TOURISM AND PLASTIC

Located off the coast of northern Kenya, Lamu Island is one of the main islands of the Lamu Archipelago (extensive group of small islands).

Lamu is a popular beach holiday resort because it has the oldest town in Kenya, unique cultural heritage, amazing cuisine, romantic restaurants, historic architecture and fascinating museums. Many people want to visit the golden beaches, coral reefs, crystal clear seas and mangrove swamps. They also go on marine safaris to turtle breeding grounds.

Since the 1990s there has been a change in pollution levels on Lamu's main beach (Shela). Many of Lamu's 13,243 residents' jobs depend on tourism.

What is being done?

In 2017 Kenya introduced a total ban on plastic bags, with the most severe penalty in the world - $40,000 (£31,000) or up to 4 years in jail for manufacturing, selling or using them.

Beach clean ups were organised on Shela beach. Thousands of sacks of plastic were removed by volunteers. They were transported by donkey, tractor and boat to be recycled.

The Flipiflopi Dhow is a boat made of recycled wood and flip flops. These were the most common type of plastic found on the beach. The boat was made by local craftspeople. The organisation aim to sail around the world to tell their story.

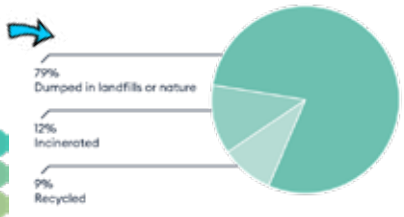
4. DEALING WITH PLASTIC WASTE

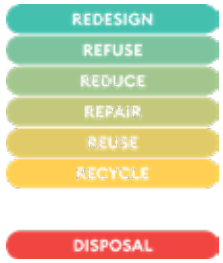
Hidden plastic

- Many of our clothes are made from plastic. Synthetic fabrics such as polyester and nylon are made using plastic fibres.
- Everyday items such as teabags use plastic to seal them shut.
- Some cosmetics contain microbeads advertised as an exfoliant. A single shower could result in 100,000 plastic particles being released in to the ocean.

An increasing amount of plastic is being produced each year since 1950.

What has happened to the 6.3 billion tonnes of plastic produced since the 1950s?





Eliminating unnecessary plastic

The 6Rs (ranked from most preferable to least preferable) give a range of strategies to help us reduce our plastic

5. UK PLASTIC WASTE MANAGEMENT

Many wealthy countries send their recyclable waste overseas because it is cheap, helps meet recycling targets and reduces domestic landfill.

The European Union is the largest exporter of plastic waste, with the US leading as the top exporter for a single country.

Malaysia said a total of 3,737 tonnes of unwanted waste had been sent back to 13 countries including 43 containers to France, 42 to the UK, 17 to the US and 11 to Canada.

China bans plastic imports

Coming into effect on December 31 2017, the import ban sought to crack down on plastic flooding into China, viewing it as a social and environmental hazard.

The report calculates that since 1992, China has imported 106 million tonnes of plastic waste.

The UK's 25 year plan to improve the environment

In January 2018, the UK government set out a plan to reduce plastic waste. Measures included:

- Plastic bag charge of 5p to reduce the number of carrier bags in circulation
- Considering a deposit return scheme for drinks containers, including plastic bottles
- Ban the sale of plastic straws, drink stirrers and plastic-stemmed cotton buds
- Ban the use of plastic microbeads in cosmetics

6. PLASTICS FIELDWORK

Our task is to assess the level of plastic pollution, and how it affects the environmental quality of our school grounds.

Fieldwork is an essential ingredient of geography because it provides a 'real-world' opportunity to develop and extend their geographical thinking.

When carrying out fieldwork we use a geographical enquiry approach and follow the cycle.

Our hypothesis: **'There will be less plastic waste near areas with more bins.'**

Risk assessment: This is carried out before the fieldwork and during the fieldwork. This is a process where you identify risks and then decided what could be done to reduce the risk.
Primary data: data observed or collected directly from first hand experience.
Secondary data: data that was collected by someone else.
Quantitative data: This data involves numbers and counting.
Qualitative data: This data involves a number of techniques that don't involve numbers or counting. They are subjective and involve the judgement of the person collecting the data.

History Knowledge Organiser

Knowledge Organiser: The English Civil War

The reign of the Stuart Monarchs, Charles I and his son, Charles II, was one of the most turbulent periods of British History. Parliament and King Charles I disagreed on a grand scale. The country was torn apart by furious fighting for 4 years, which led to the execution of Charles I. During the Civil War families were divided about which side to support: the Royalists or the Parliamentarians. It was a time when power moved away from the King and shifted to Parliament.

Key Points

Civil War: A war between groups of people in the same country.
1642-1649: The years the Civil War took place.
Royalists: Sometimes called 'Cavaliers', the gentry of the northern and western areas who supported the king. At the start of the war Charles had better horsemen. Charles also used soldiers from Scotland, Ireland and Wales. Most of the Royalists were conservative (traditional) Protestants or Catholic
Parliamentarians: Also called 'Roundheads', the merchants and traders of the south-east and London, supported Parliament. This gave Parliament much more money than the king. Parliament also controlled the navy. Many of the supporters were also Puritan (strict Protestants).

Factors that led to Civil War

Short-term	Long-term
+Irish Rebellion, 1641. +The Grand Remonstrance, 1641. +Charles attempts to arrest 5 MPs. +Parliament and Charles start to raise armies. +Charles loses control of London and declares war.	+Ship Money- a new tax to raise money for the King. +Divine right of kings. +Poor leadership by Charles. +Parliament wants more say. +Charles marries a Catholic. +Charles ignores parliament. +Religious changes.

Events of the Civil War

1642- Charles I attempted to arrest 5 MP's. Civil War had started.

1642- Battle of Edgehill**: indecisive.**

1643- Battle of Newbury: **indecisive.**

1644, July- Battle of Marston Moor: **Parliament victorious.**

1645- Battle of Naseby: **Parliament victorious.**

1646- Charles I surrenders to Scottish

1648- Battle of Preston: **Parliament victorious over Royalists and Scots.**

1649- Execution of Charles I

Consequences of the Civil War

+After the execution of Charles, England became a republic for 11 years (1649-1660).
+Under the Protectorate the army was important in running the country from 1653-1660. The government became a military dictatorship.
+the Puritans became powerful.
+Poor people became more political. Groups like the Levellers and the Diggers were formed.
+1660 the Protectorate collapsed and Charles

Useful Links: https://www.bbc.co.uk/bitesize/guides/zky82hv/revision/1
https://www.britannica.com/event/English-Civil-Wars

History Knowledge Organiser

THE FRENCH REVOLUTION KNOWLEDGE ORGANISER

Overview and Map

What was the The French Revolution?
The French Revolution was a series of events in which people overthrew the monarchy and took control of the government.

It took place over the course of ten years – it is generally agreed to have begun on 14th July 1789, when the prison at Bastille was stormed by revolutionaries, and ended when Napoleon established the Consulate on 9th November 1799.

The Revolution is widely deemed to be one of the most important events in human history, triggering the global decline of absolute monarchies, being replaced with republics and liberal democracies.

Facts and Statistics
-The guillotine became the official method of execution throughout the period of the French Revolution. It is estimated that around 18,000 people were beheaded using this method in all, but this could be anywhere up to 40,000!
-Bastille Day is celebrated in remembrance of the storming of the Bastille prison, and recognised as the start of the French Revolution. However, the prison was nearly empty, with only 7 prisoners!
-When King Louis XVI's attempted escape from France was thwarted at the border, locals were only able to recognise him because his face was imprinted on the coins of the time!

Powers and Factions

Ancien Régime	The Ancien Régime was the social and political system used in France from the Middle Ages until the Revolution. It was based on an absolute monarchy and feudal system of French nobility.	**Jacobins**	The Jacobins, led by Maximilien Robespierre, longed for a strong centralised government. They were ready to push their plans in, no matter what opposition they faced.
The National Convention	The National Convention was the first government of the French Revolution, organised as a republic and abandoning the monarchy altogether. It was not a unified body, as different factions emerged.	**Marais (The Plains)**	The Plains sat in the lower seats of the National Convention, and made up its majority. The Girondins and Montagnards vied for control of these less extreme members.
Girondins	The Girondins were a relatively moderate group of revolutionaries, who dominated the National Convention until the insurrection 1793, which resulted in their purge and execution (the start of the Reign of Terror).	**Committee of Public Safety**	The Committee of Public Safety, created in April 1793, were formed to oversee the government. When Robespierre joined, the committee led a purge of Girondins.
Montagnards	The Montagnards were far more radical and aggressive than Girondins. They completely supported the revolution and the abolition of monarchy. The Jacobins and the Cordeliers were the groups within the Montagnards.	**French Directory**	The French Directory or Directorate was a 5 person committee which succeeded the CPS, governing France between Nov 1975 and Nov 1999, until ousted by Napoleon.

Key People

King Louis XVI - King Louis XVI (1754-1793), born Louis-Auguste, was the last King of France before the fall of the monarchy in the French Revolution. He lived in the extravagant Palace of Versailles, with his wife, Marie Antoinette, at a time when money in the country was scarce. Some of his policies, e.g. derugulation of the grain market, led to increased costs, and exacerbated the anti-establishment tide growing in the country. After the monarchy was abolished, Louis was arrested, found guilty of treason, and executed.

Maximilien Robespierre – Maximilien Robespierre (1758-1794) was a French lawyer, politician and Jacobin leader. Before the Revolution, he was known for defending the poorest in society. Shortly after the execution of the king (which he lobbied for) he was elected to the Committee of Public Safety, formed to oversee the government. In this time, he oversaw the execution of around 17,000 opponents of the Revolution. His increasingly radical actions caused the CRS to turn on him, executing him in 1794.

Marie Antoinette – Marie Antoinette (1755-1793) was the last Queen of France before the French Revolution. When she first became Queen, she was generally adored by the French public, and gave birth to four children. However, over time, her popularity increased due to a number of factors – Chief amongst these were her loyalty to Austria (her place of birth, an enemy of France) and her extravagant spending whilst many in France financially. After her failed escape with Louis in the Flight to Varennes, Marie was executed for treason on 16th October, 1963.

Jean-Paul Marat - Jean-Paul Marat (1743-1793) was a French journalist and politician, who became known for his uncomprimising stance towards the new leaders and intitutions of the revolution. He was one of the most radical voices of the French Revolution, and was a impassioned defender of the sans culottes (the poor in society, who were for the Revolution), making him an unofficial voice of the Jacobin group. Marat was assassinated by Charlotte Corday, a Girondin sympathiser, as he took a bath. In death, Marat became an icon to the Jacobins as a revolutionary martyr.

Charlotte Corday – Charlotte Corday (1768-1793) was a key figure in the French Revolution, due to her assassination of Jean-Paul Marat. A Girondin supporter, Corday had been angered by the radical course that the Revolution had taken due to the journalistic and political input of Marat. She became a hero to those who were against Marat's thinking. After her execution for the assassination in July 1793, she was given the posthumous nickname 'The Angel of assassination.'

Napoleon Bonaparte – Napoleon Bonaparte (1769-1821) was a French statesman and miliary leader. A brilliant general who had won many battles, Napoleon organised a successful coup to remove the faultering Directory from power in 1799, establishing the Consulate, of which he became First Consul. These powers essentially made him dictator of France, and ended the Revolution era. Napoleon later became the first Emperor of France.

Major Events and Key Information

Storming of Bastille		The Bastille was a medieval fortress, armory, and political prison that symbolized the authority of the monarchy, positioned in the centre of Paris. After King Louis refused to grant the lower classes of the country more power, a crowd of around 900 people from the Third Estate violently attacked the Bastille. Its fall is seen as the starting point of the revolution and is celebrated as a public holiday every 14th July in France (Bastille Day).	**14th July, 1789**
Flight to Varennes		The Flight to Varennes was a dramatic moment in which King Louis XVI and the immediate members of the Royal Family, disempowered by the recent reforms, attempted to flee France. They were unsuccessful, however, as they were spotted and arrested in the town of Varennes. Their failed attempt ultimately sealed Louis' fate (and that of his wife, Marie Antoinette) as it confirmed that they were not in favour of the reforms.	**20th-21st June 1793**
Executions of Louis XVI and Marie Antoinette		Louis was made to go on trial as an ordinary citizen (Louis Capet), and he was very quickly found guilty of high treason. Whilst he had no allies in the Convention, the Girondins wanted Louis to at least live. The Jacobins would not allow this however, and Robespierre convinced the people that the king must die in order for the revolution to live. He was therefore executed. Marie Antoinette, his queen, was executed four months later.	**21st January and 16th October 1793**
Reign of Terror		The Committee of Public Safety took de facto control of the government. Led by Maximilien Robespierre, they began arresting and then executing their political opponents – principally the Girondins. Over 200,000 people were arrested and 17,000 killed.	**5th Sep 1793 – 28th July 1794**
Napoleon Overthrows Directory		Napoleon returned to Paris from his various military successes in 1799. The Directory was weakening, and so Napoleon completed a swift coup d'état with his allies. He formed a new government called The Consulate, thus ending the French Revolution.	**9th November 1799**

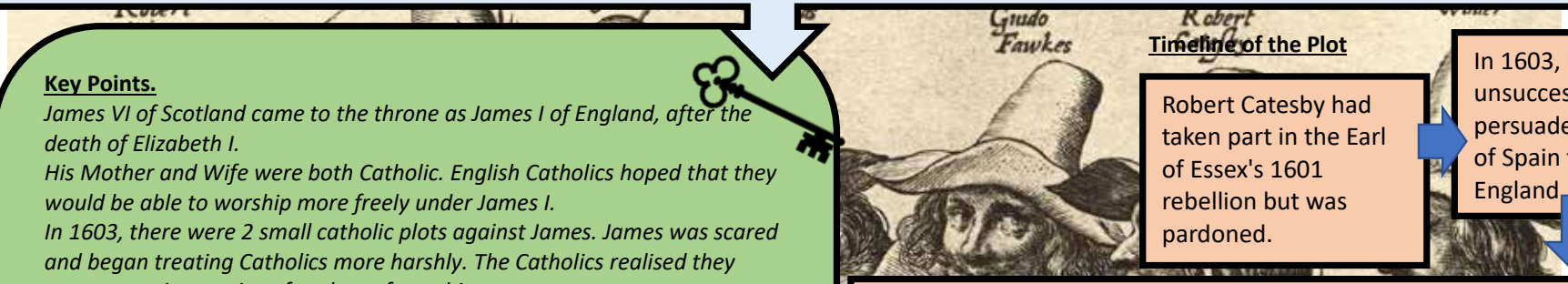
French Revolution Timeline

14th Jul 1789 – Revolution begins: Storming of Bastille.
6th Oct 1791 – Jacobin Club is formed.
20/21st Jun 1791 – 'Flight to Varennes' – Royals fail to flee.
14th Sep 1791 – King signs new constitution.
21st Jan 1793 – King Louis XVI executed by guillotine.
6th April 1793 – Committee of Safety formed.
13th Jul 1793 – Jean-Paul Marat is assassinated.
5th Sep 1793 – 'Reign of Terror' begins as Committee begins arresting opponents.
27/28th Jul 1794 – Robespierre overthrown and executed.
2nd November 1795 – Directory formed and controls government.
9th Nov 1799 – Napoleon overthrows Directory and establishes Consulate.

History Knowledge Organiser

Knowledge Organiser: The Gunpowder Plot

The Gunpowder Plot was an attempt by a group of Catholics to blow up the king and the Houses of Parliament. In October 1605, one of the plotters gave the game away whilst trying to warn a relative, who was an MP. On 4 November Guy Fawkes was caught red-handed with the gunpowder just before the king was due to open Parliament.



Key Points.

James VI of Scotland came to the throne as James I of England, after the death of Elizabeth I.

His Mother and Wife were both Catholic. English Catholics hoped that they would be able to worship more freely under James I.

In 1603, there were 2 small catholic plots against James. James was scared and began treating Catholics more harshly. The Catholics realised they were not going to given freedom of worship.

Robert Catesby: Leader of the Gunpowder Plot

Thomas Wintour, Jack Wright, Thomas Percy: Original members of the plot. Later joined by others like **Francis Tresham.**

Guy Fawkes: Also known as Guido Fawkes, a member of the plot who was caught moving gunpowder under the Houses of Parliament.

Consequences

The plotters were horribly executed. The last catholic plot in England. Catholics had to take oath of allegiance. Forbidden from a number of jobs. The government used the plot to persecute Catholics.

A Government Conspiracy?

The problem is that we only have the government's side of the story. Many of the plotters were killed immediately, and the rest of our information was gathered by torture.

Many modern historians agree that the plot – to some degree – was set up by the government. When he came to the throne, James wanted to be tolerant in matters of religion. After the plot, James and the government became fiercely anti-Catholic.

Useful Links:

http://www.bbc.co.uk/history/british/civil_war_revolution/gunpowder_robinson_01.s

Timeline of the Plot

Robert Catesby had taken part in the Earl of Essex's 1601 rebellion but was pardoned.

In 1603, he tried unsuccessfully to persuade the King of Spain to invade England

In 1604 he returned to England, where he recruited other Catholics to join a plot to kill James. One of them was Guy Fawkes. The group planned to blow up the House of Lords when King James came to open Parliament on 5 November. At first, they tried to dig a tunnel from a nearby house. When this failed, one of the plotters – Thomas Percy – rented a cellar underneath the House of Lords. Fawkes bought 36 barrels of gunpowder.

On 26 October 1605, ten days before Parliament was due to meet, Lord Monteagle got an anonymous letter warning him not to go. It said: they shall receive a terrible blow this Parliament; and yet they shall not see who hurts them. Monteagle took it to the king. The plotters realised they were discovered but decided to carry on anyway.

1 November: when he saw the letter, James realised that it meant some plot of gunpowder. 4 November: Fawkes was caught red-handed with the gunpowder

8 November: The other plotters were chased to Holbeach House in Staffordshire, where Catesby and Percy were killed. Francis Tresham, Lord Monteagle's brother-in-law, was arrested and sent to the Tower. He died there.

History Knowledge Organiser

Year 8 Industrial Revolution knowledge organiser

Industrial revolution	A time of great change in Britain between 1750 to 1900
Population	The number of people living in a particular place
Invention	Something new which is created, can be an object or an idea
Economy	The system of how money is used within a particular country
Agriculture	The process of producing food, and fibres by farming of certain plants or raising animals
Poverty	The lack of basic human needs such as clean water, nutrition, healthcare, education and shelter
Sanitation	Sanitation is the system that disposes of human waste
Industry	The process of making products by using machines and factories
Mass production	The production of many products in one go e.g. textiles

From 1750 Britain went through a process of change in a number of key areas:

- Agriculture – New tools, fertilizers and harvesting techniques were introduced, resulting in increased productivity and agricultural prosperity.
- Industry – factories sprung up all over the country creating more efficient ways to produce goods such as wool, cotton and coal. The increase in factories brought thousands of new jobs.
- Transport and communications - Thomas Telford built roads and canals in the 1700s and George Stephenson and Isambard Kingdom Brunel oversaw the 'Railway Mania' of the 1800s. There had previously been no very fast way of transporting goods and people around the country.
- Technology - There were also many scientific discoveries and technological inventions that changed society and industry. Changes to sanitation and medical treatment such as the work of John Snow and Edward Jenner improved people's quality of life.

Inventions of the Industrial Revolution

The Water Frame -1769
Richard Arkwright invented a machine, powered by water, to spin cotton into yarn, quickly and easily. His machines did not need skilled operators so Arkwright paid unskilled women and others to work on them. This invention allowed factories and mills to be built.

The Spinning Jenny - 1770
James Hargreaves, a British carpenter and weaver, invents the spinning jenny. The machine spins more than one ball of yarn or thread at a time, making it easier and faster to make cloth. This allows more workers to make cloth more cheaply and increases the amount of factories built.

The Steam Engine – 1717
Thomas Newcomen invents the first steam engine. It would later be improved by James Watt which meant steam engines could replace water and horse power in a wide variety of industries, which in turn allowed factories to be built anywhere.

The Locomotive - 1814
Richard Trevithick was a pioneer in early steam engine technology. He developed a new high-pressure steam engine which could be used to reliably move goods and passengers. This invention made transport much easier and quicker.

Factory working conditions

Long working hours: normal shifts were usually 12-14 hours a day, with extra time required during busy periods.
Low wages: a typical wage for male workers was about 15 shillings (75p) a week, but women and children were paid much less, with children three shillings (15p). For this reason, employers preferred to employ women and children.
Cruel discipline: there was frequent "strapping" (hitting with a leather strap). Other punishments included nailing children's ears to the table, and dowsing them in water butts to keep them awake.
Accidents: forcing children to crawl into dangerous, unguarded machinery led to many accidents and deaths.
Health: The air was full of dust, which led to chest and lung diseases and loud noise made by machines damaged workers' hearing.

Living conditions

Overcrowding: due to large numbers of people moving to the cities, there were not enough houses for all these people to live in.
Disease: typhus, typhoid, tuberculosis and cholera all existed in the cities of England. Overcrowding, low standard housing and poor quality water supplies all helped spread disease.
Waste disposal: gutters were filled with litter. Human waste was discharged directly into the sewers, which flowed straight into rivers.
Poor quality housing: houses were built very close together so there was little light or fresh air inside them. They did not have running water and people found it difficult to keep clean.
Lack of fresh water: people could get water from a variety of places, such as streams, wells and stand pipes, but this water was often polluted by human waste.

Important individuals of the Industrial Revolution

Robert Peel
Peel created and supported the Factories Act of 1844 which restricted the number of hours that children could work in factories as well as setting safety standards for machinery.

Isambard Kingdom Brunel
One of the most influential engineers of the Industrial Revolution. Brunel built railways and ships and opened up Britain to a new network of industry

John Snow
Snow was an English physician who discovered that the water in his local area was making everyone ill. His work led to the discovery of cholera and improved fresh water for thousands

Edward Jenner
Jenner discovered vaccination in 1796. he discovered that if you placed a small amount of disease in a human they were then able to fight it off in the future. This discovery saved millions of lives

Seebohm Rowntree
Rowntree was a English sociological researcher. He researched people living in poverty and argued that the government needed to do more to help them

History Knowledge Organiser

Knowledge Organiser – The Slave Trade

Summary

1.	Between the 16th and 19th centuries , European merchants transported an estimated 12.5 million Africans across the Atlantic to work in slavery in the Americas. Unknown millions died as a result.

Key Events

2.	**1562**: Sir John Hawkins was given permission by Elizabeth I to begin transporting captured African slaves to America. There they were sold . He is called the "father of the slave trade".
3.	1781: The Zong massacre was the killing of 133 African slaves by the crew of the British **slave ship** Zong. They were thrown overboard so that the ship owner could claim compensation from his insurance.
4.	1804: Haiti was named by slaves who had rebelled against their masters led by Toussaint Louverture.
5.	1807: The Slave Trade was abolished in England. 1833 : slavery was abolished in the British Empire.
6.	1865: Slavery was abolished in America.
7.	1960's : Black Americans still do not have equality with white Americans. Martin Luther King campaigned to change this.
8.	2009: Barack Obama was elected as the first African American to be elected President of America.

Key Individuals

11. Olaudah Equiano	A slave who bought his freedom and published a description of life as a slave. He became an anti slavery campaigner.
12. Harriet Tubman	She was born a slave in 1820 in Maryland. In 1849 she ran away. The Underground Railroad helped her to reach Canada. She became a conductor and made 19 journeys back to Maryland to help slaves escape. She led 300 people to safety.
13. William Wilberforce	A British MP and abolitionist who campaigned against the slave trade.

Key Terms

14.	**Slave Triangle** 	A three part trading journey. 1. European ships took cloth, guns, iron pots, swords to Africa and exchanged them for African slaves. 2. Ships loaded with slaves crossed the Atlantic to America were they were sold. 3. Ships loaded with sugar, cotton, tobacco returned to Europe.
15.	Dysentery	A nasty form of diarrhea killed many Africans on the journey.
16.	Middle passage	The journey of slaves on ships from Africa to America. Took 8-12 weeks. 1 in 4 died on the way.
17.	Transatlantic	Going across the Atlantic ocean
18.	Abolitionist	Someone who campaigned to end the slave trade
19.	Plantation	A large farm on which crops such as coffee, sugar and tobacco were grown.
20.	Shackles	Iron chains used to fasten the legs or hands of a slave or prisoner.
21	Branding	To mark a person or animal with a hot iron to show ownership.
21.	Cargo	Goods carried for trade
22.	Slave	A person who is the property of another and is forced to obey them.
23.	Auction	Slaves were sold to the highest bidder.
24.	Underground Railroad	The network of routes that helped slaves escape. Conductors helped the slaves who were referred to as passengers to escape. Between 40,000 and 100,000 slaves managed to escape to the northern states of America or Canada using the Underground Railroad.
25.	Jim Crow Laws	Slaves had been banned from reading and writing. Laws said they had to pass a test before they could vote. This stopped them voting. Blacks could not mix freely with whites. From 1896 it was legal to keep Black and White people separate.

History Knowledge Organiser

Year 8 Knowledge Organiser: Equality - Suffragettes

Key Events

1	1897	NUWSS formed. Millicent Fawcett is leader.
2	1903	WSPU is formed by Emmeline Pankhurst and daughters.
3	1905	**Militant** Campaign begins – Christabel Pankhurst and Annie Kenney arrested
4	1908	Mass rally in London – 300,000 to 500,000 activists attend. Window smashing using stones with written pleas on them.
5	1909	**Hunger strike** and **force feeding** starts – Marian Wallace Dunlop becomes the first hunger striker.
6	1913	**Militant** bomb and **arson** campaigns and increasing arrests which results in the passing of the "Cat and Mouse" Act, under which **hunger striker**s are temporarily released then rearrested to prevent them dying in police custody
7	1913	Emily Wilding Davison attempts to pin a **Suffragette** scarf onto the King's Horse at the Derby. She is struck by the horse and dies 4 days later.
8	1914	World War 1 starts – **Suffragette** leaders urge women to join the war effort. **NUWSS** continues to campaign for recognition for their work.
9	1918	The Representation of the People Act is passed, allowing men over 21 and women over 30 to vote.

Key People

 Emmeline Pankhurst – WSPU	 Christabel Pankhurst - WSPU	 Emily Wilding Davison - WSPU	 Millicent Fawcett - NUWSS
Led the WSPU from October 1903. Took more **militant** action such as windows smashing, **arson** and **hunger strikes**. Arrested numerous times, went on **hunger strike** and was force fed. Died in 1928.	Became a speaker for the WSPU in 1905. She trained as a lawyer but could not practice as woman. Arrested with her mother. Fled England in 1912 for fear of being arrested again. Unsuccessfully ran for Parliament in 1918.	Joined WSPU in 1906. 3 years later, left job as a teacher and became a **suffragette** full time. Frequently arrested for number of crimes inc. setting fire to post box. By 1911, become increasingly **militant**.	Leading **suffragist** and led **NUWSS** from 1897-1919. Played a key role in getting women the vote. Dedicated to using **constitutional** means, and argued that **militancy** was counter-productive.

