FRAMWELLGATE
SCHOOL DURHAM

KNOWLEDGE ORGANISER

YEAR 7 - 2025/26

NAME:

REGISTRATION GROUP:

0191 386 6628
enquiries@framdurham.com

CONTENTS

YEAR 7

YEAR 7

ART & DESIGN

YEAR SEVEN ART & DESIGN

Knowledge Organiser

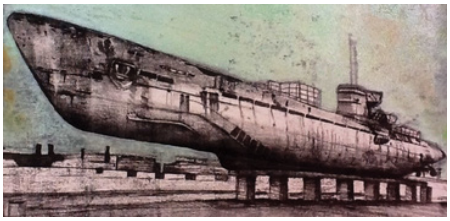
It's impossible for us to include every **skill, technique or artist** that we will look at on this sheet - instead we have set up a website for you with all the information you need.

Scan the QR codes with a phone to access the pages

SCAN ME

UNIT 1
artists make marks

We will discuss how important art and design is, **develop our drawing skills** and create work by looking at how we use the **elements of art**.



SCAN ME

UNIT 2
artists respond to their surroundings

We will explore **new drawing techniques** and begin to work from **direct observation** before editing our drawings using **digital methods.**

SCAN ME

UNIT 3
artists explore media

We will start to **research the work of artists** and then use this knowledge to develop our own work **exploring textile techniques**.

SCAN ME

UNIT 4
artists break the 'rules'

We will look at how **street art** has become a major art movement before **creating our own work inspired by prominent street artists**.

SCAN ME

READING LIST

Providing opportunities for you to read, both in and out of the classroom, is vital to **develop your literacy skills.**

We will do lots of work in class **developing your literacy through reading a range of texts** and have included these here, as well as **some extra books we think you may find interesting**.

SCAN ME

ART HISTORY

Scan the QR code for access to our **Art History Sheets**; quick guides to a range of **major art movements** and the **artists, craftspeople and designers who created them**.

Each half term you will be asked to **research an art movement, choose an artist to study and to create your own artwork inspired by their style.**

SCAN ME

NO PHONE? NO PROBLEM...

The quickest and easiest way to access the information you need is by **scanning the QR codes.** If you don't have a phone then you can access the Art Department website **via the link sent to you on Teams** or by **typing the address below into your web browser.**

Talk to your teacher or STEP tutor if you need to use the school computers to access the website after school.

thisisfsdartanddesign.weebly.com/year-seven

EVALUATING YOUR WORK

WHAT?	**WHAT IS IT?** Explain your work. **Example:** This is a drawing I made of a... This is a series of photos I took of... This an experiment using... This is a section of a piece of work by... Here I have used... On this page I have tried.... This is a collection of....
WHY?	**WHY DID YOU MAKE IT?** How does it help? **Example:** ...to get ideas about... to show what I have learned about... to explore the idea of... to examine the shape/form/texture/colour/pattern of... to analyse the style of... to try out the technique of... to practice... to develop my skills...
HOW?	**HOW DID YOU MAKE IT?** Explain the process. **Example:** I drew it using... I painted it with...I constructed it from...I built it up by collaging...I photographed/drew it from life...I worked from a photograph...I experimented with... I photocopied... I cut up and rearranged...
QUALITY?	**HOW GOOD IS IT?** What works/what doesn't? **Example:** I am pleased with...one good thing is...the best part of this piece is...I'm not happy with...one part I could improve is...the least successful part is. I wish I could... If I had chance I would... I could improve this by...
LEARNING?	**WHAT DID YOU LEARN?** What's next? **Example:** I improved my skills in...I got better working in the style of...I have a better understanding of... I feel more confident about...Next I will try...To follow this up I will...To move my ideas on I could... Next I should... To make progress I must...

USE THE HEADINGS TO EXPLAIN EACH PIECE OF WORK YOU HAVE COMPLETED IN YOUR SKETCHBOOK

@thisisfsdartanddesign & @thisisfsdphotography

YEAR 7

COMPUTER SCIENCE

Computer Science Knowledge Organiser – Block 1 – Digital Skills

Passwords and Security

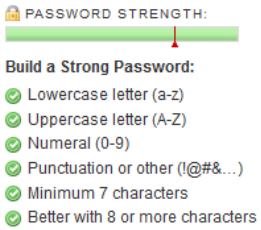
You need to have a strong password to make sure your work and personal details are safe.

A strong password must follow these rules:

- No guessable passwords (not your name)
- Use a mix of text, numbers and characters
- Use upper and lowercase.

To keep your password safe you should never:

- Tell anyone your password
- Write it down where it can be seen.



E-Safety

E safety is how we stay safe while online and there are a few very important rules to follow:

- Never connect with anyone on social media who you don't know.
- Check that people are who they claim to be.
- Do not share personal information online.
- Keep your password safe at all times; even from friends.
- Do not believe everything you are told online as people can hide their identity to trick you.

Click on the "report abuse" button if you feel threatened online, and tell a trusted adult.

Word and PowerPoint

Words is a software application which allows you to write up reports and present lots of text-based information.

It is important to keep your work clear and easy to understand by using subheadings and images.

PowerPoint allows you to create professional presentations. To make sure your message is not lost you need:

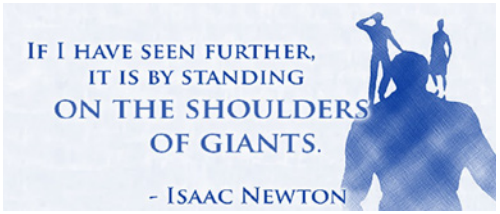
- to use a clear font
- no more than 3 colours
- not too much text.

Evolution of Computing Technology

The advanced technology that we take for granted today would not have been possible without many thousands of inventions in the past.

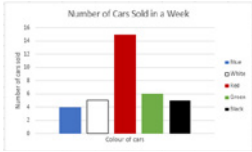
Military technology developed in the 1970s was the basis for GPS used on all mobile devices today and one of the first and most famous wireless messages was the SOS from the Titanic in 1912.

Smartphones evolved from texting on mobile phones, music players and devices known as PDAs; which were a kind of electronic diary.



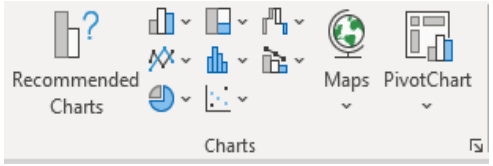
Excel Spreadsheets and Charts

Excel is a spreadsheet application which allows you to organise and analyse data, and to carry out numerous calculations automatically.



Spreadsheets are used to prepare accounts by businesses and they are ideal for making easy-to-read charts; like pie and bar charts. They have inbuilt formulae and functions to do maths and data analysis.

E.g
= IF
=MIN
=MAX
=VLOOKIP
=AVERAGE

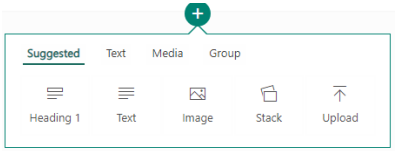


Using MS Sway to store all of your work

Sway is really good for organising your work electronically. It will allow you to make stacks key word definitions as well as upload files. It will run like a website containing all of your work.

Do you know how to:

- Create a new Sway site
- Add a new entry
- Add a heading and text
- Upload a file
- Upload an image
- Change the layout
- Add a stack



Computer Science Knowledge Organiser – Block 2 – Algorithms

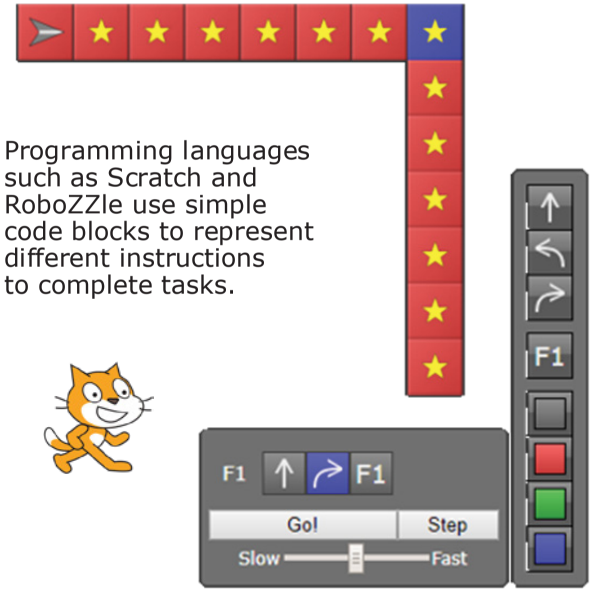
Algorithm Key Terms

Algorithm	A step-by-step process to solve a problem or complete a task.

Constructs:	Different types of building blocks (think of construction)
Sequence	One step after another (think of a sequence like 1, 2, 3, 4)
Selection	Make a choice or select a path - also known as branching
Iteration	Repeat something - also known as a loop

Graphical or Block-based Algorithms

Programming languages such as Scratch and RoboZZle use simple code blocks to represent different instructions to complete tasks.



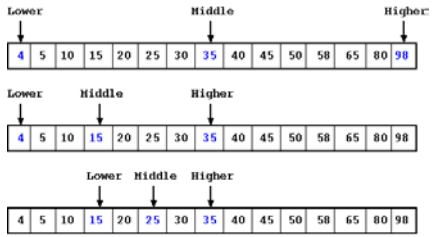
Binary Search Algorithm

An example of a divide and conquer algorithm, a binary search is a great way to find something in a list that is sorted - e.g. in numeric or alphabetic order. Only 20 tries in 1 million items!

The algorithm instructions are to:

1. Find the middle item in the list
2. If the item is not the one that you want
3. Then keep the higher or lower half of the list
4. Repeat from step 1 until found!

E.g. find 25 :



Flowcharts - Variables, Input and Output

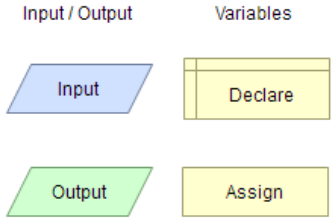
Algorithms can be described by using diagrams known as flowcharts, which show how data and processes "flow" together.

Programmers often use flowcharts to design programs or parts of programs because they are a good way to explain the logic to other people.

Variables are used to store data such as numbers (e.g. integers are whole numbers) or text (known as "strings").

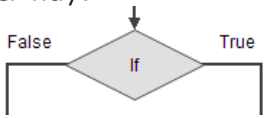
Input gets data from the user of the program into a variable.

Output displays something on the screen.

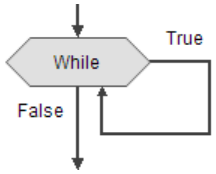


Flowcharts - Selection and Iteration

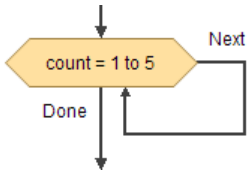
In a flowchart, selection is represented by a diamond. **If** the condition is True (or Yes) then the program branches one way and if False (or No) then it goes another way:



Iteration can either repeat (loop) **While** something is True and carry on when it isn't (see the 7 Times Table example) or it can repeat code **For** a fixed number of times:



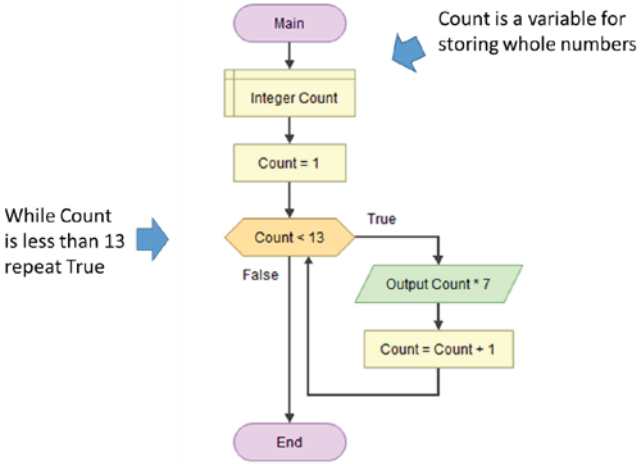
While loop



For loop

Example Flowchart using a While Loop

Output the seven times table:



Computer Science Knowledge Organiser – Block 3 – Programming Concepts and Python

Keywords

Some of the key terms you will need in this block are below:

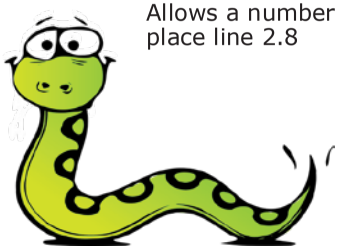
Binary	How computers store data and is represented by a 0 or 1
Syntax	The rules and structure of a programming language, which is a similar to very strict spelling, punctuation and grammar.
Variable	A variable a stored value that varies or changes within your program. It can only hold one piece of data but can be called upon whenever you need it.
Hexadecimal	Longer binary numbers can be represented using hexadecimal which is known as base 16. Hex numbers will include letters to represent numbers.

Data types

Variables in computer programs and fields in database tables store different types of data. The type chosen affects how the data can be processed - for example, whether a calculation can be performed on it.

Common data types include the following:

Data Type	Description and Usage
String	Text such as "Hello World!"
Integer	Whole numbers like -3 or 42
Float	Allows a number with a decimal place line 2.8



Hexadecimal (hex) conversion

Each hexadecimal digit represents 16 possible values, whereas decimal represents 10 (0 to 9) and binary just 2 (0 and 1).

For digit values more than 9, we use letters so A is 10, B is 11, etc.

To convert to and from hex it is easier to convert to binary nibbles first.

0	0	6	6	C	12
1	1	7	7	D	13
2	2	8	8	E	14
3	3	9	9	F	15
4	4	A	10		
5	5	B	11		

So 42 in binary as a byte (8 bits) is:

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

Divided in half into 2 nibbles (4 bits) it becomes:

8	4	2	1
0	0	1	0

8	4	2	1
1	0	1	0

The left is 2 and the right is 10 or A, therefore 42 in decimal is 2E in hexadecimal.

Binary Addition

Computers need to perform calculations and part of this process could be adding up binary numbers

Here are the rules:		Carry Over	Result
1.	0 + 0	0	0
2.	0 + 1	0	1
3.	1 + 0	0	1
4.	1 + 1	1	0
5.	1 + 1 + 1	1	1

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

Turtle drawing commands

The turtle library of commands can be used to draw lines and shapes in Python programs. Some examples of the commands available are shown below.

You can even use Python Turtle to build your own computer games!

Command	Meaning	Example
PENDOWN	Lower the pen down (to draw a line)	PENDOWN
PENUP	Lift the pen up (to not draw a line)	PENUP
FORWARD n	Move the turtle forward n steps	FORWARD 50
BACKWARD n	Move the turtle backward n steps	BACKWARD 30
LEFT n	Turn left n degrees	LEFT 90
RIGHT n	Turn right n degrees	RIGHT 45

For loops in Python (Iteration)

Literation (loops), means to repeat certain lines of code or instructions in a program. The **for** loop in Python repeats a fixed number of times—i.e. it is a count-based loop because it counts a number of times

```
total = 0
for count in range (1,13):
    print (count * 7)
    total = total + (count * 7)
print ("Sum =", total)
```

Any code to be repeated must be indented, so in the program above the print and total calculation are repeated 12 times (it stops before 13). The purpose of this program is to output the 7 times table as well as the sum of all its values. Can you see how it works?

YEAR 7

ENGLISH

TB1 (Y7) Protest – Reading (Animal Farm, George Orwell)

Year 7: Protest – *Animal Farm* - Orwell

KEY CONCEPTS – Orwell wrote *Animal Farm* to…	
warn readers about the corrupting influence of power	**criticise** tyrannical leaders

PLOT	
Ch1: Old Major, a well-respected pig, delivers a speech in which he shares his dream of a revolution against man.	**Ch6:** The animals work harder than ever before, while the pigs move into the farmhouse. A storm destroys the windmill and Napoleon blames this on Snowball.
Ch2: Old Major dies. The animals change his dream into a system called Animalism; they want to be equal with humans. Mr Jones is driven out of the farm.	**Ch7:** The animals face starvation. After the hens learn that they must give up their eggs, they protest. Napoleon's dogs kill animals who have been accused of crimes.
Ch3: Snowball and Napoleon become leaders, but they always disagree. The pigs take the milk and the apples for themselves.	**Ch8:** The animals work harder than they did under Mr Jones, but eat less. The pigs continue to change the Commandments. Humans invade the farm and destroy the windmill.
Ch4: News of the revolution spreads. A group of men try to take control of the farm. Snowball bravely leads the animals to victory in the Battle of the Cowshed.	**Ch9:** Boxer collapses. The pigs sell Boxer to the knackers, as he is too weak to work.
Ch5: Disagreements between Snowball and Napoleon continue. Snowball is attacked by Napoleon's dogs and is driven from the farm. Napoleon abolishes meetings.	**Ch10:** The pigs walk on hind legs and Napoleon carries a whip. The animals can no longer tell the difference between the pigs and the humans.

CHARACTER	WHAT THEY **REPRESENT** IN THE **ALLEGORY**
Mr Jones: A tyrannical farmer who believes he is superior to the animals.	Mr Jones represents the greed of mankind. In the Russian Revolution, he represents Tsar Nicholas II.
Old Major: A pig who introduces the animals to his dream of being free of man.	Old Major represents the importance of dreams.
Snowball: A pig who struggles with Napoleon for power.	Snowball represents intelligence.
Napoleon: A pig who becomes an increasingly corrupt and tyrannical leader.	Napoleon represents how power corrupts. In the Russian Revolution, he represents Stalin.
Squealer: A corrupt pig who helps Napoleon become superior.	Squealer represents how truth can be manipulated.
Boxer: A hardworking and strong horse, but who trusts corrupt leaders too easily.	Boxer represents the danger of following leaders blindly. In the Russian Revolution, he represents the inferior citizens of Russia.

VOCABULARY	
Allegory	Story with 2 meanings: a surface level and deeper meaning
Represents	To stand for something else
Hierarchy	A system where people have different amounts of power
Superior	To have more power
Inferior	To have less power
Unequal	To not be equal or fair
Protest	Taking a stand against someone or something
Revolution	To overthrow a leader
Manipulate	To control or influence in a way that is unfair
Tyrannical	To be cruel and unfair to others
Corrupt	To act dishonestly

SENTENCE STARTERS
Point In his allegory, Orwell presents... in order to...
Evidence Orwell describes how... "..."
Explain Here, Orwell focuses upon...
Analyse At first glance, perhaps Orwell uses the word "..." to suggest that... Upon closer inspection...

TB1 (Y7) Protest – Writing (Persuasive)

Year 7: Protest – Persuasive Letter

I	**Imperatives** A commanding or forceful verb.	**Remember** Old Major's speech, comrades! **Revolt**! **Make** Animalism happen!
N	**Negative disproven** Putting forward a counter argument and proving it wrong.	**Whilst some may claim that** Napoleon is a superior leader, **actually the reality is** that the hierarchy is corrupt and immoral.
A	**Address the reader** Speaking directly to the reader, using inclusive pronouns.	Surely, **you** must see the truth; **you** must see behind Napoleon's tyranny and manipulative lies. **We** must stand together.
F	**Facts** Something that is true and proven.	Research reveals that animals were happier under the leadership of Old Major.
O	**Opinions as facts** Presenting a personal viewpoint as factual.	Doing nothing and watching this corruption unfold will be our biggest regret.
R	**Rhetorical questions** A question which does not require an answer, but provokes thought. **Repetition** Using a word, phrase or sentence more than once.	Why should one animal have more than another**?** Why are lies treated as the truth**?** Why do we suffer while they thrive**?** **We were promised** freedom. **We were promised** equality. **We were promised** a better life. What have we got instead**?**
E	**Emotive language** Language which creates a strong emotional response in the reader.	Our voices have been **silenced**, our dreams have been **crushed**, our freedom has been **snatched** from us – all so the pigs can feast, whilst we **starve**.
S	**Statistics** Using a percentage or a number to support a point.	**75%** of the chickens' eggs have been ruthlessly stolen.
T	**Triple** A list of three.	**Corruption, deceit, manipulation**: Napoleon's tyranny must end!

STRUCTURE		
1	**Opening:** Introduce your topic in an attention-grabbing way.	Dear comrades, Open your eyes and see the truth: …
2	**First main point:** Remember to include reasons. Use INAFOREST techniques.	Firstly, and most importantly,
3	**Second main point:** Remember to include reasons. Use INAFOREST techniques.	Additionally, Furthermore,
4	**Counter-argument:** Present the other side of the argument, explaining why it is wrong and use a negative disproven.	Whilst some may claim that... , actually the reality is...
5	**Conclusion:** Call your reader to action.	The answer is simple: join the revolution! Long live Animal Farm!

PUNCTUATION		
Semi-colon ;	Replaces a connective in a sentence. Both sides of the semi-colon must make sense on their own.	We pigs are brainworkers; the whole management of the farm depends on us.
Colon :	Emphasises a key piece of information. Can be used to introduce a list.	Comrades, there is only one way forward: rebellion!
Brackets **( )**	Adds extra information into a sentence.	Napoleon (our fearless leader) fought bravely in the Battle of the Cowshed.

TB2 (Y7) Symbolism – Romeo & Juliet

Year 7: Symbolism – *Romeo and Juliet* - Shakespeare

KEY CONCEPTS – Shakespeare wrote *Romeo and Juliet* to...	
warn the audience about the consequences of behaving impulsively	**reveal** how love transcends and can last forever

PLOT				
Act 1: The Montagues and Capulets are hostile towards each other. Romeo attends a masked ball at the Capulets'. Romeo meets Juliet; they instantly fall in love. However, his presence at the ball causes conflict so Tybalt (Juliet's cousin) forces the Montagues to leave.	**Act 2:** Romeo overhears Juliet wishing that he were not a Montague. The pair declare their love for each other and plan to marry the next day. With the help of the Nurse and Friar Lawrence, Romeo and Juliet secretly marry.	**Act 3:** Mercutio fights Tybalt and is murdered. Vengeful Romeo then impulsively murders Tybalt and is banished from Mantua. Grieving, Lord Capulet moves Juliet's marriage to Paris the next day. He is furious when he discovers that Juliet does not want to marry Paris.	**Act 4:** Friar Lawrence helps Juliet by giving her a sleeping potion. The Capulets find Juliet the next day and believe she is dead. Friar Lawrence sends a messenger to Romeo, informing him of the plan.	**Act 5:** The message from Friar Lawrence does not reach Romeo. Hearing that Juliet is dead, Romeo returns to Verona. Romeo drinks poison. Juliet awakens and stabs herself with Romeo's dagger. The Capulets and Montagues reconcile as a result of their tragic deaths.