Key Words

10	**arson**	The act of deliberately setting fire to property with a view to causing extensive damage.
11	**Cat and Mouse Act**	Permitted suffragettes on hunger strike to be released but re-arrested once well again to complete their sentences.
12	**constitutional**	A peaceful, legal way of campaigning, often using recognised 'political' methods such as petitions.
13	**enfranchisement**	To be granted the vote or the state of having the vote.
14	**force feeding**	Imprisoned suffragettes on hunger strike were sometimes force fed. Being force fed involved a rubber tube being inserted into the throat or nose and liquidised food being poured in.
15	**hunger strike**	Some imprisoned suffragettes went on hunger strike to further raise awareness for their cause.
16	**manifesto**	A public declaration or proclamation, stating the aims and methods of a campaign group.
17	**militant**	Aggressive and violent behaviour in pursuit of a political cause, favouring extreme or confrontational campaign methods.
18	**NUWSS**	The National Union of Women's Suffrage Societies (NUWSS) was formed in 1897 and brought together many smaller suffrage organisations. The NUWSS's method was non-confrontational and constitutional.
19	**pacifist**	An individual who disagrees with war on principle.
20	**petition**	A formal written request or application, especially one signed by many people, to a particular individual or group, for example, a government.
21	**propaganda**	The publication of resources and ideas designed to encourage a particular and specific response.
22	**Representation of the People Act**	In 1918, the Representation of the People Act granted the vote to women over 30 who were also householders, the wives of householders, owners of property worth over £5 or university graduates. The Act also granted the franchise to all men over the age of 21.
23	**suffrage**	The right to vote in political elections.
24	**suffragette**	A campaigner for women's suffrage willing to undertake militant action or to break the law.
25	**suffragist**	A campaigner for women's suffrage who believes in constitutional methods of campaigning.
26	**WSPU**	Women's Social and Political Union was formed when Emmeline Pankhurst found disillusionment with the progress of NUWSS. Deeds not Words was their slogan.

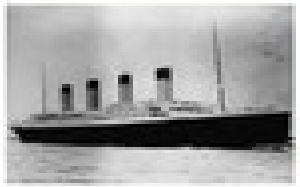
History Knowledge Organiser - Titanic

Key People	
Thomas Andrews	British architect and businessman. He was the naval architect of the RMS Titanic. Andrews died in the disaster.
Edward Smith	British Merchant Navy officer. He was the captain of the RMS Titanic when it sank on its maiden voyage. Smith died in the disaster.
J Bruce Ismay	English businessman. He owned White Star Line and thus was the owner of the RMS Titanic.
Captain Stanley Lord	Captain of the SS Californian.
Millvina Dean	The final survivor of the Titanic. She was two months old at the time. She died in 2009 at the age of 97.
Key Dates and Events	
10th April 1912	The RMS Titanic disembarked from Southampton, heading for New York City.
14th April 192	The RMS Titanic collided with an iceberg whilst on the Atlantic Ocean.
15th April 1912	The RMS Titanic sank, killing 1503 passengers and crew.
1914	The establishment of the International Convention for the Safety of Life at Sea (SOLAS).
1985	The wreck of the Titanic was discovered.
Key Vocabulary	
maiden voyage	the first voyage of a ship
passenger liner	a ship that is primarily for transporting passengers
maritime	a word meaning 'connected to the sea'.
emigrants	people who leave their country in order to settle permanently in another
transatlantic	crossing the Atlantic
Titanic	a word derived from Greek mythology, meaning 'gigantic'.
unsinkable	cannot be sunk.
Key Facts	
2208	The number of passengers aboard the RMS Titanic
1503	The number of passengers and crew that died when the RMS Titanic sank
Belfast	The city in which the RMS Titanic was built
Southampton to New York City	The intended journey of the RMS Titanic
classes	There were three classes of people upon the RMS Titanic. First, second and third class. In first class, some of the wealthiest people in the world were aboard the shop. It included opulent cabins, gyms, libraries and posh restaurants. In the other classes, many emigrants from Great Britain, Ireland, Scandinavia and elsewhere were seeking a new life in the United States of America.
Lifeboats	The crew were so sure of the Titanic's safety that it only carried enough lifeboats for 1,708 passengers. The first lifeboat that left the RMS Titanic carried only 28 people. It could have carried 64.
three years	The amount of time it took to build the Titanic.
23:40	The time the RMS Titanic collided with the iceberg.
RMS Carpathia	A transatlantic passenger steamship that arrived and brought aboard an estimated 705 passengers from the wreckage.
SS Californian	A ship that was close by during the disaster of the RMS Titanic, but took no action when the Titanic sent out flares, believing they were having a party. They did not turn their radios on so did not hear the distress cries.

History Knowledge Organiser - Titanic

14th April:
11.40pm – Titanic hits iceberg
15th April:
12.30am – Lifeboats are lowered
2.10am – Ship's lights go out
2.17am – Titanic breaks in two
2.19am – Bow begins to sink
2.24am – Titanic reaches the bottom of the ocean

Key facts
- Left Southampton 10th April 1912.
- Biggest and most luxurious boat of the time.
- 269 metres long and 53 metres tall!
- 10 decks and 3 engines. Only 3 funnels worked – the fourth was for decoration.
- It carried 3500 postal bags.
- 1506 people died on board the Titanic.



TITANIC

Why did so many die on board the Titanic?
- Titanic could carry 64 lifeboats but only carried 20. **There were only enough lifeboats for ½ the passengers** and they were **not filled to capacity**. The extra lifeboats were taken away as they made the first-class deck too 'cluttered'.
- Titanic had a great deal of luxurious accommodation, more than another other ship, this **added to the weight and made her sink faster.**
- There were **16 water-tight compartments** in the bulkhead which were designed to close and prevent any sinking. The compartment doors weren't tall enough, water overflowed and flooded the ship even faster!
- **The ice-flows made the water very cold**. The fact that the weather was good, leaving a clear sky, meant that water temperatures dropped below freezing. Anyone in the water longer than 30 minutes was very likely to freeze to death.

Who was to blame?

Captain Smith (The Captain)
- Ignored 6 iceberg warnings and did not slow down the ship.
- Cancelled a lifeboat drill.
- Lost the keys to the binoculars.
- Did not help with lifeboats and allowed lifeboats to leave partially filled.
- Died on the ship.

Bruce Ismay (The Owner)
- Did not put enough lifeboats on board so they didn't clutter the first class decks.
- Made the watertight compartments shorter to make space for luxurious rooms.
- Persuaded the Captain to go faster to break records.
- Survived the Titanic by getting on a lifeboat.

Thomas Andrews (The Designer)
- Wanted 46 lifeboats (enough for all passengers).
- Wanted watertight compartments up to B deck (stopped by Ismay).
- He helped passengers get onto lifeboats and tried to fill them as much as possible, and handed out lifejackets.
- Died on the ship.

Maths Knowledge Organiser

NUMBER SKILLS

What do I need to be able to do?

You should be able to:

- Understand properties of addition and subtraction
- Understand properties of multiplication and division
- Use formal methods of addition and subtraction for integers
- Use formal methods of multiplication and division for integers
- Add and subtract directed numbers
- Multiply and divide directed numbers
- Understand and use order of operations with positive and negative integers

Key Words

- Commutative: changing the order of operations does not change the result
- Associative: when you add or multiply you can do so regardless of how the numbers are grouped
- Inverse: the operation that undoes what was done by the previous operation
- Subtract: taking away one number from another
- Negative: a value less than zero
- Debit: money that leaves a bank account
- Credit: money that goes into a bank account
- Integer: a whole number
- Product: multiply terms
- Operation: a mathematical process

Addition

Addition is commutative

2 + 4 = 4 + 2

The order of addition doesn't change the result

Addition is associative

6 + (3 + 4) = (6 + 3) + 4

It doesn't matter how you group the numbers

Formal written method

	H	T	U
	3	4	2
+	1	4	9
	4	9	1
		1	

Remember the place value for each column!

Models to help with addition

- Number lines

So we can say 33 + 7 + 10 + 5 = 55 or 33 + 22 = 55

- Bar models

100	
47	53

So we can say 47 + 53 = 100

- Part/Whole diagrams

So we can say 26+50= 76

Subtraction

Subtraction is NOT commutative or associative.

12 - 8 ≠ 8 - 12

When you subtract, the order must stay the same

Formal written method

	H	T	U
	5	3	12
−	2	1	6
	3	1	6

Remember 0 is a place holder!

	2	0	8
−	0	0	4

Models to help with addition

- Number lines

So we can say 39 - 9 - 10 - 12 = 12 or 9 + 27 = 12

- Bar models

80	
24	56

So we can say 80 - 24 = 56 or 80 - 56 = 24

- Part/Whole diagrams

So we can say 43 - 21 = 22 or 43 - 22 = 21

Written Methods for Multiplication

LONG MULTIPLICATION:

	2	4	7
x			3
	7	4	1

GRID METHOD:

x	200	40	7
3	600	120	21

600 + 120 + 21 = 741

GELOSIA:

2	4	7	x
0	8	2	3
7	4	1	

REPEATED ADDITION:

	H	T	U
	2	4	7
	2	4	7
+	2	4	7
	7	4	1
		2	

Calculations with Directed Numbers

Addition

2 + -3

Remember, if I add a negative, I am adding something that will make it smaller, so it is the same as subtracting that number!

2 + -3 = -1

Subtraction

2 - -3

Remember, if I subtract a negative, I am taking away the amount that was making it smaller, so it is the same as adding that number!

2 + 3 = 5

Generalisation + - = - - - = +

Multiplication

2 x -3

'2 lots of -3'

= -6

-2 x -3

Think of this as the negative of 2 x -3.

= 6

Division

Remember that multiplication and division are inverse operations.

Eg 6 ÷ -3 = -2

-6 ÷ 2 = -3

Generalisation

x	+	−
+	+	−
−	−	+

Models to help

It can be helpful to put calculations involving directed numbers into real life contexts. Think about temperate or bank accounts when unsure

Written Methods for Division

SHORT DIVISION:

	0	4	2
6	2	5	2
	1	0	2
8	8	1	6

SHORT DIVISION with remainders:

	1	2	5	5
2	2	5	1	0

Continue after the decimal point if you start to get a repeating decimal, stop

LONG DIVISION:

	0	4	2	
6	2	5	2	
−	2	4	0	6 x 40
	0	1	2	
−	0	1	2	6 x 2
			0	

This method relies on you being comfortable with multiples of your divisor (in this case, 6!)

Order of Operations

Example 1

(4 x 7) + 3

So we need to evaluate the brackets first, 4x7 =28

This is now 28 + 3 = 31

Example 2

(6 + 4 - 3)² x 4

So we need to evaluate the brackets first and we work left to right , 6 + 4 - 3 =7

This is now 7^2 x 4 = 49 x 4.

= 196

Example 3

4 - 8 x 2 + 12 ÷ 4

So first we do the multiplication/division left to right; 4 - 16 + 3

Now we do the addition/ subtraction from left to right: -12 + 3 = -9

FACTORS, MULTIPLES AND PRIMES

What do I need to be able to do?

You should be able to:

- Understand and use factors
- Understand and use multiples
- Recognise prime numbers
- Recognise square/triangular numbers
- Find common factors, including HCF
- Find common multiples, including LCM
- Express a number as the product of it's prime factors

Key Words

- Multiple: found by multiplying any number by a positive integer
- Factor: integers that multiply together to get another number
- Prime: an integer with only two factors (1 and itself)
- HCF: the highest common factor of two or more numbers
- LCM: the lowest common multiple of two or more numbers
- Product: multiply terms

Factors

A number can have many factors!

Example: what are the factors of 12?

- 1 x 12
- 2 x 6
- 3 x 4

So the factors of 12 are 1, 2, 3, 4, 6, 12

How to find factors

Be systematic! Always find your factor pairs and then write them in ascending order. This way you can be sure you've not missed any out!

Multiples

'The multiples of a number make up it's times table'

Eg. What are the multiples of 4?

4 x 1, 4 x 2, 4 x 3, 4 x 4 etc.

4, 8, 12, 16, 20...

This list never ends!

Is 15 a multiple of 3?

5	5	5

As I can share 15 into 3 equally sized parts, 15 is a multiple of 3!

3 x 5 = 15

NON-EXAMPLE

Why is 10 not a multiple of 4?

4 x 2.5 = 10 but 2.5 is not an interesting therefore 10 cannot be a multiple of 4!

Prime Numbers

- Always an integer
- Has only two factors, 1 and itself

Not in any other times tables apart from it's own

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

2 is the smallest, and only even, prime number

1 is not a prime number

A prime number has 2 factors, 1 and itself. 1 only has 1 factor (itself / 1) therefore it isn't prime!

Square Numbers

They're called square numbers as, when arranged in an array, they make a square!

1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196, 225...

Square numbers have an odd number of factors.

Triangular Numbers

They're called triangular numbers as they make a triangle!

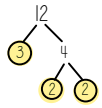
If you add two consecutive triangular numbers, you get a square number!

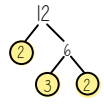
1, 3, 6, 10, 15, 21, 28, 36, 45, 55, 66, 78, 91, 105, 120...

Product of Prime Factors

Example 1

Write 12 as a product of it's prime factors





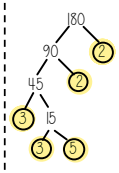
Both of these trees represent the same decomposition

12 = 2 x 2 x 3

= 2^2 x 3

Example 2

Write 180 as a product of it's prime factors



180 = 2 x 2 x 5 x 3 x 3

= 2^2 x 3^2 x 5

Always try to write your final answer in ascending order using index notation!

Using prime factor decomposition

If we know that 12 written as a product of it's prime factors, how does that help us to write 36 as a product of it's prime factors?

We know 12 x 3 = 36 therefore we can multiply our answer by three and

36 = 2 x 2 x 3 x 3

= 2^2 x 3^2

What about 120?

Well 120 is 10 x 12 so we can say

120 = 2 x 2 x 3 x 10

= 2^3 x 3 x 5

Remember 10 = 2 x 5

Lowest Common Multiple (LCM)

Example 1

What is the LCM of 6 and 8?

6 - 6, 12, 18, 24, 30

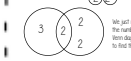
8 - 8, 16, 24, 32, 40

The first time their multiples match is 24 therefore

the LCM of 6 and 8 is 24

Example 2

What is the LCM of 6 and 8?



We just multiply all of the numbers in the Venn diagram together to find the LCM

LCM of 6 and 8 = 3 x 2 x 2 x 2

= 24

Example 3a

What is the LCM of 24 and 16?

	24	16
2	12	8
2	6	4
2	3	2

Choose any factor of 24 and 16 (here we chose 2!)

Then we divide 24 and 16 by 2!

Then repeat until we cannot take out any more common factors

LCM of 16 and 24 = 2 x 2 x 2 x 3 x 2

= 48

Example 3b

What is the LCM of 12 and 15?

	12	15
3	4	5

LCM of 12 and 15 = 3 x 4 x 5

= 60

Highest Common Factor (HCF)

Example 1

What is the HCF of 6 and 8?

6 - 1, 2, 3, 6

8 - 1, 2, 4, 8

The biggest number which is a factor of both 6 and 8 is 2, therefore

the HCF of 6 and 8 is 2

Example 2

What is the HCF of 6 and 8?

As we are looking for the highest common factor we are looking for the factors which the two numbers share. These can be found in the overlap in the Venn diagram!

HCF of 6 and 8 = 2

Example 3a

What is the HCF of 24 and 16?

As we are taking out common factors here, we find the HCF by multiplying them!

	24	16
2	12	8
2	6	4
2	3	2

HCF of 16 and 24 = 2 x 2 x 2

= 8

Example 3b

What is the HCF of 12 and 15?

	12	15
3	4	5

HCF of 12 and 15 = 3

Maths Knowledge Organiser

FRACTIONS 1

What do I need to be able to do?

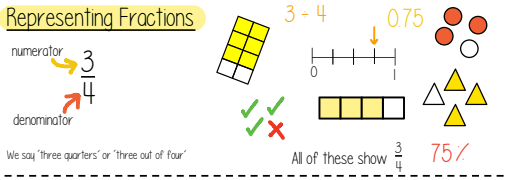
You should be able to:

- Understand different representations of fractions
- Fully simplify fractions
- Recognise and find equivalent fractions
- Convert between mixed numbers and improper fractions
- Add/subtract any fractions
- Add/subtract mixed numbers

Key Words

- Numerator: the top number of a fraction
- Denominator: the bottom number of a fraction
- Equivalent: of equal value
- Mixed Number: a number with an integer and a proper fraction
- Improper Fraction: a fraction where the numerator is larger than the denominator
- Coprime: two numbers which share no common factors (except 1)

Representing Fractions



Equivalent Fractions

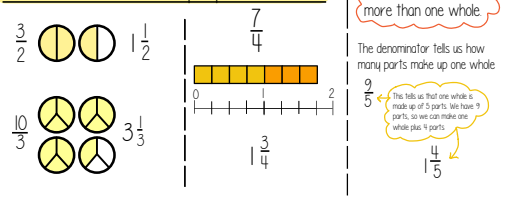
Two fractions are equivalent if they represent the same quantity

If the numerator and denominator have the same multiplier, they are equivalent

Each of these diagrams represents an equivalent amount

They all show '2 out of every 3' or

Mixed Numbers and Improper Fractions



Simplifying Fractions

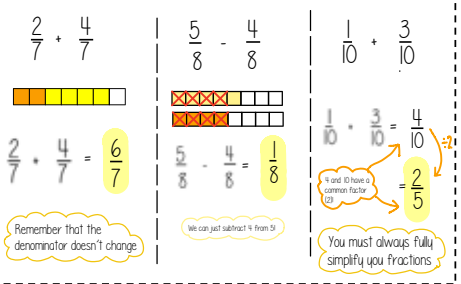
You must always simplify you fractions if you can

Sometimes a picture can help to visualise the problem

Once you cannot find a common factor, the fraction is fully simplified

This fraction is fully simplified as 7 and 10 have no common factors. We can say that 7 and 10 are COPRIME

Adding/Subtracting Fractions — Common denominators



Adding/Subtracting Fractions — Common multiples

10 is a multiple of 5 (5 x 2) so, using equivalent fractions we can say:

12 is a multiple of 4 (4 x 3) so, using equivalent fractions we can say:

Here, we know that 2 and 3 share a common multiple of 6, so we can say and

Remember you must always fully simplify your fractions!

We need to give our answer as a mixed number

Adding/Subtracting Fractions — Different denominators

We need to find a common denominator using equivalent fractions

Let's convert it to a mixed number

Adding/Subtracting Mixed Numbers

Method 1

We have three 'wholes', and so we have:

Method 2

FRACTIONS 2

What do I need to be able to do?

You should be able to:

- Multiply unit fractions
- Multiply non-unit fractions
- Use cross-cancelling to simplify fractions before multiplying
- Divide integers by fractions
- Divide fractions by fractions
- Find fractions of amounts
- Use a given fraction to find the whole
- Find the reciprocal of an integer/fraction

Key Words

- Numerator: the top number of a fraction
- Denominator: the bottom number of a fraction
- Unit fraction: a fraction with a numerator of one
- Commutative: changing the order of the operations doesn't change the result
- Reciprocal: the reciprocal of a number is 1 divided by the number
- Coprime: two numbers which share no common factors (except 1)

Multiplying unit fractions

"One half of one third"

Split into thirds

Split in half

Multiplying any fractions

See cross-cancelling for a quicker method

Example 1

"Two thirds of two fifths"

Another way to think of it

Two parts out of three parts on two out of five rows

Example 2

Remember to simplify where possible!

Example 3

Cross Cancelling Method

This method means that we do not need to simplify our answer as it should be fully simplified already!

Example 1

this becomes

Remember; Multiply the numerators then multiply the denominators

Example 2

this becomes

Dividing integers by a unit fraction

Think of this as 'how any times does a third go into 3?'

there are three thirds in one whole, so there are 9 thirds in 3 wholes

Reciprocals

A number multiplied by its reciprocal is always 1

Dividing by a fraction, is the same as multiplying by its' reciprocal, a

The reciprocal of a is

Example

Dividing Fractions

Example 1

Example 2

Finding Fractions of Amounts

Find of 10. "Share 10 into 2 equal parts"

Find of 24

is 8 as 24÷3=8

Each part must be worth 8

of 24 = 16

Find of £105

£105 ÷ 10 = £10.50

7 x £10.50 = £73.50

of £105 = £73.50

Reverse Fractions of Amounts

of a number is 15. What is the number?

If 3 parts = 15, then one part must = 5

The original number was 20

of a number is 16. What is of the number?

If 2 parts = 16, then one part must = 8

The number is 8 x 3 = 24. So what is of 24?

One quarter is 6

3 x 6 = 18

= 18

Worded problem

A TV is on sale for 2/5 off the price. It now costs £150. How much did it cost originally?

sale price | discount

£150

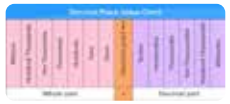
So the original price of the TV was 5 x £50 = £250

Maths Knowledge Organiser

DECIMALS

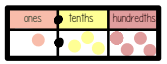
What do I need to be able to do?
You should be able to:
- Understand place value and the number system
- Read and write decimal numbers
- Order decimals of any size
- Use inequality symbols
- Add and subtract decimals
- Multiply and divide decimals
- Use related calculations to find the answers to questions

Key Words
- Place Value: the value of a digit depending on its place in a number
- Place Holder: we use 0 as a place holder to show there are none of a particular place in a number
- Integer: a whole number that is positive or negative
- Decimal: a number with a decimal point used to separate ones, tenths, hundredths etc..
- Inequality: compares two values and indicates which is larger

Place Value


3 2 4 7 3 5 1 • 1 4 5

"Three million, two hundred and forty seven thousand, three hundred and fifty one point one four five"

Decimal Place Value


1 one, 3 tenths and 4 hundredths

1 • 0.1 • 0.1 • 0.01 • 0.01 • 0.001 • 0.001 • 0.001

= 1 • 0.3 • 0.004

= 1.34

We say "one point three four"

Inequalities
> greater than

< less than

≥ greater than or equal to

≤ less than or equal to

= equal to

≠ not equal to

Examples

5 > 3 — 5 is greater than 3

2 + 2 = 4 — 2+2 is equal to 4

5 - 3 x 2 ≠ 4 — 5-3x2 is not equal to 4

x ≤ 3 — x is less than or equal to 3

Ordering Decimals
Example

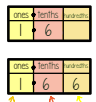
WHICH IS BIGGER, 1.6 OR 1.66?

Method 1:

Compare both numbers with the same number of decimal places

1.60 / 1.66 — We can clearly see that 1.66>1.6

Method 2:



Therefore 1.66>1.6

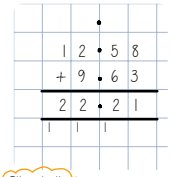
Example WHICH IS BIGGER, 0.304 or 0.034?

By looking, we can see that 0.304 > 0.034 as it has 3 tenths compared to 0

We call the 0 a place holder

Decimal intervals on a number line

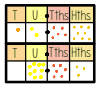

Adding Decimals
Formal written method:



Tths = tenths

Hths = hundredths

Visual Prompt
12.58+9.63

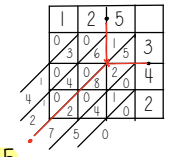


We can only fit 10 in each box and then we carry the rest

22.21

Multiplying Decimals
12.5 x 3.42

You can use any method to multiply but this way is very clear and fun!



= 42.75

Related Calculations
Example 1

If I know that 5 x 2 = 10, what is 0.5 x 2?

÷10: 5 x 2 = 10 :÷10

0.5 x 2 = 1

Example 2

19 x 900 = 17 100

19 x 90 = 1710 — 90 = 10 • 9 therefore we need to divide 1710 by 10!

19 x 9 = 171

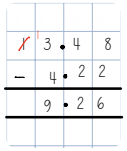
19 x 0.09 = 1.71 — ÷100

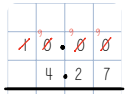
19 x 0.0009 = 0.171

Subtracting Decimals
Worded Problem

I have a £10 note and spent £4.27 on sweets. How much do I have left?

Formal Written Method





£5.73 left

Dividing Decimals
The place holder is very important in division.

All of these give the same solution:

1.5 ÷ 0.05 → 15 ÷ 0.5 → 150 ÷ 5

Multiply both values until the divisor becomes an integer

Method 1:

0.12 ÷ 0.003

12 ÷ 0.03

12 ÷ 3

120 ÷ 3

= 40

Method 2

Remember that a divide sign is just an empty fraction!

0.12 ÷ 0.003 becomes 0.12 / 0.003

Which we can rewrite as 120 / 3 = 40

EXAMPLES
Related calculations to 6 x 8 = 48

0.6 x 8 = 4.8

0.6 x 0.8 = 0.48

48 ÷ 8 = 6

4.8 ÷ 0.6 = 8

Key Points
- Keep the values in proportion.
- If you are stuck with a division, write it as a fraction and simplify that

PERCENTAGES

What do I need to be able to do?
You should be able to:
- Find percentages of amounts
- Increase or decrease by a percentage
- Find percentage change
- Find the original amount.
- Express one number as a fraction of another
- Increase or decrease using multipliers
- Work with simple interest
- Work with compound interest

Key Words
- Percent: parts per hundred
- Simple Interest: interest calculated as a percent of the original amount
- Compound Interest: interest calculated on the amount borrowed plus the previous interest
- Multiplier: the number that you are multiplying by
- Increase: make bigger
- Decrease: make smaller

Percentage of an Amount
Find 10% of 300

300 shared into 10 equal parts (300 ÷ 10)

÷10: 100% of 300 = 300 :÷10

10% of 300 = 30

Find 30% of 240

÷10: 100% of 240 = 240

÷10: 10% of 240 = 24

×3: 30% of 240 = 72

A bar model to help visualise it:

24 x 3 = 72

Finding 10% is always a good place to start!

Find 81% of 480

100% of 480 = 480

10% of 480 = 48

1% of 480 = 4.8

100% of 480 = 480

10% of 480 = 48

80% of 480 = 384

80% + 1% + 81% so we need to add 4.8 and 384

81% of 480 = 388.8

Percentage Increase/Decrease
An antique clock has increased in value by 12%. If it's original price was £400, what is the new price?

Method 1

12% increase means we have 112% of the original price. So we are now finding 112% of £400

100% of £400 = £400

10% of £400 = £40

2% of £400 = £8

112% of £400 = £448

Method 2

We need to find 12% of £400

100% of £400 = £400

10% of £400 = £40

2% of £400 = £8

12% of £400 = £48

We are increasing by 12%, so adding 12% on £400 + £48 = £448

Helpful Percentages
It is helpful to remember the relationships between some percentages to help speed up the process!

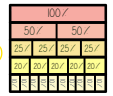
50% is half of 100% — To find 50% of something, we can divide it by 2.

25% is a quarter of 100% — To find 25% of something, we can divide it by 4.

10% is one tenth of 100% — To find 10% of something, we can divide it by 10.

20% is one fifth of 100% — To find 20% of something, we can divide it by 5.

A useful one to remember: 12.5% is one eighth of 100% (as it is half of 25%)



Percentage Change
I bought a phone for £200. A year later it sold for £125. What was the % loss?

Difference in value / Original value x 100

£200

£125

Amount lost £75

75/200 x 100 = 37.5%

I bought a house for £180,000. I sold it for £216,000. What was the % profit?

Profit

£180,000

£216,000

Profit = £216,000 - £180,000 = £36,000

36,000/180,000 x 100 = 20%

Expressing One Number as a Percentage of Another
Express 12 as a percentage of 20

12/20 = 60/100 = 60%

Equivalent Fractions

37 out of 50 people in a class are Manchester United fans. What percentage of the class support Manchester United?

37/50 = 74/100 = 74%

Equivalent Fractions

Multipliers
What multiplier would represent an increase of 15%?

We are finding 100% + 15%, so 115%.

As a decimal this is 1.15

What multiplier would represent an decrease of 15%?

We are finding 100% - 15%, so 85%.

As a decimal this is 0.85

Compound Interest
I put £1000 in a bank account. It earns compound interest of 10% per year. How much will be in the account after 5 years?

INTEREST:

Compound interest means we work out the interest each year and the original amount plus any interest in the account

- 10% of £1000 = £100.

So after year 1, the account will have £1100.

- 10% of £1100 = £110

So after year 2, the amount is £1210 etc..

If we are increasing by 10% each time, this is the same as finding 110% of the amount, or multiplying by 1.1 (see multipliers). So another way we can work this out is:

£1000 x 1.1 x 1.1 x 1.1 x 1.1 x 1.1

Or £1000 x 1.1^5 = £1610.51 (5 years)

I know which account I'd go for!

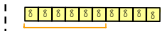
Finding the Original
60% of a number is 48. What is the number?

60% of x = 48

10% of x = 8

100% of x = 80

A bar model to help visualise it:



48

As a quick sense check, our answer should be BIGGER than 48. Always make sure you look back at your answer and make sure it makes sense.

A pair of shoes are on sale for 87.5% off. The sale price is £49.50, how much did they cost originally?

87.5% off means we are left with 12.5%. So 12.5% = £49.50.

12.5% of x = £49.50

25% of x = £99

100% of x = £396

Simple Interest
I put £1000 in a bank account. It earns simple interest of 10% per year. How much will be in the account after 5 years?

INTEREST:

Simple interest means we calculate the interest the initial amount will earn and add that amount on each year

10% of £1000 = £100.

So each year, the account will gain £100 interest.

5 years

£1000 + (£100 x 5) = £1500

Maths Knowledge Organiser

FDP EQUIVALENCE

What do I need to be able to do?
You should be able to:
- Convert fluently between fractions, decimals and percentages
- Order fractions, decimals and percentages
- Know the key FDP equivalences

HIGHER TIER ONLY
- Covert recurring decimals into fractions

Key Words
- Percent: parts per hundred
- Fraction: how many parts out of a whole
- Decimal: a number with a decimal point used to separate ones, tenths, hundredths etc...
- Tenth: one whole split into 10 parts
- Equivalent: of equal value
- Recurring decimal: a decimal number with a digit that repeats forever

Percentages to Decimals
Convert 37% to a decimal
Remember this means 37 out of 100 or 37 hundredths. If 1 hundredth is 0.01, 37 hundredths would be 0.37

12% = 0.12 123% = 1.25
85% = 0.85 0.1% = 0.001

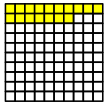
Percentage → Decimal, ÷100

Percentages to Fractions
Convert 37% to a fraction
Remember this means 37 out of 100. We can write this as $\frac{37}{100}$ ← This is fully simplified!

12% = $\frac{12}{100} = \frac{3}{25}$ 123% = $\frac{123}{100} = 1\frac{23}{100}$
85% = $\frac{85}{100} = \frac{17}{20}$

Percentage → Fraction, write over 100 and then simplify

Visual aids
Sometimes, it can be helpful to draw a diagram to help understand what is happening.



Here are 100 squares. I have 17 yellow squares.
The fraction of yellow squares is $\frac{17}{100}$
The percentage of yellow squares is 17%

I want to make 0.53 of this big square orange.
So I want to make 53 hundredths orange.
This is the same as 53% or $\frac{53}{100}$

Decimals to Percentages
Convert 0.63 to a percentage
0.63 is equal to 6 tenths plus 3 hundredths or 63 hundredths. So 0.63 = 63%

0.23 = 23% 0.535 = 53.5%
0.02 = 2% 2.13 = 213%

Decimal → Percentage, x100

Decimals to Fractions
Always make sure that you fully simplify your fraction!

Convert 0.63 to a fraction
0.63 is equal to 6 tenths plus 3 hundredths or 63 hundredths. We can write this as $\frac{63}{100}$

0.23 = $\frac{23}{100}$
0.02 = $\frac{2}{100} = \frac{1}{50}$
0.535 = $\frac{535}{1000} = \frac{107}{200}$

Here we have 5 tenths, 3 hundredths and 5 thousandths or 535 thousandths

Recurring Decimals to Fractions
HIGHER TIER ONLY

Example (ONE RECURRING DIGIT)
Convert $0.\dot{3}$ to a fraction
$x = 0.3333...$
$10x = 3.3333...$ (3333 - 0333 = 3)
$10x - x = 9x$
$9x = 3 \rightarrow x = \frac{3}{9} = \frac{1}{3}$

Example (TWO RECURRING DIGITS)
Convert $0.\dot{3}\dot{5}$ to a fraction
$x = 0.353535...$
$100x = 35.353535...$
Because we have two digits that are repeating, we need to multiply it by 100
$99x = 35 \rightarrow x = \frac{35}{99}$

Example
Convert 0.25̇5̇ to a fraction
$x = 0.2555555...$
$10x = 2.5555555...$
Here, we cannot just take 2.555 away from 0.255 as we will not reduce it to an integer
$100x = 255.555555...$ (255.555 - 2.55 = 253)
$100x - 10x = 90x$
$90x = 253 \rightarrow x = \frac{253}{990}$

Fractions to Decimals
Convert $\frac{2}{5}$ to a decimal

Remember a divide symbol is an empty fraction, so this is the same as 2 ÷ 5

= 0.4

	0	.	4
5	2	.	0

Remember:
$\frac{1}{10} = 0.1$ $\frac{1}{4} = 0.25$ $\frac{1}{2} = 0.5$

Fractions to Percentages
Convert $\frac{2}{5}$ to a percentage

Here we need to be confident with equivalent fractions. We know percent means out of 100 so we need to find an equivalent fraction with a denominator of 100.

$\frac{2}{5} = \frac{40}{100} = 40\%$

Ordering FDP
Remember ascending means from smallest to largest

Put in ascending order:
0.3, $\frac{1}{3}$, 0.303, 35%, $\frac{31}{100}$

1. Choose a form to compare them in, here let's choose to compare them as decimals
0.3, $0.\dot{3}$, 0.303, 0.35, 0.31
2. Put them in ascending order: 0.3, 0.303, 0.31, $0.\dot{3}$, 0.35
3. Convert them back to their original form
0.3, 0.303, $\frac{31}{100}$, $\frac{1}{3}$, 35%

Key FDP Equivalences
You are expected to know some of the key FDP equivalences without working them out

Decimal	Percentage	Fraction
0.5	50%	$\frac{1}{2}$
0.25	25%	$\frac{1}{4}$
0.75	75%	$\frac{3}{4}$
0.2	20%	$\frac{1}{5}$
0.1	10%	$\frac{1}{10}$
$0.\dot{3}$	33.3%	$\frac{1}{3}$

UNIT CONVERSIONS

What do I need to be able to do?
You should be able to :
- Recognise metric measures
- Convert metric measures
- Calculate with metric measures
- Convert between units of time
- Understand compound measures
- Work out compound units

Key Words
- Length: the distance from one point to another
- Mass: a measure of how much matter is in an object
- Capacity: the amount an object can contain (usually liquids)
- Volume: the amount of 3-dimensional space an object takes up
- Convert: change a value or expression from one value to another
- Unit: any measurement that there is one of
- Imperial: a system of weights and measures originally developed in England
- Metric: a system of measuring that replaced the imperial system to fall in line with the rest of Europe
- Compound Units: units which require two types of measurement

Metric Units
Length
- Millimetres (mm)
- Centimetres (cm)
- Metres (m)
- Kilometres (km)

Mass
- Grams (g)
- Kilograms (kg)
- Tonnes (t)

Capacity
- Millilitre (ml)
- Litre (l)

Imperial Units
Length
1 inch ≈ 2.5cm | 1 foot = 12 inches | 1 mile ≈ 1.6km

" - inches
' - feet

Mass
1 ounce ≈ 28g | 1 pound = 16 ounces | 1 stone = 14 pounds

lb - pounds
oz - ounces
st - stone

Capacity
1 pint ≈ 568ml
1 gallon = 8 pints

In your exam, you will be given the conversion from metric to imperial if needed but it's always useful to be familiar with them!

Time
Remember:
60 seconds = 1 minute
60 minutes = 1 hour
24 hours = 1 day
7 days = 1 week

DON'T FORGET: 15 minutes is often referred to as a quarter of an hour (as 15 is a quarter of 60) and 30 minutes is referred to as half an hour

Example 1
Convert 3.4 days to hours

Step 1
1 day = 24 hours, so
3 days = 72 hours

Step 2
0.4 of a day, think of this as $\frac{2}{5}$ of a day
$\frac{1}{5}$ of a day = 24 hours
$\frac{2}{5}$ of a day = 9.6 hours

So 3.4 days = 81.6 hours

Example 2
Reece finishes a sudoku puzzle in 354 seconds. Daniel takes 5 minutes and 20 seconds. Who finished the quickest, and by how long?

REECE = 354 seconds

60 seconds = 1 minute
300 seconds = 5 minutes

REECE = 5 mins 54 seconds

DANIEL finished 34 seconds quicker

Length
mm ÷10 cm ÷100 m ÷1000 km
km x1000 m x100 cm x10 mm

10mm = 1cm
100cm = 1m
1000m = 1km
} REMEMBER!

Example 1
Convert 1.23m to mm
1.23m = 123cm (x100)
123cm = 1230mm (x10)
It is always helpful to break it up into stages. You could, of course, do this in one step!

Example 2
Convert 28400mm to km
28400mm = 2840cm (÷10)
2840cm = 28.4 (÷100)
28.4 = 0.0284km (÷1000)

Mass
g ÷1000 kg ÷1000 t
t x1000 kg x1000 g

1000g = 1kg
1000kg = 1t
} REMEMBER!

Example 1
Convert 1.458t to g
1.458t = 1.458kg (x1000)
1.458kg = 1458000g (x1000)

Example 2
Convert 15600 to kg
15600g = 15.6kg (÷1000)

Example 3
One parcel weighs 280g, how much will 12 weigh? Leave your answer in kgs.
280g x 12 = 3360g
3360g = 3.36kg
ALWAYS make sure you check back to ensure you've used the right units

Volume
ml ÷1000 l
l x1000 ml

1000ml = 1L
} REMEMBER!

Example 1
Convert 5000ml to litres
1000ml = 1 litre
5000ml = 5 litres
5 litres

Example 2
Convert 12.57l to ml
we multiply by 1000, so
12.57l = 12570ml
don't forget to add a 0 place holder!

Example 3
I need 10l of water I can only buy 300ml bottles. How many bottles do I need to buy?
10l = 10,000ml
10,000 ÷ 300 = 33.333...
So we need 33.333 bottles, but we can't buy 0.33 of a bottle! So we need to buy 334

Compound Measures
Speed, Distance, Time

A car travels 200m in 30 minutes, calculate its speed in mph
200m in 30 mins (x2)
400m in 60 mins (x2)
400mph

It takes Ryan 12 minutes to travel 15km, what is his average speed in km/h?
SPEED = $\frac{\text{DISTANCE}}{\text{TIME}}$
SPEED = $\frac{15}{0.2}$
SPEED = 75km/h
notice this says km/h. Our Time is in minutes right now! 12 minutes is 0.2 of an hour, so instead of 12 mins, we write time as 0.2 hours

Density, Mass, Volume
Density is a way of looking at the amount of mass contained in a certain volume

The standard units are kg/m³ or g/cm³

The density of air is 1.3kg/m³. Calculate the mass of a balloon which holds 0.0035m³ of air.
MASS = DENSITY X VOLUME
MASS = 1.3 x 0.0035
MASS = 0.00455kg
we know the units must be kg as the density is given in kg/m³

Pressure, Force, Area
Pressure indicates the amount of force being exerted per unit area

A box is placed on a table an exerts a force of 200N on an area of 40cm². Find the pressure.
PRESSURE = $\frac{\text{FORCE}}{\text{AREA}}$ (N - newtons)
PRESSURE = $\frac{200}{40}$
PRESSURE = 5N/cm²

MFL Knowledge Organiser - French

Module 1 T'es branché(e)?

KNOWLEDGE ORGANISER

À la télé • On TV

je regarde ...	*I watch ...*
les documentaires	*documentaries*
les émissions de sport	*sports programmes*
les émissions de télé-réalité	*reality TV shows*
les infos	*news*
les jeux télévisés	*game shows*
les séries	*series*
les séries policières	*police series*
les séries américaines	*American series*

Les films • Films

J'aime ...	*I like ...*
les comédies	*comedies*
les films d'action	*action films*
les films d'arts martiaux	*martial-arts films*
les films fantastiques	*fantasy films*
les films d'horreur	*horror films*
les films de science-fiction	*science-fiction films*
les westerns	*westerns*
les dessins animés	*cartoons*
Qui est ton acteur préféré?	*Who is your favourite actor?*
Mon acteur préféré, c'est ...	*My favourite actor is ...*
Qui est ton actrice préférée?	*Who is your favourite actress?*
Mon actrice préférée, c'est ...	*My favourite actress is ...*
Quel est ton film préféré?	*What is your favourite film?*
Mon film préféré, c'est ...	*My favourite film is ...*

Sur Internet • On the internet

J'envoie des e-mails.	*I send emails.*
Je fais beaucoup de choses.	*I do lots of things.*
Je fais des recherches pour mes devoirs.	*I do research for my homework.*
Je fais des achats.	*I buy things.*
Je fais des quiz.	*I do quizzes.*
Je joue à des jeux en ligne.	*I play games online.*
Je lis des blogs.	*I read blogs.*
Je trouve ça ...	*I find it ...*
chouette	*great*
pratique	*practical*
stupide	*stupid*
barbant	*boring*

La lecture • Reading

Je lis ...	*I am reading ...*
une BD	*a comic book*
un livre sur les animaux	*a book about animals*
un livre d'épouvante	*a horror story*
un magazine sur les célébrités	*a magazine about celebrities*
un roman fantastique	*a fantasy novel*
un roman policier	*a thriller*
C'est bien?	*Is it good?*
À mon avis, c'est ...	*In my opinion it's ...*
assez bien	*quite good*
passionnant	*exciting*
Qui est ton auteur préféré?	*Who is your favourite author?*
Mon auteur préféré, c'est ...	*My favourite author is ...*

Le temps • The weather

Quand ...	*When ...*
il fait beau	*it's nice*
il fait froid	*it's cold*
il fait chaud	*it's hot*
il pleut	*it's raining*
on fait du VTT	*we do mountain biking*
on fait du skate	*we do skateboarding*
on fait du bowling	*we go bowling*
on regarde des DVD	*we watch DVDs*
on va ...	*we go ...*
au café	*to the café*
au cinéma	*to the cinema*
au parc	*to the park*
on joue ...	*we play ...*
au foot	*football*
au basket	*basketball*
on surfe sur Internet	*we surf the internet*
avec mes copains	*with my friends*

Les mots essentiels • High-frequency words

assez	*quite*
aussi	*also*
comme	*as*
et	*and*
mais	*but*
normalement	*normally*
parce que	*because*
par exemple	*for example*
quand	*when*
surtout	*above all*
très	*very*
Expressions of time and frequency	
d'habitude	*usually*
en ce moment	*at the moment*
quelquefois	*sometimes*
souvent	*often*
tous les soirs	*every evening*
une fois par semaine	*once a week*

MFL Knowledge Organiser - French

Module 2 Paris, je t'adore!

Vocabulaire

À Paris • In Paris

J'ai gagné un concours.	*I won a competition.*
J'ai passé une semaine à Paris.	*I spent a week in Paris.*
J'ai visité la tour Eiffel.	*I visited the Eiffel Tower.*
J'ai mangé au restaurant.	*I ate in a restaurant.*
J'ai admiré la Pyramide du Louvre.	*I admired the Louvre Pyramid.*
J'ai regardé le feu d'artifice.	*I watched the fireworks.*
J'ai acheté des souvenirs.	*I bought some souvenirs.*
J'ai rencontré un beau garçon/une jolie fille.	*I met a good-looking boy/a pretty girl.*
J'ai envoyé des cartes postales.	*I sent some postcards.*
J'ai pris des photos.	*I took some photos.*
J'ai vu la *Joconde*.	*I saw the* Mona Lisa.
J'ai attendu le bus.	*I waited for the bus.*
J'ai très bien dormi.	*I slept very well.*
Je n'ai pas visité Notre-Dame.	*I didn't visit Notre-Dame.*
On a fait les magasins.	*We went shopping.*
On a bu un coca.	*We drank a cola.*
On a fait un tour de la ville en segway.	*We did a tour of the town by segway.*
On a fait une balade en bateau-mouche.	*We went on a boat trip.*

Tu as voyagé comment? • How did you travel?

en avion	*by plane*
en bus	*by bus*
en car	*by coach*
en métro	*by underground*
en train	*by train*
en voiture	*by car*
à vélo	*by bicycle*
à pied	*on foot*

Les mots essentiels • *High-frequency words*

à quelle heure?	*at what time?*
quand?	*when?*
combien?	*how much/how many?*
combien de temps?	*how long?*
comment?	*how?*
où?	*where?*
qui?	*who?*
avec qui?	*who with?*
alors	*so, therefore*
donc	*so, therefore*
car	*because*
parce que	*because*
dernier/dernière	*last*
beaucoup (de)	*a lot (of)*
d'abord	*first of all*
ensuite	*next*
après	*afterwards*
finalement	*finally*

Quand? • When?

aujourd'hui	*today*
hier	*yesterday*
avant-hier	*the day before yesterday*
(mardi) dernier	*last (Tuesday)*

Des informations touristiques • Tourist information

horaires d'ouverture	*opening times*
ouvert du (mardi) au (dimanche)	*open from (Tuesday) to (Sunday)*
de 10h00 à 17h00	*from 10 a.m. to 5 p.m.*
fermé (le lundi et les jours fériés)	*closed (on Mondays and bank holidays)*
tarifs d'entrée	*admission prices*
plein tarif	*full price*
tarif jeune	*price for young people*
gratuit (pour les enfants jusqu'à 13 ans)	*free (for children up to 13 years old)*
visites guidées	*guided tours*
(pas de) toilettes	*(no) toilets*

Un voyage • A journey

Je suis allé(e) (à Paris).	*I went (to Paris).*
Je suis parti(e)/arrivé(e) à (dix heures).	*I left/arrived at (ten o'clock).*
Le train est parti/arrivé à (huit heures).	*The train left/arrived at (eight o'clock).*
Je suis sorti(e).	*I went out.*
Je suis resté(e) (chez moi).	*I stayed (at home).*
Je suis rentré(e) (chez moi).	*I went/got home.*
Je suis monté(e).	*I went up.*

Qui a volé la *Joconde*? • Who stole the *Mona Lisa*?

Tu as visité le Louvre quand?	*When did you visit the Louvre?*
Tu es allé(e) avec qui?	*Who did you go with?*
Tu es allé(e) comment?	*How did you get there?*
Tu es arrivé(e)/parti(e) à quelle heure?	*At what time did you arrive/leave?*
Après, tu es allé(e) où?	*Afterwards, where did you go?*
Tu es resté(e) combien de temps?	*How long did you stay?*
Qu'est-ce que tu as fait?	*What did you do?*
Est-ce que tu as volé la *Joconde*?	*Did you steal the* Mona Lisa*?*

C'était comment? • What was it like?

C'était ...	*It was ...*
J'ai trouvé ça ...	*I found it ...*
bien	*good*
bizarre	*weird*
cool	*cool*
cher	*expensive*
effrayant	*scary*
ennuyeux	*boring*
fabuleux	*wonderful/fantastic*
génial	*great*
horrible	*horrible/terrible*
intéressant	*interesting*
marrant	*funny/a laugh*
nul	*rubbish*
Ce n'était pas mal.	*It wasn't bad.*

MFL Knowledge Organiser - French

Studio Grammaire

Regular verbs

- You use the perfect tense to say what you did or have done.
- To form the perfect tense, you need: **1** an auxiliary verb (usually part of the verb *avoir* – to have) and **2** the past participle of the main verb.
- You form the past participle of regular verbs as shown on the right.

j'ai
tu as
il/elle/on a
nous avons
vous avez
ils/elles ont

(e.g. *manger*) → *mangé*
(e.g. *finir*) → *fini*
(e.g. *attendre*) → *attendu*

Irregular verbs

Some important verbs have **irregular** past participles. Learn them by heart!

boire (to drink) → *j'ai* ***bu***
faire (to do) → *elle a* ***fait***
prendre (to take) → *nous avons* ***pris***
voir (to see) → *ils ont* ***vu***

The perfect tense with *être*

With a small number of verbs (mostly verbs of movement), you use ***être***, not ***avoir***, to form the perfect tense. See the Verb tables on page 129 for a full list of these verbs.

You add an extra **–e** to the past participle in the feminine and an extra **–s** in the plural.

One female person: *je suis/tu es/elle est sortie.*
All male or mixed male/female group: *on est/nous sommes/ils sont partis.*
All female group: *on est/nous sommes/elles sont arrivées.*

Using negatives in the perfect tense

To make a perfect tense verb negative, put ***ne ... pas*** around the part of *avoir* (or *être*).

J'ai fait les magasins. → *Je* ***n'****ai* ***pas*** *fait les magasins.*

Note: *un/une* and *du/de la/de l'/des* change to ***de*** after a negative:

J'ai envoyé ***une*** *carte postale à mes parents.* → *Je n'ai pas envoyé* ***de*** *carte postale à mes parents.*
J'ai acheté ***des*** *souvenirs.* → *Je n'ai pas acheté* ***de*** *souvenirs.*

Stratégie 2

Mnemonics

Can anyone help you learn the 13 "unlucky" verbs that use *être* to form the perfect tense?

Ms. Van der Tramp can. She's not actually a person, she's a mnemonic, a phrase consisting of the first letters of each of the verbs in question. In *Studio 1* you learnt how you can use mnemonics to help remember new words.

Look at the 13 verbs on page 129 and link them to all the letters in *Ms. Van der Tramp*. Or even better, make up your own mnemonic.

Asking questions in the perfect tense

You can ask some questions in the perfect tense by making your voice go up at the end of the sentence.

Tu es allé à Paris? – Did you go to Paris?

Another way is to put ***est-ce que*** at the beginning:
Est-ce que *tu es allé à Paris?* – Did you go to Paris?

Other questions need question words such as ***où*** (where), ***comment*** (how), ***qui*** (who), ***quand*** (when), ***à quelle heure*** (at what time) and ***combien*** (how much/how many).

Don't confuse ***est-ce que*** *with* ***qu'est-ce que****, which means 'what':*
Qu'est-ce que *tu as fait à Paris? – What did you do in Paris?*

MFL Knowledge Organiser - French

Module 3

Mon identité

Mon caractère • My character

Je suis ...	*I am ...*
Je pense que je suis ...	*I think I'm ...*
Je ne suis pas ...	*I'm not ...*
Je ne suis pas du tout ...	*I'm not at all ...*
Mon meilleur ami/Ma meilleure amie est ...	*My best friend is ...*
adorable	*adorable*
arrogant(e)	*arrogant*
amusant(e)	*funny*
casse-pieds	*annoying*
curieux/curieuse	*curious*
débrouillard(e)	*resourceful*
drôle	*funny*
égoïste	*selfish*
gentil(le)	*nice*
intelligent(e)	*intelligent*
optimiste	*optimistic*
paresseux/paresseuse	*lazy*
patient(e)	*patient*
pénible	*annoying*
pessimiste	*pessimistic*
rigolo(te)	*funny*
sociable	*sociable*
sympa	*nice*

Les opinions • Opinions

Mon chanteur/ma chanteuse préféré(e), c'est ...	*My favourite singer is ...*
Mon groupe préféré, c'est ...	*My favourite group is ...*
J'adore/Je déteste la musique de X.	*I love/I hate X's music.*
J'adore la chanson ...	*I love the song ...*
Ça me donne envie de ...	*It makes me want to ...*
danser/chanter/pleurer/dormir	*dance/sing/cry/sleep*
Ça me rend joyeux/joyeuse/triste.	*It makes me happy/sad.*

Le style • Style

J'ai un style plutôt ...	*My style is rather ...*
classique	*classic*
décontracté	*relaxed*
skateur	*skater*
sportif	*sporty*
C'est ...	*It's ...*
moche	*ugly*
horrible	*horrible*
cool	*cool*
chic	*chic*

Les vêtements • Clothes

Normalement, je porte ...	*Normally, I wear ...*
des baskets	*trainers*
des bottes	*boots*
des chaussures	*shoes*
une chemise	*a shirt*
un chapeau	*a hat*
un jean	*jeans*
une jupe	*a skirt*
un pantalon	*trousers*
un pull	*a jumper*
un sweat à capuche	*a hoodie*
un tee-shirt	*a T-shirt*
une veste	*a jacket*

Les couleurs • Colours

beige	*beige*
blanc(he)	*white*
bleu turquoise	*turquoise*
gris(e)	*grey*
marron chocolat	*chocolate brown*
noir(e)	*black*
orange	*orange*
vert kaki	*khaki*

Au futur • In the future

Qu'est-ce que tu vas faire/porter?	*What are you going to do/wear?*
ce weekend	*this weekend*
cet été	*this summer*

Les rapports • Relationships

s'amuser	*to have fun*
se chamailler	*to squabble*
se confier des secrets	*to tell each other secrets*
se dire	*to tell each other*
se disputer	*to argue*
s'entendre	*to get on*
se fâcher	*to get angry*

Les interjections • Interjections

alors	*so*
ben	*well*
euh	*huh*
ouah!	*wow!*
voyons	*let's see*

La musique • Music

le hard rock	*hard rock*
le jazz	*jazz*
la musique classique	*classical music*
le pop-rock	*pop*
le rap	*rap*
le R'n'B	*R'n'B*
un peu de tout	*a bit of everything*
les chorégraphies	*choreography*
les mélodies	*tunes*
les paroles	*words*

Les mots essentiels • *High-frequency words*

avec	*with*
bien	*well*
comme d'hab	*as usual*
en général	*in general*
en plus	*in addition*
ensemble	*together*
même	*same*
normalement	*normally*
ou	*or*
par moments	*at times*
partout	*everywhere*
plutôt	*rather*
quand	*when*
sinon	*otherwise*
surtout	*especially*
souvent	*often*
tout(e)	*all, every*
tout le temps	*all the time*
vraiment	*really*

Stratégie 3

Faux amis

Cognates and near-cognates are words that are spelled exactly the same or nearly the same as English words and have the same meaning in French. But you must be careful – there are some French words that look like cognates but which mean something completely different. These are known as ***faux amis*** (false friends).