	SYMBOLISM	COSTUME
Act 1, Scene 5 – LOVE	**Water** Luhrmann uses the symbol of water to represent the purity of Romeo and Juliet's love, perhaps foreshadowing that their love will cleanse the families of their hatred. 	**Angel** Juliet's costume suggests how pure and celestial she is.   **Knight** Romeo's costume could suggest how he is a hero, saving Juliet from her forced marriage.
Act 3, Scene 1 - CONFLICT	**Storm** Luhrmann uses the symbol of a storm to foreshadow the rage, destruction and violence that will follow. 	**Tybalt's black costume** This foreshadows death and creates a sense of hopelessness.  **White bloodstained shirt** This perhaps foreshadows the destruction of innocence in murdering Tybalt.
Act 5, Scene 3 – DEATH	**Candles** Luhrmann uses the symbol of candles to highlight that life does not last forever; just as a candle can be easily extinguished, so too can life. It foreshadows the lovers' deaths and reminds us it is inevitable. 	**Wedding dress** This is a symbol of innocence and purity, which makes their death more shocking.  **Wedding ring** This is a symbol of how their love transcends death and lasts forever.

METHODS	
Symbol	An object that represents something else; something with a deeper meaning.
Motif	A repeated symbol throughout a text.
Foreshadowing	To give a hint of something yet to happen.
Dramatic irony	Audience knows more than characters.

VOCABULARY	
Fate	Events beyond a person's control.
Celestial	Linked with the sky, heavenly, holy.
Hostile	Being aggressive to someone.
Vengeful	Seeking revenge.
Impulsive	Acting quickly, without thinking.
Transcends	To go beyond.
Inevitable	Certain to happen, unavoidable.

TB3 (Y7) Voyages – Intro to Poetry

Year 7: Voyages – Intro to Poetry

POEM	SUMMARY	KEY CONCEPTS	SYMBOLS	VOCABULARY (Words already explored)	METHODS
Rime of the Ancient Mariner – Coleridge	A ship is on a voyage led by an albatross. A mariner shoots down an albatross from the sky. The crew hangs the albatross around the mariner's neck as a reminder of his guilt. Due to the death of the albatross, the crew are cursed and die of thirst. The mariner is left tormented, forced to endure the horror of being the only one alive. 	Coleridge **warns** his readers about the consequences of arrogance. Coleridge also **reveals** that nature should be protected by man.	**Albatross** The albatross is a bird, often used as a symbol of freedom, escape and good luck. However, the symbol changes once the mariner shoots the albatross down; it becomes a symbol of his sin and guilt and he is forced to carry the burden of what he has done. 	**Voyage** – A long journey. **Foreboding** – A feeling that something bad will happen. **Tormented** – To experience physical or mental suffering. **Supernatural** – Something that cannot be explained by science	**Pathetic fallacy** Giving human emotions to something in the natural world. eg. "The rain poured down from one black cloud" "The coming wind did roar more loud"
The Kraken – Tennyson	The kraken is a giant sea monster that can destroy ships with ease using its vast tentacles. It sleeps at the bottom of the ocean: a secluded environment where no human can survive. In this abyss, it is alone. The kraken rises to the surface of the water and dies. 	Tennyson **reveals** that nature is powerful and superior to mankind.	**Kraken** As an enormous, vast creature, the Kraken is a symbol of the immense, uncontrollable force of nature. The natural world is superior and can easily overpower mankind. 	**Vast** – Enormous, extremely large. **Secluded** – A quiet place, not visited by many people. **Abyss** – A dark, deep hole.	**Verbs** Doing words. eg. "The Kraken sleepeth; faintest sunlight flee" "There hath he lain for ages... In roaring he shall rise and on the surface die"
By The Sea - Dickinson	The female speaker takes her dog for a walk by the sea early in the morning. The sea rises and seems to follow her, ultimately forcing her to retreat and flee back to the town. It is only then that the sea withdraws. 	Through the symbol of the sea (which represents freedom), Dickinson **reveals** women's desire to be free from patriarchal control, yet also their fear of freedom.	**The bodice** On the surface, it is an item of traditional clothing worn by women, which was very tight and restricted them. However, Dickinson uses the bodice as a symbol of the rigid patriarchal society and how women were made to feel inferior. 	**Patriarchal** – A hierarchy where men are superior to women. **Rigid** – Unchanging, inflexible. **Restricted** – Held back or trapped.	**Personification** Giving an object human characteristics. eg. "he followed close behind; I felt his silver heel upon my ankle"

TB3 (Y7) Voyages – Descriptive Journal Entries

Year 7: Voyages – Descriptive journal entries

Adjectives Describes a noun	infinite, endless, distant, uncharted, vast, turbulent, vengeful, furious, voracious, merciless, almighty, tempestuous.
Verbs Doing words	sailed, explored, drifted, crashed, roared, poured, staggered, gripped.
Adverbs Describes a verb	bravely, boldly, cautiously, unexpectedly, suddenly, reluctantly.
Repetition Using the same word or phrase more than once	The sea **called** my name. It **called** me **again** and **again** until I could no longer resist the pull of the voyage.
Personification Giving human characteristics to an object	Our fragile vessel **shuddered** amidst the **vengeful** storm, as Zeus **attacked** the Earth.
Metaphor Saying something is something else	The sea was a slumbering lion, dozing beneath the sun; it was dormant, for now.
Simile Comparing two things using 'like' or 'as'	The ship rocked on the waves **like** a cradle in the hands of a restless giant.
Pathetic fallacy Giving human emotions to something in the natural world.	Furiously, the storm **raged** across the sea, as if the sky itself **mourned** our departure into uncharted lands.
Juxtaposition Placing two opposites next to each other.	The waves **bellowed, crashed and battered** against the ship; **unperturbed and silent**, the moon observed from above.

STRUCTURE	
1	**Describe the start of your voyage.** You have departed under calm, blue skies – but have noticed some threatening clouds in the distance.
2	**Describe how your ship hit a storm.** Use pathetic fallacy and sensory language to describe the sea, creating a sense of foreboding.
3	**Describe how your ship survived the storm.** Return to describing the serene skies; nature sighed in relief.

CONVENTIONS OF JOURNAL WRITING	
Date	Put the date at the top of your journal entry: "30th March 1867"
Past tense	Write in past tense, as you will be remembering events from the day: "Dawn stretched her golden fingers across the sky, gently pulling me from my slumber."
First person	Write in first person, using I – describing the experiences of your character from their perspective: "I gripped the wheel tightly; my hands were raw from the relentless battering of the wind, as I fought to steer us to safety."
Sensory language	Use the five senses: "The sea lashed out, sending a vicious spray of saltwater which stung my eyes. Howling like a wild beast, the vengeful wind retaliated and the ship lurched."

SEQUENCING CONNECTIVES
Above, across, against, along, before, behind, beneath, beside, between, beyond, inside, somewhere, toward, underneath, upon

SENTENCE OPENERS	
Adjective start	**Cold and merciless**, the sea continued its attack upon us – refusing to call a ceasefire.
Verb start	**Gripping onto the rails**, we marvelled at the almighty power of Poseidon.
-ly Adverb start	**Violently, relentlessly,** the waves thrashed against the side of the boat.
Preposition start	**Beneath the watchful moon**, we departed into the unknown.

PUNCTUATION		
Semi-colon ;	Replaces a connective in a sentence. Both sides of the semi-colon must make sense on their own.	There was no hope for our rescue; all we could do is endure the wrath of the storm and wait. Wait for someone. Anyone.
Colon :	Emphasises a key piece of information. Can be used to introduce a list.	The sea was not just vast: it was an infinite abyss that swallowed hope as easily as it swallowed ships. Ships like ours.
Comma ,	Adds extra information into a sentence.	Our ship, exhausted and groaning, struggled through the turbulent waters.

YEAR 7

FOOD

Knowledge Organiser 1

Bridge Hold

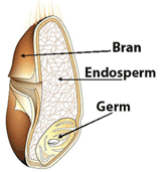
Claw Grip

Practical Knife skills

- Julienne (Matchstick Strips)
- Brunoise (Small Dice)
- Macedoine (Medium Dice)
- Jardinière (Batons)

Wheat

During primary processing of wheat the outer layers need to be separated from the inner layers, this is done by milling. The type of flour depends on the extraction rate.



100% extraction rate - wholewheat or wholemeal flour.
85% extraction rate - gives us brown flour
70% extraction rate - gives us white flour

Fruit

- Classified into groups:
- Soft fruits - raspberry, blackberry
- Citrus fruits - orange, lime, lemon
- Stone fruits - plum, apricot, cherry
- Tree fruits - apple, pear
- Exotic fruits - banana, kiwi, melon
- Dried fruits - data, sultana

Oats and rice

- Grow in cool, wet climates and widely grown in Scotland.
- Rolled oats are rolled into flakes after being cooked by steam.
- Rolled oats are used to make porridge, flapjacks and muesli.
- High in carbohydrates and fibre so they release energy slowly and help lower cholesterol levels and prevent heart disease.
- Brown rice - the outer husk is removed and the bran layer remains.
- White rice - the husk is removed and then the bran and the germ this is called polishing.
- Rice is normally boiled or steamed.

Vegetables

- Classified into groups according to which part of the plant they come from:
- Fruit vegetables-tomato, cucumber
- Seeds and pods - peas, beans
- Flower vegetables - broccoli, cauliflower
- Leafy vegetables - spinach, cabbage, parsley
- Stem vegetables - celery
- Tubers - potatoes, sweet potatoes
- Fungi –mushrooms
- Bulbs - onions, garlic, leeks
- Roots—beetroot, swede, carrot

Eight tips to healthy eating

- Base your meals on starchy carbohydrates.
- Don't skip breakfast.
- Drink plenty of water .
- Eat lots of fruit and vegetables.
- Cut down on saturated fat and sugar.
- Eat less salt.
- Be active.
- Eat two portions of fish a week one should be oily.

Knowledge Organiser 2

Seasonal foods / food miles

Some foods are **seasonal**. This means they are only available at certain times in the year.

There are many advantages and some disadvantages to seasonal foods.

Food Waste

There are two main reasons we waste food in the home:

1. We prepare too much food
2. We don't use the food before it goes off

There are 6 ways to reduce **food waste**.

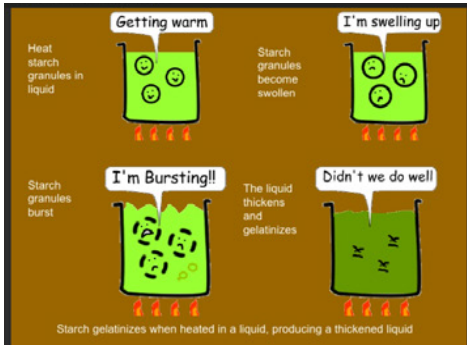
- Plan ahead
- Buy what you need
- Store correctly
- Cook the right amount
- Eat it all or store leftovers for later
- Recycle what you can't eat

Food Choice

There are many factors which affect food choice they are:

£

- Cost of food
- Fashion, trends, media and peer pressure
- Food availability
- Healthy eating and PAL
- Lifestyles
- Religion and culture
- Celebration/occasion



Meat

Meat is the muscle tissue of animals. It is produced by carefully breeding animals to produce **lean** and tender meat. Meat is high in protein, and also provides iron and the B group vitamins.

The main types of meat eaten in the UK are beef, pork and lamb.

Fish

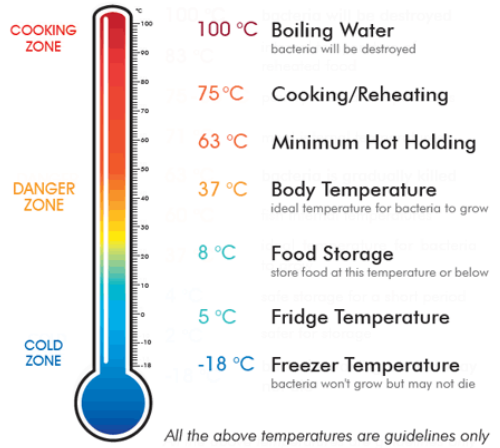
Fish can be divided in to three groups: white, oily and shell-fish.

- **White fish** are named because the fish in this group have white flesh
- **Oily fish** are those that have oil dispersed throughout the flesh
- **Shellfish** are fish
- protected by a hard shell

Fish is very healthy as it is high in protein, and oily fish also contains vitamins A and D.

Temperature Control

- Temperature control is very important when you buy, store, prepare and cook food.
- Storing food correctly will minimise the risk of food spoilage and **food poisoning**.
- **Food poisoning** can be caused when **high-risk foods** are stored in warm conditions for too long.
- Controlling the temperature of food from the time you buy it to when it is eaten will help to keep your food safe.



YEAR 7

FRENCH

Modern Languages Learning Journey

@MFLFram

The Journey @ FSD Starts ..

Key Stage 2

Key Stage 3

Year 7

Module 1 *Intros, self, family, friends*

Module 2 *School*

Module 3 *Free-time activities*

Module 4 *Town, weather*

Assessment Y7/1

Assessment Y7/2

Year 8

Module 5 *Past Holidays*

Module 6 *Online activities*

Module 7 *TV/film (+ Les Choristes)*

Assessment Y8/1

Assessment Y8/2

Module 8 *Customs and festivals*

Year 9

Module 9 *Advantages/disadvantages of being online*

Module 10 *Jobs/future plans*

Module 11 *The natural world; environment*

Assessment Y9/1

Assessment Y9/2

Module 12 *Health and wellbeing*

Key Stage 4

Year 10

Module 1 *Tu as du temps à perdre?*

Module 2 *Mon clan, ma tribu*

Assessment Y10/1

Module 3 *Ma vie scolaire*

Module 4 *En pleine forme*

Y10 Mock Exam

Module 5 *Numéro vacances*

Year 11

Module 6 *Notre planète*

Mock Exam Y11/1 LSRW

Module 7 *Mon petit coin du monde*

Module 8 *Mes projets d'avenir*

REVISE REVISIT RETEACH

GCSE Exams

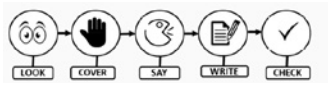
Mock Exam Y11/2 LSRW

Key Stage 5

Modern Languages Curriculum Statement

Learning a second language frees us from insularity; opening our minds to different cultures and allowing us to express our thoughts and ideas with increasing fluency and creativity.
We believe that language learning is best where there is as much exposure to meaningful language as possible; whilst ensuring that you have opportunities to think about how the language works and to practise regularly in an ordered way that focusses on high-frequency structures and vocabulary. Our curriculum includes a range of teaching and learning methods, with a strong emphasis on re-using and recycling language in a variety of contexts and regularly checking that these high-frequency structures, key vocabulary and grammatical concepts are mastered. One thing is certain, anyone can learn another language; the difficulty lies in trying to understand or use language that has not been sufficiently practised. This, therefore, is our core purpose.
"We are what we repeatedly do. Excellence, therefore, is not an act, but a habit." (Aristotle)

Modern Languages Curriculum Strands	
	Understanding and Responding to Spoken Language
	Understanding and Responding to Written Language
	Acquisition of Vocabulary
	Application of Grammar
	Cultural Awareness and Appreciation



Cross- Theme – Exam Preparation (Skills and Techniques)
Intervention and Revision Programmes

KS3 French Core Classroom Language

Ça va? *(how are you ?)*	**Asseyez-vous** *(sit down)*
Merci *(thank you)*	**Silence, s'il vous plaît** *(silence please)*
Pardon, Madame / Monsieur *(excuse me, Miss/Sir)*	**Ecoutez** *(listen)*
J'ai fini *(I've finished)*	**Regardez** *(look)*
Je ne sais pas *(I don't know)*	**Ecrivez** *(write)*
J'ai besoin d'aide *(I need some help)*	**Levez-vous (***stand up***)**
Je ne comprends pas *(I don't understand)*	**Travaillez en équipe** *(work in a team)*
Répétez, s'il vous plaît *(repeat, please)*	**Travaillez avec un partenaire** *(work with a partner)*
Comment dit-on _____ en français? *(How do you say _____ in French?)*	**C'est quoi en anglais?** *(what is it in English?)*
Je peux… ? *(can I… ?)*	**Qui peut expliquer en anglais?** *(who can explain in English ?)*
Pouvez-vous… ? *(Can you… ?)*	**J'ai besoin d'un volontaire** *(I need a volunteer)*

Days, months and birthdays

*No capital letters for days of the week or months in French (unless it's the start of a sentence)

Days

Monday	lundi
Tuesday	mardi
Wednesday	mercredi
Thursday	jeudi
Friday	vendredi
Saturday	samedi
Sunday	dimanche

Seasons

Spring	le printemps
Summer	l'été
Autumn	l'automne
Winter	l'hiver

Months

janvier
février
mars
avril
mai
juin
juillet
août
septembre
octobre
novembre
décembre

Saying the date in French

Le + number+ month

e.g. le deux avril = the 2nd April
le vingt juin = the 20th June

EXCEPTION
the 1st = le premier
e.g. le premier mai = the 1st May

Numbers

1	un	16	seize
2	deux	17	dix-sept
3	trois	18	dix-huit
4	quatre	19	dix-neuf
5	cinq	20	vingt
6	six	21	vingt-et-un
7	sept	22	vingt-deux
8	huit	23	vingt-trois
9	neuf	24	vingt-quatre
10	dix	25	vingt-cinq
11	onze	26	vingt-six
12	douze	27	vingt-sept
13	treize	28	vingt-huit
14	quatorze	29	vingt-neuf
15	quinze	30	trente

40	quarante	80	quatre-vingts
50	cinquante	90	quatre-vingts-dix
60	soixante	100	cent
70	soixante-dix	1000	mille

Colours

blanc	white	noir	black
rouge	red	bleu	blue
vert	green	jaune	yellow
rose	pink	violet	purple
gris	grey	brun	brown

KS3 French Core Vocabulary – High Frequency Words and Phrases

Connectives & other little words

et	and
mais	but
pourtant	however
cependant	however
si	if
avec	with
sans	without
sauf	except
aussi	also
parce que	because
car	because
à cause **de**	because **of**
grace à	thanks to
pour *(+ infinitive)*	in order to
afin de *(+ inf.)*	in order to
avant de *(+ inf.)*	before ___ing
bien que ce soit	although it is
comme	as/such as
puisque	since/seeing as
par exemple	for example
y compris	including
en plus	in addition
donc / alors	so/therefore
par consequent	as a result
quand	when
pendant que	while/whilst
en bref	in short
peut-être	perhaps/maybe
malgré	in spite of
heureusement	fortunately
malheureusement	unfortunately
sauf	except
même si	even if
c'est-à-dire	that is to say
d'un côté	on the one hand
de l'autre côté	on the other hand
par contre	on the other hand

Time markers

pour commencer	to start with
tout d'abord	first of all
au début	at the start
puis	then
ensuite	next
après (ça)	after (that)
plus tard	later
mais maintenant	but now
tout de suite	immediately
inmédiatement	immediately
soudainement	suddenly
enfin / finalement	finally
aujourd'hui	today
bientôt	soon
un jour	one day
vers ___ heures	at about ___ o'clock
au bout de 5 minutes/ après 5 minutes	after 5 minutes

Intensifiers and Adverbs

assez	quite
très	very
un peu (de)	a bit (of)
peu de	few/not many
trop	too *(+ adj)*
trop de	too many/much
assez **de**	enough
beaucoup (de)	a lot (of)
bien de	a lot of
plein de	loads of
pas mal de	quite a lot of
pas grand chose	not a lot
plusieurs	several
quelques	some/a few
vraiment	really
complètement	completely
extrêmement	extremely
absolument	absolutely
tout à fait	totally
surtout	especially
actuellement	currently (**not** 'actually'!!)

Comparisons

que	than
plus *(+ adj)*	more *(+ adj)*
moins *(+ adj)*	less *(+ adj)*
plus de *(+ noun)*	more *(+ noun)*
moins de *(+ noun)*	less/fewer *(+ noun)*
le plus*(+ adj)*	the most *(+ adj)*
le moins *(+ adj)*	the least *(+ adj)*
meilleur	better *(adjective)*
mieux	better *(adverb)*
pire	worse

Negatives

To use these in a sentence, the *verb* goes between **ne** and the **second word**

ne___pas	not/don't
ne___jamais	never/not ever
ne___plus	not any more
ne___que	only
ne___rien	nothing/not anything
ne__ni__ni	neither ___ nor ___
ne___personne	nobody / no-one / not anybody

Opinion phrases

j'aime/je n'aime pas	I like/I don't like
j'adore	I love
je déteste	I hate
selon moi	according to me
personnellement	personally
à mon avis	in my opinion
je pense que	I think that
je crois que	I believe that
il me semble que	it seems to me that
je suis d'accord	I agree
je pense le contraire	I think the opposite
ça peut être	it can be
certains disent que	some people say that

Possessives, a & the

	Masc	Fem	Vowel	Plural
a/some	un	une	un/une	des
the	le	la	l'	les
my	mon	ma	mon	mes
your (friendly/singular)	ton	ta	ton	tes
his/her	son	sa	son	ses
your (polite/plural)	votre	votre	votre	vos
our	notre	notre	notre	nos
their	leur	leur	leur	leurs

KS3 French Core Vocabulary : Narrating Events

Referring to the Past

récemment	recently
ce jour-là	(on) that day
hier	yesterday
hier matin	yesterday morning
hier après-midi	yesterday afternoon
hier soir	yesterday evening
samedi dernier	last Saturday
le weekend dernier	last weekend
la semaine dernière	last week
le mois dernier	last month
octobre dernier	last October
l'été dernier	last summer
l'année dernière	last year
il y a deux ans	two years ago
avant	before
dans le passé	in the past
quand j'avais huit ans	when I was 8 years old

Useful Verbs

c'était = it was
j'étais = I was
ils/elles étaient = they were

il y avait = there was/were

je suis allé(e) = I went
j'**y** suis allé(e) = I went **there**
j'ai fait = I did
je **l'**ai fait = I did **it**
je **l**'ai aimé = I liked/enjoyed **it**

Talking about regular or current activity

aujourd'hui	today
le matin	in the morning
l'après-midi	in the afternoon
le soir	in the evening
le weekend	at weekends
le vendredi	on Fridays
en hiver	in winter
à Noël	at Christmas
Pendant la semaine	during the week
pendant la journée	during the day
pendant les vacances	in the holidays
après le college	after school
avant le college	before school
tous les soirs	every evening
tous les jours	every day
rarement	rarely
quelquefois	sometimes
parfois	sometimes
normalement	normally
d'habitude	usually
régulièrement	regularly
souvent	often
fréquemment	frequently
toujours	always

Useful Verbs

c'est = it is
je suis = I am
il y a = there is/are
je **le** fais = I do **it**
je **le** faisais = I used to do **it**
j'**y** vais = I go **there**
j'**y** allais = I used to go **there**

Expressing Future plans

demain	tomorrow
demain matin	tomorrow morning
demain après-midi	tomorrow afternoon
demain soir	tomorrow evening
après-demain	the day after tomorrow
le lendemain	the next day
plus tard	later
à l'avenir	in the future
la semaine prochaine	next week
le mois prochain	next month
l'année prochaine	next year
le weekend prochain	next weekend
en octobre prochain	next October
dans quelques jours	in a few days
dans ___ heure(s)	in ___ hour(s)
dans ___ jour(s)	in ___ day(s)
dans ___ semaine(s)	in ___ week(s)
dans ___ mois	in ___ month(s)
dans ___ an(s)	in ___ year(s)

Useful Verbs

ce sera = it will be
je serai = I will be
ils seront = they will be

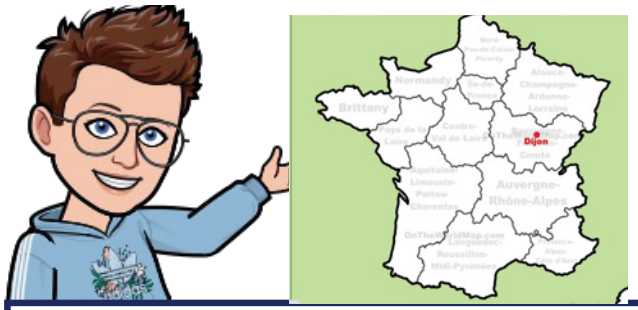
il y aura = there will be

j'irai = I will go
j'**y** irai = I will go **there**
je vais **y** aller = I'm going to go **there**
je ferai = I will do
je **le** ferai = I will do **it**
je **l'**aimerai = I will enjoy **it**

Y7 French Sentence Builders : Module 1: C'est moi!