Look at the word lists on these pages. What do these French words mean in English?

porter *veste*

Now look at the word lists again and find one piece of clothing and one type of shoes which are also *faux amis*.

MFL Knowledge Organiser - French

KNOWLEDGE ORGANISER

Les domiciles • Homes

j'habite	*I live*
la maison	*house*
l'appartement (m)	*flat*
la rue	*street/road*
à la campagne	*in the country*
dans un village	*in a village*
dans une ville	*in a town*

Les pièces • Rooms

Chez moi, il y a ...	*In my home, there is/there are ...*
(six) pièces	*(six) rooms*
le salon	*the living room*
le jardin	*the garden*
la cuisine	*the kitchen*
la salle à manger	*the dining room*
la salle de bains	*the bathroom*
ma chambre	*my bedroom*
la chambre de (mes parents/ma sœur/mon frère)	*(my parents'/my sister's/my brother's) bedroom*
Il n'y a pas de (jardin).	*There isn't a (garden).*

Les prépositions • Prepositions

dans	*in*
devant	*in front of*
derrière	*behind*
sous	*under(neath)*
sur	*on*

Les meubles et les appareils • Furniture and appliances

l'armoire (f)	*wardrobe*
le bureau	*desk*
le canapé/la chaise	*sofa/chair*
la douche	*shower*
la fenêtre	*window*
le frigo	*fridge*
le lavabo	*wash basin*
le lit	*bed*
la machine à laver	*washing machine*
la télé (satellite)	*(satellite) TV*

Le petit déjeuner • Breakfast

Pour le petit déjeuner, je prends ...	*For breakfast, I have ...*
du beurre	*butter*
du café	*coffee*
du chocolat chaud	*hot chocolate*
du jus d'orange	*orange juice*
du lait	*milk*
du pain	*bread*
du thé	*tea*
de la confiture	*jam*
des céréales	*cereal*
une tartine	*a slice of bread and butter*
Je ne mange rien.	*I don't eat anything.*

Les mots essentiels • High-frequency words

chez (moi)	*at (my) place*
comme dessert	*for dessert*
il y a ...	*there is/there are ...*
il n'y a pas de ...	*there isn't a/any ...*
ne ... rien	*nothing*
pour	*for*

Le dîner • Evening meal

D'habitude, on mange ...	*Usually, we eat ...*
du poisson	*fish*
du poulet	*chicken*
de la pizza	*pizza*
de la viande	*meat*
des fruits	*fruit*
des pâtes	*pasta*
des plats à emporter	*takeaway food*
Comme dessert, je prends ...	*For dessert, I have ...*
du yaourt	*yoghurt*
une mousse au chocolat	*a chocolate mousse*
de la glace (à la fraise)	*(strawberry) ice-cream*
Je suis végétarien(ne).	*I'm a vegetarian.*
Le soir, on mange à (six heures).	*In the evening, we eat at (six o'clock).*

Au carnaval • At the carnival

je vais .../on va ...	*I'm going to .../we're going to ...*
aller au carnaval	*go to the carnival*
boire un coca	*drink a cola*
chanter et danser (sur le char)	*sing and dance (on the float)*
manger au restaurant	*eat in a restaurant*
participer au défilé	*take part in the parade*
porter un costume de (pirate)	*wear a (pirate) costume*
prendre des photos (avec mon portable)	*take photos (on my mobile phone)*
regarder le défilé/le feu d'artifice	*watch the parade/the fireworks*
Je vais m'amuser.	*I'm going to have fun.*
On va s'amuser.	*We're going to have fun.*

Stratégie 4

Learning by doing

When you're learning vocabulary, doing something often helps to make the words stick.

- Why not write new words on sticky notes and stick them round your bedroom or in places where you will see them regularly? When learning vocabulary, 'a little and often' is better than 'a lot at once'.
- Make some cards with the French word on one side and the English on the other. You can then play a game with yourself or a partner.
- You can also use this method to learn the genders of nouns, e.g. write **chocolat** on one side of the card and **le/du** or **masc.** on the other.

Module 4 Chez moi, chez toi

Les provisions • Food shopping

il faut acheter ...	*I/we/you need to buy ...*
un litre de lait	*a litre of milk*
un paquet de farine	*a packet of flour*
(quatre) tranches de jambon	*(four) slices of ham*
un kilo de bananes	*a kilo of bananas*
500 grammes de pommes	*500 grams of apples*
250 grammes de fraises	*250 grams of strawberries*
une tablette de chocolat	*a bar of chocolate*
une bombe de crème Chantilly	*a spray can of whipped cream*
six œufs	*six eggs*

MFL Knowledge Organiser - French

Module 5 Quel talent?!

KNOWLEDGE ORGANISER

Le concours de talents • The talent contest

Mon/Notre talent, c'est ...	*My/Our talent is ...*
chanter	*singing*
danser	*dancing*
être pom-pom girl	*being a cheerleader*
faire de la magie	*doing magic*
jouer du piano/violon	*playing the piano/violin*
jouer de la guitare (électrique)	*playing the (electric) guitar*
Je veux être ...	*I want to be ...*
chanteur/chanteuse	*a singer*
danseur/danseuse	*a dancer*
guitariste	*a guitar player*
musicien/musicienne	*a musician*
magicien/magicienne	*a magician*
Je veux gagner le concours.	*I want to win the contest.*
J'ai déjà gagné un concours.	*I've already won a contest.*
un candidat/ une candidate	*a contestant*
célèbre	*famous*
une célébrité	*a celebrity*
une vedette	*a (TV/film/music) star*
participer (au concours)	*to take part (in the contest)*

Se préparer pour le concours • Getting ready for the contest

Je/Tu dois ...	*I/You must ...*
remplir la fiche d'inscription	*fill in the application form*
participer au concours	*take part in the contest*
faire un clip vidéo	*make a video clip*
répéter tous les jours	*rehearse every day*
aller à l'audition	*go to the audition*
avoir confiance en moi/toi	*be confident*
Je/Tu peux .../On peut ...	*I/You can .../We can ...*
répéter chez moi/toi	*rehearse at my/your place*
faire du babysitting	*babysit*
Je ne peux pas.	*I can't.*
Si, tu peux!	*Yes, you can!*
Je vais t'aider.	*I'll help you.*
Je dois faire mes devoirs./J'ai trop de devoirs.	*I must do my homework./I've got too much homework.*
Je n'ai pas de caméra.	*I don't have a camcorder.*

Donner des instructions et conseils • Giving instructions and advice

Chante plus fort!	*Sing louder!*
Enlève ton blouson!	*Take off your jacket!*
Éteins ton portable!	*Switch off your mobile phone!*
Fais plus d'efforts!	*Make more of an effort!*
Jette ton chewing-gum!	*Throw away your chewing gum!*
Regarde la caméra!	*Look at the camera!*
Souris!	*Smile!*
Réveille-toi!	*Wake up!*
Ne fais pas ça!	*Don't do that!*
N'oublie pas ta casquette!	*Don't forget your cap!*
Change ton attitude!	*Change your attitude!*

Les rêves et les ambitions • Dreams and ambitions

J'aime gagner.	*I like winning.*
Je dois gagner.	*I must win.*
Je peux gagner.	*I can win.*
Je veux gagner.	*I want to win.*
Je voudrais gagner.	*I'd like to win.*
Je vais gagner.	*I'm going to win.*
le gagnant/la gagnante	*the winner*
un jour	*one day*
content(e)	*happy*

Qui est le meilleur? • Who's the best?

Je pense que/qu' ...	*I think that ...*
Il/Elle est ...	*He/She is ...*
le/la plus ...	*the most ...*
le/la moins ...	*the least ...*
ambitieux/ambitieuse	*ambitious*
arrogant(e)	*arrogant*
beau/belle	*good-looking*
modeste	*modest*
passionné(e)	*passionate*
professionnel(le)	*professional*
sûr de lui/sûre d'elle	*confident*
travailleur/travailleuse	*hard-working*
le meilleur/la meilleure	*the best*
Il/Elle a ...	*He/She has ...*
le plus de talent	*the most talent*
la plus belle voix	*the nicest voice*
Il/Elle a chanté faux/juste.	*He/She sang off key/ in tune.*

Which tense to use?

- You use the **present tense** to describe what you (or other people) **do** or **are doing**. Remember to check if the verb is regular or irregular and use the correct endings.

D'habitude, je regarde la télé.	Usually, I watch TV.
Qu'est-ce que tu fais?	What are you doing?
Je regarde la télé.	I'm watching TV.

- You use the **perfect tense** to describe what you (or other people) **did** or **have done**. Check if the verb takes *avoir* or *être* and if the past participle is regular or irregular.

J'ai fini mon livre hier.	I finished my book yesterday.
<<Tu as fini?>> <<Oui, j'ai fini.>>	'Have you finished?' 'Yes, I've finished.'

- You use the **near future tense** to describe what you (or other people) **are going to do**. With any verb, use the present tense of *aller* (to go), followed by the infinitive.

Le weekend prochain, je vais sortir avec mes amis.
Next weekend, I'm going to go out with my friends.

MFL Knowledge Organiser - Spanish

De vacaciones On holiday

¿Adónde fuiste de vacaciones?	Where did you go on holiday?	Fui con...	I went with...
el año pasado	last year	mis amigos/as	my friends
el verano pasado	last summer	mi clase	my class
Fui a...	I went to...	mi familia	my family
Escocia	Scotland	mis padres	my parents
España	Spain	¿Cómo fuiste?	How did you get there?
Francia	France	Fui/Fuimos en...	I/We went by...
Gales	Wales	autocar	coach
Grecia	Greece	avión	plane
Inglaterra	England	barco	boat/ferry
Irlanda	Ireland	coche	car
Italia	Italy	tren	train
¿Con quién fuiste?	Who did you go with?	No fui de vacaciones.	I didn't go on holiday.

Exclamaciones Exclamations

¡Qué bien!	How great!	¡Qué aburrido!	How boring!
¡Qué bonito!	How nice!	¡Qué horror!	How dreadful!
¡Qué divertido!	What fun!/How funny!	¡Qué lástima!	What a shame!
¡Qué guay!	How cool!	¡Qué mal!	How bad!
¡Qué rico!	How tasty!	¡Qué rollo!	How annoying!
¡Qué suerte!	What luck!/How lucky!		

¿Cómo te fue? How was it?

Fue divertido.	It was fun/funny.	Me gustó.	I liked (it).
Fue estupendo.	It was brilliant.	Me encantó.	I loved (it).
Fue fenomenal.	It was fantastic.	¿Por qué?	Why?
Fue flipante.	It was awesome.	porque	because
Fue genial.	It was great.	Hizo buen tiempo.	The weather was good.
Fue guay.	It was cool.	Comí algo malo y vomité.	I ate something bad and vomited.
Fue regular.	It was OK.	Llovió.	It rained.
Fue un desastre.	It was a disaster.	Perdí mi pasaporte/ mi móvil.	I lost my passport/ my mobile.
Fue horrible.	It was horrible.		
Fue horroroso.	It was terrible.		
Fue raro.	It was weird.		

Estrategia 1

Looking up new words

Dictionaries can tell you a lot about new words. Most of them use these abbreviations: *nm, nf, adj, vt, prep, adv*. For example, *nm* tells you a word is a masculine noun; *vt* tells you it's a verb.
What do you think the others tell you?

Look up the words below in a dictionary. (They are all used in Module 1.)
Note down what each word means and what sort of word it is.

Example: espada → sword (noun)

- espada
- descansar
- rico
- salir
- sombrero
- solamente
- ganar
- chocolatina

Palabras muy frecuentes High-frequency words

a/al/a la	to (the)	¿Dónde...?	Where...?
en	by	¿Adónde...?	Where... to?
con	with	¡Qué...!	How...!
mi/mis	my	además	also, in addition
¿Cómo...?	How...?	pero	but

¿Cuándo? When?

luego	then	el último día	on the last day
más tarde	later	otro día	another day
después	afterwards	por la mañana	in the morning
el primer día	on the first day	por la tarde	in the afternoon

¡MODULE 1! Mis vacaciones

KNOWLEDGE ORGANISER

¿Qué hiciste? What did you do?

¿Qué hiciste en tus vacaciones de verano?	What did you do on your summer holiday?	No nadé en el mar.	I didn't swim in the sea.
Bailé.	I danced.	El último día de tus vacaciones, ¿qué hiciste?	What did you do on the last day of your holiday?
Compré una camiseta.	I bought a T-shirt.	Bebí una limonada.	I drank a lemonade.
Descansé en la playa.	I relaxed on the beach.	Comí paella.	I ate paella.
Mandé SMS.	I sent texts.	Conocí a un chico/a guapo/a.	I met a cute boy/girl.
Monté en bicicleta.	I rode my bike.	Escribí SMS.	I wrote texts.
Nadé en el mar.	I swam in the sea.	Salí con mi hermano/a.	I went out with my brother/sister.
Saqué fotos.	I took photos.		
Tomé el sol.	I sunbathed.		
Visité monumentos.	I visited monuments.	Vi un castillo interesante.	I saw an interesting castle.

The preterite of regular verbs

You use the preterite (simple past tense) to talk about completed events in the past.
Regular **-ar**, **-er** and **-ir** verbs follow these patterns:

bailar	to dance	conocer	to meet	escribir	to write
bailé	I danced	conocí	I met	escribí	I wrote
bailaste	you danced	conociste	you met	escribiste	you wrote
bailó	he/she danced	conoció	he/she met	escribió	he/she wrote
bailamos	we danced	conocimos	we met	escribimos	we wrote
bailasteis	you (pl) danced	conocisteis	you (pl) met	escribisteis	you (pl) wrote
bailaron	they danced	conocieron	they met	escribieron	they wrote

Some verbs change their spelling in the I form:
sacar → saqué jugar → jugué

MFL Knowledge Organiser - Spanish

¿Qué tipo de música te gusta? What type of music do you like?

el rap	rap	¿Qué tipo de música escuchas?	What type of music do you listen to?
el R'n'B	R'n'B	Escucho rap.	I listen to rap.
el rock	rock	Escucho la música de...	I listen to ...'s music.
la música clásica	classical music	Escucho de todo.	I listen to everything.
la música electrónica	electronic music		
la música pop	pop music		

Palabras muy frecuentes High-frequency words

así que	so (that)	nunca	never
más... que...	more... than...	o	or
mi/mis	my	porque	because
su/sus	his/her	también	also, too
normalmente	normally	y	and
no	no/not		

¿Con qué frecuencia? How often?

todos los días	every day	a veces	sometimes
dos o tres veces a la semana	two or three times a week	de vez en cuando	from time to time
		nunca	never

¡MODULE 2! Todo sobre mi vida

KNOWLEDGE ORGANISER

¿Qué haces con tu móvil? What do you do with your mobile?

Chateo con mis amigos.	I chat with my friends.	Juego.	I play.
Comparto mis vídeos favoritos.	I share my favourite videos.	Leo mis SMS.	I read my texts.
Descargo melodías o aplicaciones.	I download ringtones or apps.	Mando SMS.	I send texts.
Hablo por Skype.	I talk on Skype.	Saco fotos.	I take photos.
		Veo vídeos o películas.	I watch videos or films.

Opiniones Opinions

Me gusta (mucho)...	I like... (very much)
Me encanta...	I love...
No me gusta (nada)...	I don't like... (at all)
la letra	the lyrics
la melodía	the tune
el ritmo	the rhythm
porque es guay/triste/horrible	because it is cool/sad/terrible

¿Te gusta la música de...?	Do you like...'s music?
Me gusta la música de...	I like...'s music.
mi canción favorita	my favourite song
mi cantante favorito/a	my favourite singer
mi grupo favorito	my favourite group
En mi opinión...	In my opinion...

Estrategia 2

The gender of nouns

You can often work out whether a noun is masculine or feminine by looking at the ending of the word:

Most nouns ending in **-o**, **-or** and **-ón** are masculine.
Most nouns ending in **-a**, **-dad**, **-ión** and **-ción** are feminine.

But be careful! There are exceptions, for example:
el problema, **la foto**

To check, use a dictionary: look for the abbreviations *nm* (masculine noun) and *nf* (feminine noun).

Can you work out the gender of these nouns from Module 2 without using a dictionary?

- actividad
- concurso
- televisión
- música
- canción
- amigo
- aplicación
- millón

¿Qué hiciste ayer? What did you do yesterday?

Bailé en mi cuarto.	I danced in my room.	Vi una película.	I watched a film.
Fui al cine.	I went to the cinema.	Salí con mis amigos/as.	I went out with my friends.
Hablé por Skype.	I talked on Skype.	No hice los deberes.	I didn't do my homework.
Hice gimnasia.	I did gymnastics.	ayer	yesterday
Hice kárate.	I did karate.	luego	later, then
Jugué en línea con mis amigos/as.	I played online with my friends.	por la mañana	in the morning
Jugué tres horas.	I played for three hours.	por la tarde	in the afternoon
Monté en bici.	I rode my bike.	un poco más tarde	a bit later

Using the comparative

When you want to compare two things, you use the comparative.
más + adjective + **que**... more... than...

The adjective must agree with the noun.

Los documentales son **más** informativ**os** **que** los realitys.
Documentaries are more informative than reality shows.

Las telenovelas son **más** divertid**as** **que** los concursos.
Soaps are funnier than game shows.

MFL Knowledge Organiser - Spanish

En el restaurante — At the restaurant

buenos días	good day, good morning	nada más	nothing else
¿Qué va a tomar (usted)?	What are you (singular) going to have?	La cuenta, por favor.	The bill, please.
¿Qué van a tomar (ustedes)?	What are you (plural) going to have?	la ensalada mixta	mixed salad
¿Y de segundo?	And for main course?	los huevos fritos	fried eggs
¿Para beber?	To drink?	la sopa	soup
¿Algo más?	Anything else?	el pan	bread
Voy a tomar...	I'll have...	las chuletas de cerdo	pork chops
de primer plato	as a starter	el filete	steak
de segundo plato	for main course	el pollo con pimientos	chicken with peppers
de postre	for dessert	la tortilla española	Spanish omelette
Tengo hambre.	I am hungry.	el helado de chocolate/fresa/vainilla	chocolate/strawberry/vanilla ice cream
Tengo sed.	I am thirsty.	la tarta de queso	cheesecake
		la cola	coke

¿Qué te gusta comer y beber? — What do you like to eat and drink?

¿Qué no te gusta comer/beber?	What don't you like to eat/drink?	los caramelos	sweets
Me gusta(n) mucho...	I really like...	la fruta	fruit
Me encanta(n)...	I love...	las hamburguesas	hamburgers
No me gusta(n) nada...	I don't like... at all.	los huevos	eggs
Odio...	I hate...	la leche	milk
Prefiero...	I prefer...	el marisco	seafood/shellfish
el agua	water	el pescado	fish
el arroz	rice	el queso	cheese
la carne	meat	las verduras	vegetables

Una fiesta mexicana — A Mexican party

¿Qué vas a traer/comprar?	What are you going to bring/buy?
Voy a traer...	I'm going to bring...
quesadillas	quesadillas (toasted cheese tortillas)
limonada	lemonade
Voy a comprar...	I am going to buy...
una lechuga	a lettuce
un pimiento verde/rojo	a green/red pepper
un aguacate	an avocado
un kilo de tomates	a kilo of tomatoes
medio kilo de queso	half a kilo of cheese
200 gramos de pollo	200 grammes of chicken
un paquete de tortillas	a packet of tortilla wraps
una botella de limonada	a bottle of lemonade

KNOWLEDGE ORGANISER

Palabras muy frecuentes — High-frequency words

a las...	at... o' clock	lugar	place
bastante	quite	para	for
día	day	por ejemplo	for example
favorito/a	favourite	pasado/a	last
hora	time	que viene	next

Lo siento, pero no entiendo — I'm sorry, but I don't understand

¿Qué significa '...'?	What does '...' mean?	¿Puedes hablar más despacio, por favor?	Can you speak more slowly, please?
¿Puedes repetir?	Can you repeat that?		

¿Y tú? ¿Qué opinas? — And you? What do you think?

Pues...	Well...	Eh...	Er...
Depende...	It depends...	A ver...	Let's see...
No sé...	I don't know...	Bueno/Vale...	OK...

¿Qué desayunas? — What do you have for breakfast?

Desayuno...	For breakfast I have...	Como...	I eat .../For lunch I have...
cereales	cereal	un bocadillo	a sandwich
churros	churros (sweet fritters)	¿Qué cenas?	What do you have for dinner?
tostadas	toast	Ceno...	For dinner I have...
yogur	yogurt	patatas fritas	chips
café	coffee	pollo con ensalada	chicken with salad
Cola Cao™	Cola Cao (chocolate drink)	¿A qué hora desayunas/comes/cenas?	At what time do you have breakfast/lunch/dinner?
té	tea	Desayuno a las siete.	I have breakfast at 7:00.
zumo de naranja	orange juice	Como a las dos.	I have lunch at 2:00.
No desayuno nada.	I don't have anything for breakfast.	Ceno a las nueve.	I have dinner at 9:00.
¿Qué comes?	What do you have for lunch?		

¡MODULE 3! ¡A comer!

Negatives

To make a sentence negative, put **no** before the verb:

No bebo leche. — I don't drink milk.

Nunca means 'never'. It usually comes before the verb.

Nunca bebo café. — I never drink coffee.

No... nada means 'nothing' or 'not anything'. It makes a 'sandwich' around the verb.

No ceno **nada**. — I don't eat anything for dinner.

Estrategia 3

Past, present or future?

Verbs in the near future tense are easy to spot, because they are made up of three parts:
1 part of the verb **ir** (to go), **2** the word **a**, **3** an infinitive.

Vamos a comer paella. — We are going to eat paella.

To tell whether a verb is in the present tense or the preterite, you have to look at the verb ending.

Bebo zumo de naranja. — I drink orange juice.
Bebí zumo de naranja. — I drank orange juice.

Decide which tense each of the following verbs is in. Then translate the sentences.

- Compro pan.
- Vas a bailar salsa.
- Bebimos limonada.
- Jugué al fútbol.
- Van a ir a la fiesta.
- Como patatas fritas.

MFL Knowledge Organiser - Spanish

¿Te gustaría ir al cine? Would you like to go to the cinema?

¿Te gustaría ir...?	Would you like to go...?	al parque	to the park
a la bolera	to the bowling alley	a la pista de hielo	to the ice rink
a la cafetería	to the café	al polideportivo	to the sports centre
al centro comercial	to the shopping centre	¿Te gustaría venir a mi casa?	Would you like to come to my house?
al museo	to the museum		

¿Dónde quedamos? Where do we meet up?

al lado de la bolera	next to the bowling alley	enfrente del polideportivo	opposite the sports centre
delante de la cafetería	in front of the café	en tu casa	at your house
detrás del centro comercial	behind the shopping centre		

Estrategia 4
Finding the right word

Be careful not to choose the wrong Spanish word when you use a dictionary.

Make sure you:

1. Look up the correct spelling of the English word (e.g. meet/meat, pair/pear).
2. Look for dictionary abbreviations (*vt, nm, nf*, etc. – see page 86). If it's a noun you want, don't choose a verb (e.g. a watch/to watch).
3. Look at any example sentences given.
4. Double-check the Spanish word in the Spanish–English half of the dictionary.

Find the correct Spanish translations of these items of clothing in a dictionary:

• tie • cap • trainers • suit • dress

¿Cómo te preparas? How do you get ready?

¿Cómo te preparas cuando sales de fiesta?	How do you get ready when you go to a party?	Me visto.	I get dressed.
Me baño.	I have a bath.	Me maquillo.	I put on make-up.
Me ducho.	I have a shower.	Me peino.	I comb my hair.
Me lavo la cara.	I wash my face.	Me aliso el pelo.	I straighten my hair.
Me lavo los dientes.	I brush my teeth.	Me pongo gomina.	I put gel on my hair.

¿Qué vas a llevar? What are you going to wear?

¿Qué llevas normalmente los fines de semana?	What do you normally wear at weekends?	una gorra	a cap
Normalmente los fines de semana llevo...	At weekends I normally wear...	unos pantalones	some trousers
una camisa	a shirt	unos vaqueros	some jeans
una camiseta	a T-shirt	unas botas	some boots
un jersey	a jumper	unos zapatos	some shoes
una sudadera	a sweatshirt	unas zapatillas de deporte	some trainers
una falda	a skirt	¿Vas a salir esta noche?	Are you going to go out tonight?
un vestido	a dress	Voy a ir al/a la...	I am going to go to the...
		Voy a llevar...	I'm going to wear...

Reacciones Reactions

De acuerdo.	All right.	¡Ni hablar!	No way!
Vale.	OK.	¡Ni en sueños!	Not a chance!/Not in your wildest dreams!
Muy bien.	Very good.		
¡Genial!	Great!	No tengo ganas.	I don't feel like (it).
Sí, me gustaría mucho.	Yes, I'd like that very	¡Qué aburrido!	How boring!

¿A qué hora? At what time?

a las...	at...	seis y media	half past six
seis	six o'clock	siete menos cuarto	quarter to seven
seis y cuarto	quarter past six	siete menos diez	ten to seven

Lo siento, no puedo I'm sorry, I can't

¿Quieres salir?	Do you want to go out?	pasear al perro	walk the dog
Tengo que...	I have to...	salir con mis padres	go out with my parents
cuidar a mi hermano	look after my brother	No quiero.	I don't want to.
hacer los deberes	do my homework	No tengo dinero.	I don't have any money.
lavarme el pelo	wash my hair	No puede salir.	He/She can't go out.
ordenar mi dormitorio	tidy my room		

Palabras muy frecuentes High-frequency words

al/a la	to the	este/esta/estos/estas	this/these
del/de la	of the	por eso	for this reason
demasiado/a	too (much)	por supuesto	of course
demasidos/as	too many	¡Lo pasé fenomenal!	I had a fantastic time!

¡No es justo! It's not fair!

Estoy de acuerdo...	I agree...	Eres demasiado joven.	You're too young.
con tu madre/padre	with your mother/father	En mi opinión, tienes razón.	In my opinion, you're right.
con tus padres	with your parents	¿Tú qué opinas?	What do you think?
contigo	with you		

¡MODULE 4! ¿Qué hacemos?

KNOWLEDGE ORGANISER

Reflexive verbs include a reflexive pronoun. They often describe an action you do to yourself – for example, lavarse (to wash oneself/ to get washed).

me lavo	I wash myself/get washed
te lavas	you (sg) wash yourself
se lava	he/she washes him/herself
nos lavamos	we wash ourselves
os laváis	you (pl) wash yourselves
se lavan	they wash themselves

Different types of verbs work like this in the I form in the present, preterite and near future. Train yourself to spot verbs in different tenses:

	infinitive	present	preterite	near future
regular verbs	hablar	hablo	hablé	voy a hablar
	comer	como	comí	voy a comer
	vivir	vivo	viví	voy a vivir
stem-changing verbs	jugar	juego	jugué	voy a jugar
irregular verbs	hacer	hago	hice	voy a hacer
	ir	voy	fui	voy a ir
	ver	veo	vi	voy a ver
	ser	soy (yes → it is)	fui (I'se → it was)	voy a ser (I'se a ser → it is going to be)

The word for 'this' or 'these' changes according to whether the noun described is masculine or feminine and singular or plural.

singular		plural	
masculine	feminine	masculine	feminine
este	esta	estos	estas
este jersey (this sweater)	esta falda (this skirt)	estos zapatos (these shoes)	estas botas (these boots)

Gramática

Me/Te gustaría is the conditional form of me/te gusta. You use it to say what you would like to do. It is often followed by the infinitive.