A	Français	Anglais
1	Salut/Bonjour	Hi/Hello
2	Je m'appelle	I am called
3	J'ai .. ans	I am ..years old
4	J'ai les cheveux ...	I have .... hair
5	bruns	Brown
6	blonds	Blond
7	noirs	Black
8	roux	Red
9	J'ai les yeux ...	I have ... eyes
10	bleus	blue
11	verts	green
12	marron	brown
13	gris	grey
14	Je suis	I am
15	petit	small
16	grand	tall
17	de Moyenne taille	Medium-size
18	sportif	sporty
19	sympa	nice
20	timide	shy

B	Français	Anglais
1	Je fais	I do
2	J'ai	I have
3	L'anglais	English
4	Les maths	Maths
5	Les sciences	Science
6	Le français	French
7	La réligion	R.E.
8	Les arts plastiques	Art
9	L'EPS	P.E.
10	L'informatique	Computer Science
11	La technologie	DT
12	La musique	Music
13	Le théâtre	Drama
14	Les matières	Subjects
15	Les cours	Lessons
16	Le premier cours	First lesson
17	Le lundi	On Monday
18	Le mardi	On Tuesday
19	Le matin	On a morning
20	L'apres-midi	On an afternoon



Salut!

Je m'appelle Didier et je suis de Dijon en France. J'ai onze ans et je suis en sixième au Collège Victor Hugo. J'ai les cheveux bruns et les yeux bleus. Je suis assez petit et je suis très sportif. J'aime mon collège et j'aime l'anglais et les sciences. Ma matière préférée est l'EPS parce que j'adore le sport et le prof est sympa. Je n'aime pas trop les maths car c'est difficile pour moi! En France, le collège commence à huit heures et on finit à seize heures mais on n'a pas de cours le mercedi après-midi. Tu aimes ton college? Quelle est ta matière préférée?

C	Français	Anglais
1	J'aime	I like
2	Je n'aime pas	I don't like
3	J'adore	I love
4	Je déteste	I hate
5	Je préfère	I prefer
6	Car/parce que	because
7	C'est	It is
8	Ce n'est pas	It isn't
9	intéressant	Interesting
10	facile	Easy
11	difficile	Difficult
12	amusant	Fun
13	utile	Useful
14	ennuyeux	Boring
15	Le/la prof est ..	The teacher is ..
16	sympa	Nice
17	stricte	Strict
18	drôle	Funny
19	intelligent	Intelligent
20	assez	quite

D	Français	Anglais
1	Il y a	There is/are
2	On a	We have
3	On commence	We start
4	On finit	We finish
5	À neuf heures	At nine o'clock
6	Des laboratoires	Laboratories
7	Des salles de classes	Classrooms
8	Une salle de sport	A sports hall
9	Une cantine	A canteen
10	Une bibliothèque	A library
11	Un terrain de sport	A sports field/pitch
12	Des toilettes	Toilets
13	C'est ..	It is ..
14	grand	Big
15	mixte	Mixed
16	vieux	Old
17	moderne	modern
18	trop	too
19	très	very
20	Un peu	A bit

Y7 French Knowledge Organiser : Module 1: C'est moi!

Use Sentence Builders to help you answer the question. Use this method to help learn the phrases https://youtu.be/cMKo65jKVhU

SB1 : Parle-moi de toi-même ! - Tell me about yourself

Subject	Verb	Object	Adjective
Je (I)	m'appelle (am called) suis (am) ai (have)	Didier les cheveux .. (..hair) les yeux .. (.. eyes)	bleus/verts/gris (blue/gree/grey) marron (brown) blonds (blond) noirs (black) roux (red) grand.e (tall) petit.e (small) de moyenne taille (medium-sized) sportif.ive (sporty) timide (shy) sympa (nice)

SB2 : Quelles matières fais-tu ? – What subjects do you do ?

Subject	Verb	Object	Time Phrase
Je (I)	fais (do)	l'anglais (english)	le lundi (on Monday)
J' (I)	ai (have	les maths (maths)	le mercredi (on Wednesday)
On (we)	a (have	les sciences (science)	le matin (on a morning)
		le français (french)	l'après-midi (on an afternoon)
		l'EPS – (PE.)	à dix heures (at ten o'clock)
		la technologie (DT)	

SB3 : Quelle est ta matière préférée? – What is your favourite subject?

Subject	Verb	Object	Connective	Adjective
Je/j'(I) **Ma matière préférée (my favourite subject)**	aime (like) n'aime pas (don't like) déteste (hate) est (is)	l'anglais (english) les maths (maths) les sciences (science) le français (french) l'EPSPE) La technologie (DT)	car (because) parce que (because) mais (but) c'est (it is) ce n'est pas (it isn't)	intéressant (interesting) amusant (fun) facile (easy) difficile (difficult) ennuyeux (boring) utile useful)
Le/la prof (the teacher)	est (is) n'est pas (isn't)			stricte (strict) sympa (nice) drôle (funny)

SB4 : C'est comment ton collège? What is your school like?

Subject +Verb	Article	Adjective	Object
Il y a (there is/are) **On a (we have)**	un (a)	grand (big) petit (small)	terrain de sport (sport's field) cour (yard)
	une (a)	grande (big) petite (small)	bibliothèque (library) salle de sports (sports hall)
	des (some)	vieilles (old) nouvelles (new)	salles de classe (classrooms) toilettes (toilets)
On commence (we start) **On finit (We finish)** **Mon collège est (my school is)**	**Qualifier** très (very) assez (quite) un peu (a bit) trop (too)		**Adjective** tôt (early) tard (late) vieux (old) moderne (modern) grand (big) petit (small)

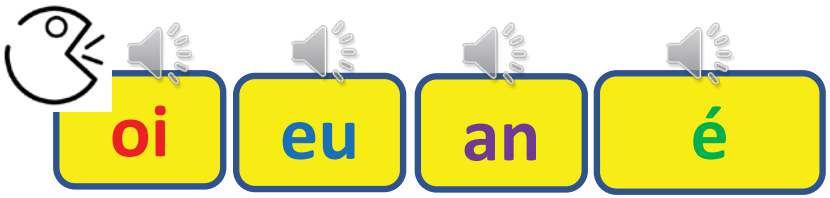
Y7 French Knowledge Organiser: Module 2: C'est ma vie

A	Français	Anglais
1	Je suis	I am
2	Je ne suis pas	I am not
3	Je ne suis jamais	I am never
4	branché(e)	trendy
5	poli(e)	polite
6	amusant(e)	amusing/funny
7	marrant(e)	funny
8	charmant(e)	charming
9	travailleur(euse)	hardworking
10	paresseux(euse)	lazy
11	curieux(euse)	curious
12	généreux(euse)	generous
13	rigolo	funny
14	modeste	modest
15	gentil(le)	kind
16	cependant	however
17	vraiment	really
18	parfois	sometimes
19	aussi	also
20	souvent	often

B	Français	Anglais
1	ma famille	my family
2	mon père	my father
3	mon frère	my brother
4	mon grand-père	my grandfather
5	mon oncle	my uncle
6	ma mère	my mother
7	ma soeur	my sister
8	ma grand-mère	my grandmother
9	ma tante	my aunt
10	mes parents	my parents
11	mes grand-parents	my grandparents
12	il / elle s'appelle	he / she is called
13	il / elle est	he / she is
14	il / elle a (15) ans	il / she is (15) years old
15	il / elle a (les yeux verts)	he / she has (green eyes)
16	il / elle aime	he / she likes
17	ils sont	they are
18	je m'entends bien avec..	I get on with...
19	je ne m'entends pas bien avec..	I don't get on with..
20	car	because

Salut!

Je m'appelle Paul et je suis de Poitiers en France. Je suis parfois généreux mais je ne suis jamais amusant. J'habite avec ma mère, mon beau-père et ma soeur. Elle s'appelle Noémie. Elle est vraiment marrante et aussi branchée mais quelquefois paresseuse. C'est presque Noël. Je l'adore! Chaque année on décore le sapin de Noël en famille et la veille de Noël on mange de la dinde avec des légumes comme les petits pois et la bûche de Noël. Après, on s'offre des cadeaux et souvent il neige. Que fais tu à Noël? Pendant mon temps libre je fais du vélo et j'aime aller au cinéma avec mes cousins et ma tante et écouter de la musique. Qu'est-ce que tu aimes faire? Au revoir!



C	Français	Anglais
1	joyeux Noël	merry Christmas
2	la veille de Noël	Christmas Eve
3	on fête	we celebrate
4	on mange	we eat
5	on boit	we drink
6	on décore	we decorate
7	on s'offre	we give each other
8	de la dinde	turkey
9	du chocolat	chocolate
10	de la champagne	champagne
11	des légumes	vegetables
12	la bûche de Noël	Yule log
13	un repas	a meal
14	des petits pois	peas
15	des cadeaux	presents
16	la maison	the house
17	le sapin de Noël	Christmas tree
18	le jardin	garden
19	chaque année	each year
20	il neige	it snows

D	Français	Anglais
1	je joue /je ne joue pas	I play/I don't play
2	jouer	to play
3	au foot	football
4	au basket	basketball
5	au billard	snooker
6	à la pétanque	French bowls
7	aux boules	bowls
8	aux échecs	chess
9	je fais /je ne fais pas	I do(go)/I don't do (go)
10	faire	to do
11	du vélo	cycling
12	du patin à glace	ice skating
13	de la natation	swimming
14	de la danse	dancing
15	de l'equitation	horse riding
16	des promenades	walks
17	aller au cinéma	to go to the cinema
18	regarder la télé	to watch TV
19	faire les magasins	to go shopping
20	traîner avec mes amis	to hang around with my friends

Y7 French Sentence Builder: Module 2: C'est ma vie

Use Sentence Builders to help you answer the question. Use this method to help learn the phrases https://youtu.be/cMKo65jKVhU

SB1 : Tu es comment? What are you like?

Subject	Verb	Adverb	Qualifier	Adjective
Je (I)	suis (am) ne suis pas (am not)	souvent (often) quelquefois (sometimes) parfois (sometimes) aussi (also) toujours (always)	très (very) assez (quite) vraiment (really)	poli(e) (polite) marrant(e) (funny) gentil(le) (kind) curieux(se) (curious) paresseux(se) (lazy) rigolo (funny) modeste (modest) charmant(e) (charming) sympa (nice)
Il (he) Elle (she)	est (is) n'est pas (isn't)			
Je (I)	ne suis (am)	jamais (never)		
Il (he) Elle (she)	n'est (is)			

SB2 :Parle-moi de ta famille. – Tell me about your family

Subject	Verb	Object
		Maurice/ Hélène
	s'appelle	douze ans (12 years old)
Ma mère (my mum)		les yeux verts/marron/bleus (green/brown/blue eyes)
Mon père (my dad)	a (has /is)	les cheveux roux/blonds/longs (red/blonde/long) hair
Mon frère (my brother)		**Adjective**
	est (is)	poli)(e)(polite) marrant(e) (funny) grand(e) (tall) / de taille Moyenne (medium height)/petit(e)(short)
		Object
Je	(ne) m'entends (pas) bien avec … (I (don't) get on well with..	ma mère (my mum) mon père (my dad) mon frère (my brother)

SB3 : Qu'est-ce qu tu fais à Noël? – What do you do at Christmas?

Time expression	Subject	verb	Object/adverb	Connective	Subject
Chaque année (every year) À Noël (at Christmas) D'habitude (usually) Normalement (normally) Tous les ans (every year)	on (we)	fête (celebrate) mange(eat) décore (decorate) s'offre (give) boit (drink) va (go)	ensemble (together) le sapin de Noël (Christmas tree) des cadeaux (presents) de la dinde (turkey) un repas(a meal) de la champagne (champagne) à l'église (to church) chez ma grandmère (to my grandma's)	et après (and after) puis (then) ensuite (next)	on (we)…..

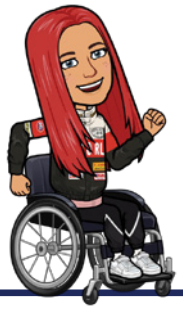
SB4 : Qu'est ce que tu aimes faire? – What do you like doing?

Opinion Verb	Infinitive	Object	With whom
J'adore (I love) J'aime (I like) Je n'aime pas (I don't like Je préfère (I prefer) Je déteste (I hate)	jouer (to play)	au foot (football) à la pétanque (French bowls) aux échecs (chess)	avec mes amis (with my friends –M) avec mes amies (with my friends F) avec mon frère (with my brother) avec ma soeur (with my sister) avec ma famille (with my family seul (e) alone
	faire (to do)	les magasins (shopping) du vélo (cycling) de la natation (swimming) des promenades (walks)	
	regarder (to watch) aller (to go) écouter (to listen)	la télé (TV) au cinéma (to the cinema) de la musique (to music)	

Y7 French Knowledge Organiser: Module 3: C'est la France !

A	Français	Anglais
1	J'habite à...	I live in...
2	Dans ma ville	In my town/city
3	Il y a...	There is/there are
4	Il n'y a pas de...	There isn't a.../there aren't any...
5	Un cinéma	A cinema
6	Un centre commercial	A shopping centre
7	Un centre de loisirs	A leisure centre
8	Un stade	A stadium
9	Un parc	A park
10	Un (super)marché	A (super)market
11	Un château	A castle
12	Un gare	A train station
13	Une place	A town square
14	Une bibliothèque	A library
15	Une cathédrale	A cathedral
16	Une piscine	A swimming pool
17	Une patinoire	An ice rink
18	Des restaurants	Restaurants
19	Des magasins	Shops
20	Des musées	Museums

B	Français	Anglais
1	On peut	You/one/we can
2	On ne peut pas	You/one/we can't
3	Aller	To go
4	Visiter	To visit
5	Manger	To eat
6	Faire	To do
7	Regarder	To watch
8	Retrouver	To meet
9	Traîner	To hang out
10	Voir	To see
11	Jouer	To play
12	Avec	With
13	Mes copains / mes copines	My friends
14	Mes amis / mes amies	My friends
15	Ma famille	My family
16	Le weekend	At the weekend
17	En ville	In town
18	Au centre ville	In the town centre
19	Les samedis soirs	On Saturday nights
20	Les dimanches matins	On Sunday mornings



Salut!

Je m'appelle Théa et j'habite à Tours en France. C'est une grande ville historique dans le centre de la France. Dans ma ville, il y a une vieille cathédrale et un petit château, mais il n'y a pas de stade. À mon avis c'est nul parce que j'adore regarder les matchs de foot. Il y a aussi beaucoup de parcs touristiques et une place avec des restaurants et des magasins où on peut manger ou faire du shopping. J'aime retrouver mes copains au centre-ville, surtout quand il fait beau. En été, il fait souvent du soleil, mais en hiver il neige quelquefois.

il y a | qu | eil | eau

C	Français	Anglais
1	Il fait beau	It's nice (weather)
2	Il fait mauvais	It's bad (weather)
3	Il fait chaud	It's hot
4	Il fait froid	It's cold
5	Il fait du soleil	It's sunny
6	Il y a du vent	It's windy
7	Il y a du brouillard	It's foggy
8	Il y a des orages	It's stormy
9	Il y a des nuages	It's cloudy
10	Il pleut	It rains/it's raining
11	Il neige	It snows/it's snowing
12	En été	In Summer
13	En hiver	In Winter
14	En printemps	In Spring
15	En automne	In Autumn
16	Quand	When
17	Si	If
18	À (+ town/city)	In (e.g. in Tours...)
19	En (+ country)	In (e.g. in France...)
20	La météo	The weather forecast

D	Français	Anglais
1	Grand(e)	Big
2	Petit(e)	Small
3	Moderne	Modern
4	Vieux/vieille	Old
5	Historique	Historic
6	Pittoresque	Picturesque
7	Animé(e)	Busy/lively
8	Tranquille	Sleepy
9	Calme	Quiet
10	Beau/belle	Beautiful
11	Joli(e)	Pretty
12	Touristique	Touristy
13	Et	And
14	Aussi	Also
15	Ou	Or
16	Mais	But
17	Cependant	However
18	Beaucoup de	Lots of
19	Trop de	Too much/too many
20	Où	Where

Y7 French Sentence Builder: Module 3: C'est le France!

Use Sentence Builders to help you answer the question. Use this method to help learn the phrases https://youtu.be/cMKo65jKVhU

SB1 : Qu'est-ce qu'il y a dans ta ville ? – What is there in your town?

Subject	Verb phrase	Object
Dans ma ville *(in my town)*	il y a *(there is)*	un cinéma *(a cinema)*
	il n'y a pas de *(there isn't a)*	un centre commercial *(a shopping centre)*
		un parc *(a park)*
		un marché *(a market)*
		une piscine *(a swimming pool)*
		une cathédrale *(a cathedral)*
		une bibliothèque *(a library)*
		des musées *(museums)*

SB2 : Qu'est-ce qu'on peut faire ici ? – What can you do there?

Subject	Modal verb	Infinitive	Object / activity
Je *(I)*	peux *(can)*	aller *(go)*	au cinéma *(to the cinema)*
	ne peux pas *(can't)*	visiter *(visit)*	des musées *(museums)*
		manger *(eat)*	au restaurant *(at the restaurant)*
On *(we)*	peut *(can)*	faire *(do)*	de la natation *(swimming)*
	ne peut pas *(can't)*	regarder *(watch)*	un film *(a film)*
		retrouver *(meet)*	mes copains *(my friends)*
		trainer *(hang out)*	avec mes amis *(with my friends)*
		jouer *(play)*	au foot *(football)*

SB3 : Quel temps fait-il ? – What's the weather like?

Time / place marker	Verb phrase
En automne *(in Autumn)*	il fait beau *(it is nice)*
En hiver *(in Winter)*	il fait mauvais *(it is bad)*
En printemps *(in Spring)*	il fait chaud *(it is hot)*
En été *(in Summer)*	il fait froid *(it is cold)*
Quand *(when)*	il fait du soleil *(it is sunny)*
Si / S' *(If)*	il pleut *(it rains/it is rainy)*
À Paris *(in Paris)* / Tours *(in Tours)*	il neige *(it snows/it is snowy)*
En France *(in France)* / Angleterre *(in England)*	il y a du vent *(it is windy)*
Dans ma région *(in my region)*	il y a du brouillard *(it is foggy)*

SB4 : Décris ta ville / ta région ! – Describe your town / region!

Opinion	Verb phrase	Quantifier	Adjective
Je pense que *(I think that)*	ma ville est *(my town is)*	très *(very)*	grand(e) *(big)* / petit(e) *(small)*
		vraiment *(really)*	moderne *(modern)*
Je trouve que *(I find that)*	ma région est *(my region is)*	assez *(quite)*	historique *(historic)*
		un peu *(a bit)*	joli (e) *(pretty)*
À mon avis *(in my opinion)*	ma ville a *(my town has)*	trop *(too much/many)*	tourisme *(tourism)*
			magasins *(shops)*
	ma région a *(my region has)*	beaucoup de *(lots of)*	

Y7 French Knowledge Organiser: Module 4: C'est le patrimoine!

A	Français	Anglais
1	Le matin	In the morning
2	Le midi	At lunchtime
3	Le soir	In the evening
4	Le petit-déjeuner	Breakfast
5	Le déjeuner	Lunchtime
6	Le diner	Dinner
7	Je mange	I eat
8	On mange	We eat
9	Je voudrais manger	I would like to eat
10	Je bois	I drink
11	Le poulet	Chicken
12	Le poisson	Fish
13	Le fromage	Cheese
14	Le pain	Bread
15	Les frites	Chips
16	Les fruits	Fruit
17	Les légumes	Vegetables
18	La glace	Ice cream
19	L'eau	Water
20	Le lait	Milk

B	Français	Anglais
1	La salade	Salad
2	La soupe	Soup
3	La viande	Meat
4	Le gâteau	Cake
5	Le café	Coffee
6	La limonade	Lemonade
7	C'est	It is
8	Ce sont	They are
9	(Mal)sain(e)	(Un)healthy
10	Gras	Fattening
11	Dégoûtant	Disgusting
12	Fade	Bland
13	Épicé	Spicy
14	Appétissant	Appetising
15	Doux	Sweet
16	Frais	Fresh
17	Goûteux	Tasty
18	Délicieux	Delicious
19	Végétarien.ne	Vegetarian
20	Végan.e	Vegan

Coucou!

Je m'appelle Rémi et j'habite à Reims, une ville dans le nord-est de la France. Dans ma ville, il y a une immense cathédrale, qui est plus grande que Notre-Dame de Paris! On peut aussi aller au Fort de la Pompelle et je voudrais visiter le musée de l'automobile. J'adore ma ville, c'est très excitant et historique.
La ville de Reims est aussi célèbre pour les dégustations de champagne et les biscuits roses, ce sont délicieux!
Robert Pires, le fameux footballeur vainqueur de la Coupe du Monde en 1998 et de la Ligue des Champions en 2000 est né à Reims.

C	Français	Anglais
1	Il/elle/iel s'appelle	He/she is / they are called
2	Il/elle/iel est	He/she is / they are
3	Footballeur/euse	Footballer
4	Chanteur/euse	Singer
5	Acteur/actrice	Actor
6	Cool	Cool
7	Sympa	Nice/kind
8	Sportif/ve	Sporty
9	Amusant(e)	Funny
10	Intéressant(e)	Interesting
11	Influent(e)	Influential
12	Talentueux/euse	Talented
13	Travailleur/euse	Hardworking
14	Célèbre	Famous
15	Fameux/euse	Famous
16	Je connais	I know
17	Je suis fan de	I am a fan of
18	Un(e) francophone	A French speaker
19	Une célébrité	A celebrity
20	Un(e) influenceur/euse	An influencer

D	Français	Anglais
1	Je voudrais	I would like
2	Habiter	To live
3	Rester	To stay
4	Un village	A village
5	Une ville	A town/city
6	Au bord de la mer	By the sea
7	À la montagne	In the mountains
8	À la campagne	In the countryside
9	Une maison	A house
10	Un appartement	An apartment
11	Une ferme	A farm
12	Au nord	In the north
13	Au sud	In the south
14	À l'est	In the east
15	À l'ouest	In the west
16	Au centre	In the centre
17	Un pays	A country
18	La France	France
19	L'Angleterre	England
20	l'Europe	Europe

Y7 French Sentence Builders: Module 4: C'est le patrimoine!

Use Sentence Builders to help you answer the question. Use this method to help learn the phrases https://youtu.be/cMKo65jKVhU

SB1 : Qu'est-ce qu'on mange ? – What do you eat?

Time phrase	Subject + verb	Object
Le matin *(in the morning)*	je mange *(I eat)*	du pain *(some bread)*
Le midi *(at lunchtime)*	je ne mange pas *(I don't eat)*	une salade *(a salad)*
Le soir *(in the evening)*	on mange *(we eat)*	de la soupe *(some soup)*
Pour le petit-déjeuner *(for breakfast)*	je voudrais manger *(I would like to eat)*	du poulet *(some chicken)*
Pour le déjeuner *(for lunch)*	je bois *(I drink)*	du poisson *(some fish)*
Pour le dîner *(for dinner)*	on boit *(we drink)*	des frites *(some chips)*
	je voudrais boire *(I would like to drink)*	de la limonade *(lemonade)*
		un coca *(a Coke)*
		un café *(a coffee)*

SB2 : Quelles sont les spécialités de ta région ? – What are your region's specialities?

Verb	Food/drink	Connectives	Adjectives
Je mange *(we eat)*	du pain *(some bread)*	car c'est *(because it is)*	gras *(fattening)*
Je bois *(we drink)*	une salade *(a salad)*	et c'est *(and it is)*	frais *(fresh)*
On mange *(we eat)*	de la soupe *(some soup)*	mais c'est *(but it is)*	délicieux *(delicious)*
On boit *(we drink)*	du poulet *(some chicken)*	car ce sont *(because they are)*	goûteux *(tasty)*
	du poisson *(some fish)*	et ce sont *(and they are)*	doux *(sweet)*
	des frites *(some chips)*	mais ce sont *(but they are)*	épicé *(spicy)*
	de la limonade *(lemonade)*		appétissant *(appetising)*
	un coca *(a Coke)*		dégoûtant *(disgusting)*
	un café *(a coffee)*		

SB3 : Connais-tu des Français célèbres ? – Do you know any famous French people?

Subject + verb	Job title	Opinion phrase	Adjective
Il/elle s'appelle… *(he/she is called…)*	Kylian Mbappé	Je pense qu'il/elle est *(I think that he/she is)*	cool *(cool)*
Iel s'appelle… *(they are called…)*	Omar Sy	À mon avis iel est *(in my opinion they are)*	sympa *(nice/kind)*
Il/elle/iel est *(he/she is / they are…)*	Léa Seydoux	Je le/la trouve *(I find him/her)*	sportif.ve *(sporty)*
	Stromae		intéressant.e *(interesting)*
	footballeur/euse *(a footballer)*		amusant.e *(funny)*
	acteur/actrice *(an actor)*		influent.e *(influential)*
	chanteur/euse *(a singer)*		talentueux/euse *(talented)*
			travailleur/euse *(hardworking)*

SB4 : Que sais-tu de la géographie de la France ? – What do you know about France's geography?

Verb phrase	Location	Compass point	Country
J'habite *(I live)*	dans une ville *(in a town/city)*	au nord *(in the north)*	de la France *(of France)*
Je voudrais habiter *(I would like to live)*	dans un village *(in a village)*	à l'est *(in the east)*	de l'Angleterre *(of England)*
Je voudrais rester *(I would like to stay)*	à la campagne *(in the countryside)*	au sud *(in the south)*	de l'Europe *(of Europe)*
	à la montagne *(in the mountains)*	à l'ouest *(in the west)*	du pays *(of the country)*
	au bord de la mer *(by the sea)*	au centre *(in the centre)*	
	dans une maison *(in a house)*		
	dans un appartement *(in an appartment)*		

YEAR 7

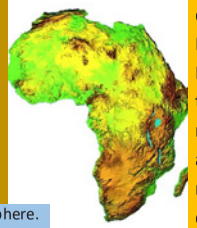
GEOGRAPHY

Geography Teaching Block 1

Compare the ways in which Climate affects people and animals in Africa

Africa is a continent (a group of 54 countries). Within each country of Africa the climate varies, although in most part of the continent there are daily high temperatures 30-40°C and little precipitation.

The map to the left shows high areas in darker colours, flatter areas in light colours. Most of the mountains are in the south and south east, with the exception of the Atlas Mountains in the North West.
The Sahara desert is mostly flat with some small mountainous areas in the centre.



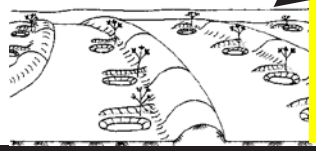
Weather= the day to day conditions of the atmosphere.
Climate= the average weather over 30years

SAVANNAH: This is a grassland, which means it is dominated by grasses! Many of the species of grasses here only grow in Africa and the whole ecosystem (every living thing there) relies on them.
TROPICAL RAINFOREST: Around 2 million km² of Africa is covered by tropical rainforests, making it 1/3 of the size of the Amazon rainforest in Brazil. African rainforests are poorly studied in comparison to other rainforests due to several reasons, including lots of conflict in African countries; high rates of deforestation and poor/ difficult access.
MEDITERRANEAN: Only located in the North West corner of Africa and bordering the Mediterranean sea these places experience the pattern of warm, dry summers and cool, wet winters known as a Mediterranean climate. These are ideal holiday destinations during summer months

DESERT: The climate of the Sahara desert is very dry. Any rainfall they receive is usually in one big storm, not in lots of small rain showers. Climate change will mean rainfall patterns will change, meaning some areas will get more, some areas will get less. This will cause problems such as desertification and in other extremes, flooding.

The Sahel is a band of land south of the Sahara desert which is prone to desertification.

Bunds & diguettes:



Drought: A lack of precipitation over a long period of time, usually months or years

Desertification: The degradation of the land to an infertile state (the spread of deserts)

The Horn of Africa has had no rain for almost two years. This has resulted in up to 12 million people being at risk of famine, this is four times the population of the whole of Wales.
- Some people have walked for over 20 days to get to refugee camps in order to get food and water.

Drought has many impacts, these include:
- People starving because they cannot grow their crops.
- Lack of clean drinking water.
- Cattle dying because there is no grass for them to graze.
- Increase in diseases and illnesses, such as pneumonia and diarrhoea.

Potential solutions to drought:
Bunds / diguettes—piles of stones built around the edge of fields to help retain water.
The Great Green wall - planting trees and plants across the breadth of Northern Africa to improve soil for growing other plants including crops.

Evaluate this statement: Are Shanty Towns in Africa places to be tackled or opportunities to be celebrated?

This map shows population density in Africa with darker colours indicating more people per square km.

⇒ The population of Africa is 1.3billion; however the POPULATION DISTRIBUTION (where people live) and POPULATION DENSITY (the number of people per km²) is very uneven.

⇒ Some areas are SPARSELY POPULATED (few people per km²) and others are DENSELY POPULATED (many people per km²).

⇒ The population trend is that many people tend to MIGRATE (move from rural countryside areas to urban towns / cities).

⇒ In these cities people tend to live in SHANTY TOWNS (an improvised settlement built upon illegal land) because the government / council have insufficient funds to provide affordable housing for all.

Shanty town dwellings are very small about 12ft x 12ft (size of a large shed in the UK). One room is used for everything– a living room, kitchen, toilet and bedroom.
They are made from scrap materials, often without windows and doors. As a result, hygiene conditions are poor. There is often no sewage system, so any human waste is often thrown into a gully outside the house, rivers or the street. Often, people will go to the toilet wherever they please (flying toilets). Disease often spreads rapidly due to the unsanitary conditions and because people often do not wash their hands and things generally are incredibly dirty. People in slums usually make less than a dollar a day, mainly through sorting through rubbish and reselling any recycla-

Potential solutions:
- Self help schemes which involve the residents being provided with building materials to construct their own homes. People are given training and tools to do this and financial help in the form of a loan.
- Site and service schemes involve people being able to buy or rent a cheap piece of land on which they build their own home. They are connected to basic services including water and electricity.

Public Tiolets– but these can be crowded

Africa Knowledge Retrieval Questions

1. Define the terms ecosystem, weather and climate.
2. Describe the four types of ecosystems in Africa.
3. Define Drought.
4. Explain why desertification is such a big problem
5. Explain the role of bunds (diguettes) in stopping desertification.
6. How is the great green wall helping to prevent desertification?
7. Describe the conditions you would expect to find in a slum.
8. Why do people move to slums?
9. Despite the challenges, what are the positive of living in a slum?
10. In your opinion, should slums be left alone or demolished?

Geography Teaching Block 2

Explain how the physical Geography and climate of Antarctica lead to the failure of Captain Scotts expedition

- Antarctica is in the southern hemisphere south of all other continents
- Antarctica is a continent– it has land underneath the frozen fresh water
- It is quite high– a combination of altitude and its geographical location make it the coldest place on earth (lowest temp= -89 degrees).

- Captain Scott wanted to be the first person to the south pole. He was racing the Norwegians.
- They were beaten to the south pole, mainly due to the Norwegians having huskies rather than ponies (which died) to carry their gear and they were more experienced in colder weather conditions.
- On the return journey, one of Captain Scotts team steps outside the tent, knowing he will not return as he was a burden on his team mates.

Suggest if the dangers and physical Geography of Antarctica will prevent the exploitation of Antarctica's resources

- Clearly, the extreme temperatures are a real hazard in Antarctica and can lead to frostbite and hypothermia to humans.
- The main hazard however, is that there is a lack of basic resources humans need to survive– e.g food and water. As Antarctica is classified as a desert, it is very hard to access all the frozen fresh water.

There are loads of resources in Antarctica that nations want. These include:

- Coal, Oil and gas
- Meteorites (for scientific research)
- Fish
- Bacteria (for scientific research)

A seal is adapted to the Antarctic climate by having:

- Big eyes– to see prey
- Lots of blubber– to keep it warm
- Grey Skin– to camouflage it
- Smooth skin– to help it glide through the water

Tourism & the Antarctic Treaty

Tourism is permitted on Antarctica but only in certain numbers. The Antarctic treaty regulates the numbers of visitors going there.

The Antarctic Treaty also:

- Promotes and allows scientific research
- Stops the testing of nuclear weapons
- Stops the Antarctic being used as a military base by any countries

It is signed by 12 nations.

Tourists on the beach at deception island, a volcanic island

People go on holiday to Antarctica to see things such as the stunning scenery, the wildlife, to experience extreme conditions and also to visit volcanic beaches!

Tourism can be a problem as it can pollute the environment, scare/ stress wildlife and contribute to climate change.

A table to compare the Arctic with Antarctica

Polar	Land that is permanently covered in ice
Permafrost	Land where there is a layer of soil under the surface that remains frozen throughout the year
Mountainous	Areas with high mountains that therefore get cold due to altitude

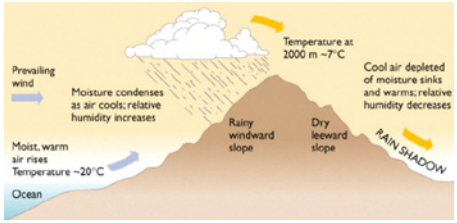
Arctic	Antarctica
North	South
Frozen sea ice	Land underneath ice
People live there	No one permanently lives there
Still cold	Colder than the Arctic
Polar bears	Emperor penguins

Teaching Block 2 Antarctica Retrieval Questions

1. Define the terms polar, permafrost and mountainous.
2. Explain the physical geography of Antarctica and why Antarctica is colder than the Arctic.
3. Why did Captain Scott not make it to the south pole first? Give 4 reasons
4. How is a seal adapted to its environment?
5. Identify three resources in Antarctica.
6. What difficulties might arise in getting these resources?
7. What is the Antarctic Treaty?
8. What does the Antarctica treaty promote/ stop?
9. Give 5 differences between the Arctic and the Antarctic.
10. How might tourism affect wildlife in Antarctica?

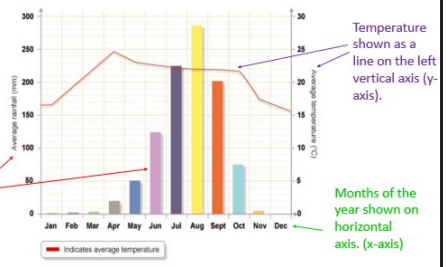
Geography Teaching Block 3

Location, Climate & Coober Pedy



Rainfall in Australia is mostly Relief rainfall– shown in the diagram above where mountains cause air to rise and water to condense forming rain.

Climate graphs show rainfall and temperature on the same graph.



Temperature shown as a line on the left vertical axis (y-axis).

Rainfall shown as bar chart on the right vertical axis (y-axis)

Months of the year shown on horizontal axis. (x-axis)

It is an important skill to be able to read a climate graph and describe (say what you see) its trends.

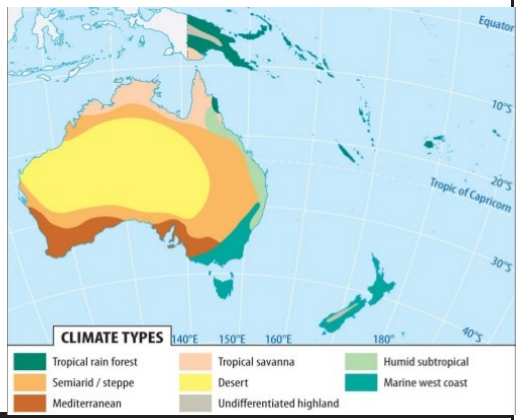
Coober Pedy is located in the centre of Australia, in the middle of the desert. People go there to mine opal which is a jewel used in making jewellery and is worth a lot of money.

Because it is so hot, people live underground– they have houses dug into the rock. To extend their home, all they need is a hammer! They live underground to escape the extreme heat (52 degrees in the shade). A pub and two churches are found underground and they even have a golf course with no grass.

Animal Adaptations and Ecosystems

Desert animals are adapted to their environment in several ways. Camels humps are made of fat which can be converted to water when needed. Many animals are a light brown colour to camouflage themselves against the sand to avoid predators. Many animals have very concentrated urine and dry poop to avoid loosing too much water. Many also have padded feet to stop them burning their feet on the blisteringly hot sand.

The map to the right shows the different climate zones in Oceania. Many of the smaller islands have a 'marine west coast' climate, which means that it is warm with unsettled downpours often.

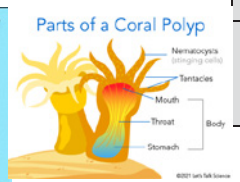


Tourism

The great barrier reef is a huge tourism hotspot, generating $4billion Australian dollars a year for Australia. This tourism creates many jobs, but it also has negative impacts such as coral bleaching. Coral bleaching is where ocean temperatures rise and the algae, that lives symbiotically with the algae leaves the coral due to temperatures being too high. Algae gives coral its bright colour so when the algae leave, the corals turn white and eventually die.

The coral reef is located along the north east coast of Australia. Currently, only a small section of the reef is used for tourism. The rest is left in peace. This means the majority of the reef isn't affected by tourism.

Corals are formed by multiple small, soft organisms known as polyps. They secrete a rocky chalk-like (calcium carbonate) exoskeleton around themselves for protection.



Weather	The day to day conditions of an area
Climate	The average weather over a period of years
Symbiotically	Two organisms living together for mutual benefit
Latitude	LAT is flat– imaginary lines that go horizontally around the earth (e.g the equator)
Longitude	Imaginary lines that run vertically through the earth

Teaching Block 3 Oceania Retrieval Questions

1. Explain how relief rainfall operates.
2. How have humans adapted to these extreme conditions in Coober Pedy?
3. Explain at least two ways plants and animals are adapted to a desert environment.
4. Draw an annotate the features of a population pyramid.
5. Explain what is meant by the 'Stolen Generations'.
6. State 3 facts about the Great Barrier Reef
7. What is a coral?
8. What are the impacts of tourism in the Great Barrier reef?
9. How do we, in the UK contribute to coral bleaching?
10. Which is a bigger threat to the GBR- Rising sea levels (coral bleaching) or tourism?

YEAR 7

HISTORY

Year 7 Unit 1: The Norman Conquest 1066 – 1087; Knowledge Organiser

The Middle Ages 500 – 1500	The Tudors 1485 - 1603	The Stuarts 1603 - 1714

1. Key Individuals / Groups	
1.The Witan	The Council that chose Harold Godwinson as the King of England after the death of Edward.
2.Edward the Confessor	Ruler of Saxon England c.1003-1066. He did not leave a named heir to the throne.
3.Harold Godwinson	English noble chosen by the Witan to be King of England after Edward died.
4.Harald Hadraada	Viking King of Norway 1046-1066.
5.William the Conqueror	The Duke of Normandy who won the Battle of Hastings to become King of England from 1066 until his death in 1087.

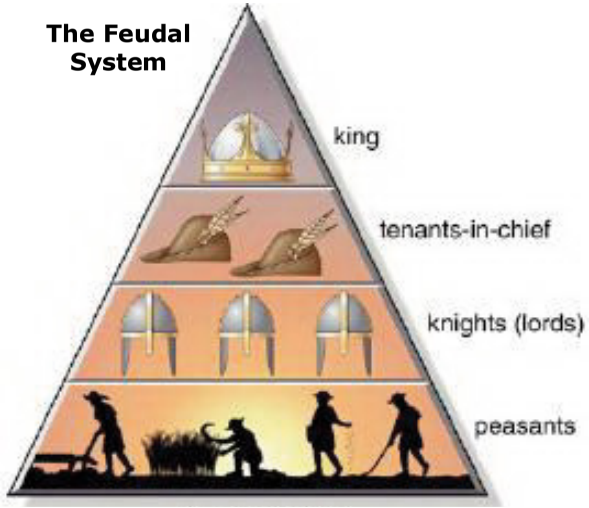
2. Key Dates	
5 January 1066	Edward the Confessor dies without leaving an heir.
25 September 1066	Battle of Stamford Bridge.
14 October 1066	Battle of Hastings.
25 December 1066	William crowned King of England.
1086	The Domesday Book was completed.

3. The Battles of 1066	
1.Battle of Stamford Bridge	Battle between Harald Hadraada and Harold Godwinson, near York.
2.Battle of Hastings	Battle between William of Normandy and Harold Godwinson, on the south coast.
3.Senlac Hill	The hill that Harold positioned his army before the Battle of Hastings.
4.Feigned retreat	A fake retreat, a successful tactic used by the Normans in the Battle of Hastings.

Map showing the locations of the Battles of 1066

4. How the Normans kept control	
1.Motte and Bailey castles	The earliest type of wooden castle built by the Normans.
2.Feudal System	Hierarchy system used to keep control of England.
3.Domesday Book	Official record of what people in England owned.

The Feudal System



Year 7 Unit 1: The Norman Conquest 1066 – 1087; Retrieval Questions

Knowledge Check 1 (section 1 of your ko)	**Knowledge Check 2** (sections 2 & 3 of your ko)	**Knowledge Check 3** (section 4 of your ko)
1.Which English King died at the beginning of 1066, without an heir?	1. Which two kings fought at the Battle of Stamford Bridge?	1. What were the earliest type of wooden castle built by the Normans?
2. What was the name of the council that chose the new King of England?	2.Which two kings fought at the Battle of Hastings?	2. What was the hierarchy system used to control medieval England?
3. Who did they choose to be the next King of England?	3. What was the precise date of the Battle of Hastings?	3.What was the official record of what people in England owned?
4. Who was the Viking King of Norway, 1046 – 1066?	4. What was the tactic successfully used by the Normans at the Battle of Hastings?	4. Who was at the top of the feudal system?
5. Who won the Battle of Hastings and become King of England from 1066 until his death in 1087?	5. On what precise date was William crowned King of England?	5. Who was at the bottom of the feudal system?

Year 7 Unit 2, Life in Medieval England, c1087 – 1485; Knowledge Organiser

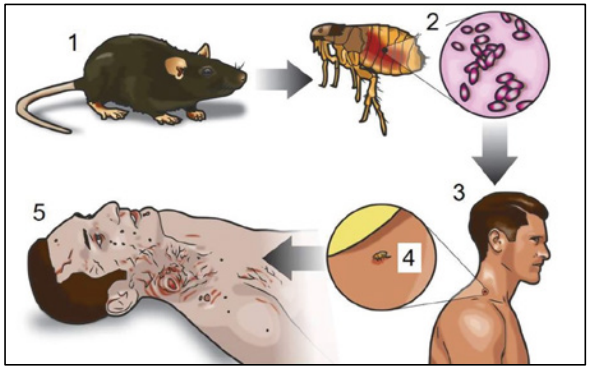
The Middle Ages 500 – 1500	The Tudors 1485 - 1603	The Stuarts 1603 - 1714

The Medieval Village	
1.Lord	Landowner in charge of a local area / village.
2. Villein or Peasant	Poor people who work the land in the village.
3.Agricultural	The medieval economy was dominated by farming.
4.Catholicism	Medieval England was highly religious, dominated by the powerful Catholic Church.
5.Feudal system	Hierarchy system used to keep control of England.