¿Te gustaría ir a la cafetería?	Would you like to go to the café?
Me gustaría ir al cine.	I would like to go to the cinema.

MFL Knowledge Organiser - Spanish

¿Qué casa prefieres? Which house do you prefer?

Esta casa es...	This house is...	moderno/a	modern
Este piso es...	This flat is...	pequeño/a	small
amplio/a	spacious	La casa/El piso está...	The house/The flat is...
antiguo/a	old	cerca de la playa	near the beach
bonito/a	nice	en el centro	in the centre
cómodo/a	comfortable	en la montaña	in the mountains
enorme	enormous	más... que	more... than
feo/a	ugly	menos... que	less... than
grande	big	Prefiero...	I prefer...
maravilloso/a	marvellous	porque	because

Estrategia 5
Building your vocabulary

Try to collect words so that you can use them again. Here are some ideas:

1 Note down words in different categories:
- verbs
- adjectives
- nouns
- cognates

2 Note down words under different topic headings:
- houses
- holidays
- places and directions
- time expressions
- opinions

3 Note down words as pairs of opposites:
moderno/a – antiguo/a

4 If you find a word difficult to remember, write out a sentence using it:
grande → big
Mi castillo es muy **grande** y tiene muchos dormitorios.

La casa The house

Tiene...	It has...	una chimenea	a fireplace
una cocina	a kitchen	un jacuzzi	a hot tub
un comedor	a dining room	un jardín	a garden
un cuarto de baño	a bathroom	una piscina	a swimming pool
un dormitorio	a bedroom	una terraza	a balcony, a terrace
un salón	a living room	vistas al mar	views of the sea

¿Qué se puede hacer en...? What can you do in...?

Se puede(n)...	You can...	ir de paseo en bicicleta	go on a bike ride
hacer senderismo	go hiking	ir a la playa	go to the beach
hacer actividades náuticas	do water sports	ir al restaurante	go to the restaurant
		jugar al golf	play golf
hacer artes marciales	do martial arts	jugar al voleibol	play volleyball
ir a la bolera	go bowling	jugar al tenis	play tennis
ir al cine	go to the cinema	ver la catedral	see the cathedral
ir de compras	go shopping	visitar un castillo	visit a castle

Expresiones de tiempo Time expressions

ayer	yesterday	hoy	today
el fin de semana pasado	last weekend	mañana	tomorrow
el verano pasado	last summer	este fin de semana	this weekend
el año pasado	last year	el verano que viene	next summer
hace dos años	two years ago	el año que viene	next year

¡MODULE 5! Operación verano

KNOWLEDGE ORGANISER

Palabras muy frecuentes High-frequency words

bastante	quite	está	it is
donde	where	muy	very
esta/este	this	también	also, too

Opiniones Opinions

Me gusta...	I like...	Me gustaría mucho...	I would really like...
Me encanta...	I love...	Me encantaría...	I would love...

¿Dónde está...? Where is...?

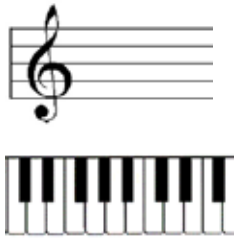
la catedral	the cathedral	Dobla a la izquierda.	Turn left.
la estación de tren	the railway station	Toma la primera a la derecha.	Take the first on the right.
el minigolf	the minigolf		
el parque de atracciones	the theme park	Toma la segunda a la izquierda.	Take the second on the left.
el parque acuático	the water park		
la pista de karting	the go-kart track	Cruza la plaza.	Cross the square.
el zoo	the zoo	Está a la derecha.	It's on the right.
Sigue todo recto.	Keep straight on.	Está a la izquierda.	It's on the left.
Dobla a la derecha.	Turn right.		

Music Knowledge Organiser

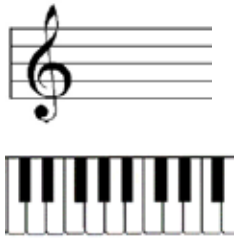
Learning about Seventh Chords

1. When you learned to play the **TWELVE BAR BLUES** you learned to play **CHORD I**, **CHORD IV**, and **CHORD V** in the key of C Major. Write **CHORD I**, **CHORD IV**, and **CHORD V in** in the key of C Major on the blank staves below and then mark the correct notes on the keyboard diagrams.

CHORD I in C Major = __+__+__



CHORD IV in C Major = __+__+__



CHORD V in C Major = __+__+__

2. We're now going to turn these chords into **SEVENTH CHORDS**. Seventh chords use the basic chords given above but add another note on top – seven notes above the **ROOT** (or first note of the chords). So, the chord of **CHORD I7** in C Major would use the notes of the chord: C + E + G but also **an extra note seven notes above the root**, which is B flat (some seventh chords use sharps and flats to alter the pitch of the extra note!) Write the chords of **CHORD I7**, **CHORD IV7**, and **CHORD V7** in the key of C Major on the blank staves below and then mark the correct notes on the keyboard diagrams.

CHORD I7 in C Major =
C + E + G + B♭

CHORD IV7 in C Major =
__+__+__+__ *(seventh is flattened!)*

CHORD V7 in C Major =
__+__+__+__

Stretch and Challenge: Work out the notes for **CHORD I**, **CHORD IV**, and **CHORD V** and **CHORD I7**, **CHORD IV7**, and **CHORD V7** in the keys of **G Major, D Major** and **F Major**. Draw your own staves and keyboard diagrams to show the correct positioning of the notes.

Listening and describing music

Listen to two different pieces of music or songs of your choice. They could be something that you particularly like or your favourite songs or pieces of music. Try to stay away from two songs or pieces of music in the same style or from the same artist of band/group. Instead choose two **CONTRASTING** pieces of music *e.g. your favourite "pop song", a piece of "classical" music that you know, a piece of jazz or a piece of music from a film or video game that you like*. Describe the two pieces of music in the boxes below.

Title:_____ **Style:**_____

Composer:_____ **Performer(s):**_____

Describe what you are hearing….

The **Dynamics** _____

The **Tempo**_____

The **Texture**_____

The **Pitch**_____

Any other **ELEMENTS OF MUSIC** that you can hear (**Duration, Articulation, Silence, Timbre/Sonority**) or **INSTRUMENTS, MOOD** or **ATMOSPHERE** _____

_____

Purpose/Occasion (what is the music used for?)_____

Why do you like this piece of music/song?_____

Title:_____ **Style:**_____

Composer:_____ **Performer(s):**_____

Describe what you are hearing….

The **Dynamics** _____

The **Tempo**_____

The **Texture**_____

The **Pitch**_____

Any other **ELEMENTS OF MUSIC** that you can hear (**Duration, Articulation, Silence, Timbre/Sonority**) or **INSTRUMENTS, MOOD** or **ATMOSPHERE** _____

_____

Purpose/Occasion (what is the music used for?)_____

Why do you like this piece of music/song?_____

Music Knowledge Organiser

Jazz and The Blues

African Music

European Music

Work-songs & Spirituals

Combined African **SYNCOPATIONS** and **POLYRHYTHMS** with hymn-tunes from the white settlers from Europe.
Based on African **CALL AND RESPONSE** pattern with leader (**UNISON**) singing the "call" answered by a chorus (**HARMONY**) singing the "response" (answer).

The Blues

Simple, personal, and strongly felt lyrics in **A-A-B** form.
Built on a chord progression called the **TWELVE BAR BLUES** (using **CHORDS I, IV & V**) and some **SEVENTH CHORDS**.
Uses the **BLUES SCALE** for vocal and instrumental **IMPROVISATIONS.** Melodies are often **SYNCOPATED** with instrumental **BREAKS** at the end of each vocal line.
Famous Blues singers include *Bessie Smith, Sarah Vaughan, Ella Fitzgerald, Billie Holiday.*

Ragtime

Performed on a solo piano with a leaping **VAMP** accompaniment in the left hand against **SYNCOPATED** offbeat and **CHROMATIC** melodies in the right hand.
Longer pieces of ragtime often broken down into different sections for variety. *Scott Joplin* was the most famous ragtime composer whose works include: *"The Entertainer", "Maple Leaf Rag" and "Ragtime Dance".*

Dixieland/Trad/New Orleans Jazz

Small ensembles of 5-6 players on instruments such as drums, banjo, cornet, trombone, string bass, clarinet etc. Based on a traditional "song" but "played around" with by solo performers adding **IMPROVISATIONS** and **COUNTER MELODIES**
Soloists accompanied and 'backed' by a "**RHYTHM SECTION**". *Famous Dixieland Jazz artists include Duke Ellington, Bix Beiderbecke, Louis Armstrong.*

Swing

Larger ensembles of 10+ with a "leader" who wrote down and arranged the music for players. Sections included rhythm (piano and drums/ bass), reeds trumpets and trombones. **CHROMATIC SCALE** often used in Swing. Uses **SOLOISTS** who **IMPROVISE** against the **ENSEMBLE** in **COLLECTIVE IMPROVISATION.** Often characterised by a **SWING** rhythm which is easy to **DANCE** to. Often based on a **WALKING BASS LINE.** *Glenn Miller is probably the most famous swing band leader (and Trombonist) and his well-known piece "In the Mood".*

Bebop

Bebop developed in 1940's as swing declined in popularity. Characterised by fast tempo, tricky chord changes and emphasis placed on **VITRUOSIC IMPROVISATION** with improvisation contests.
Bands returned to 5 or 6 members and Bebop was listened to rather than danced to.
Famous Bebop musicians include *Charlie Parker* and *Dizzy Gillespie.*

Free/Modal Jazz

Slower Tempo than Swing and Bebop.
More laid-back feel and relaxed mood.
Continued the jazz tradition of a **SOLOIST(S)** backed by **RHYTHM SECTION. IMPROVISATION** still a key feature but more emphasis on **TIMBRE** and **SONORITY.** Based on a set of chords (often 12-bar blues or 32 bars) and based on **MODES** (a type of **SCALE**) *e.g., Dorian Mode, Lydian Mode etc.* Famous Modal Jazz artists include *Miles Davis, John Coltrane.*

A. Jazz and Blues Key Words

RIFF/OSTINATO – Short, repeated musical patterns often used in **SOLOS**.
IMPROVISATION – music created 'on the spot' (previously unprepared performance)
SEVENTH CHORD – a **TRIAD** (root, third and fifth) with a fourth note added which is seven notes about the root/tonic. **C7** = C , E, G (triad) + **B flat**.
SWING/SWUNG RHYTHM – performing a regular 'straight' rhythm with a 'lilt' in a "**ONE** and **A**, **TWO** and **A**" style (using **TRIPLETS**) common in swing music.

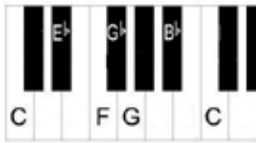
B. The Twelve Bar Blues

Some or all of these chords can be **SEVENTH CHORDS (7)**

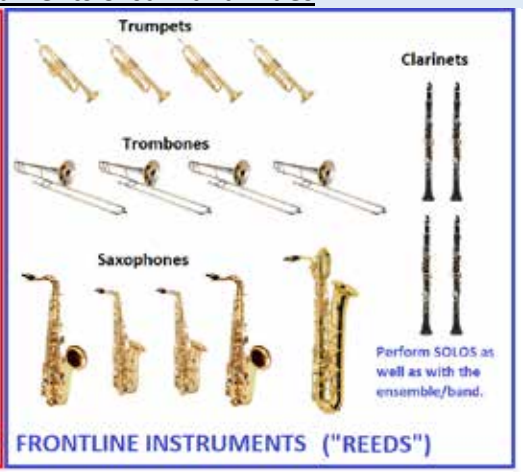
CHORD I	CHORD I	CHORD I	CHORD I
CHORD IV	CHORD IV	CHORD I	CHORD I
CHORD V	CHORD IV	CHORD I	CHORD I

C. The Blues Scale

BLUES SCALE – a series of notes often used within improvisations in blues music *(the Blues Scale on C is shown to the right).*
BLUE NOTES – additional or extra sharpened or flattened notes in a melody.



D. Instruments of Jazz and Blues

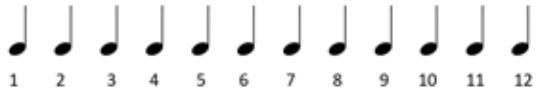


Music Knowledge Organiser

Dance Music

A. Pulse, Time and Metre in Dance Music

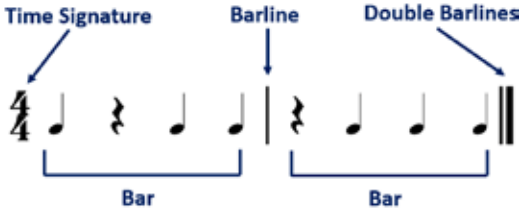
The **BEAT** or **PULSE** of dance music is always **REGULAR**. Here is a regular crotchet pulse of 12 beats:



A single **BEAT** is a basic unit of musical time. In dance music, beats are grouped together to make a repeating pattern – normally made up of either twos, threes or fours.

The repeating pattern of beats gives us the **METRE** or the **TIME** of the music, shown by the **TIME SIGNATURE** at the start of a piece of music. Each repetition of the beat-pattern is called a **BAR** and bars are separated by vertical lines called **BARLINES**.

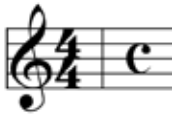
A **DOUBLE BARLINE** always comes at the end of a piece of music or section of music.



The **TOP NUMBER** of a time signature tells you how many beats there are in each bar. The **BOTTOM NUMBER** tells you what types or note values these beats are (as divisions of a semibreve = 1):

1 = Semibreve
2 = Minim
4 = Crotchet
8 = Quaver
16 = Semiquaver

4/4 can also be shown by a "C" meaning **COMMON TIME**



B. Club Dance

Influenced by **MUSIC TECHNOLOGY:** samplers, synthesisers, sequencers and drum machines.

Various genres: House, Techno, Drum and Bass, Garage, Trance, Ambient. Dancing in individual and **IMPROVISED** on one spot.

SIMPLE QUADRUPLE METRE (4/4).

Use of **ELECTRONIC SOUNDS.**

A **STRONG BEAT** emphasised by the **DRUM** and **STRONG BASS LINES**.

SHORT PHRASES and **REPETITIVE SECTIONS**.

FAST TEMPO (Ambient is slower/chilled)

Complex, layered drum patterns.

Inclusion of **SAMPLES**.

Disco

Appeared in 1970's as an individual, **IMPROVISED DANCE** in clubs from a mix of jazz, funk and soul.

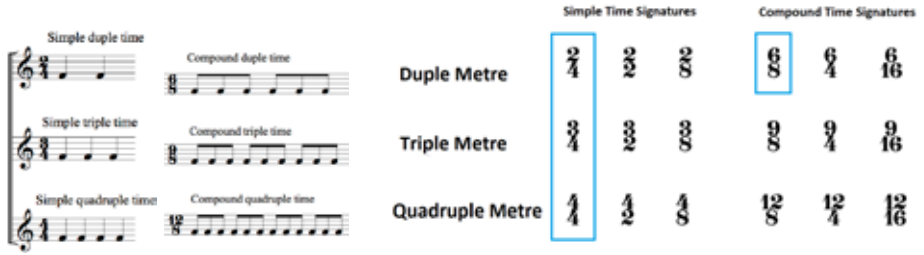
SIMPLE QUADRUPLE METRE (4/4)

FAST TEMPO (around 120 BPM)

FOUR-ON-THE-FLOOR RHYTHM (see E. **CHORDS.**

POPULAR SONG FORM with a strong **GROOVE** (long repeated rhythm section)

C. Simple and Compound Time



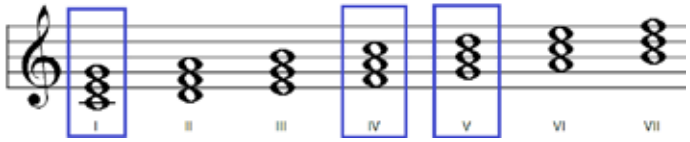
CLUB DANCE MUSIC uses mainly **SIMPLE 4/4 METRE** but other musical dances use a variety of **DUPLE** and **TRIPLE METRE**, such as a **WALTZ** which uses **SIMPLE TRIPLE METRE 3/4)**

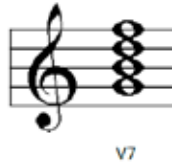
D. Chords in Dance Music

Dance music is based on **CHORD PATTERNS**.

PRIMARY CHORDS:

CHORD I, **CHORD IV** and **CHORD V** are most commonly used in dance music with **SEVENTH CHORDS** featuring in popular dance music such as **DISCO** and **CLUB DANCE** (adding a note seven notes above the root of a chord, such as and **DOMINANT SEVENTH CHORD**). All seventh chords have 4 notes. Chords are often performed in different ways as an **ACCOMPANIMENT** in dance music.





E. Characteristic Rhythms in Dance Music

FOUR-ON-THE-FLOOR is a common rhythm in **DISCO** and more modern dance music:

Count	1	and a	2	and a	3	and a	4	and a
Bass Drum	●		●		●		●	
Snare Drum or Hand Claps			●				●	
Hi-Hat Cymbal		●●		●●		●●		●●

Music Knowledge Organiser

FILM MUSIC

A. The Purpose of Music in Film

Film Music is a type of **DESCRIPTIVE MUSIC** that represents a **MOOD, STORY, SCENE** or **CHARACTER** through music, it is designed to **SUPPORT THE ACTION AND EMOTIONS OF THE FILM ON SCREEN**. Film Music can be used to:

- Create or enhance a mood (though the **ELEMENTS OF MUSIC**) ->
- Function as a **LEITMOTIF** (see D)
- To emphasise a gesture (**MICKEY-MOUSING –** when the music fits precisely with a specific part of the action in a film e.g. cartoons)
- Provide unexpected juxtaposition/irony (using music the listener wouldn't expect to hear giving a sense of uneasiness or humour!)
- Link one scene to another providing continuity
- Influence the pacing of a scene making it appear faster/slower
- Give added commercial impetus (released as a **SOUNDTRACK**) – sometimes a song, usually a pop song is used as a **THEME SONG** for a film.
- Illustrate the geographic location (using instruments associated with a particular country) or historical period (using music 'of the time').

D. Leitmotifs

LEITMOTIF – A frequently recurring short melodic or harmonic idea which is associated with a character, event, concept, idea, object or situation which can be used directly or indirectly to remind us of one not actually present on screen. Leitmotifs can be changed through **SEQUENCING, REPETITION** or **MODULATION** giving a hint as to what may happen later in the film or may be heard in the background giving a "subtle hint" to the listener *e.g. the "Jaws" Leitmotif*

B. How the Elements of Music are used in Film Music

PITCH AND MELODY – **RISING MELODIES** are often used for increasing tension, **FALLING MELODIES** for defeat. Westerns often feature a **BIG THEME**. **Q&A PHRASES** can represent good versus evil. The **INTERVAL OF A FIFTH** is often used to represent outer space with its sparse sound.
DYNAMICS – **FORTE (LOUD)** dynamics to represent power; **PIANO (SOFT)** dynamics to represent weakness/calm/resolve. **CRESCENDOS** used for increasing threat, triumph or proximity and **DECRESCENDOS** or **DIMINUENDOS** used for things going away into the distance. Horro Film soundtracks often use **EXTREME DYNAMICS** or **SUDDEN DYNAMIC CHANGES** to 'shock the listener'.
HARMONY – **MAJOR** – happy; **MINOR** – sad. **CONSONANT HARMONY OR CHORDS** for "good" and **DISSONANT HARMONY OR CHARDS** for "evil". **SEVENTH CHORDS** often used in Westerns soundtracks.
DURATION – **LONG** notes often used in Westerns to describe vast open spaces and in Sci-Fi soundtracks to depict outer space; **SHORT** notes often used to depict busy, chaotic or hectic scenes. **PEDAL NOTES** – long held notes in the **BASS LINE** used to create tension and suspense.
TEXTURE – **THIN/SPARE** textures used for bleak or lonely scenes; **THICK/FULL** textures used for active scenes or battles.
ARTICULATION – LEGATO for flowing or happy scenes, **STACCATO** for 'frozen' or 'icy' wintery scenes. **ACCENTS (>)** for violence or shock.
RHYTHM & METRE – 2/4 or 4/4 for Marches (battles), 3/4 for Waltzes, 4/4 for "Big Themes" in Westerns. **IRREGULAR TIME SIGNATURES** used for tension. **OSTINATO** rhythms for repeated sounds *e.g. horses.*

C. Film Music Key Words

SOUNDTRACK – The music and sound recorded on a motion-picture film. The word can also mean a commercial recording of a collection of music and songs from a film sold individually as a CD or collection for digital download.
MUSIC SPOTTING – A meeting/session where the composer meets with the director and decides when and where music and sound effects are to feature in the finished film.
STORYBOARD – A graphic organiser in the form of illustrations and images displayed in sequence to help the composer plan their soundtrack.
CUESHEET – A detailed listing of **MUSICAL CUES** matching the visual action of a film so that composers can time their music accurately.
CLICK TRACKS – An electronic **METRONOME** which helps film composers accurately time their music to on-screen action through a series of 'clicks' (often heard through headphones) – used extensively in cartoons and animated films.
DIEGETIC FILM MUSIC – Music within the film for both the characters and audience to hear *e.g. a car radio, a band in a nightclub or sound effects.*
NON-DIEGETIC FILM MUSIC – Music which is put "over the top" of the action of a film for the audience's benefit and which the characters within a film can't hear – also known as **UNDERSCORE** or **INCIDENTAL MUSIC**.

E. History of Film Music

Early films had no soundtrack **("SILENT CINEMA")** and music was provided live, usually **IMPROVISED** by a pianist or organist. The first **SOUNDTRACKS** appeared in the 1920's and used existing music **(BORROWED MUSIC –** music composed for other (non-film) purposes) from composers such as Wagner and Verdi's operas and ballets. In the 1930's and 1940's Hollywood hired composers to write huge Romantic-style soundtracks. **JAZZ** and **EXPERIEMENTAL MUSIC** was sometimes used in the 1960's and 1970's. Today, film music often blends **POPULAR, ELECTRONIC** and **CLASSICAL** music together in a flexible way that suits the needs of a particular film.

F. Film Music Composers and their Soundtracks

Jerry Goldsmith
Planet of the Apes
Star Trek: The Motion Picture
The Omen
Alien

John Williams
Star Wars
Jaws
Harry Potter
Indiana Jones
Superman, E.T.

James Horner
Titanic
Apollo 13
Braveheart
Star Trek II
Aliens

Ennio Morricone
The Good, The Bad and The Ugly
For a Few Dollars More
The Mission

Danny Elfman
Mission Impossible
Batman Returns
Men in Black
Spider Man

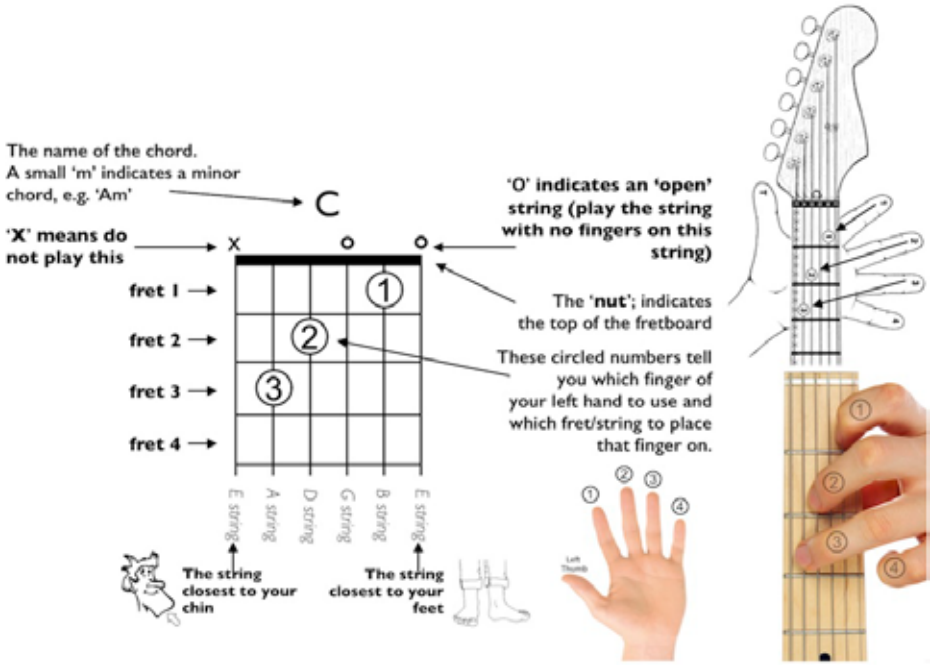
Hans Zimmer
The Lion King
Gladiator
Dunkirk
Blade Runner 2049
No Time to Die

Bernard Hermann
Psycho
Vertigo
Taxi Driver

Music Knowledge Organiser

THE GUITAR

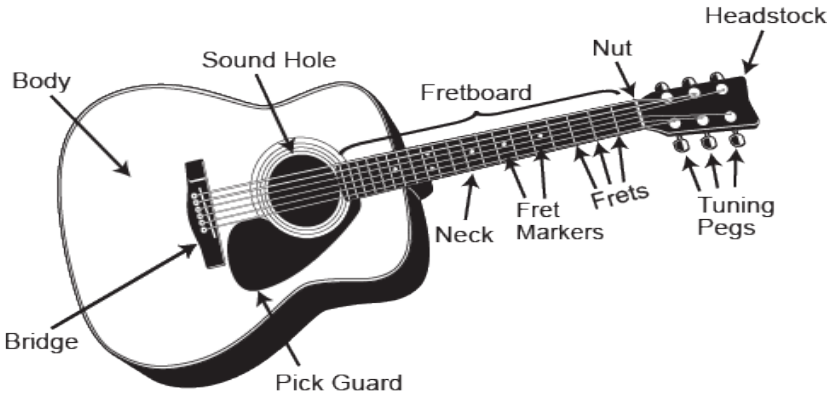
A. How to Read Guitar Chords



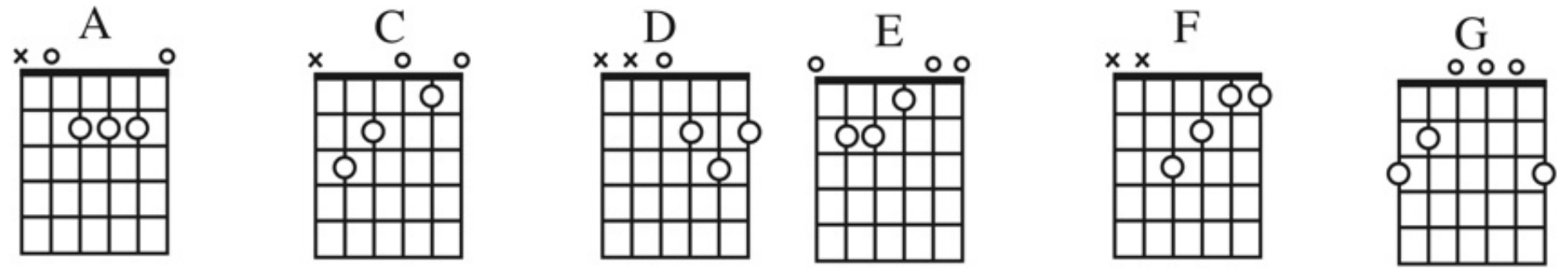
B. Elements of music

Dynamics	Playing strings harder/softer
Timbre (tone)	Playing strings with fingers/pick, choosing guitar amp/acoustic guitar
Pitch	Playing higher pitched strings/ moving fretted hand toward the guitar body
Articulation	Playing each note/chord individually (picking) or using techniques such as Hammer ons/pull offs for a legato sound

C. Parts of a Guitar



D. Guitar Chords

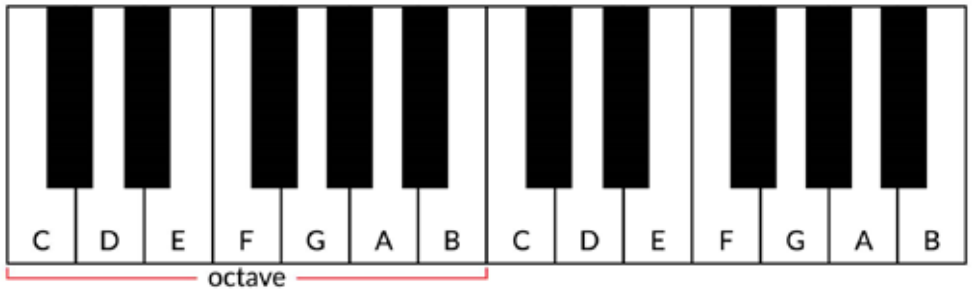


Music Knowledge Organiser

Keyboard Skills

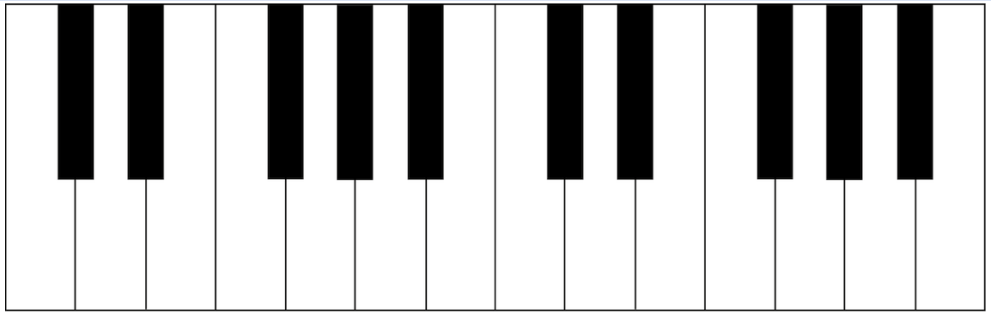
Exploring Treble Clef Reading and Notation

A. Layout of a Keyboard/Piano



A piano or keyboard is laid out with **WHITE KEYS** and Black Keys (see section G). **C is to the left of the two Black Keys** and the notes continue to G then they go back to A again. Notes with the same letter name/pitch are said to be an **OCTAVE** apart. **MIDDLE C** is normally in the centre of a piano keyboard.