The Black Death	
1. Plague / Black Death	A deadly, contagious disease that arrived in England in 1348.
2.Supernatural	Something that cannot be explained by nature or science.
3.Natural	Something that can be explained by science / facts.
4.Buboes	A swollen lymph node; a major symptom of the Black Death.
5.Bubonic	Type of plague where symptoms were buboes.

The Peasants' Revolt of 1381	
1.The Peasants' Revolt	A major uprising by peasants against King Richard II.
2.Wat Tyler	Leader of the Peasants' Revolt of 1381.
3.King Richard II	Medieval King at the time of the Peasants' Revolt.
4.Poll tax	A tax paid by all adults.
5.Revolt	An uprising against a government or king.

A typical medieval village



How the Bubonic Plague was spread

King Richard meets the peasants

Year 7 Unit 1: The Norman Conquest 1066 – 1087; Retrieval Questions

Knowledge Check 1 (section 1 of your ko)	**Knowledge Check 2** (section 2 of your ko)	**Knowledge Check 3** (section 3 of your ko)
1.In medieval times, who was in charge of the village or the local area?	1.In what year did the Black Death arrive in England?	1.In what year was the Peasants' Revolt?
2.What was the name given to poor people who lived in the village and worked the land?	2.What is the term for something that cannot be explained by nature or science?	2.Who was the leader of the Peasants' Revolt?
3.What was the main element of the medieval economy?	3.What is the term for something that ***can be*** explained by science or facts?	3. Who was King at the time of the Peasants' Revolt?
4.What religion did people follow in the Middle Ages?	4. What is the term for "a swollen swollen lymph node; major symptom of the Black Death".	4. Who paid the poll tax?
5.What was the name of the hierarchy system used to control England?	5.What small mammal was involved in the spread of the Black Death?	5. What is the term for "an uprising against a government or king".?

Year 7 Unit 3, Tudor England , 1485 - 1603; Knowledge Organiser

The Middle Ages 500 – 1500	The Tudors 1485 - 1603	The Stuarts 1603 - 1714

1. The development of Protestantism in Europe

1. Roman Catholic Church	Christian organisation headed by the Pope in Rome. Associated with decorative churches and they held services in Latin.
2. Protestant Church	Christian organisation headed by the king/leader of each country. Associated with simple and plain churches and they held services in English.
3. Martin Luther	The German monk who first challenged the power of the Catholic Church.
4. Reformation	The term given to the 16th century European movement that reformed (changed) the church from Catholic to Protestant.
5. Devout	Someone with deep religious feeling ("devoted").

Protestant

Catholic

2. Henry VIII and the "break with Rome"

1. Henry VIII	King of England 1509 – 1547. Despite "breaking with Rome" and overthrowing the authority of the Pope, Henry never became a Protestant himself.
2. Tudors	The name of the royal family that held the English throne from 1485 to 1603.
3. Catherine of Aragon	First wife of Henry VIII. Against the wishes of the Pope, Henry VIII divorced Catherine so he could marry Anne Boleyn.
4. Anne Boleyn	Second wife of Henry VIII and the mother of Elizabeth I. Anne was executed on Henry VIII's orders, mainly because she did not give him a male heir.
5. Heir	The person next in line to the throne. In Tudor times there was a strong desire that monarchs should be male.

4. Elizabeth I

1.Elizabeth I	Queen of England, 1558 – 1603. Daughter of Henry VIII and Anne Boleyn. Raised as a Protestant.
2. Mary Queen of Scots	Cousin of Elizabeth I. A devout Catholic. Mary also had a strong claim to the English throne and sought to replace Elizabeth. Executed on Elizabeth's orders in 1587.
3. The Religious Settlement of 1559	Elizabeth's attempt to resolve religious conflicts. It made England officially Protestant but tried to make some compromises to keep Catholics happy too.
4. King Phillip II	Powerful King of Spain 1556 – 1598. A devout Catholic. He organised the Armada in an attempt to overthrow Elizabeth I.
5. Spanish Armada	The fleet of 130 ships that Phillip II sent to attack England in 1588. It ended in disaster for Spain and, conversely, marked the high point of Elizabeth's reign as Queen of England.

3. Tudor monarchs

Tudors

Henry VIII	Edward VI	Mary I	Elizabeth I
			
1509-1547 Catholic	1547-1553 Protestant	1553-1558 Catholic	1558-1603 Protestant

Year 7 Unit 3, Tudor England , 1485 - 1603; Knowledge Check Questions

Knowledge Check 1 (section 1 of your KO)	**Knowledge Check 2** (section 2 & 3 of your KO)	**Knowledge Check 3** (sections 3 & 4 of your KO)
1. Who is the Head of the Catholic Church?	1. What were the dates of Henry VIII's reign of England?	1. What were the dates of Elizabeth's reign of England?
2. In what language did Catholics hold their church services?	2. Who was Henry VIII's first wife?	2. Who were her two parents?
3. Who believed in simple and plain churches? Catholics or Protestants?	3. Why did he divorce her?	3. Who was Elizabeth's cousin who also had a claim to the English throne?
4. Who was the German monk who first challenged the Catholic Church?	4. Did the Pope agree with this divorce? Yes, or no?	4. Which religion did Elizabeth make the official religion of England?
5. What is the term given to the 16th century European movement that reformed (changed) the church from Catholic to Protestant?	5. What was the name of the daughter Henry VIII had with his second wife?	5. Who was the powerful King of Spain who sent the Armada?
6. What does "devout" mean?	6. What term do we use to describe "the next in line to the throne"?	6. In what year was the Spanish Armada?

Year 7 Unit 4, The Stuart Period, 1603 -1714; Knowledge Organiser

The Middle Ages 500 – 1500	The Tudors 1485 - 1603	The Stuarts 1603 - 1714

1. The Gunpowder Plot		
Key dates:		
1603	King James VI Scotland and I of England ascends to the throne.	
4th Nov 1605	Guy Fawkes is discovered with 32 barrels of gunpowder	
Jan 1606	Guy Fawkes and the remaining plotters were found guilty of high treason and were hung, drawn and quartered.	
Key individuals:		
1	**Robert Catesby**	Leader of the conspiracy.
2	**Guy Fawkes**	Conspirator that was caught under the Houses of Lords.
3.	**Robert Cecil**	James I's most powerful advisor.
Key terms:		
1.	**Conspirators**	A person who plots to do something unlawful
2.	**Parliament**	A group of elected politicians who make laws for their country.
3.	**Treason**	To attempt to overthrow the monarch or government.

2. Stuart Monarchs

Stuarts	James I	Charles I	Oliver Cromwell	Charles II
				
	1603-1625 **Protestant**	**1625-1649** **Protestant**	**1653-1658** **Puritan**	**1660-1685** **Catholic**

3. English Civil War		
Key dates:		
1641	Grand Remonstrance	
1642	Charles declared war on Parliament Battle of Edgehill	
1644	Battle of Marston Moor	
1645	Battle of Naseby	
1649	Trial and execution of Charles I	
1653	Cromwell became Lord Protector	
1660	Stuarts restored to throne under Charles II	
Key individuals:		
1	**Oliver Cromwell**	Army general who took over as leader of England when Charles I was executed
2	**New Model Army**	Full time professional soldiers formed by the Parliamentarians
Key terms:		
1	**Civil War**	Two armies form the same country fight each other.
2	**Puritan**	An extreme Protestant
3	**Roundheads**	Parliament's supporters in Civil War
4	**Cavaliers**	King's supporters in Civil War

Year 7 Unit 4, The Stuart Period, 1603 -1714; Knowledge Check Questions

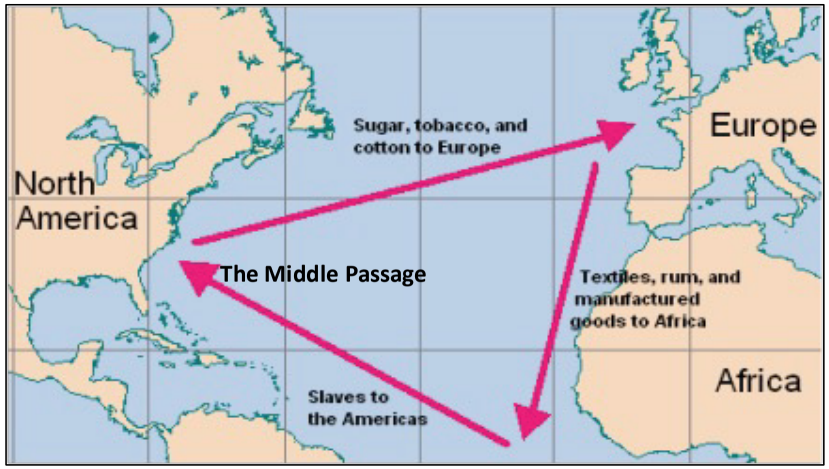
Knowledge Check 1 (section 1 of your KO)	**Knowledge Check 1** (section 2 of your KO)	**Knowledge Check 1** (section 3 of your KO)
1. Who was monarch at the time of the Gunpowder Plot?	1. What religion was James I of England / James VI of Scotland?	1. In what year was the trial and execution of Charles I?
2. Who was the leader of the Plot?	2. In what year did Charles I come to the throne?	2. What is the term for when two armies from the same country fight each other?
3. Which plotter was caught underneath the House of Lords?	3. In what year did his reign end?	3. What is a Puritan?
4. What crime were the plotters found guilty of?	4. Who led the country ***between the reigns*** of Charles I and Charles II?	4. What was the name of the army who supported the King?
5. How were the plotters punished?	5. In what year did Charles II come to the throne, ***restoring*** the monarchy?	5. Name one famous battle from the English Civil War?

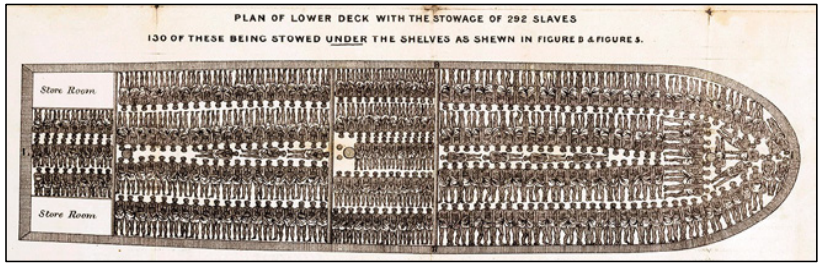
Year 7 Unit 5, Transatlantic Slave Trade c16th – 19th centuries; Knowledge Organiser

Timeline of Key Events

1672	1739	1765	1775	1776	1777	1782	1787	1788	1807	1833	1909	2007	2020s
Royal African Company is founded	Jamaican Maroons granted land and freedom by British government	Parliament passes the Stamp Act	The American Revolution begins at Lexington	Continental Congress approves the Declaration of Independence	Continental Army wins victory at Saratoga	Parliament votes to end war in America	Thomas Clarkson forms the Society for the Abolition of the Slave Trade	The United States Constitution is approved	Parliament passes the Slave Trade Act	Parliament passes the Slavery Abolition Act	NAACP founded National Association for the Advancement of Coloured People	Memorial campaign for victims of the Transatlantic slave in London	BLM protests

1) The system of Triangular Trade





2. Key Terms

1. Middle Passage	The sea voyage that was the second stage of the 'triangular trade' from West Africa to the Americas.
2. Plantation	A large farm, on which crops such as tobacco, coffee, cotton or sugar are grown.
3. Branding	To mark a slave with a hot iron, for ease of identification.
4. Shackles	Iron chains used to fasten together the legs or hands of a slave.
5. Abolish	To get rid of something, usually a law. Abolition of slavery meant the end of slavery.
6. Petition	A formal written request, often for a political cause, signed by many people.

Key Individuals

1. Abolitionists	The movement in the late 18th and early 19th century to end slavery.
2. Thomas Clarkson	English abolitionist. In 1787 he formed the Society for the Abolition of the Slave Trade.
3. Olaudah Equiano	Freed slave who lived in London as a prominent anti-slavery campaigner; wrote a book as part of the campaign.
4. Harriet Tubman	She was born a slave in 1820. She resisted slavery in every way she could. 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.
5. William Wilberforce	The leading English campaigner in Parliament against slavery.

Year 7 Unit 5, Transatlantic Slave Trade c16th – 19th centuries; Knowledge Organiser

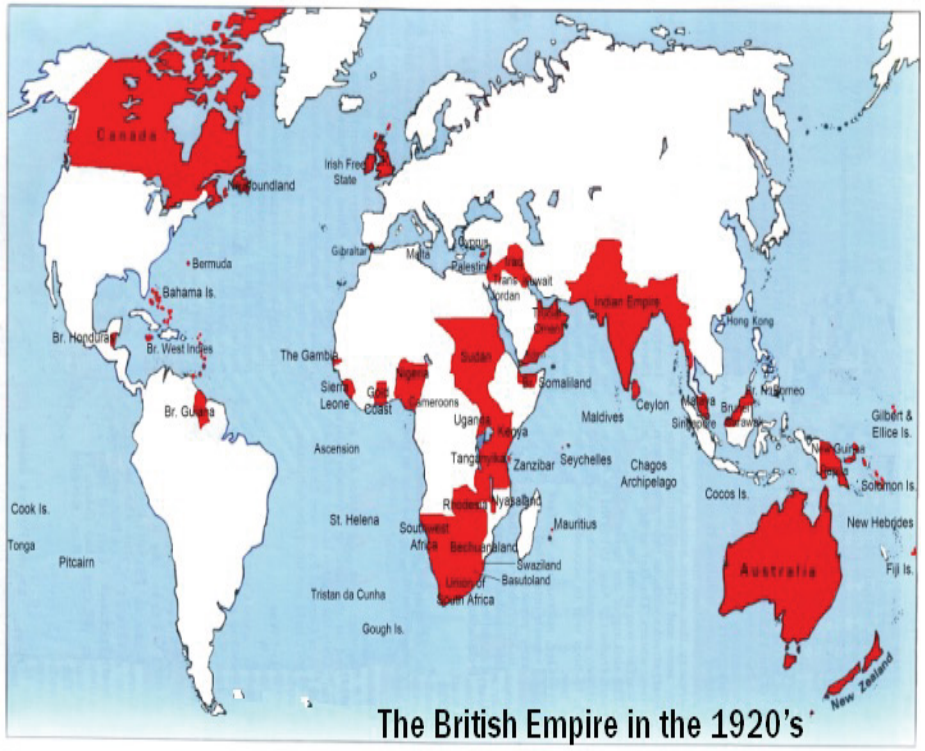
Knowledge Check 1 (section 1 of your KO)	Knowledge Check 2 (section 2 of your KO)	Knowledge Check 1 (section 3 of your KO)
1. Which three continents were involved in the system of Triangular Trade?	1. What was the Middle Passage?	1. What was the name of the movement in the late 18th and early 19th century to end slavery?
2. From which continent were people taken as “slaves”?	2. What is the term for a large farm, on which crops such as tobacco, coffee, cotton or sugar are grown?	2. Who formed the Society for the Abolition of the Slave Trade in 1787?
3. What was the name given to the journey between Africa and the Americas?	3. Name two crops that would be grown on the plantations that slaves worked on?	3. Who was the freed slave who lived in London as a prominent anti-slavery campaigner?
4. State two products that were transported back to Europe in the final stage of the Triangular Trade system?	4. How were slaves marked for easy identification?	4. How many slaves did Harriet Tubman lead to safety?
	5. What was the name of the iron chains used to fasten together the legs or hands of a slave?	5. Who was the leading English campaigner in Parliament against slavery?

Year 7 Unit 6, The British Empire c1550 – c1900; Knowledge Organiser

Timeline of Key Events

1607	1770	1775	1788	1800	1839-42	1840s	1841	1850s	1856-60	1857	1858	1899	1901	1921	1947	1982	1997
Britain's first permanent settlement established in America - Jamestown	Captain Cook landed in Australia	The American War of Independence – lasts until 1783	The first ships carrying convicted criminals arrived at Botany Bay, Australia	The First Boer War	The First Opium War	Potato famine in Ireland	Britain occupied the island of Hong Kong	Much of India was controlled by the British	The Second Opium War	The Indian Mutiny	India was placed under direct rule of the British government	The Second Boer War	Britain handed over direct rule to Australia	The partition of Ireland	Declaration of Indian Independence: partition of India and Pakistan	The Falklands War	Hong Kong handed back to China

1. A map showing the British Empire in the 1920s

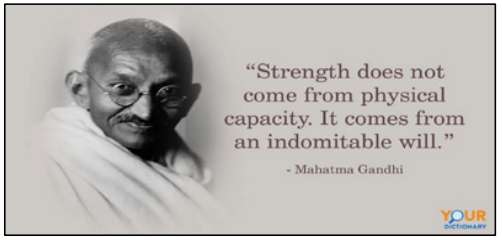


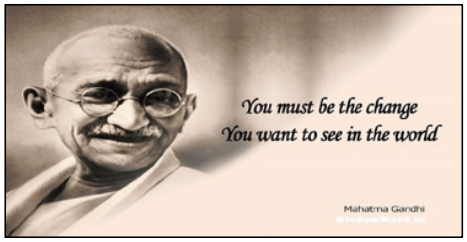
2. Key terms (India focus):

1. Empire	When one country takes over and rules other countries.
2. Imperialism	The act of building an empire.
3. Colony	A country that is part of an empire.
4. East India Company	Trading company that gradually took control of India.
5. The Raj	The period of British rule in India after 1857. From the Hindi word for reign.
6. Jewel in the Crown	The largest and richest part of Britain's Empire. India was seen as being this.

3. Key Individuals (Empire)

1. James Cook	British explorer and navigator who mapped Australia's eastern coastline.
2. Queen Elizabeth I	Elizabeth's reign was seen as a 'golden age' of culture and exploration.
3. Queen Victoria	By the end of her reign in 1901, the British Empire was the largest the world had ever seen. ¼ of the world's land area.
Mahatma Gandhi	A non-violent leader of the Indian Independence Movement.





Year 7 Unit 6, The British Empire c1550 – c1900; Knowledge Check Questions

Knowledge Check 1 (section 1 of your KO)	**Knowledge Check 2** (section 2 of your KO)	**Knowledge Check 1** (section 3 of your KO)
List 5 countries that were once in the British Empire: 1 2 3 4 5	1. Define “empire”.	1. Who was the British explorer and navigator who mapped Australia’s eastern coastline?
	2. What is the term to describe the “act of building an empire”?	2. Whose reign was seen as a “golden age” of culture and exploration?
	3. What was the name of the trading company that gradually took control of India?	3. When did Queen Victoria’s reign end?
	4. What is the term given for the period of British rule in India after 1857? From the Hindi word for “reign”.	4. What proportion of the world’s land was in the British Empire by the end of the Victorian era?
	5. Which country was known as the “jewel in the crown” of the British Empire?	5. Who was the non-violent leader of the Indian Independence Movement?

YEAR 7

MATHS

Year 7 Maths Course Content

Term 1

Units	Sparx topic codes
Number sense	M763 M704 M522 M527 M111 M431
Adding and subtracting	M928 M429 M347 M152
Multiplying	M113 M911 M187 M803
Dividing	M462 M354 M873 M262
Calculating with negative numbers	M106 M288
Order of operations	M135 M521 M952 M409
Expressions	M813 M830 M795 M531 M949
Substitution	M417 M327 M208 M979
Solving equations	M707 M509
Time	M515 M892 M627 M963 M747
Measures	M828 M774 M487

Term 2

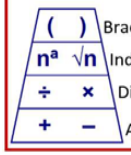
Units	Sparx topic codes
Line and shape properties	M814 M276 M523
Perimeter	M920 M635 M690
Area	M900 M390 M269 M610 M996
Coordinates and shapes	M618 M230
Factors and multiples	M227 M823 M698
Primes	M322 M108
Writing and comparing fractions	M158 M939 M410 M671 M335 M601
Adding and subtracting fractions	M835 M931
Single brackets	M637 M237 M792 M100

Term 3

Units	Sparx topic codes
Angles	M502 M541 M780 M331
Finding unknown angles	M818 M163 M351
Averages and range	M328 M934 M841 M940
Tables and charts	M899 M597 M644 M460 M738
Collecting and presenting data	M945 M450 M127 M440
Proportion word problems	M478
Multiplying and dividing fractions	M216 M157 M110 M197 M265
Fractions of an amount	M695 M684
Fractions decimals and percentages	M958 M264 M553 M235
Theoretical probability	M655 M941 M938 M755 M718

Year 7 - Maths

Order of Operations



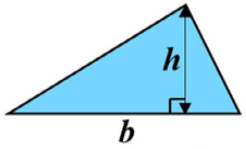
Brackets
Indices
Divide & Multiply
Add & Subtract

Converting Units of Time

60 seconds = 1 minute
60 minutes = 1 hour
24 hours = 1 day
7 days = 1 week
12 months = 1 year
52 weeks = 1 year
365 days = 1 year
10 years = 1 decade
100 years = 1 century
1000 years = 1 millennium

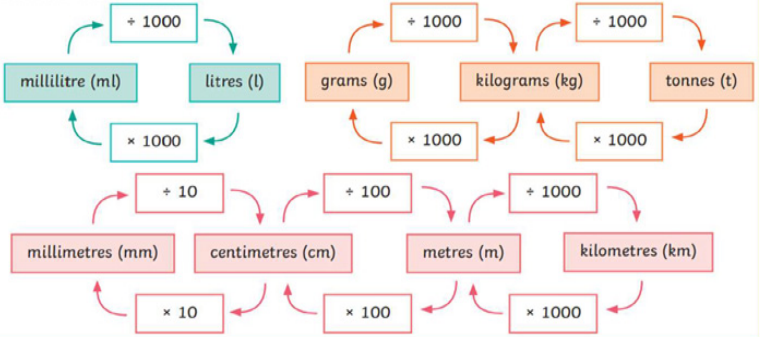
Area

Area of a rectangle = $l \times w$



Area of a triangle = $\frac{1}{2} b \times h$

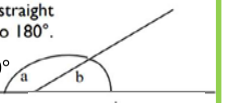
Metric Conversions



Angle Facts

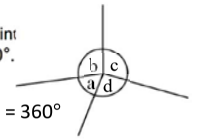
Angles on a straight line add up to 180°.

a + b = 180°

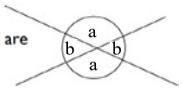


Angles at a point up to 360°.

a + b + c + d = 360°



Opposite angles are equal.