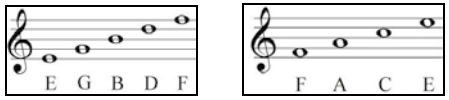
D. Complete the Piano



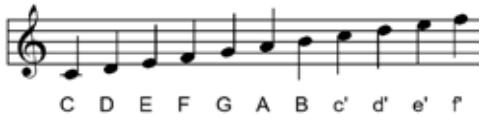
B. Treble Clef & Treble Clef Notation

A **STAVE** or **STAFF** is the name given to the five lines where musical notes are written. The position of notes on the stave or staff shows their **PITCH** (how high or low a note is). The **TREBLE CLEF** is a symbol used to show high-pitched notes on the stave and is *usually* used for the right hand on a piano or keyboard to play the **MELODY** and also used by high pitched instruments such as the flute and violin. The stave or staff is made up of 5 **LINES** and 4 **SPACES**.

Every **G**reen **B**us **D**rives **F**ast. Notes in the **SPACES** spell **"FACE"**



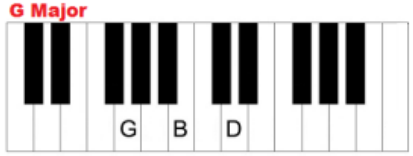
Notes from **MIDDLE C** going up in pitch (all of the white notes) are called a **SCALE**.



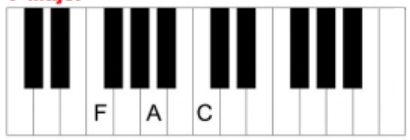
C. Keyboard Chords

C Major

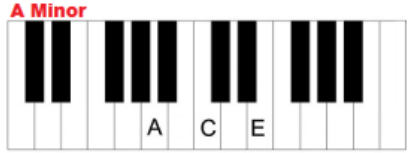
G Major



F Major

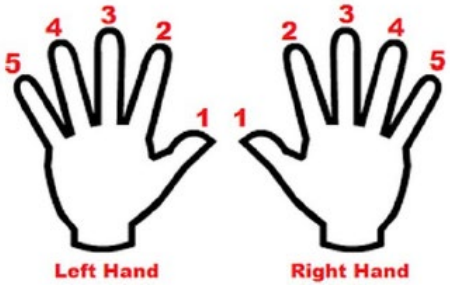


A Minor



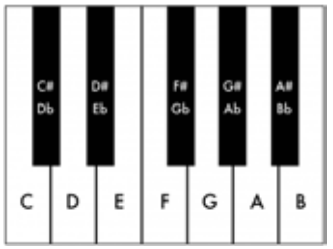
Play one – Miss one – play one – miss one – play one

E. Left Hand/Right Hand (1-5)



F. Black Keys and Sharps and Flats

There are five different black notes or keys on a piano or keyboard. They occur in groups of two and three right up the keyboard in different pitches. Each one can be a **SHARP** or a **FLAT**. The # symbol means a **SHARP** which raises the pitch by a semitone *(e.g. C# is higher in pitch (to the right) than C)*. The *b* symbol means a **FLAT** which lowers the pitch by a semitone *(e.g. Bb is lower in pitch (to the left) than B)*. Each black key has 2 names – C# is the same as D*b* – there's just two different ways of looking at it! Remember, black notes or keys that are to the **R**IGHT of a white note are called SHA**R**PS and black notes to the **L**EFT of a white note are called F**L**ATS.



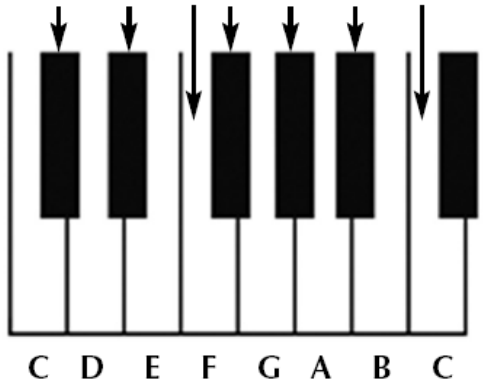
Music Knowledge Organiser

Sharps and Flats

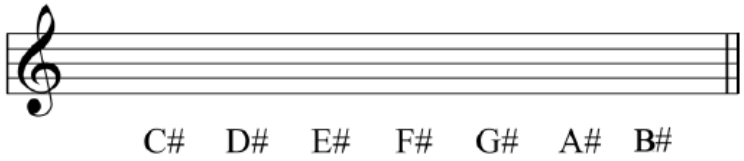
Name_____ Form_____

Sharps

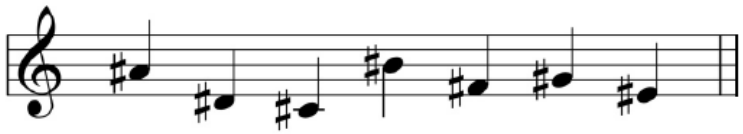
1. Label the sharps on the keyboard below:



2. Draw the sharps on the stave below:



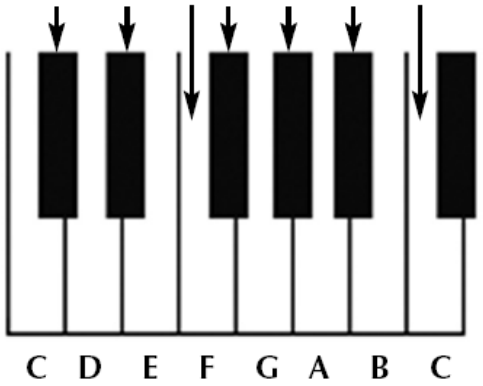
3. Write the letter names of the pitches in the spaces below.



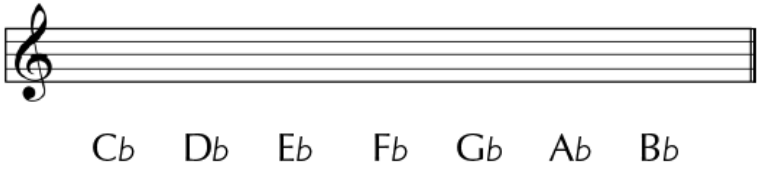
_____ _____ _____ _____ _____ _____ _____

FLATS

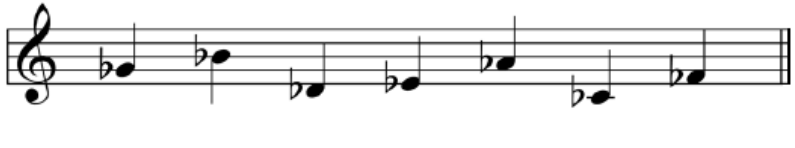
4. Label the flats on the keyboard below:



5. Draw the flats on the stave below:



6. Write the letter names of the pitches in the spaces below.



_____ _____ _____ _____ _____ _____ _____

Music Knowledge Organiser

Reggae and Syncopation

A. How did Reggae develop?

REGGAE is one of the traditional musical styles from **JAMAICA**. It developed from :

REGGAE

MENTO	SKA	ROCK STEADY
A form of Jamaican **FOLK MUSIC** like **CALYPSO** popular in the 1950's.	Fast dance music that emerged in the 1950's fusing American R&B with **MENTO** rhythms and featuring **ELECTRIC GUITARS, JAZZY HORN SECTIONS** and characteristic **OFFBEAT RHYTHMS.**	A more vocal style of dance music which used **RIFFS**, **SIMPLE HARMONIES, OFFBEAT RHYTHMS** and a strong **BASS LINE**.

Reggae was first heard in the UK in the 1950's when immigrants began to settle. During the 1960's, people began importing singles from Jamaica to sell in UK shops. Now, Reggae is known as the national music of Jamaica.

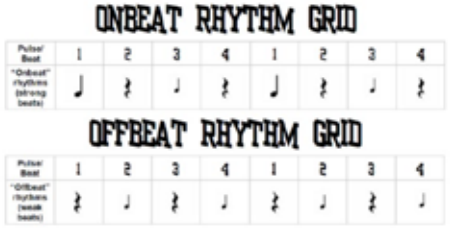
B. Where is Jamaica?

C. What are Reggae Songs About?

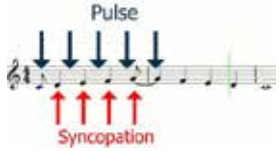
Reggae is closely associated with **RASTAFARIANISM** (a religious movement worshipping Haile Selassie as the Messiah and that black people are the chosen people and will eventually return to their African homeland). The **LYRICS** of Reggae songs are strongly influenced by Rastafarianism and are often political including themes such as **LOVE, BROTHERHOOD, PEACE, POVERTY, ANTI-RACISM, OPTIMISM** and **FREEDOM**.

D. Offbeat Rhythms & Syncopation

OFFBEAT RHYTHMS – Rhythms that emphasise or stress the **WEAK BEATS OF A BAR**. In music that is in 4/4 time, the first beat of the bar is the strongest, the third the next strongest and the second and fourth are weaker. Emphasising the second and fourth beats of the bar gives a "missing beat feel" to the rhythm and makes the music sound **OFFBEAT,** often emphasised by the **BASS DRUM** or a **RIM SHOT** (hitting the edge of a **SNARE DRUM**) in much Reggae music.

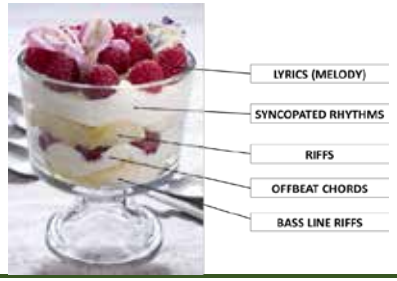


SYNCOPATION – A way of changing a rhythm by making some notes a bit early, often so they cross over the main beat of the music giving the music a further **OFFBEAT** feel – another common feature of Reggae music.



E. Musical Features of Reggae

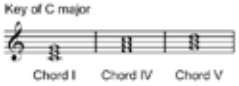
OFFBEAT RHYTHMS AND CHORDS (see D)
SYNCOPATED RHYTHMS AND MELODIES (see D)
SUNG LYRICS (see C)
LEAD SINGER often with **BACKING SINGERS** sometimes singing in **CALL AND RESPONSE** (see F3) accompanied by a Reggae band which often features: **BRASS INSTRUMENTS** and **SAXOPHONES, ELECTRIC GUITARS, BASS GUITAR, KEYBOARDS, DRUMS AND PERCUSSION INSTRUMENTS.**
VOCAL AND INSTRUMENTAL IMPROVISATIONS (see F2)
MELODIC RIFFS (see F5)
SLOW, RELAXED ('chilled!') **TEMPO**
4/4 METRE/TIME SIGNATURE
Most Reggae songs are structured in **VERSE AND CHORUS/POPULAR SONG FORM**.
SIMPLE HARMONIES (see F4)



THICK TEXTURAL LAYERS (see F9) "The Reggae Trifle" is an example of how many Reggae songs are 'layered'.

F. Reggae Key Words

1. **MELODY** – The main 'tune' of a piece of music, often sung by the **LEAD SINGER**.
2. **IMPROVISATION** – Previously unprepared performance.
3. **CALL AND RESPONSE** – Similar to a "Question and Answer" often the call sung by the lead singer and answered by the backing singers or instruments (the response) – musical dialogue.
4. **SIMPLE HARMONIES** – using a limited number of **CHORDS,** mainly **PRIMARY TRIADS** such as the **TONIC, DOMINANT** and **SUBDOMINANT** chords.



5. **RIFF** – A repeated musical pattern. Often the **BASS GUITAR** plays repeated **MELODIC BASS RIFFS** in Reggae songs.
6. **BASS/BASS LINE** – The lowest pitched part of a piece of music often played by the **BASS GUITAR** in Reggae which plays an important role.
7. **CHORD** – 2 or more notes played together in **HARMONY**.
8. **RHYTHM** – A series of long and short sounds.
9. **TEXTURE** – Layers of sound combined to make music.

G. Who was Bob Marley?

BOB MARLEY was a famous reggae singer, **SONGWRITER**, and musician who first became famous in his band The Wailers, and later as a **SOLO ARTIST**. He was born Nesta Robert Marley on February 6th, 1945 in Nine Mile, Saint Ann, Jamaica. Although he grew up in poverty, he surrounded himself with music and met some of the future members of The Wailers. Bob Marley became involved in the Rastafarian movement and this influenced his music style greatly. Bob Marley and The Wailers worked with several famous musicians before becoming famous on their own. His career flourished and he became a cultural icon. He was the first international superstar to have been born in poverty in a Third-World country.

PE Keywords

Athletics – the category of sports that involve running, jumping and throwing.

Fosbury Flop - a technique used in the high jump where the jumper's goes head first over the bar with their back toward the bar when going over it.

Personal best – term for the athlete's best performance in an event.

Ball-to-hand - The claim that the contact between the hand and the ball is completely accidental, the arm is in a 'natural position', therefore it shouldn't warrant a free kick.

Chip shot - A shot that is kicked from underneath the ball to provide some arc for it to go over the opponent

Dive - The exaggerated falling move of a player to deceive the referee in order to win their team a foul.

Handball - When the outfield player uses any part of the arm on the ball.

Hospital ball - A reckless pass that's within reach of two players from opposing teams that can give rise to injuries.

Penalty - When an attacking player is fouled or a defender handles the ball in the penalty area.

Baton - a tube that is passed from one relay race member to another. The runner holding the baton is the current runner for that team in the race

High Jump - a track and field jumping event. Athletes must clear a high bar without knocking it over by jumping.

Relay race - a race involving multiple runners (typically 4) where each runner runs a leg of the race handing off a baton to the next runner.

Bicycle kick - The movement by a player where they jump up, throw both feet in the air and hit the ball in a pedaling motion to send the ball in the opposite direction they are facing. Also known as the overhead kick.

Dummy run - An off-the-ball run made by an attacking player to create space for their teammate with the ball. Used to trick opponents by pretending to move towards the ball.

Hug the by-line - The instruction given to wing players to stay closer to side-lines to create space and stretch the pitch as wide as possible. Used when your team is in possession of the ball.

Changeover – the passing of the baton from the incoming teammate to the outgoing teammate.

Hurdle - an obstacle in a race that runners must jump or clear while running.

Sandpit - an area in a jumping event (i.e. long jump or triple jump) where the athlete lands.

Box-to-box player - A player that can successfully play both sides (defensive and attacking) of the game from midfield.

Class act - A player/ manager that deserves praise especially with their attitude and manners off the field.

Feint - The dribbling of the ball in one direction after faking the dribble in the other direction with a drop of the shoulder.

Howler - An inexplicable mistake by a player that generally proves costly.

On paper - Indicates how the events should play out in theory, the expected scenario based on pre-existing statistics and conditions.

Discus - a throwing event in track and field where a discus is thrown for distance

Javelin - a track and field throwing event where a spear-like javelin is thrown for distance.

Shot put - a field throwing event where a heavy ball is thrown for distance.

Brace - A word to describe the achievement of a player that scores two goals in one game. "Scoring a brace" is the way to go when using it in a sentence.

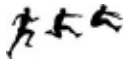
Clean sheet - The accolade a team/goalkeeper earns when a full game is played without conceding a goal.

First-time ball - Transferring the ball to a teammate with one single touch when a pass is received.

In his/her pocket - Refers to one defensive player having dominated an opposition player.

False start – an invalid start to the race, caused by a runner setting off before the starter said 'Go'.

Long Jump - jumping event where athletes compete for the longest jump in distance.



Sprint- a short running race where acceleration and top speed are important. In a track and field competition there are generally three different sprint distances: 100m, 200m, and 300/400m. Runners remain in the same lane.

Clinical finish - A top notch shot that leads to a goal. The scorer of this goal is called the clinical finisher.

Flick-on - A move where the offensive player hits a moving ball with their foot or head when it's passing by them without controlling it first.

Man on - The loud cry to inform a teammate with the ball that an opponent is approaching or dangerously close by.

Park the bus - Playing ultra-defensive not to concede any goals, chiefly applied by team with the edge on the scoreboard.

Field event – all the events that do not take place on the track, such as long. triple and high jump and shot put, discus and javelin throws.

Middle Distance - The middle-distance races are the 800m, the 1500m. They rely more on endurance and pacing than just pure speed. Also, the runners don't stay in a single lane for the entire race.

Take-off board – small wooden rectangle that is on the long/triple jump runway for athlete to jump from.

CDM - A reliable defensive midfielder with the primary assignment of staying close to the defensive.

Cracker - A breathtaking football match or an outstanding goal, mainly from a long distance.

Game of two halves - A cliché that commentator's resort to when a match has consisted of two halves with huge difference in character and score.

Nutmeg - Kicking or putting the ball through an opponent's legs.

Play on - A potentially controversial possession where the referee does not blow their whistle after concluding there's no reason to stop the game.

Finish Line – the line on the track that marks the end of all foot races. The runner whose torso (chest) crosses the line first is the winner of the race.

Pace - the rate at which a runner is running. It's important in long distance races to have the proper pace; slow enough so the runner doesn't tire out before the end of the race, but fast enough to win.

Triple Jump - a track and field jumping event with three distinct phases to the jump including a hop, a step, and a jump

CAM - An attacking minded midfielder playing in front of the midfield just behind the strikers.

Control - Getting the ball under your control i.e. you are in a position to completely influence what happens to the ball.

Goal Side - A defensive player places themselves between the attacker they are marking and the goal they are defending.

Off the line - The act of saving the ball from crossing the line, clearing the ball.

Poacher / Fox in the box - A cunning and skilled striker that's extremely dangerous in the penalty area.

PE Keywords

Put in a shift - The situation where a player fulfills their given tasks but fails to make a strong impression on the pundits or put their fingerprints on the game.

Theatrical - An adjective to describe a player's tendency for over-the-top reactions.

Service Box - The two boxes on either side of the net at the front of the court. The serve must hit, diagonally into this box to start the point.

In - A call made when a ball falls within the playing area.

Let - Most commonly called when a player's serve hits the net but lands in the correct service box. A let can also be called if a point is interrupted by an outside interference. In the event of a let a point is replayed.

Backs (Rugby League) - the group of players normally numbered Nos. 1 to 7 who do not participate in scrums, except for the scrum-half.

Drop Out - the way play is re-started, using a drop-kick, after the defending side has touched the ball down behind its own try-line or when the ball has gone out over the dead-ball line.

Run it off - An instruction for a player that's suffered a minor injury to carry on playing to see if they are able to continue playing for the team.

Track Back - Getting back in a defensive position when your own team has lost possession of the ball.

Tramlines - The external court lines that run parallel to the singles lines. These lines are considered 'out' in singles, but 'in' when playing doubles.

Out - A call made when a ball lands outside the playing area.

Fault - When the ball does not land in the opponents court. A fault can be called if a serve, forehand, backhand or volley lands outside the playing area.

Advantage (Rugby) - unlike most other sports, referees can play advantage after a foul for what can seem an eternity, but once he calls "advantage over" then that's that.

Blindside (Rugby League) - from a set piece, PTB, the short side of the field. Also called the Weakside.

Forward Pass - all passes must go backwards, and this is an illegal pass where the ball goes forwards. The penalty is a scrum in favour of the other side.

Showboat - Showing off when the team is winning by a large margin, often seen as disrespecting the opposition.

Treble - Winning three major competitions in a single season.

Serve - The serve (or service) starts the point. Players will usually hit an over-arm stroke (although they can hit underarm) from behind the baseline into the service box diagonally opposite them. A player has two serves per point, called a first and a second serve.

Ace - A point won by the server when the receiver doesn't touch the ball.

Match - In professional tennis a match is determined by the best of three or five sets.

Charge Down - the blocking of a kick by an opposition player.

Dummy - a feigned pass intended to deceive an opponent about to make a tackle.

Forwards (Rugby League) - the group of players normally numbered 8 through 13 who tend to be the bigger stronger players

Sitter - A simple miss by an attacker that was immensely easy to score.

Wingback - A position in football where you are out wide or left. Your role is both as a winger when in possession but also a defender when out of possession.

Forehand - The shot played when the palm of the dominant hand is facing forward. For instance, if you are right handed, the forehand will be played on the right hand side of the body. The stroke goes from low to high.

Game - The building blocks of a set. Each set comprises of at least six games.

Set - A set is usually comprised of six games. However, if the players are tied at five games all the set becomes the first to seven games.

Chip over - a short shallow kick usually delivered over the head of an onrushing defender to be quickly retrieved or caught by the kicker or one of his/her supporting players.

Grubber - a kick of the ball which causes the ball to bounce and roll along the ground.

Step-Over - Similar to the feint. The player pretends to take the ball to the side but steps over the ball. The player then moves the ball in the opposite direction.

(Hit the) woodwork - Having the ball strike one of the posts or crossbar of the goal.

Backhand - The shot played when the back of the dominant hand is facing forward. For instance, if you are right handed a backhand is a shot you play on the left side of the body. This is usually played with two hands to gain more control. The stroke goes from low to high.

Remember: in tennis, the server's score is always called first. If they win the first point of the game we say 15-love. If they lose it we say love-15.

Clearance Kick (Rugby League) - a kick of the ball down field which relieves pressure on a side under heavy attack.

Front Row - the common name for the prop/hooker/prop combination at the front of a scrum

Switch play - Moving the ball from one side to the other in a quick fashion, mostly by a long pass. e.g., from left to right midfield.

Base Line - The line at the back of the court that runs parallel to the net.

Volley - A stroke where a player hits the ball back over the net (using a forehand or backhand) before the ball bounces on their side of the court.

Points - The aim of each tennis game is to be the first player to score four points.

15 – when a player wins the first point of a tennis game. If the opponent wins the next point we say 15-all.

Deuce – when the score is 40-40 it is called Deuce. A player must win two consecutive points from deuce to win a tennis game.

Drop Goal (Rugby League) - a kick between the posts by an attacking side which, if successful, scores one point. It differs from a punt in that the ball must hit the ground before being kicked.

Half-back - the back wearing No. 7 who leads a team around the pitch

Target man - A tall striker that's often targeted by crosses, long balls, and high passes for their aerial superiority and strength to hold the ball upfront for the team.

Singles - A tennis game played by two opponents.

Doubles + Mixed Doubles - A match between teams of two players. In doubles tennis, the tram lines come in to play.

Love – meaning zero.

30 – when a player wins two points in a tennis game.

40 – when a player wins three points in a tennis game.

Advantage – the point played after deuce. If the player with the advantage wins the point the tennis game is over.

Conversion (Rugby League) - a kick at the posts after the awarding of a try, scoring two points if successful. The kick must be attempted directly from a spot perpendicular to the spot where the try was awarded. Usually taken with a place kick, it can be rushed when the kicker makes a move towards the ball. If taken as a drop kick it is uncontested.

PE Keywords

High Ball - a ball kicked very high into the air placing any player attempting to catch it under extreme pressure by on rushing opposition players.

Knock On - losing, dropping, or knocking the ball forward from a player's hand resulting in the ball being awarded to the other team in a scrum.

Offsides (Rugby League) - during PTB, scrums, etc an imaginary line is present over which any player crossing before the set piece is completed commits a penalty.

Penalty - any number of infractions or violations which award the other team a kick.

Penalty Kick (Rugby League) - an uncontested kick awarded to a team for a major infraction by the other team. The kick can be taken directly at goal and scores two points if successful If the ball is kicked to touch, then the throw-in is awarded back to the team which kicked the ball out of bounds.

Penalty Try - the awarding of a try due to a blatant or repeated violation by an opposing side that prevents an obvious try from being scored.

Play the ball (PTB) – When you are tackled and stand up to play the ball correctly with your foot.

Stand off (Rugby League) - the back wearing No. 6 who leads a team around the pitch.

Tackle – When you halt an attackers progress by taking him to the floor.

Ruck (Rugby League) – The tackle area where the PTB is.

Try - a score of five points awarded when the ball is carried or kicked across the tryline and touched down to the ground by a player.

Try line - the goal line extending across the pitch.

Scrum - the formation used in the set play re-starting play after a knock-on or forward pass. The forwards from each side bind together and then the two packs come together to allow the scrumhalf with the feed to deliver the ball to the scrum. A scrum can also be awarded or chosen in different circumstances by the referee.

Backs (Rugby Union) - the group of players normally numbered Nos. 9 to 15 who do not participate in scrums and line-outs, except for the scrum-half.

Binding - the careful method players grip and grasp each other to form a secure scrum, ruck, or maul. This is a critical skill to ensure the safety of players.

Tap Penalty - a quickly taken penalty where a player taps the ball a couple of inches with his foot and immediately catches it and surges forward, done to catch the opposition unawares.

Touch, touchline - the out of bounds line that runs on either side of the pitch. The non-contact version of rugby is also commonly called touch.

Turnover - when one side takes possession of the ball from their opponents.

Drop Goal (Rugby Union) - a kick between the posts by an attacking side which, if successful, scores three points. It differs from a punt in that the ball must hit the ground before being kicked.

Feed - the rolling of the ball into the scrum by the scrum-half.

Blindside (Rugby Union) - from a set piece, ruck or maul, the short side of the field. Also called the Weakside.

Forwards (Rugby Union) - the group of players normally numbered 1 through 8 who bind together into scrums, line up for line-outs, and commit themselves to most rucks and mauls.

Conversion (Rugby Union) - a kick at the posts after the awarding of a try, scoring two points if successful. The kick must be attempted directly from a spot perpendicular to the spot where the try was awarded. Usually taken with a place kick, it can be rushed when the kicker makes a move towards the ball. If taken as a drop kick it is uncontested.

Clearance Kick (Rugby Union) - a kick of the ball into touch which relieves pressure on a side under heavy attack.

Jumper - a common name for a rugby jersey. Also the name of a player in a lineout, usually at the 2, 4, and 6 positions, jumping to catch or intercept the throw.

Half-back (Rugby Union) - the back wearing No.9 who normally feeds the ball into a scrum and retrieves the ball at the base of scrums, rucks, and mauls. Can also be called the Scrum-half.

Free Kick - an uncontested kick awarded to a team usually for a minor penalty by the other team. The kick cannot be taken directly at the posts except by a drop goal.

Lifting - the act of lifting the lineout jumper into the air in order to more easily catch or intercept the throw.

Mark - the place indicated by the referee where the scrum should form; also a player inside his own 22 can, on catching a ball kicked by the opposition on the full, call for a "mark". If the referee agrees, the player can then re-start play in much the same way as if he had been awarded a free-kick.

Maul - typically after a runner has come into contact and the ball is still being held by a player once any combination of at least three players have bound themselves a maul has been set. The primary difference from a ruck is that the ball is not on the ground.

Offsides (Rugby Union) - during rucks, scrums, lineouts, and mauls an imaginary line is present over which any player crossing before the set piece is completed commits a penalty.

Penalty Kick (Rugby Union) - an uncontested kick awarded to a team for a major infraction by the other team. The kick can be taken directly at goal and scores three points is successful If the ball is kicked to touch, then the throw-in is awarded back to the team which kicked the ball out of bounds.

Ruck (Rugby Union) - typically after a runner has come into contact and the ball has been delivered to the ground once any combination of at least three players have bound themselves a ruck has been set. The primary difference from a maul is that the ball is on the ground.

Scrum-half - the back wearing No.9 who normally feeds the ball into a scrum and retrieves the ball at the base of scrums, rucks, and mauls. Can also be called the half-back.

Lineout - the set play re-starting play after the ball has been taken out or kicked to touch. Both sets of forwards will line up opposite each other with the side with throw calling a play. The throw must be directly down the middle of the two lines.

Knowledge Organiser – Year 8 – What Influence Do Religious Ideas + Traditions Have Today?

racism		Treating someone differently because of race
Segregation		Keeping people apart based upon race or identity
Boycott		To stop using services to persuade change
apartheid		System in South Africa where black and white people kept apart
Ahimsa		Hindu belief of non-violence to all things
Satyagraha		Non-violence peace movement started by Gandhi
Beatitudes		Sayings of Jesus recounted on the Sermon on the Mount

Mahatma Gandhi was a Hindu, born in 1869, who fought for human rights and an end to British rule in India. He was a Hindu, vegetaria and was influenced by the Hindu belief in **ahimsa**. This is the idea that no human or animal should be harmed. For this reason he advocated **non-violence** as a way to bring about political change. He was assassinated for his beliefs in 1948 but inspired many global civil rights movements.

Martin Luther King born in 1929, led the civil rights movement in the USA. He was a Baptist minister and was influenced by Christian teachings such as: '**blessed are the peacemakers**' and '**love your neighbour as yourself'** which taught him to bring about change peacefully. He was assassinated for his beliefs in 1968 but continues to inspire people today through promoting peaceful protest and campaigning for equal rights for all people.

Ancient Religious Influences on Life Today:

Monday – Norse god of the moon

Tuesday – Norse god of duelling

Wednesday – Norse god Odin

Thursday – Norse god Thor

Friday – Norse god Freya

Saturday – Roman god Saturn

Sunday – Roman god Sol

January – Roman god Janus

March – Roman god Mars

June – Roman god Juno

The Beatitudes are a series of saying from Jesus taken from his sermon on the mount. In it he outlines a number of types of people, and their actions which are blessed by God. Among them are the lines:

'Blessed are those who hunger and thirst for righteousness.' Which means those who work hard fighting for what is right will be rewarded and:

'**Blessed are the peacemakers'** which means those that promote peace and promote non-violence will be rewarded by God.

In Hinduism **ahimsa** is a key belief. In the Hindu Scripture the Mahabharata it states: '**Ahimsa paramo Dharma'** which means ahimsa is the greatest duty. For this reason, Hindus believe they should not cause harm or suffering on any living creature.

This affects Hindus, as most are vegetarian believing that the eating of meat has resulted in harm to living creatures. Gandhi was strongly influenced by the ideas of **Jainism** and the symbol of this faith has a **vow** (or promise) to stick to the ahimsa idea.

Symbols

Many Hindus have shrines in their homes with statues of gods important in their faith. The most famous is **Ganesha** – the god who helps remove obstacles. The festival of **Ganesh Chaturthi** is filled with devotional statues, as well as traditional **modaks** which are consumed.

Greek symbols such as **alpha** and **omega** represent the beginning and the end and the **Icthus** (fish symbol) is a key symbol associated with Jesus. **Rosary beads** are used by Catholics for praying and meditating and symbols such as bread and wine indicate either a belief in **transubstantiation** or **consubstantiation.**

Knowledge Organiser – Year 8 – How Valuable is Human Life?

Human Rights		Rights and freedoms all humans should be entitled to.
Prejudice		Judging someone before you get to know them.
Discrimination		Treated differently because of their race, religion, gender etc.
Anti-Semitism		Ideas that are against the Jewish people.
Genocide		Mass killing of people based on their ethnic or religious group.
Holocaust		The mass killing of Jews during WW2.
Rosh Hashanah		Jewish New Year
Forgiveness		Letting go of anger and becoming at peace with a person or event.

Eva Kor

Eva Kor was born in Romania and is a survivor of the Holocaust. Due to being an identical twin, Eva and her sister were experimented on by the Nazis in horrific conditions. Her sister unfortunately died, and Eva was left permanently scarred. Astonishingly, Eva forgave the Nazis who abused her and encouraged others to do the same. She set up an organisation called **CANDLES** to teach people about the Holocaust and the power of forgiveness. The festival of Rosh Hashanah (Jewish New Year) underlines the need for restoring broken relationships and working for a better future.

Eva said:

"**If everyone treats each other with respect and fairness, there will be no prejudice and hatred.**"

Human Rights

The Universal Declaration of Human Rights was set up at the end of WW2 to try and prevent the events of the first world wars happening again.

Not all countries signed up meaning there are still many countries where their people do not have Human Rights.

There are **30** Human Rights in total. Eg:

- **Right to Freedom**
- **Right to Life**
- **Freedom from discrimination**

Rwanda

In **1994** during the Rwandan civil war around **800,000** people from the **Tutsi** tribe were murdered by **Hutu** militia. For many they believed the lessons from the Holocaust had not been learnt. This event, along with other genocides are commemorated each year on **Holocaust Memorial Day** (January 27th) It is hoped that by education, understanding different communities and religions, learning about respect and fighting against racism and discrimination such events will never happen again.

The Holocaust

When Hitler came to power in **1933** as leader of the **Nazi** party he introduced a number of **anti-semitic** laws which denied Jewish people basic human rights. These included being unable to go to the same schools as other Germans, denied the right to attend university, being barred from various occupations, denied the right to attend cinemas and parks and many others. The Nazis then set up **concentration camps** and extermination camps, such as **Auschwitz**, where over **6 million** Jewish people were murdered. Other groups of people such as the **Roma** and **Sinti** people, homosexuals and **Jehovah's Witnesses** also faced persecution and were sent to camps.

Refugees

A consequence of conflict can be **refugees** – where people are forced to leave their country and seek **sanctuary** elsewhere. As of 2024 there are around **85 million** refugees. Often they need food, water and shelter, protection, education and support integrating.

Hull Help For Refugees was set up in 2015 to provide aid and support, providing the basics refugees need to ensure their human rights are being met. Many Christians believe people should support refugees and recall the Biblical story when the Israelites were living in Egypt as foreigners and also refer to the teaching: '**love your neighbour as yourself'** and the **Parable of the Good Samaritan** to guide their response. Some believe work should be done to prevent conflicts that result in people having to flee. This may include diplomacy and working in a peaceful way to resolve disputes.

Knowledge Organiser – Year 8 – Where Do We Come From + Where Are We Going?

Christening		Infant baptism
Humanist		Atheist who believe rites of Passage can still be marked
Aqiqah		Welcoming a child in Islam
Naam Karan		The naming ceremony in Sikhism
Abortion		Termination of a foetus
Capital Punishment		Death penalty given for serious crimes
Vivisection		Animal testing

Sanctity of Life

This is a religious term meaning all human life is special, sacred or holy because it has come from God. This means life needs to be respected, preserved and looked after. These beliefs can affect attitudes towards **abortion** and **capital punishment** as some believe only God should take life away. Others question when life begins and whether some people who have commit terrible crimes have given up their right to life.

Issues with the Sanctity of life:

Abortion: - term to describe the termination of a foetus. This became legal in the UK in 1967 and there are many reasons why this decision may be made, including medical considerations and personal circumstances. Some people are pro-choice and believe a woman should always have a choice as to what happens – others are pro-life and believe the rights of the foetus should be protected.

Capital Punishment: - term for the death penalty where a criminal is put to death by the state for the crime they have committed. This became illegal in the UK in 1969 but still happens in countries such as China, Iran, some states in the USA and Russia. Some Christians may believe this goes against the sanctity of life and the Commandment 'thou shall not kill' but others argue that 'an eye for an eye' is more appropriate – if someone has taken a life their life should be taken.

Birth in Sikhism and Islam:

In Sikhism the **Naam Karan** ceremony happens in the **gurdwara**. The **Granthi** (ceremonial reading of the sacred book) opens the **Guru Granth Sahib** at random and the first letter on the page is used to form the name of the child. In this way it is believed God has selected the child's name. All Sikh boys have the name **singh** (meaning lion) and all girls **kaur** (meaning princess). This is seen as a sign of equality for Sikhs around the world. **Amrit** (a sweet mixture of sugar and water) is placed on the baby's tongue and **karah parshad** (a sacred food) is given as an offering of thanks to God.

In Islam the **Adhan** is whispered into the baby's ear - stating the belief in Allah. The naming ceremony is called **Aqiqah**. It usually takes place in the mosque. Muslim babies are usually given the name of one of the prophets eg: Ibrahim or Muhammad, a significant woman from the **Qur'an** or one of the 99 names used to describe Allah eg: Malik (king). Honey is placed on the baby's tongue and donations made to charity – a goat is often sacrificed by a **halal** butcher, a third eaten, a third given to friends and family and a third given to the poor.

Birth in Christianity:

The **infant baptism** or **Christening** ceremony includes the ritual cleansing of **sin** and the introduction to the Christian faith. God parents are chosen who agree to support the child as they grow up as a Christian. For some Christians they believe baptism should only happen in adulthood as they have made the decision themselves to follow the Christian way of life – this is known as a **Believer's Baptism**.

Animal Rights:

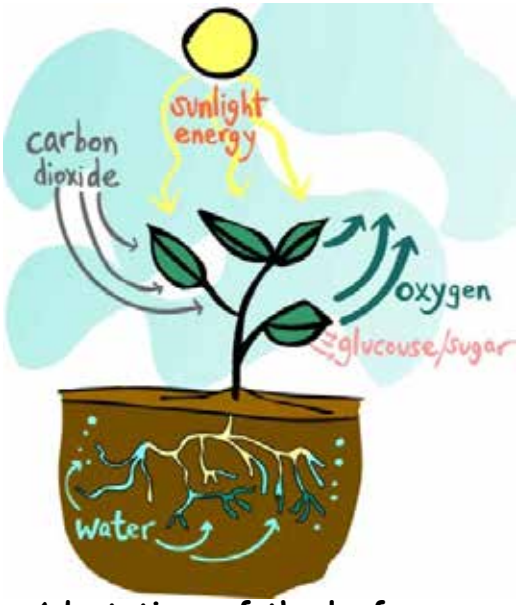
Some question whether the lives of animals are sacred. This can affect attitudes towards **vivisection** (animal testing) and some philosophers, such as **Peter Singer**, argue humans are guilty of **speciesism** – as humans treat other species as inferior to their own.

Afterlife:

Funeral ceremonies reveal what different faiths believe about the sacred nature of human life and also reflect ideas about the afterlife. The **monotheistic** faiths have ideas of a **judgement** followed by reward or punishment and Eastern faiths have the idea of **reincarnation**.

Science Knowledge Organiser - Bioenergetics

Photosynthesis



Plants release energy in the chloroplasts through the process of photosynthesis.

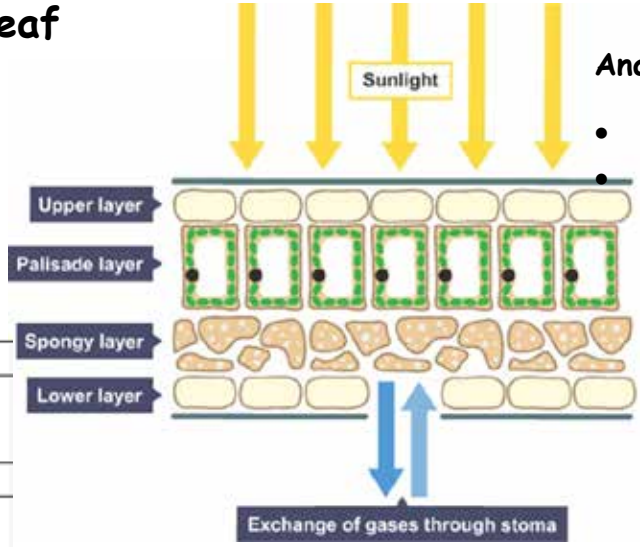
Oxygen is needed for animals to respire, glucose is stored.

carbon dioxide + water —(light energy, chlorophyll)→ glucose + oxygen

Adaptations of the leaf

Adaptation	Function
Thin	Provides a short distance for carbon dioxide to move by diffusion into the leaf
Contains chlorophyll	Absorbs light
Stomata	Allows carbon dioxide to move by diffusion into the leaf
Guard cells	To open and close the stomata depending on the conditions
Network of tubes (xylem and phloem)	To transport water (xylem) and food (phloem)

The leaf



The Stomata: The part of the leaf where carbon dioxide enters and water is lost. Plant in hot conditions have less stomata so they lose less water.

Respiration

Aerobic Respiration

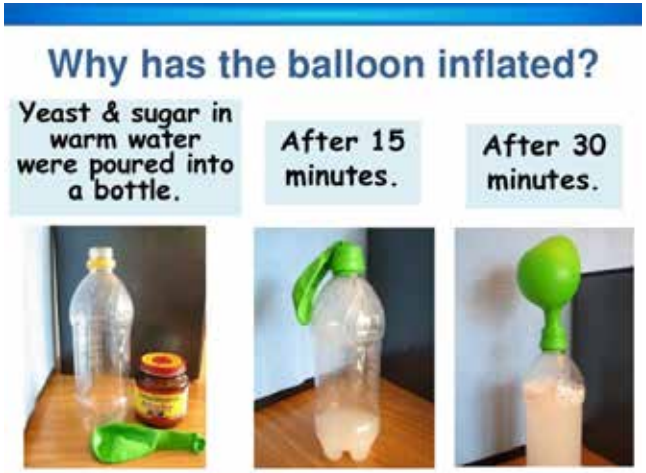
- Glucose + oxygen → water + carbon dioxide
- Exercise: humans need energy for muscles to function. Heart rate and breathing rate increase to get more blood to these cells.

Anaerobic respiration:

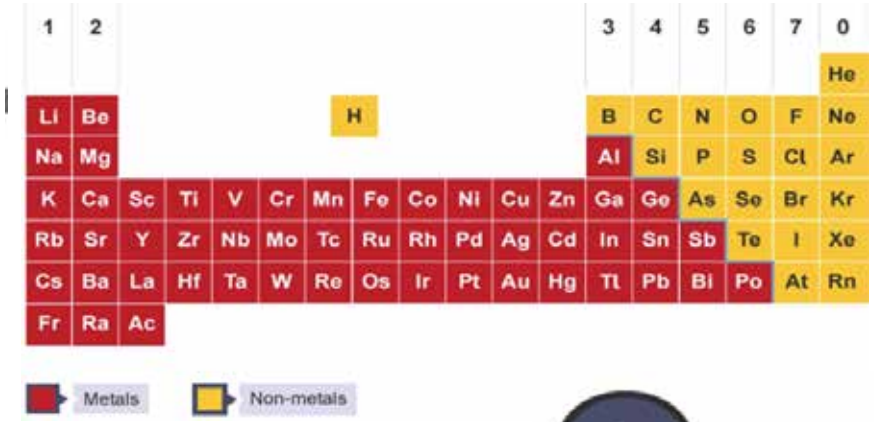
- Glucose → lactic acid
- Lactic acid causes painful muscle cramps
- After exercise, muscles still need oxygen to get rid of lactic acid (oxygen debt)

Anaerobic respiration in yeast:

- Glucose → ethanol + carbon dioxide
- Used to make wine!



Science Knowledge Organiser - Chemical Formula



Elements and compounds

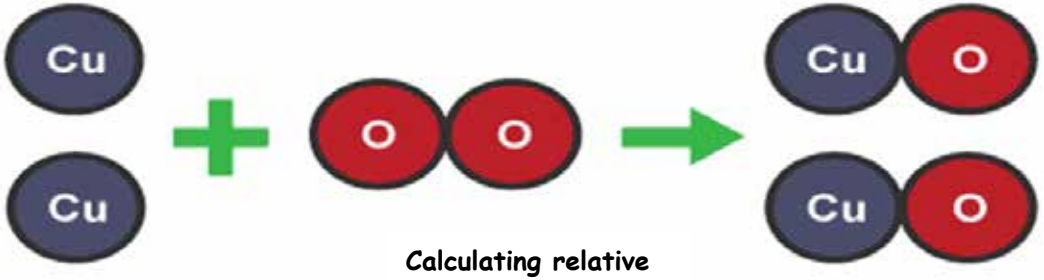
- Elements: contain only one type of atom
- Compounds: contain 2 or more types of atom that are chemically bonded together.

The periodic table

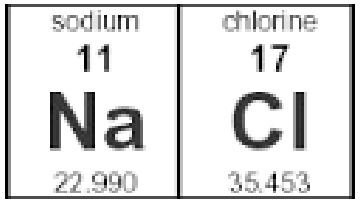
- Elements arranged in order of increasing atomic number
- Horizontal rows: periods
- Vertical columns: groups
- Elements in the same group have similar properties

Chemical Reactions

- When atoms are rearranged.
- Reactants: atoms reacting together
- Products: the newly formed substances
- Conservation of mass: no atoms are created or destroyed.
- Word and symbol equations:
  - Copper + oxygen → copper oxide
  - $Cu + O_2 \rightarrow 2CuO$



Calculating relative formula mass



All you do is work out the number of atoms per element and add the atomic mass numbers together! In this instance, the atomic mass numbers are the bottom ones!

Total relative formula mass: 23+ 35.5 = 58.5

PLEASE NOTE THAT ON YOUR PERIODIC TABLE THE ATOMIC MASS IS THE TOP NUMBER!!!

Compounds are named from their elements

Metal + **oxygen** = Metal **oxide**

Metal + **chlorine** = Metal **chloride**

Metal + **sulfur** = Metal **sulfide**

Metal + **nitrogen** = Metal **nitride**

Metal + **fluorine** =Metal **fluoride**

Number of elements and atoms

Compound	Elements	Number of atoms
KOH	3	K=1, O=1, H=1
Fe_2O_3	2	Fe=2, O=3
H_2SO_4	3	H=2, S=1, O=4

Metal + hydrochloric acid → metal chloride + hydrogen
Metal + sulphuric acid → metal sulphate + hydrogen
Metal + nitric acid → metal nitrate + hydrogen

Science Knowledge Organiser - Development of the Periodic Table

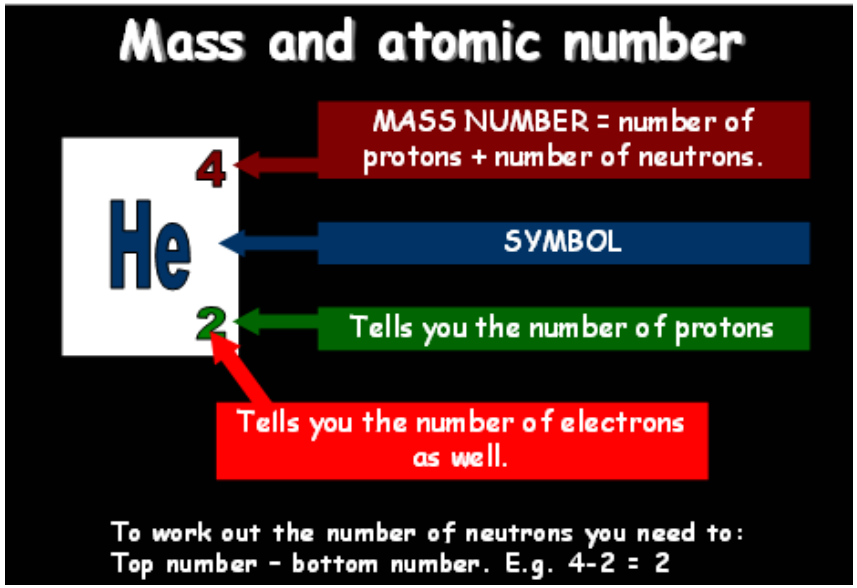
Group 1 Metals

Similar reactions.

All have one electron in their out shell.

The more electrons they have, the more reactive they become!

When the metals react, they lose their outer electron. The more electrons, the less effect the positive nucleus has on the outer electron. Therefore, the more electrons a GROUP ONE metal has, the more reactive!

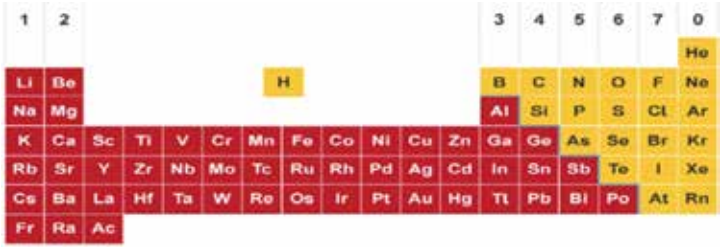


The Halogens (Grp 7)

The halogens get less reactive as you go down the group. They take part in displacement reactions.

	Chlorine (aq)	Bromine (aq)	Iodine (aq)
Potassium bromide	Potassium Chloride	No Reaction	No reaction
Potassium chloride	No reaction	No reaction	No reaction
Potassium iodide	Potassium Chloride	Potassium Bromide	No Reaction

The Periodic Table



Name of sub-atomic particle	Relative Mass	Relative Charge
Proton	1	+1
Neutron	1	0
Electron	$\frac{1}{1836}$	-1

The periodic table
Horizontal rows: periods
Vertical columns: groups
Elements in the same group have similar properties

Metals →

- Good conductors of heat and electricity
- Shiny
- Solid (mostly)
- Malleable: can be easily bent and shaped
- Mostly strong with a high density

Non-metals →

- Dull
- Poor conductors of heat and electricity

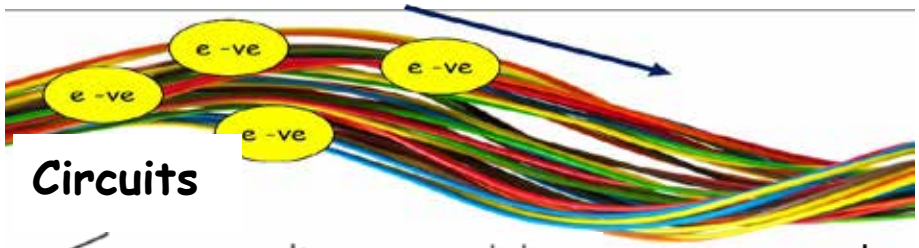
Atomic Structure

Isotopes → different number of neutrons.
Atomic number: number of electrons or protons in an atom of an element.

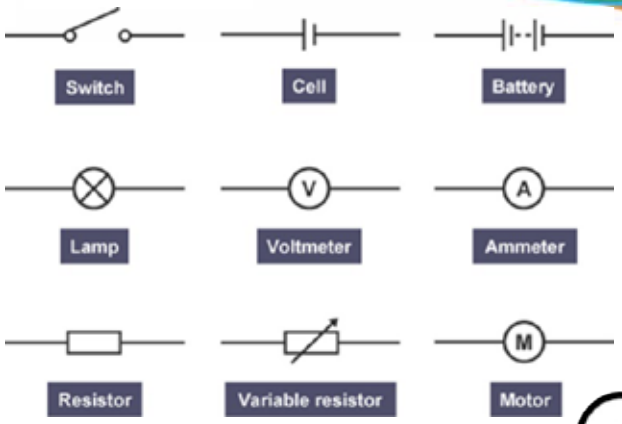
Science Knowledge Organiser - Electricity

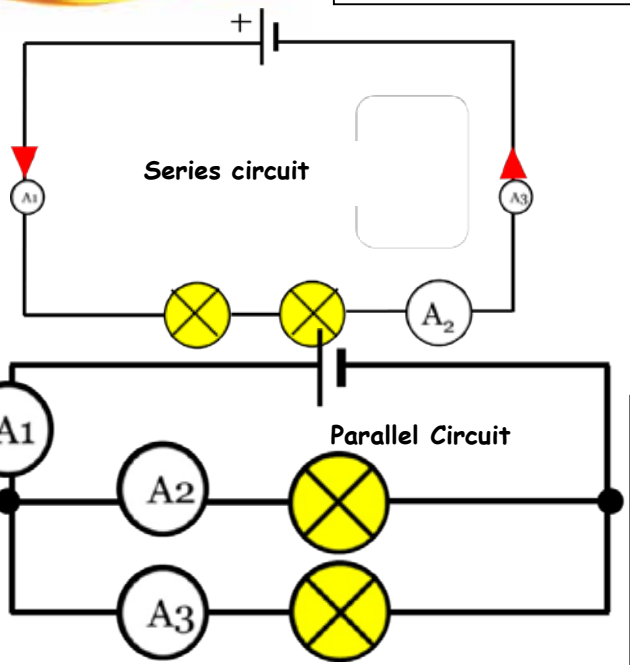
Presence of charged (positive and negative) particles

Electric current: the flow of electrons around a circuit.