×	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Types of Number

odd	end in 1, 3, 5, 7, 9
even	end in 0, 2, 4, 6, 8
prime	has exactly two factors, 1 and itself. E.g. 2, 3, 5, 7, 11...
factor	a number that divides exactly into another number, e.g. 3 is a factor of 9
highest common factor	the largest factor common to two or more numbers.
multiple	a number in the times table of another, e.g. 10 is a multiple of 5
lowest common multiple	the smallest number in two different times tables.

Averages

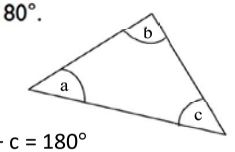
mode/modal	most common value or values (modal class).
median	the middle number when they are in ascending order.
mean	add the numbers up and divide by how many there are.
range	the difference between the largest and smallest value.

Mathematical Symbols

≠ is not equal to
< is less than
≤ is less than or equal to
> Is greater than
≥ is greater than or equal to

Angles in Triangles

Angles in a triangle add up to 180°.



a + b + c = 180°

Name	Sides	Vertices
triangle	3	3
quadrilateral	4	4
pentagon	5	5
hexagon	6	6
heptagon	7	7
octagon	8	8
nonagon	9	9
decagon	10	10

Command words:

Useful websites:

For homework and revision: sparxmaths.uk

For revision: corbettmaths.com

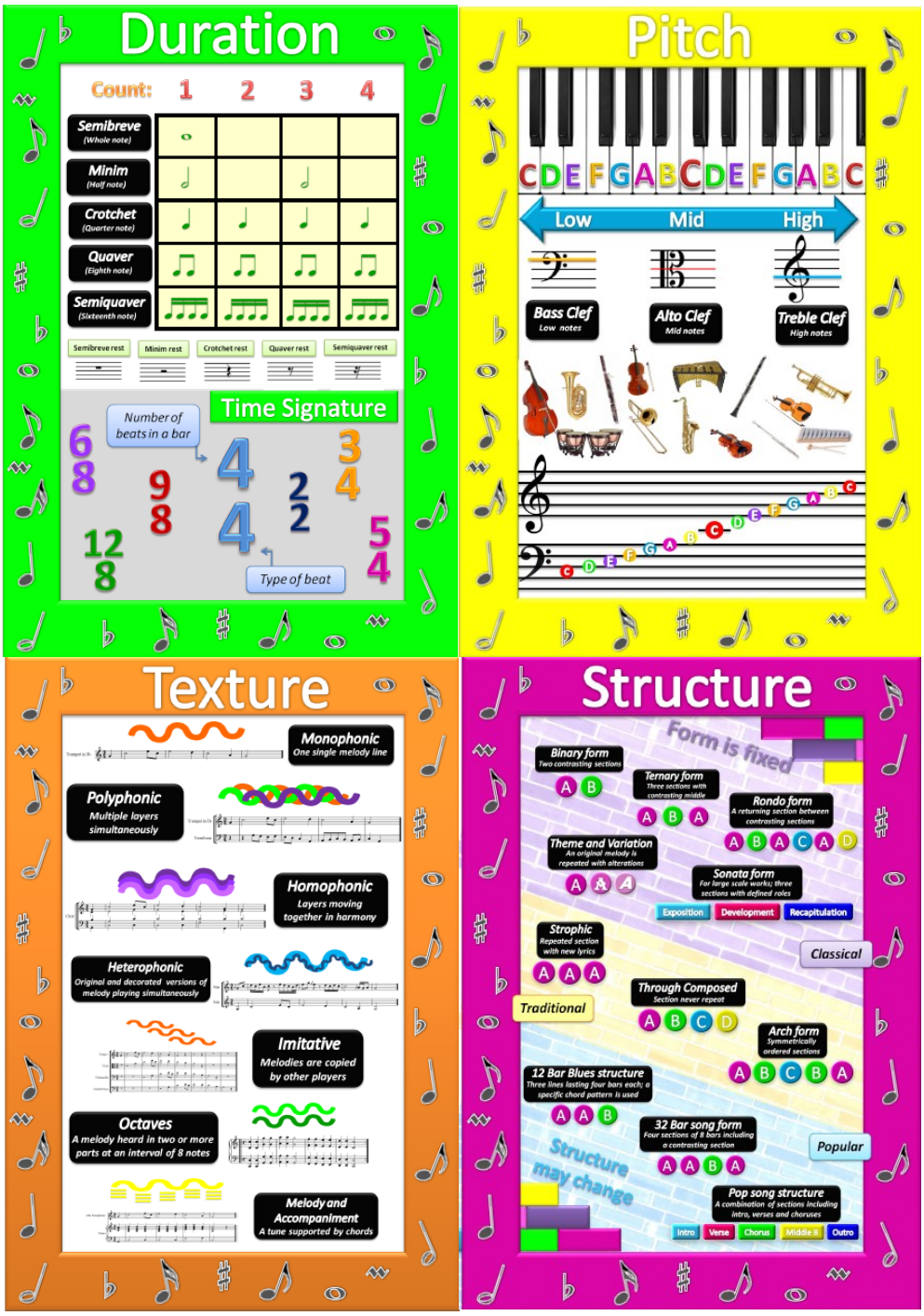
BBC Bitesize Revision

YEAR 7

MUSIC

KS3 KNOWLEDGE ORGANISER

Both sides of the back cover of your folder are one big knowledge organiser for years 7 and 8.
Check the information next to each poster for the focus of each class project.
All music K.O.s plus extra resources are also online at: **https://framwellgatemusic.wordpress.com/**

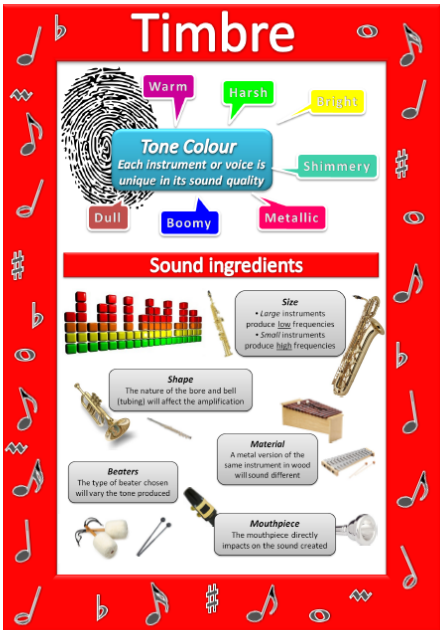


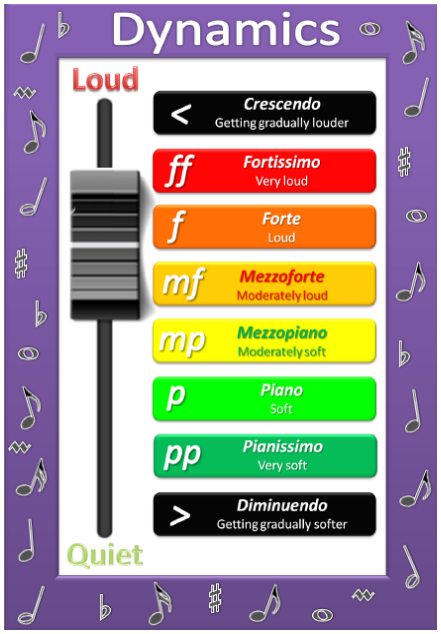
Music is an integral part of the human condition, and is essential to a well-rounded education. Not only is it intellectually satisfying, but as an art form it engenders concentration, teamwork, individual confidence, self-discipline and creativity.

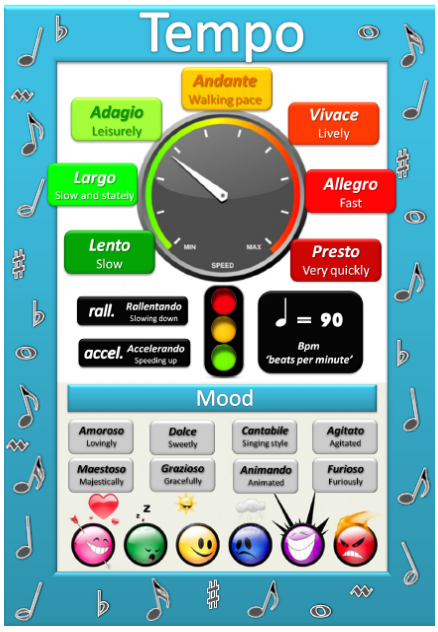
The **aim of the music department is to provide all students with a wide range of music making experiences** in both curricular and extra-curricular activities. **Everything in our curriculum is geared towards taking pupils as far towards becoming a practicing musician as possible**.

Musically, you should be able to confidently read treble clef notation by the time they leave, have experience of singing and playing instruments, be able to aurally recognise musical styles and their features, be able to compose coherently. All students are encouraged regardless of their ability and there are many opportunities available for involvement both in and out of the classroom.

The department is a positive, inclusive environment where students can develop their imagination, self-esteem and teamwork skills.

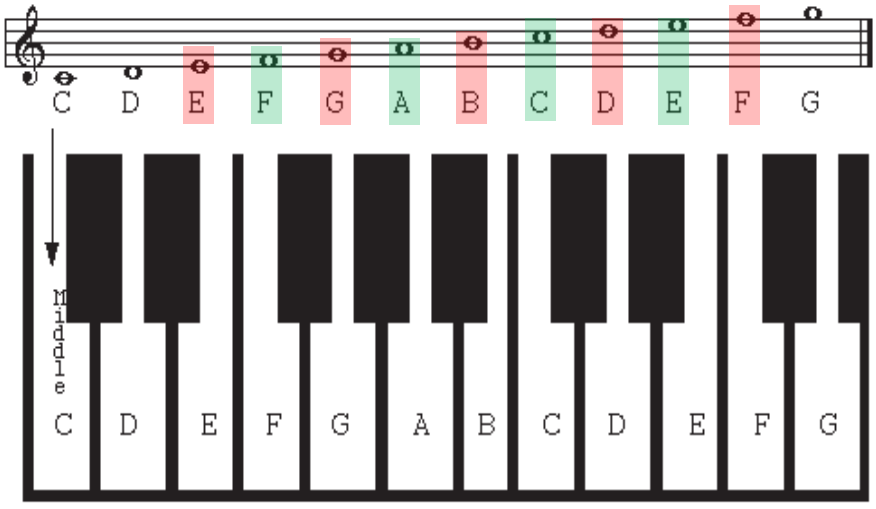




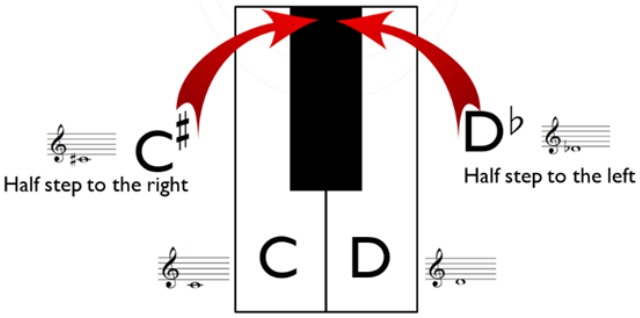


Every Good Boy Deserves Football

F A C E



Sign	Name	Value	Rest
𝅝	Semibreve	4 beats	𝄻
𝅗𝅥	Minim	2 beats	𝄼
♩	Crotchet	1 beat	𝄽
♪	Quaver	½ beat	𝄾
𝅘𝅥𝅯	Semiquaver	¼ beat	𝄿



YEAR 7

PE

Basketball Overview

Core Skills to learn in this unit

1. Dribbling – using both hands, change of pace and direction.
2. Passing – chest, javelin, bounce, overhead, use of the fake.
3. Receiving/intercepting – making a target (signaling), one/two handed catch, stationary and on the move, differing speeds and heights, rebounding, stealing.
4. Shooting – lay-up, set shot, jump shot, free shot, use of the fake.
5. Footwork and marking – stopping (jump stop, stride stop), pivoting, getting free, tracking (drop step).

Local Clubs

Club	Distance	Venue	Postcode
Durham Palatinates Basketball Club	2.33 Miles	Durham University Sports and Wellbeing Park, Maiden Castle	DH1 3SE
Durham University	2.33 Miles		DH1 3SE
Durham Wildcats Basketball Club	2.33 Miles	Durham University Sports and Wellbeing Park, Maiden Castle	DH13SE
Oxclose Basketball Club	7.06 Miles	Oxclose Community School	NE38 0LN
Biddick School Community	7.07 Miles	Biddick School Sports College	NE38 8AL
Norpol	7.07 Miles	Biddick School Sports College	NE38 8AL
Cardinal Vipers	8.61 Miles		NE9 7NP
East Durham Lions Basketball Club	9.73 Miles	East Durham College	SR8 2RN

Competitive Opportunities

- School team to practice on a Friday night after school. Bring your PE kit and a bottle of water to rehydrate

Lesson highlights

- Opportunities for self and peer assessment.
- Feedback opportunities to support team mates and build leadership and communication skills

Cricket Overview

Core Skills to learn in this unit

1. Batting (defensive)
2. Batting (attacking)- drive, pull, sweep shot
3. Bowling – bowling for line and length, fast or slow bowling
4. Catching in the field (from close, from distance) or catching as wicket keeper (standing up, standing back).
5. Throwing and ground fielding in the field (from close, from distance) or stumping and recovery work as a wicket keeper, long barrier technique.

Local Clubs

ANNFIELD PLAIN CRICKET CLUB
BARNARD CASTLE CRICKET CLUB
BEAMISH AND EAST STANLEY CRICKET CLUB
BILL QUAY ALBION CRICKET CLUB
BLAYDON CRICKET CLUB
BOLDON CRICKET CLUB
BOLDON CA CRICKET CLUB
BRANDON CRICKET CLUB
BURNMOOR CRICKET CLUB
BURNHOPE CRICKET CLUB
BURNOPFIELD CRICKET CLUB
CASTLE EDEN CRICKET CLUB
CHESTER-LE-STREET CRICKET CLUB
CONSETT CRICKET CLUB
CROOK TOWN CRICKET CLUB
DAWDON CW CRICKET CLUB
DURHAM CITY CRICKET CLUB
EASINGTON CW CRICKET CLUB
EAST RAINTON CRICKET CLUB
EPPLETON CRICKET CLUB
ESH WINNING CRICKET CLUB
EVENWOOD CRICKET CLUB
FELLING CRICKET CLUB
GATESHEAD FELL CRICKET CLUB
GREENSIDE CRICKET CLUB
HARTLEPOOL CRICKET CLUB
HETTON LYONS CRICKET CLUB
HORDEN CRICKET CLUB
HUNWICK CRICKET CLUB
HYLTON CRICKET CLUB
LANCHESTER CRICKET CLUB
LANGLEY PARK AND BEARPARK CRICKET CLUB
LEADGATE CRICKET CLUB
LINTZ CRICKET CLUB
LITTLETOWN CRICKET CLUB
MARSDEN CRICKET CLUB
MIDDLETON-IN-TEESDALE CC & RABY CASTLE CC
MURTON CRICKET CLUB
PETERLEE CRICKET CLUB
PHILADELPHIA CRICKET CLUB
RYHOPE CRICKET CLUB
RYTON CRICKET CLUB
SACRISTON CRICKET CLUB
SEAHAM HARBOUR CRICKET CLUB
SEAHAM PARK CRICKET CLUB
SHOTLEY BRIDGE CRICKET CLUB
SILKSWORTH CRICKET CLUB
SOUTH NORTH CRICKET CLUB
SOUTH SHIELDS CRICKET CLUB
STOCKSFIELD CRICKET CLUB
SUNDERLAND CRICKET CLUB
SWALWELL CRICKET CLUB
TANTOBIE CRICKET CLUB
TUDHOE CRICKET CLUB
USHAW MOOR CRICKET CLUB
WASHINGTON CRICKET CLUB
WEARMOUTH YAV CRICKET CLUB
WHICKHAM CRICKET CLUB
WHITBURN CRICKET CLUB
WILLINGTON CRICKET CLUB
LEAGUE CONTACTS

Follow this link to find all junior cricket clubs in the North East and their contact details:

https://www.durhamcricket.co.uk/wp-content/uploads/2023/04/DCB-Junior-League-Contacts-V3.pdf

Competitive Opportunities

- School teams run throughout the year but particularly in the summer term. There are a lot of opportunities to represent the school at several competitions. Bring your PE kit and a bottle of water to rehydrate

Lesson highlights

- Opportunities for self and peer assessment.
- Feedback opportunities to support team mates and build leadership and communication skills

Netball Overview






Core Skills to learn in this unit

1. Passing and receiving (chest pass, shoulder pass, one/two handed passing).
2. Dodging – single/double/sprint.
3. Marking a player.
4. Shooting (close/distance) or rebounding (attacking or defending) or marking a pass/intercepting (Centre court players).
5. Footwork and movement – landing on one/two feet, pivoting.

Local Clubs

U14

Team Name
Grangetown
Oaksway
Riverside
Headlanders
DPNC
Great Park
Cleveland Classics
Novos

U16

Team Name
Grangetown
Oaksway
Riverside
DPNC
Headlanders
Vixens
Wildcats
Seatonians

Competitive Opportunities

- School teams begin from the start of the year and there are plenty of opportunities to represent the school. Make sure you are attending after-school practices and bring your PE kit and a bottle of water to rehydrate.

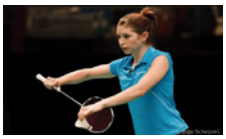
Lesson highlights

- Opportunities for self and peer assessment.
- Feedback opportunities to support team mates and build leadership and communication skills

Badminton Overview








Core Skills to learn in this unit

1. Service – high, low, flick (forehand or backhand).
2. Overhead – clear, drop (forehand and backhand where appropriate).
3. Underarm – clear, drive, drop (forehand and backhand where appropriate).
4. Net play.
5. Smash.

Local Clubs

The Phoenix Junior Badminton Club
Badminton

Junior Sessions run on a Friday night 5.45 – 6.45pm
Senior Sessions Mondays 6 – 8pm
contact Steve Durnett 07500627212
steved50_6@live.com

Address	Contact Details
The Phoenix Junior Badminton Club Freemans Place Durham City DH1 1SW	

Glaxo Badminton Club
Badminton

We are a small and friendly club who welcome players of all ages and standards. We hold club nights on Wednesdays 7-9pm, between September and April, and prospective new members are welcome to come and join a session for free. Just turn up to have a chat. We run teams in the Darlington League for those who wish to compete, but club nights are just for fun!

Address	Contact Details
Glaxo Badminton Club Strathmore road Barnard Castle DL12 8DS	

Aycliffe Badminton Club
Badminton

Address	Contact Details
Aycliffe Badminton Club Revoridge Way Newton Aycliffe DL5 4EH	https://aycliffebc.wixsite.com/aycliffebc @AycliffeBC

Durham Swifts Badminron Club
Badminton

Address	Contact Details
Durham Swifts Badminron Club Buckinghamshire Road Belmont Durham DH1 2QP	Https://sites.google Durham Swifts

Durham County Badminton Association
Badminton

Durham County Badminton Association provides coaching and local tournament opportunities for junior players of all abilities with the aim of developing these players to progress on to represent the junior county teams in regional and national competitions as well as, hopefully, going on to represent the Durham County senior teams in national leagues.

Durham County Badminton Association are also a Deaf Aware Organisation and are keen to welcome members of the deaf community as volunteers, players or coaches.

Address	Contact Details
Durham County Badminton Association Buckinghamshire Road Belmont DH1 2QP	@DCBA0001

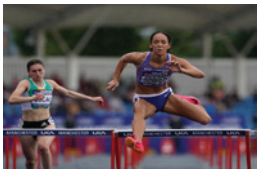
Competitive Opportunities

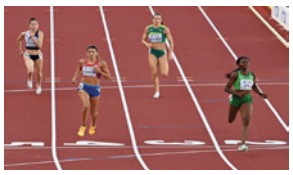
- Make sure you are attending after-school practices and bring your PE kit and a bottle of water to rehydrate.

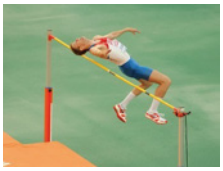
Lesson highlights

- Opportunities for self and peer assessment.
- Feedback opportunities to support team mates and build leadership and communication skills

Athletics Overview







Core Skills to learn in this unit

Track
1.Starts/finishes.
2. Arm action – effectiveness and consistency.
3. Leg action to create appropriate pace – consistency

Jumps
1.Run-up/speed.
2. Take-off.
3. Flight and landing.

Throws
1. Grip, stance and preparation to throw.
2. Movement into throwing action.
3. Release, follow-through and recovery.

Local Clubs

CLS DAC
Jarrow & Hebburn Athletic Club
Heaton Harriers
Birtley Athletics Club
Doxford Athletic FC
Stockton Striders AC
Sunderland Harriers
South Shields Harriers
North Shields Polytechnic Athletics Club based in Whitley Bay

Competitive Opportunities
- Make sure you are attending after-school practices and bring your PE kit and a bottle of water to rehydrate. There are a lot of opportunities to compete in competitions against other schools.