Circuits





Ammeter: measures current

Resistor: restrict or limit flow through a circuit

Series circuits →

Current passes through all components

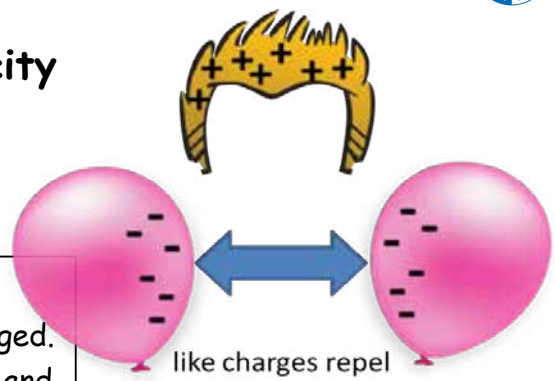
If a component in the circuit is disconnected, the whole circuit stops working.

Parallel circuits →

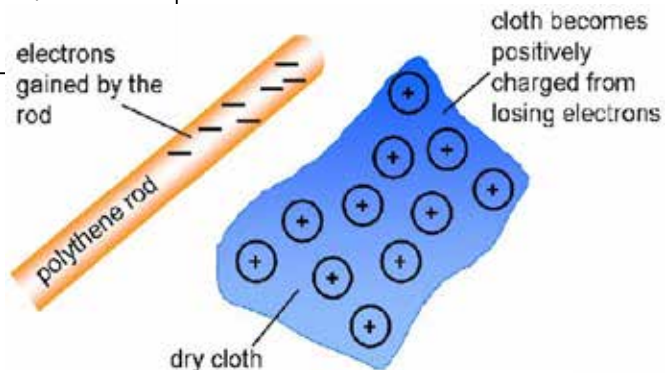
Different components connected on different branches on a wire.

If one component of the circuit is disconnected, the different branches continue to work

Static Electricity



When two insulating materials rub together they become electrically charged. Positive substances have lost electrons and negative substances gain electrons.



Insulators and Conductors

Some materials let electricity pass through them easily. These materials are known as **electrical conductors**.

Many **metals**, such as **copper**, **iron and steel**, are good **electrical conductors**.

Some materials do not allow electricity to pass through them. These materials are known as **electrical insulators**.

Plastic, **wood**, **glass** and **rubber** are good **electrical insulators**.

Science Knowledge Organiser - Healthy Living

A balanced diet is described as the necessary amounts of the seven food groups that make a person healthy

Vitamins, minerals and deficiencies →

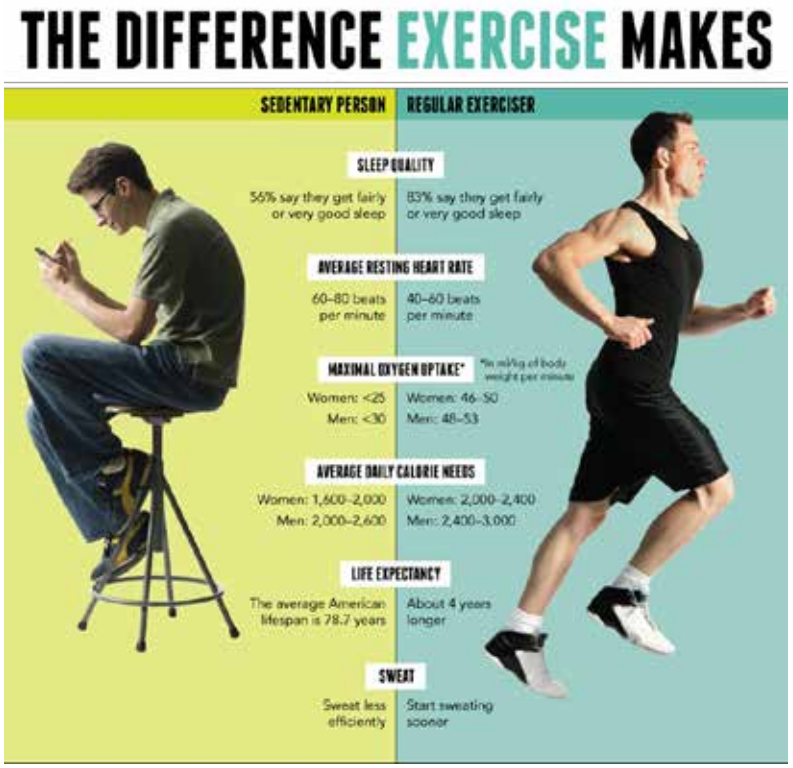
Vitamin A → needed for healthy eyes.
Vitamin C → needed for a healthy immune system. Lack of this causes scurvy.
Vitamin D and calcium → used to develop healthy bones and teeth. Deficiency causes rickets/osteoporosis

- Iron → needed for blood. Deficiency: anaemia.

Nutrient	Use in the body	Good sources
Carbohydrate	To provide energy	Cereals, bread, pasta, rice and potatoes
Protein	For growth and repair	Fish, meat, eggs, beans, pulses and dairy products
Fat	To provide energy. Also to store energy in the body and insulate it against the cold.	Butter, oil and nuts
Minerals	Needed in small amounts to maintain health	Salt, milk (for calcium) and liver (for iron)
Vitamins	Needed in small amounts to maintain health	Dairy foods, fruit, vegetables
Fibre	To provide roughage to help to keep the food moving through the gut	Vegetables, bran
Water	Needed for cells and body fluids	Fruit juice, milk, water

Drugs →

- Recreational: taken for leisure.
- Medicinal: taken to help fight disease
- Addiction: the brain relies on the regular intake of a drug
- Cigarettes:
  - Nicotine → addictive substance
  - Tar → causes cancer



Science Knowledge Organiser - How Science Works

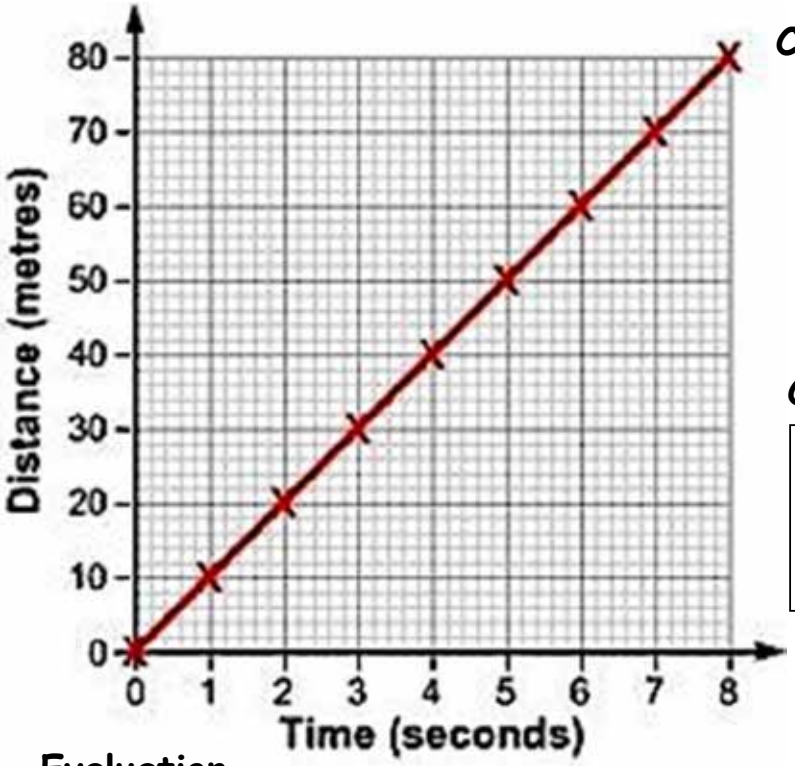
Science Skills and Key words

- **Dependent variable**: what we measure
- **Independent variable**: what we change
- **Control variables**: what we keep the same
- Why do we have control variables?
  - To ensure only the independent variable can affect the results
- **Control tests**: experiment set up in the same way, but does not involve the variable you are testing
- **Why have control tests?**
  - To compare results and prove the independent variable is the only thing that can affect the results
- **Hypothesis**: a prediction of the outcome of the results.
- **Anomalous results (anomalies)**: results which do not fit the pattern
- **How do we make results more reliable?**
  - Repeat the same tests to remove anomalies
- **Precision**: taking measurements at finer units (e.g. 38.6°C instead of 39°C)
- **Accuracy**: how close your measurement is to the true value
- **How can we improve the accuracy of our results?**
  - Take a greater range of results, repeat the same results to remove anomalies.

Check list for creating a table

Include detailed table headings and units. Include your independent variable in the first column.

Concentration of PVA glue (%)	Volume of Borax (cm^3)
100	
75	
50	



Check list for graphs

- Title
- Axes labelled with units
- Line of best fit goes through most plots- **CAN BE A SMOOTH CURVE!**
- Accurate plots

Check list for conclusion

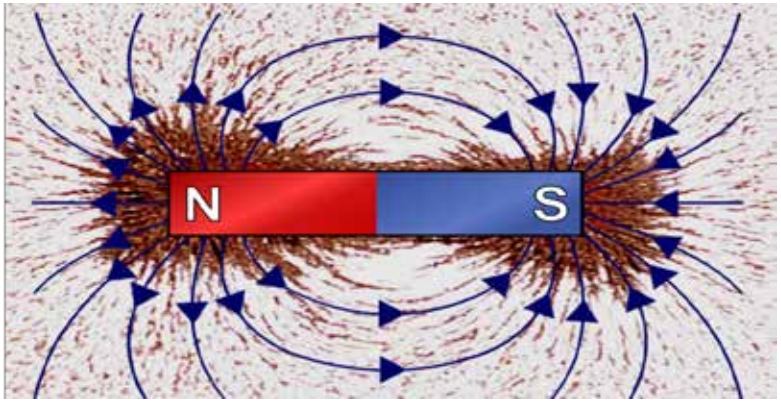
- Was your hypothesis correct?
- What is the pattern of your results?
- What do your results show?

Evaluation

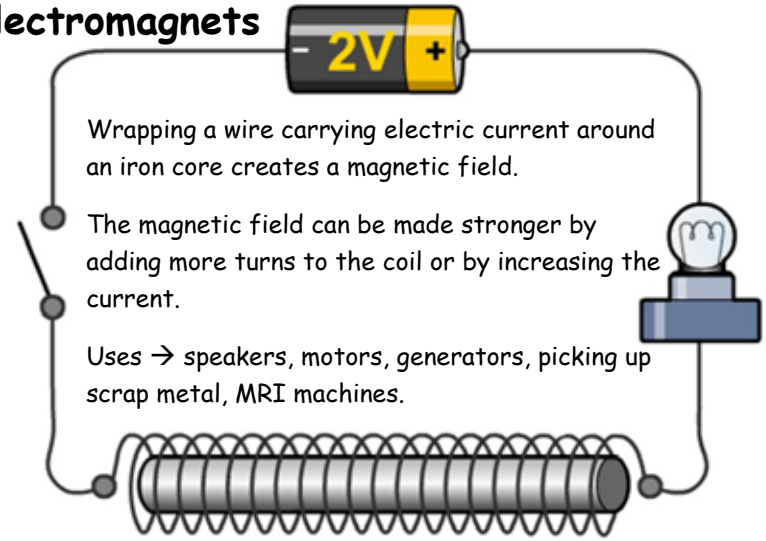
- What went well with your experiment?
- What could have been improved?
- How would you improve if you were to repeat your experiment?
- How reliable and accurate are your results?

Science Knowledge Organiser - Magnetism

- Typically magnetic metals: iron, nickel, cobalt
- Magnetic field lines:
- The closer the lines, the stronger the magnetic field.
- Magnetic field is strongest at the poles.
- The Earth has a magnetic field from north and south poles.



Electromagnets

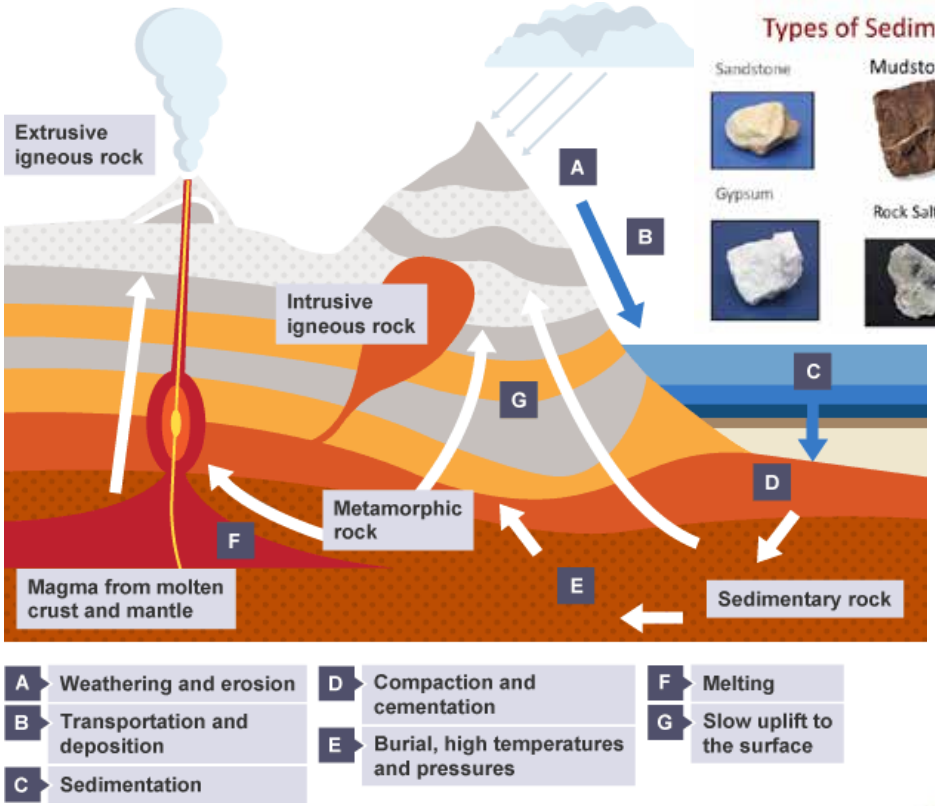


Wrapping a wire carrying electric current around an iron core creates a magnetic field.

The magnetic field can be made stronger by adding more turns to the coil or by increasing the current.

Uses → speakers, motors, generators, picking up scrap metal, MRI machines.

Science Knowledge Organiser - The Rock Cycle



Metamorphic rocks have been changed over time by extreme pressure and heat.

Metamorphic rocks can be formed by pressure deep under the Earth's surface, from the extreme heat caused by magma or by the intense collisions and friction of tectonic plates.

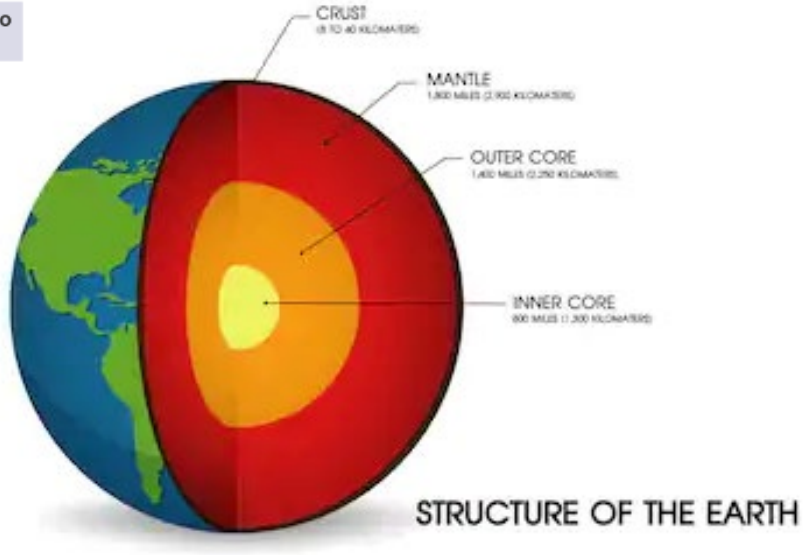
Sedimentary Rock

Sedimentary rocks are formed by sediment usually as layers at the bottom of lakes and oceans. This sediment can include minerals, small pieces of plants and other organic matter. The sediment is compressed over a long period of time making solid layers of rock. Sedimentary rocks forms layers called strata which can often be seen in exposed cliffs. Sedimentary rocks cover the majority of the Earth's rocky surface.

Igneous Rock

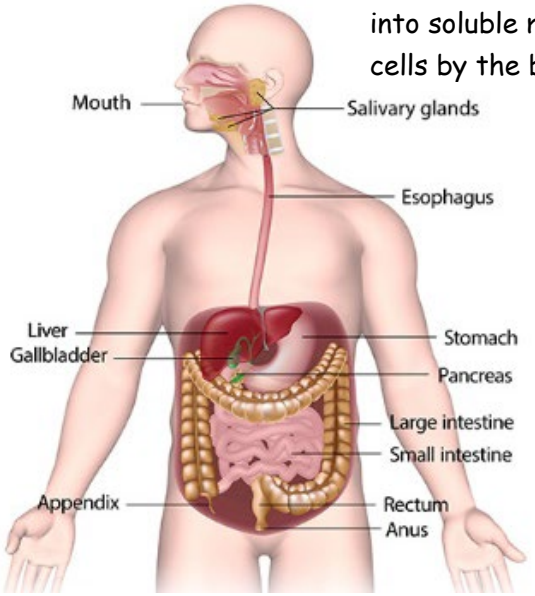
Igneous rock is formed when magma cools and solidifies, it may do this above or below the Earth's surface.

Magma can be forced into rocks, blown out in volcanic explosions or forced to the surface as lava

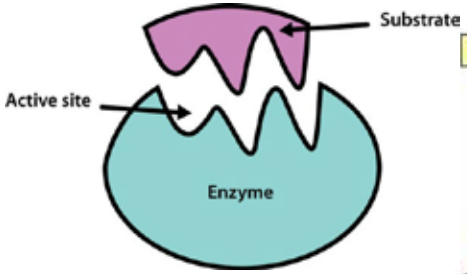


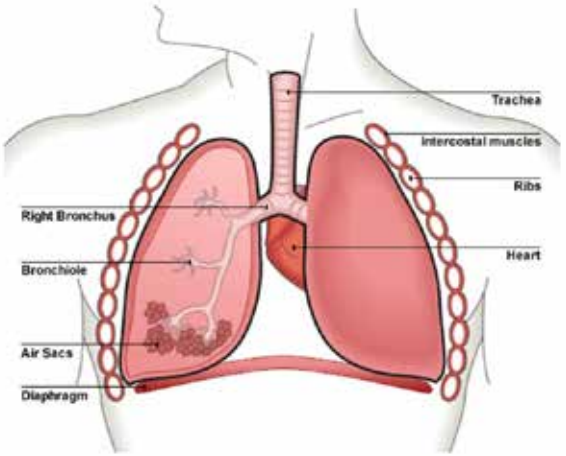
Science Knowledge Organiser - The Body

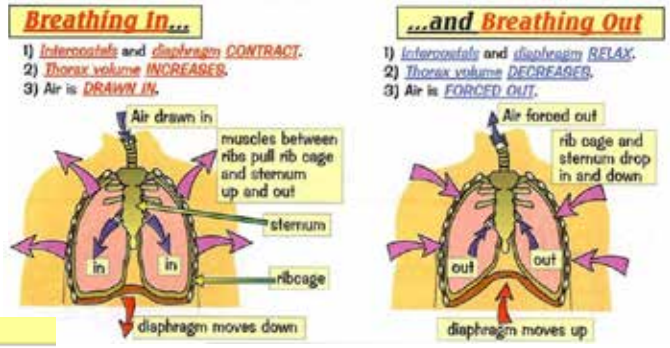
The digestive system: Function → break down food into soluble molecules (i.e. small enough to be transported to cells by the blood).



Enzymes: proteins that bind to food and break it down



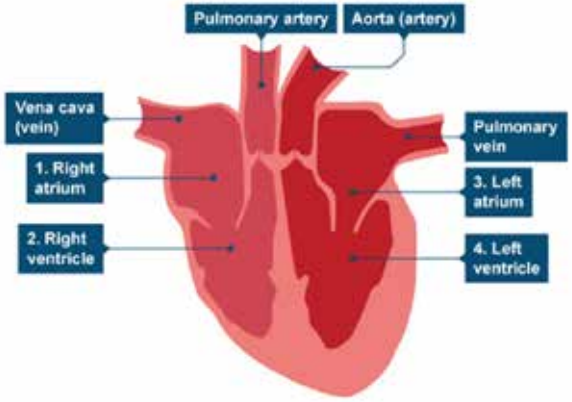




Part of digestive system	Function	Adaptations
Mouth and oesophagus	Chew and grind the food into smaller chunks and secrete saliva to begin digestion	Teeth → incisors, canines and molars are shaped to cut, tear and grind food. Roof of mouth → ridged to crush food. Saliva → contains enzymes
Stomach	Mechanically and chemically digest food further	Acid → kills bacteria Mucus layer → prevent acid damaged Muscle layer → mechanically churn food
Small intestine	Digest food further and **absorb** soluble molecules into blood	Contain enzymes to complete digestion. Contains bile to neutralise acid. Villi → large surface area and thin walls to absorb food quickly by diffusion.
Large intestine	Absorb water into the blood	

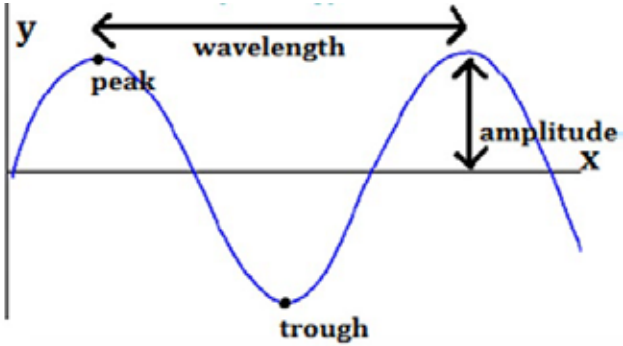
Food Test results

TEST	PROCEDURE
a. Starch	1. Add 5 ml of starch solution into a test tube. 2. Then, add a few drops of iodine solution. Observe any color changes. Record results.
b. Glucose	1. Add 5 ml of glucose solution into a test tube. 2. Then, add 10-15 drops of Benedict's solution. 3. Place the test tube into a hot water bath for 2-3 minutes. (Use a test tube holder to hold test tubes). 4. Carefully remove the test tubes from the water bath and observe any color changes. Record results.
c. Protein	1. Put on your goggles. (Note: Biuret reagent is caustic to the skin and clothing. Rinse immediately upon contact and notify your teacher about any spills. 2. Add 5 ml of protein solution into a test tube. 3. Then, add 10-15 drops of Biuret reagent to the test tube and observe any color changes. Record results.

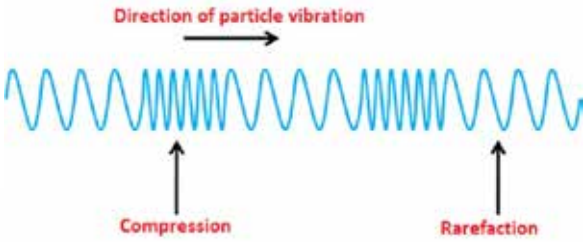


Science Knowledge Organiser - Waves

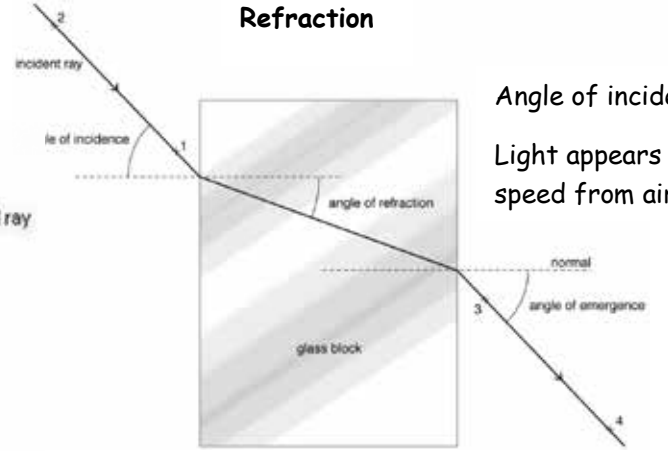
- Transverse: oscillations (vibrations) perpendicular (at right angles) to the direction of travel.
- Examples: gamma, infra-red, UV, radio, water waves.



- Longitudinal: oscillations parallel to the direction of travel.
- Example: sound waves



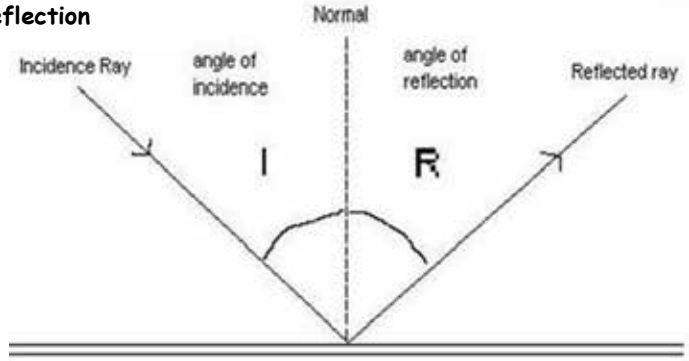
Refraction



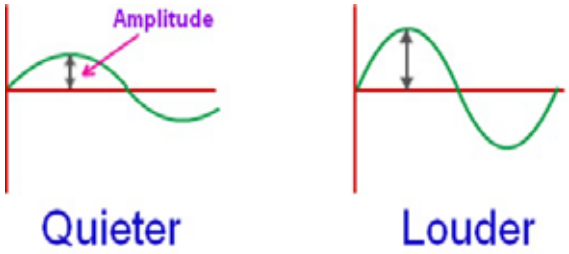
Angle of incidence = angle of emergence

Light appears to bend because of the change of speed from air particles to solid particles.

Reflection



Angle of incidence = angle of reflection



Light and colours

- Light can be absorbed or reflected by objects.
- Green objects: reflect only green light into our eyes and absorb all the other colours.
- White objects: reflect all colours.
- Black objects: absorb all colours.

Sound: Sound is caused by vibrations. Particles are needed for sound to travel, it cannot travel through space.

The ear drum vibrates so you can hear sound