Lesson highlights
- Opportunities for self and peer assessment.
- Feedback opportunities to support team mates and build leadership and communication skills

Hockey Overview

Core Skills to learn in this unit

1. Dribbling/moving with the ball – open and reverse stick, change of pace, dodging.
2. Passing – push, hit, slap.
3. Shooting – placement and power.
4. Receiving – stationary, on the move, open and reverse stick.
5. Marking/intercepting/tackling/jockeying – open and reverse stick tackles, jab tackle

Local Clubs

Durham City HC
3.1 MILES FROM DH15YN
The Graham Sports Centre
University of Durham
Durham,County Durham
DH1 3SE

Durham University HC
3.1 MILES FROM DH15YN
Graham Sports Centre Maiden Castle
Sports Ground, Maiden Castle Sports
DURHAM,Durham
DH1 3SE

Sunderland Broom HC
15.5 MILES FROM DH15YN
14 Dilston Gardens
Sunderland,Tyne and Wear
SR4 7TD

Gateshead HC
17.9 MILES FROM DH15YN
Market Lane
Gateshead,Tyne and Wear
NE11 9NX

Newcastle Medics HC
21.1 MILES FROM DH15YN
12 Warton Terrace
Heaton
Newcastle Upon Tyne,Tyne and Wear
NE6 5LR

Durham Dales HC
21.9 MILES FROM DH15YN
Lifestyle Fitness
Leazes Ln
Wolsingham,Bishop Auckland
DL13 3DN

Jesmond Parish Church HC
22.2 MILES FROM DH15YN
14, Adeline Gardens
Gosforth
Newcastle upon Tyne,Tyne and Wear
NE3 4JQ

Newcastle HC
23.0 MILES FROM DH15YN
Newcastle,Tyne and Wear
undefined

Newcastle University HC
23.9 MILES FROM DH15YN
Stan Calvert Memorial Pitch
Longbenton Sports Ground
NEWCASTLE UPON TYNE,Tyne and Wear
NE12 8AD

Whitley Bay and Tynemouth HC
24.1 MILES FROM DH15YN
NE29 6TL

Competitive Opportunities
- Make sure you are attending after-school practices and bring your PE kit and a bottle of water to rehydrate. There are a lot of opportunities to compete in competitions against other schools.

Lesson highlights
- Opportunities for self and peer assessment.
- Feedback opportunities to support team mates and build leadership and communication skills

Table Tennis Overview





Core Skills to learn in this unit

1. Service – forehand and backhand (with and without spin as appropriate).
2. Drives – forehand and backhand (with and without topspin as appropriate).
3. Push – forehand and backhand (with and without backspin as appropriate).
4. Smash – forehand and backhand (with and without spin as appropriate).
5. Lob – forehand and backhand (with and without spin as appropriate).

Local Clubs

Durham City Table Tennis Club

Premier Club

Premier Club

Address: Freemans Quay Leisure Centre, Durham, County Durham DH1 1SW

More info: https://www.tabletennis365.com/DurhamTTC

Coxhoe table Tennis Club

Associate Club Affiliation

4.96 Miles
ACTIVE LIFE @ COCHOE Linden Grove DURHAM DH6 4DW

+44 7929716379

Brandon Table Tennis Club

Club Membership £10 adults and £5 juniors
£4 per session adult
£2 per session junior

Details of regular meet-ups/sessions:

Monday 6.30 pm to 8.30 pm
Wednesday 10.00 am until noon
Thursday 6.30 pm to 8.30 pm
Saturday 10.00 am until noon
Sunday 10.00 am until noon

Address: Brandon Community Hall, Brandon Lane, Brandon, Durham DH7 8PS

Competitive Opportunities

- Make sure you are attending after-school practices and bring your PE kit and a bottle of water to rehydrate. There are a lot of opportunities to compete in competitions against other schools.

Lesson highlights

- Opportunities for self and peer assessment.
- Feedback opportunities to support team mates and build leadership and communication skills

Volleyball Overview






Core Skills to learn in this unit

1. Service – underarm and overarm
2. Dig –two arm (receiving serve and from team mates)
3. Volley – set, straight, sideways, overhead
4. Smash/spike
5. Block – single and double

Local Clubs

Haughton Darlington
location:
→ Darlington
matches:
Darlington Education Village
DL1 2AN

Longbenton
location:
→ Newcastle upon Tyne
teams:
→ Longbenton Black Sheep (Div 1)
→ Longbenton Bitter & Twisted (Div 2)
→ Longbenton Speckled Hens (Women's Div)
matches:
Friday
7-9pm
Longbenton High School
Hailsham Ave
Longbenton
NE12 8ER

Newcastle Panthers
location:
→ Newcastle upon Tyne
teams:
→ Newcastle White Panthers (Div 1)
→ Newcastle Black Panthers (Div 1)
→ Newcastle Panther Cubs (Div 2)
→ Newcastle Pink Panthers (Women's Div)
→ Newcastle Scarlet Panthers (Women's Div)
matches:
Tuesday
6-8pm (Cubs)
8-10pm (White, Black, Scarlet, Pink)
Vertu Motors Arena
Scotswood Road
NE4 7AF

Competitive Opportunities

- Make sure you are attending after-school practices and bring your PE kit and a bottle of water to rehydrate. There are a lot of opportunities to compete in competitions against other schools.

Lesson highlights

- Opportunities for self and peer assessment.
- Feedback opportunities to support team mates and build leadership and communication skills

Fitness Overview

Core Skills to learn in this unit

1. Year 7 – Components of Fitness – able to define and demonstrate each component
2. Year 8 – Fitness Testing – able to link tests to relevant component and discuss both benefits and limitations
3. Year 9 – Methods of Training – able to describe the methods before evaluating each one using sporting examples

Local Clubs

PureGym Durham Arnison

Unique Health Clubs

Result Fitness

CrossFit DHM Durham

Competitive Opportunities

- Make sure you are attending after-school clubs and bring your PE kit and a bottle of water to rehydrate.

Lesson highlights

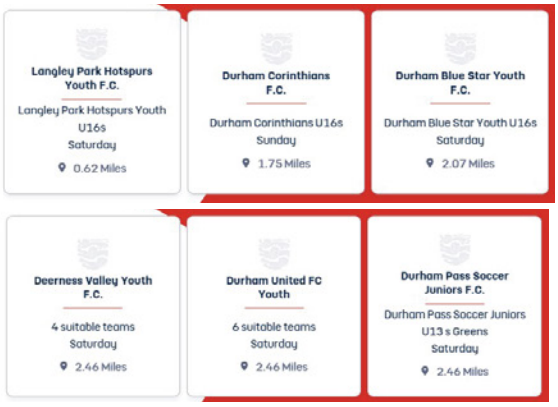
- Opportunities for self and peer assessment.
- Feedback opportunities to support team mates and build leadership and communication skills

Football Overview

Core Skills to learn in this unit

1. **First Touch** – Consistency in ability to control/trap a football regardless of quality of pass from teammate.
2. **Passing** – Consistently chooses the correct option when passing the ball. Uses a variety of passes with different parts of the foot and consistently finds intended target.
3. **Defending/Tackling** - Can read opponent when they have the ball and can either perform a tackle or stop their opponent from going in the direction or space they want to.
4. **On the ball** – When in possession of the football is the learners head up looking around them? Can they move comfortably with the ball at their feet? Can they dribble and go past opponents when doing so?
5. **Shooting** – Learner should aim for corners of the net and consistently make clean contact on the ball.

Local Clubs



Competitive Opportunities

- School teams run throughout the year – See the PE department for more information on how to join a school team. Practice also occurs throughout the week, with futsal practice on a lunch time.

Lesson highlights

- Opportunities for self and peer assessment.
- Feedback opportunities to support team mates and build leadership and communication skills

YEAR 7

R.E

Year 7: Does God Exist?

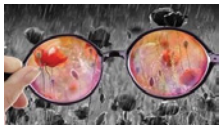
Key vocabulary

Worldview	Way of understanding and responding to the world
Organised worldview	Beliefs that give structure to a life, can be religious or not
Personal worldview	Individual's on way of understanding the world
Theology	Religion
Philosophy	Exploring through questions and exploring big ideas
Social Science	Asking about other experiences/human behaviour
Theist	Believes in God
Atheist	Doesn't believe in God
Empiricism	Knowledge through senses
Rationalism	Knowledge through the mind
Priori	Knowledge without having to experience
Posterior	Knowledge through experience
Kant	Rose tinted glasses- how people see the world
Descartes	"I think therefore I am" and not trusting senses
Hume	Seen it multiple times before and predict that it will happen again

Philosophers

Kant- Rose tinted spectacles

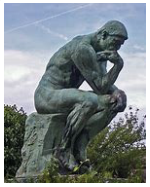
Own unique understanding of the world, based on experiences



Descartes- "I think therefore I am"

He knows he exists because he thinks

He doesn't trust his senses because they can trick you



Hume- Seen it multiple times, will predict it will happen again

e.g. leaves turn brown in autumn, predict this will happen again

Weakness- unusual event to change this, some things are unpredictable

Knowledge

Empiricism-Knowledge through senses

e.g. I see that the sky is blue

I hear that they have a Geordie accent

Rationalism-Knowledge through the mind

e.g. I know 2+2=4

I know that a square has 4 sides

Priori -Knowledge without having to experience

e.g. I know that Spain is hot

I know they speak French in France

Posterior - Knowledge through experience

e.g. I know that the table is brown

I know Sophie's hair is brown

Atheist	Theist	agnostic
Doesn't believe in God - Uses evidence - Science over religion - Inconsistencies with religion	**Believe in God** -Uses Bible - Scripture - God is the main source of authority	**Unsure about God** - Mixes some ideas of science and religion - Poses questions and God and theories

Social Science Lens

Using data/statistics to form an idea

e.g. 72% of criminals reoffend- prison doesn't work

Theological Lens

Using religion/scriptures to form an idea

e.g. Jesus teaches to be peaceful, may not fight in wars

Philosophical Lens

Using big questions to form an idea

e.g. the world could have began from science and the big bang

Year 7: Does God Exist?

Key Vocabulary

Philosophy	Big Questions with not one right answer
Allegory	A story with a hidden meaning
Enlightenment	Gaining/wanting to explore new knowledge
World of shadows	Not exploring news ideas
World of ideas	Wanting to know the truth and open to finding answers, usually God provides these answers according to Plato
Plato's allegory of the cave	People in the cave represent people who are not open to new ideas and the outside of the cave is understanding the truth about beliefs and wanting to explore new faiths
Aristotle motion and mover	Empiricist and finds answers within the world
Motion Mover	The action itself The thing causing the action to happen
Prime mover	God as he causes everything
Aquinas-cosmological argument	Cause and affect, there has to be a cause of the world and this must be God as he is super powerful
Cause	Something that starts the action e.g. falling over and scrapping your knee
Effect	The action e.g putting a plaster on the injury
Strengths of cosmological argument	- It shows that there is a purpose for God - It explains how science and religion can work together - It shows how it can work in this world with cause and effect so they can use it as evidence
Weaknesses of cosmological argument	- It only suits people if they are theists and believe in God - there is not much explanation for what caused God - The big bang could have happened without God.

Plato's Cave

World of ideas – Outside the cave
Different ideas to explore and discover
Open to new ideas
Philosophers

World of shadows – Inside the cave
Represents life
People control what they think

Overall- He believes that people are stuck in their life, following what other people want them to believe. We should explore and be open minded to new ideas

Aristotle- Cause and Effect

Mover- the cause of the action

Motion- the effect

e.g. pushing a door (mover)

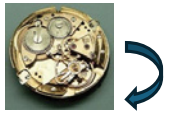
Door opens (motion)

Prime Mover-

Unchanging, cause of everything in the world. Infinite and powerful

Design Argument- William Paley

Teleological argument
World is so perfect that it must have been created by someone that is omniscient (all knowing).
Analogy of a watch to explain-
-If you see a rock, you would not question.
-If you saw a watch, you could question how it got there as it is a complex design.
-The world is an even more complex design, it cant have just appeared and needs to have been designed.
Design of regularity- made to be constant e.g. gravity
Design of purpose- made for a purpose e.g. watch to tell time



Positives	Negatives
• Fits with Bible stories • Continues with science ideas • Fits evolution	• Natural selection exists without God • Complexity doesn't mean its designed • Problem of evil

Cosmological argument- Aquinas

Everything in the world has a cause, and goes back to the original cause of everything which is God

Cause- parents- effect- humans

Cause- ancestors

Cause- created by God

Everything leads back to the cause being God.

Arguments

Positives	Negatives
• Links science and religion • Purpose of God • Cause and effect is evident in our world	• Big bang doesn't have to be caused by God • Who caused God?

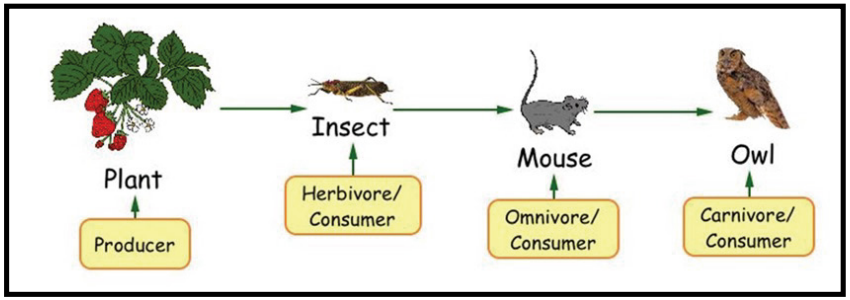
YEAR 7

SCIENCE

Y7: Ecosystem – Food Chains and Webs

Box 1
Key Words
Herbivore - an animal that eats only plants. Often a primary consumer.
Producer - an organism that makes its own food by the process of photosynthesis. Provides energy for the whole food chain/web.
Prey - an animal that is eaten by a predator.
Carnivore - an animal that eats other animals.
Consumer - an animal that eats a plant or another animal. There are primary, secondary, tertiary etc. consumers along the chain.
Predator - an animal that hunts and eats other animals.
Omnivore– an animal that eats both plants and other animals.
Biomagnification - The accumulation of toxic substances in the food chain.

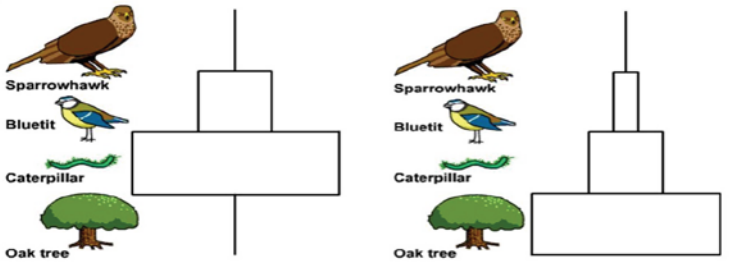
Box 2 A food chain (below) shows what an organism eats. The arrow shows the direction that energy passes between organisms. Food webs (right) show that more than one thing can be eaten by the same organism and shows the relationships within an ecosystem more accurately.

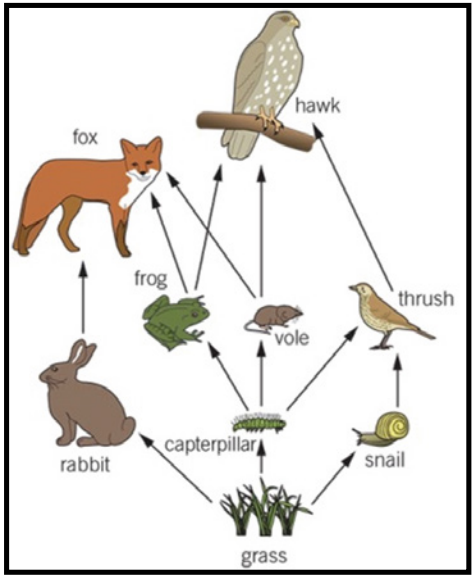


Box 3

In pyramids of numbers, the width represents the number of species at each trophic level.
In pyramids of biomass, the width represents the biomass of each trophic level.

Pyramid of number Pyramid of biomass





Y7: Ecosystem – Pollination

Box 1

The **stamen** is the **male reproductive** part. It contains:

Anther - Produces **pollen**, the **male gamete**.

Filament - Holds up the anther.

The **carpel** is the **female reproductive part**. It contains:

Stigma - This is sticky to **'catch'** grains of pollen.

Style - Holds up the stigma.

Ovary - Contains **ovules**, the **female gamete**.

Box 2

Pollination is getting **pollen** to the **stigma**.

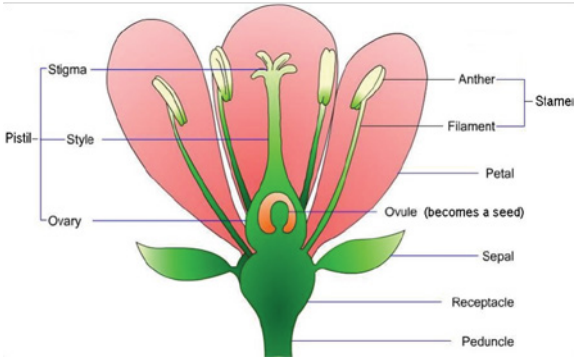
- To make a seed the male and female sex cells must 'meet up'.
- To do this, the **pollen grains** must get from a **stamen** to a **stigma**. This can happen in two ways:
  1. **Self-pollination**—pollen is transferred from stamen to stigma on the **same plant**.
  2. **Cross-pollination**—pollen is transferred from the stamen of one plant to the stigma of a **different plant.**

Method	Adaptations	Examples
Wind	Seeds have lightweight parts, wings or parachutes	Dandelion, sycamore
Animals (inside)	Brightly coloured and tasty fruits contain seeds with indigestible coats, so that the seeds pass through the animal's digestive system undamaged	Tomato, plum, raspberry, grape
Animals (outside)	Fruits have hooks that attach them to the fur of passing animals	Goose grass, burdock
Self-propelled	Have a pod that bursts open when ripe, throwing the seeds away from the plant	Pea pod

Box 3

Factors that could affect the distance travelled by a sycamore seed dispersed by the wind include:

- The **height** from which it is released
- The **surface area** of the wings
- The **mass** of the seed
- The **wind speed**



Box 4

1. Seed dispersal: Seeds need to be dispersed away from the parent plant in order to reduce competition for space, light, nutrients and water. Seeds can be dispersed by wind, water, animals or mechanical methods.

2. Germination: Under the right conditions, the seed germinates and grows into a plant.

3. Pollination: Pollination occurs where the pollen from the anther of one plant reaches the stigma of another plant. This can happen by wind or insects.

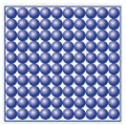
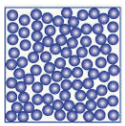
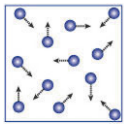
4. Fertilisation: A pollen tube grows into the style, and when it reaches the end the sperm (in the pollen) fertilises the egg (in the ovule). A new seed is formed.

The cycle repeats.

Y7: Matter - Particle Model

Big Idea 7.2 : Matter – Particle Model

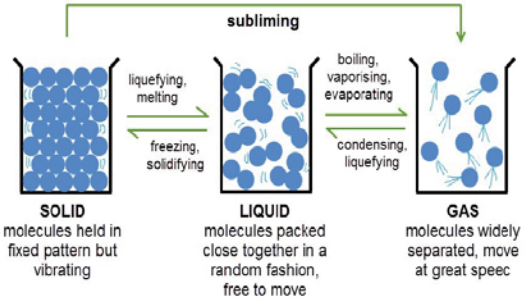
Box 1: States of Matter

Solid	Liquid	Gas
Fixed shape	No fixed shape	No fixed shape
Fixed volume	Fixed volume	No fixed volume
Do not flow easily	Flow quite easily	Flow very easily
Very dense	Less dense	Not dense at all
Cannot be squashed	Very difficult to squash	Easy to squash
Particles very close together	Particles fairly close together	Particles are very far apart

Box 2: Changes of State

Transferring energy to or from a substance can change its state. Heating a substance in the **solid** state will cause it to **melt**, which changes it to the **liquid** state. Continued heating will cause the substance to **evaporate** or boil, which changes it to the **gas** state. A substance in the gas state **condenses** when it is cooled, which changes it to the liquid state. Continued cooling causes it to **freeze**, which changes it to the solid state.



Box 3: Gas Pressure

Gas particle collide with the walls of their container. Colliding gas particles exert pressure on the inside of their container.

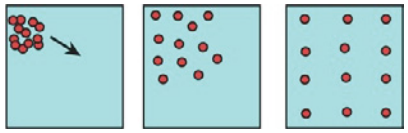
Factors that affect pressure:

- Number of particles → The more particles in a container, the higher the pressure (this is because there are more frequent collisions)
- Temperature → The higher the temperature, the higher the pressure (this is because the particles have more energy, they move faster and collide with the container more frequently)
- Volume of container → The smaller the volume, the higher the pressure (more collisions in smaller space)

Box 4: Diffusion

Three factors affect the speed of diffusion:

- Temperature → Occurs more quickly at higher temperatures as the particles are moving faster.
- Particle size → Big, heavy particles diffuse more slowly than small, light ones.
- State of the diffusing substance → Occurs quicker in gases than liquids (as the particles in a gas are very far apart). Diffusion does not occur in solids (as particles cannot move).



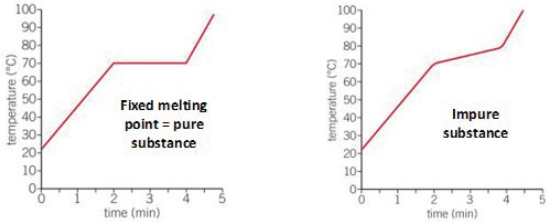
KEYWORD	DEFINITION
Boiling	The change of state from liquid to gas.
Boiling point	The temperature at which a substance boils.
Change of state	The process by which a substance changes from one state to another.
Condensation	The change of state from gas to liquid. It can happen at any temperature below boiling point.
Density	The mass of a material in a certain volume.
Diffusion	Spreading out of a substance from an area of high concentration to an area of low concentration.
Evaporation	The change of state from liquid to gas.
Freeze	The change of state from liquid to solid at the melting point of a substance.
Gas	A substance that can flow and can also be compressed.
Gas pressure	The force exerted per unit area on the walls of a container. It is caused by collisions of particles with the walls.
Liquid	A substance that can flow but cannot be compressed.
Melt/ melting	The change of state from a solid to liquid at the melting point of a substance.
Melting point	The temperature at which a substance melts.
Particle	A very tiny object (atom or molecule) that materials are made from. They are too small to be seen with a microscope.
Particle model	A way to think about how substances behave in terms of small, moving particles.
Properties	A quality of a substance or material that describes its appearance or how it behaves.
Solid	A substance that cannot be compressed and cannot flow.
States of matter	The three forms in which a substance can exist – solid, liquid and gas.
Sublimation	The change of state from solid directly to gas.

Y7: Matter – Separation Techniques

Big Ideas 7.2 : Matter – Separation techniques

BOX 1 MIXTURES AND PURE SUSTANCES

Chemists make mixtures suitable to specific purposes (e.g. toothpaste and paint); they work out the best amounts of each substance to add to the mixture.
A pure substance has a fixed melting and boiling point.
An impure substance (mixture) will melt/boil over a range of temperatures.



BOX 2 DISSOLVING AND FORMING SOLUTIONS

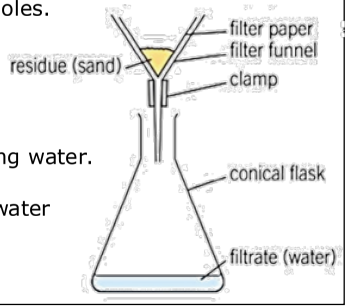
During dissolving, particles of solvent (water) collide with particles of solute (sugar). They surround the particles of solute, gradually moving them away until the particles are evenly spread through the solvent. This is called a solution.
For each solute and solvent, there is a limit to the mass of solute that will dissolve in a particular volume of the solvent. When no more solute will dissolve, we say that the solution is a solution.

BOX 3 SOLUBILITY

Every substance has its own solubility. Most substances get more soluble as the temperature increases. The increase is greater for some substances than for others.

BOX 4 FILTRATION

You can separate sand and water by pouring the mixture into filter paper. Water passes through the filter paper (filtrate) as water particles are smaller than the tiny holes in the filter paper. The grains of sand (residue) stay in the filter paper as they are bigger than the tiny holes.



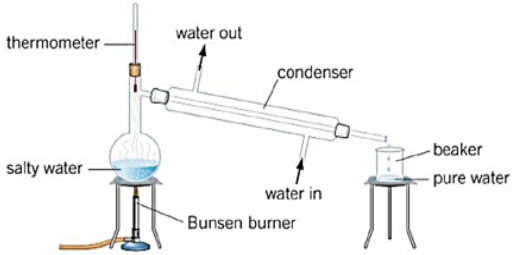
How is it useful?
Oil filters in cars.
Sand filters for drinking water.

Sand filters to make water safe to drink.

BOX 5 DISTILLATION

Separating sea water

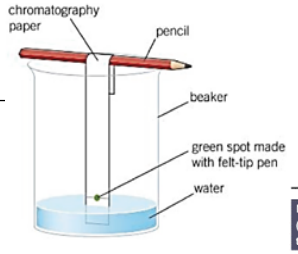
On heating, water in the salt solution boils, forming steam. Salt does not boil, because its boiling point it much higher. Steam travels through the condenser and cools down to form liquid water. .Liquid water drips into the beaker.

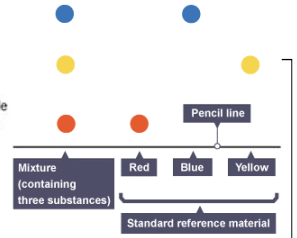


KEYWORD	DEFINITION
Chromatogram	An image obtained from a chromatogram.
Chromatography	A technique to separate mixtures of liquids (often coloured) that are soluble in the same solvent.
Dissolve	The complete mixing of a solute with a solvent to make a solution.
Distillation	A technique that uses evaporation and condensation to obtain a solvent from a solution.
Filtrate	The liquid or solution that collects in the container after the mixture has passed through the filter paper.
Filtration	A way of separating pieces of solid that are mixed with a liquid or solution by pouring through filter paper.
Insoluble	Cannot dissolve in a given substance.
Mixture	A mixture is made up of two or more pure substances that are mixed (not chemically joined) together.
Pure substance	A single material with no other substances mixed with it.
Residue	The solid that collects in the filter paper during filtration.
Saturated solution	A solution in which no more solute can dissolve.
Solubility	The maximum mass of solute that dissolves in a certain volume or mass of solvent.
Soluble	Can dissolve in a given solvent.
Solute	The solid or gas that is dissolved in a liquid.
Solvent	A substance (normally a liquid) that dissolves another substance.

BOX 6 CHROMATOGRAPHY

It is often used when the dissolved substances are coloured (inks, food colourings and plant dyes).
It works because some of the coloured substances dissolve in the solvent used better than others (it is attracted more strongly to the water than the paper), so they travel further up the paper.
A pure substance will only produce one spot on the chromatogram during paper chromatography.
Two substances will be the same if they produce the same colour of spot, and their spots travel the same distance up the paper.

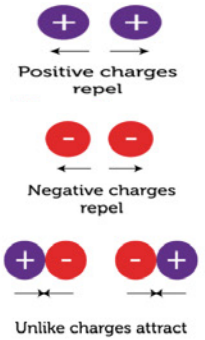




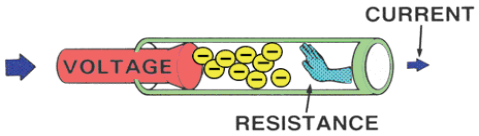
Y7: Electromagnets

Box 1: Charges

There are two types of electrical charge: positive charge (+) and negative charge (-). Charged particles (or charges) attract or repel each other. There is an electrostatic force between the charges.



Box 2: Resistance



- Each component has a different resistance; this tells you how easy or difficult it is for electrons to pass through wires or components.
- Resistance is measured in ohms (Ω).
- Adding more components, increases the resistance, so the current is less.

$$resistance\ (\Omega) = \frac{potential\ difference\ (V)}{current\ (A)}$$

- Resistance in wires is caused by electrons colliding with metal atoms and transferring energy to them.

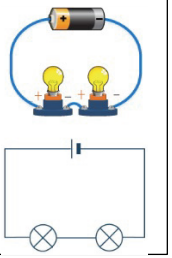
The following affects resistance:

- Length → longer wire = more resistance
- Thickness →thicker wire = less resistance
- Material of wire → good conductor = less resistance

Big Idea 7.3: Electromagnets - Circuits

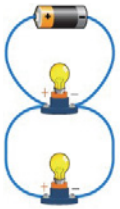
Box 3: Series Circuits

- The current is the same in all parts of a series circuit.
- In a series circuit, the potential difference (voltage) from the battery is shared by the components.
- If a bulb breaks, the rest will go out.

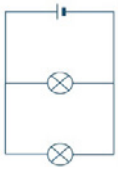


Box 4: Parallel Circuits

- The current is shared between the components (when it reaches the branches) and then adds again where the branches meet.

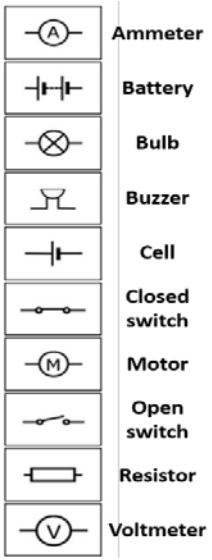


- The potential difference across each component is the same as the potential difference across the battery.



- If one bulb breaks, the other lights will stay on.

Box 5: Circuit Symbols



KEYWORD	DEFINITION
Ammeter	A device for measuring electric current in a circuit.
Amps	Units of measurement of electric current, symbol A.
Battery	Two or more electrical cells joined together.
Cell	A chemical store of energy, which provides the push that moves charges around a circuit.
Current	Flow of electric charge, usually electrons, in amperes (A).
Voltmeter	A device for measuring potential difference (voltage). Must be parallel with the component measured.
Volts	Unit of measurement of potential difference (voltage), symbol V.

Electric field	A region where a charged material or particle experiences a force.
Electrical conductor	A material that allows current to flow through it easily, and has a low resistance.
Electron	Tiny particles that are part of atoms and carry a negative charge.
Negatively charged	An object that has gained electrons.
Ohms	The unit of resistance, symbol Ω.
Positively charged	An object that has lost electrons.

Potential difference (voltage)	The amount of energy shifted from the battery to the moving charge, or from the charge to circuit components, in volts.
Resistance	A property of a component, making it difficult for charge to pass through, in ohms (Ω).

Y7: Energy

Box 1: Energy Stores

kinetic	electrostatic	magnetic
chemical		gravitational potential
nuclear	internal (thermal)	elastic potential

Energy cannot be created or destroyed. This is known as the law of conservation of energy.

Energy can follow 4 different pathways in order to be transferred:
1. Heating
2. Mechanically (force moving through a distance)
3. An electric current
4. Waves (sound and light)

Box 2: Power

Energy can be stored in objects or transferred between them. The rate at which energy is transferred is called the power and is given by the equation:

$$power(W) = \frac{energy\ transferred\ (J)}{time\ (s)}$$

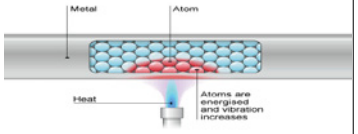
This means that is the same amount of energy is transferred in half the time, the power is twice as much.

Box 3: Heat Transfer

Thermal energy will always be transferred from hotter objects to cooler objects. You can reduce the amount of thermal energy transferred by insulating the hot object.

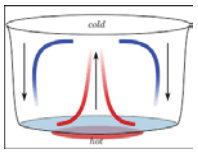
Conduction

Heat transfer in solid materials due to the touching of particles.



Convection

Convection is a heat transfer that happens in fluids (gas and liquids). Particles with a lot of thermal energy move and take the place of particles with less thermal energy.

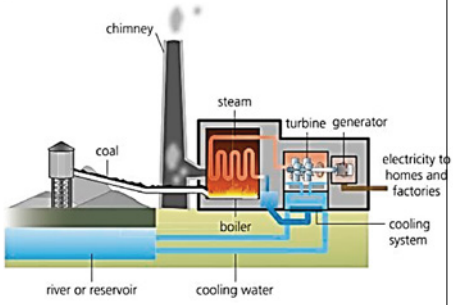


Radiation

All objects give out some infrared radiation. The hotter they are the more radiation they give out. Objects that absorb infrared radiation heat up. Radiation can travel through empty space. Objects don't have to be touching and no particles are involved.

Big Idea 7.4 : Energy

Box 4: Energy Resources



Non-renewable (power stations)

1. Fuel is burnt in a furnace to heat water in the boiler.
2. The water turns to steam; this turns a turbine.
3. The turbine turns a generator which generates electricity.

☺ Fossil fuels are reliable and produce lots of electricity.
☹ Release carbon dioxide and contribute to global warming.
☹ Produce pollutants such as sulfur dioxide.

Renewable

Renewable fuels include solar, wind, tidal/wave, biofuels, hydro and geothermal.
☺ No carbon dioxide released
☺ May be free to use (wind and Sun)
☹ Equipment may be expensive
☹ Can be unreliable (weather/ time of day dependent)

KEYWORD	DEFINITION
Chemical energy store	Emptied during chemical reactions when energy its transferred to surroundings; e.g. burning fuel.
Dissipation	Becoming spread out wastefully to the surroundings.
Elastic energy store	Filled when a material is stretched or compressed; e.g. stretching a spring.
Energy	Energy is needed to make things happen.
Energy resources	Something with stored energy that can be released in a useful way.
Fossil fuels	Non-renewable energy resource formed from dead animals and plants, millions of years ago. E.g. coal, oil and natural gas.
Gravitational potential energy store	Filled when an object is raised; e.g. book on a shelf or when climbing a ladder.
Joules	The unit of energy, symbol J 1 kilojoule (kJ) = 1000 J
Kinetic energy store	Filled when an object speeds up/ moves; e.g. when a car accelerates.
Non-renewable	An energy resource that cannot be replaced and will be used up, such as coal, oil or gas, or nuclear.
Power	How quickly energy is transferred by a device (watts).
Renewable	An energy resource that can be replaced and will not run out; e.g. solar, wind, waves, geothermal and biomass.
Thermal energy store	Filled when an object is warmed up; e.g. heating water in a kettle.
Watts	The unit of power, symbol W 1 kilowatt (kW) = 1000 W

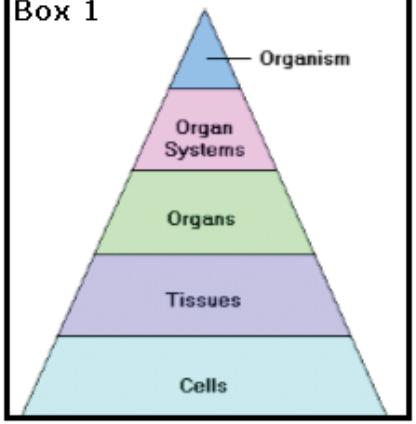
Y7: Organisation – Bones and Muscles

Big Idea: Organisation 7.5 – Bones and muscles

Key word	Definition
Antagonistic muscles	Muscles that work against each other in a pair.
Tendons	Attach muscle to bone.
Ligaments	Attach bone to bone.
Joint	Where two or more bones meet.
Cartilage	A tough, smooth substance that covers the ends of bones.
Synovial fluid	A liquid that keeps the cartilage slippery.
Contracts	When a muscle gets tighter and shortens.
Relaxes	When a muscle loosens and gets longer.

Box 1

Structural Organization of the Body



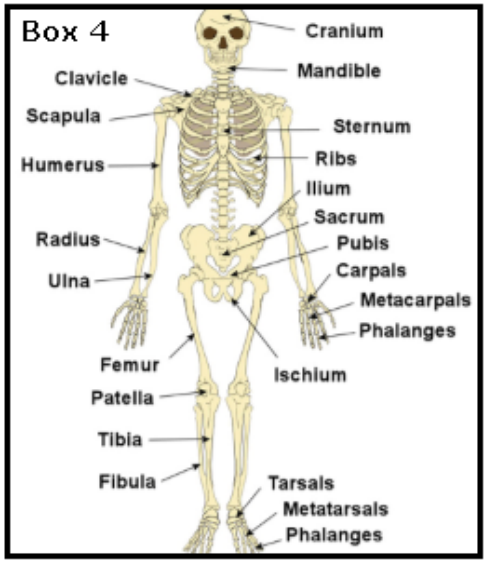
Box 2

- A group of similar cells come together to make a tissue.
- A group of different tissues work together to make an organ
- A group of organs work together to make an organ system.
- A multicellular organism is usually made of several organ systems.

Box 3

Organ system	Organs in the organ
Respiratory	Lung, trachea, bronchus, bronchioles,
Circulatory	Heart, arteries, veins, capillar-
Musculoskeletal	Bones, tendons, liga-
Nervous	Brain, spinal cord
Digestive	Oesophagus, stomach, small and large in-

Box 4



Box 5

Type of joint	Examples	Movement allowed
Hinge joint	Knee, elbow	The same as opening and closing a door, with no rotation (turning)
Ball and socket	Hip, shoulder	Back and forth in all directions, and rotation

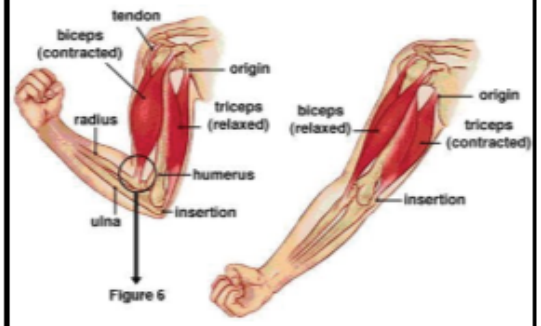
Box 6

Bones are made of **different types of tissues**. The outer layer is hard and strong, the inner layer is spongey but still strong.

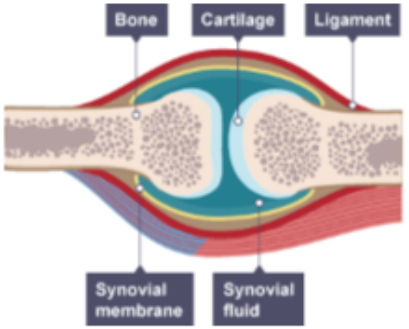
The skeleton has 4 main functions:

- Protection
- Support
- Production of blood cells
- Movement

Box 7

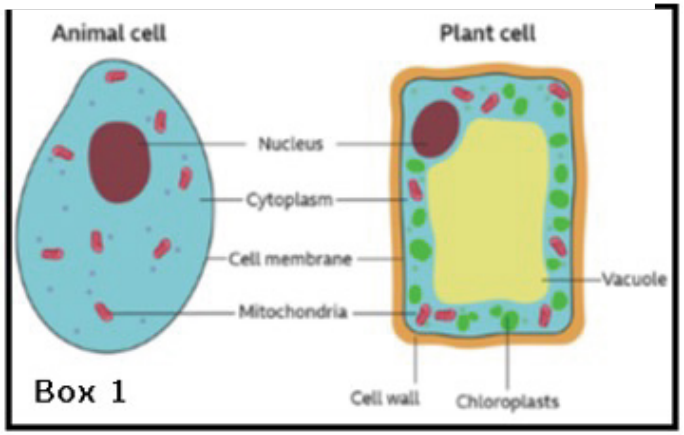


Box 8



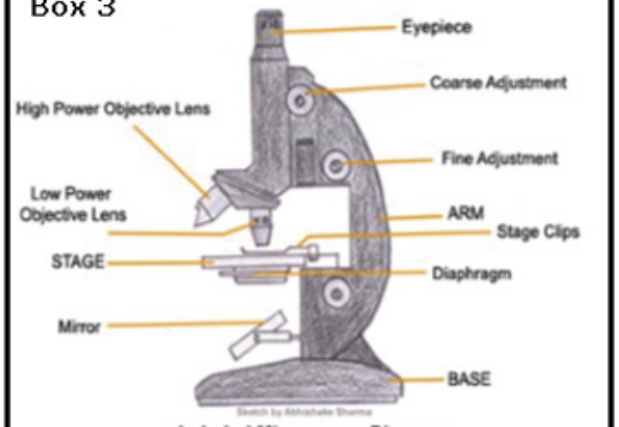
Y7: Organisation - Cells

Big Idea 7.5 : Organisation – Cells



Box 1

Box 3



Labeled Microscope Diagram

Box 2

Nucleus—This controls what a cell does.
Cytoplasm—This is a jelly-like stuff where most chemical reactions happen.
Cell—Membrane—This is a think skin around the cells, it holds the cell together and also controls what goes in and out.
Mitochondria—are tiny structures inside the cell where most of the reactions for aerobic respiration take place. Respiration release energy for the cell.
Cell wall—a rigid outer coating made of cellulose, it gives support to the cell.
Vacuole—this is filled with cell sap, a weak solution of sugar and salts.
Chloroplasts—these contain chlorophyll used for photosynthesis. Photosynthesis makes food for the plant.

Box 4

Total magnification = eyepiece lens magnification x objective lens magnification

E.g.

10 x 20 = 200

Box 5

Steps to using a microscope

1. Move the stage to its lowest position.
2. Place the object you want to observe on the stage
3. Select the objective lens with the lowest magnification
4. Look through the eyepiece and turn the coarse-focus knob slowly until you see your object.
5. Turn the fine focus knob until your object comes into focus
6. Repeat steps 1 to 6 using an objective lens with a higher magnification to see the object in greater detail.

Box 6

Another word for a living thing is an organism. All organisms are made up of tiny building blocks known as cells.

Cells can be seen through a microscope but it helps if you stain them first using coloured dyes.

Box 7

Unicellular organisms

Uni = one

Cellular = cell

Organism = living thing

Box 8

Examples of uni-cellular organisms include bacteria, amoeba and euglena.

Y7: Forces

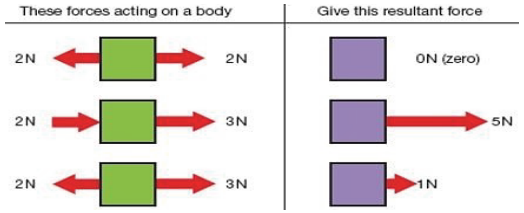
Box 1: Forces

- Forces change the speed, shape or direction of an object.
- Force arrows show the direction AND size of the force.
- Forces always come in pairs; interaction pairs.
- Forces can be measured with a newtonmeter (force meter).
- Forces are measured in newtons (N).
- The size and direction of a resultant force determines how (and if) an object will move.

Box 2: Drag Forces

- Friction grips objects. You need to exert a force to make something move.
- If an object is moving through a fluid, the force slowing it down is called a resistive, drag force. When a moving object is in contact with air or liquid particles, it has to push them out of the way.
- Streamlining and lubricating (with oil or grease) will reduce drag and friction.

Box 3: Force Diagrams



- If the force arrows are acting in opposite directions, we subtract to find the resultant force
- If the force arrows act in the same direction we add to find the resultant force
- All stationary objects are in equilibrium. The resultant force is zero.
- Objects moving at a steady speed have a resultant force of zero.

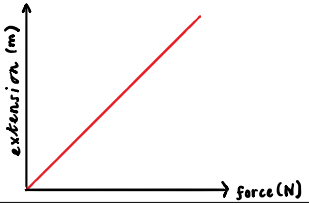
Box 4: Stretching and Hooke's Law

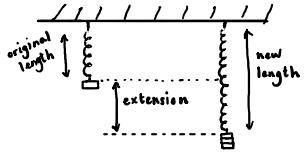
- Forces can cause deformation of objects. They can also cause compression or tension.

What happens when you stretch a spring?

- If you double the force on the spring, the extension will double (Hooke's Law).
- At some point, when you remove the force it will not go back to its original length
- Not everything behaves like a spring when you stretch it.
- The formula for calculating the force applied to a spring is:

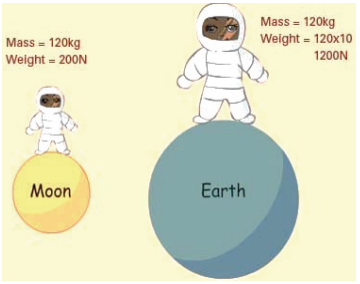
Force (N) = spring constant (N/m) x extension (m)





Box 5: Gravity, weight and mass

- The gravitational force depends on; mass of each object and how far apart they are. If the mass is larger, the force is larger, if the distance is larger the force is smaller.
- Weight is calculated using the formula;
  weight (N) = mass (kg) x gravitational field strength (N/kg)
- Gravitational field strength (g) is different on other planets, moons and stars. Your weight would be different on different planets because *g* would be different.
- Gravity keeps things in orbit; the force acting on the Moon keeps the Moon in orbit around Earth.



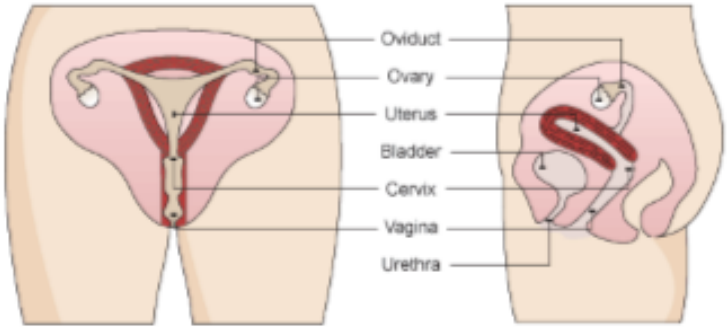
KEYWORD	DEFINITION
Air resistance	The force on an object moving through air that causes it to slow down, also known as drag.
Compression	Force squashing or pushing together.
Contact forces	A force that acts when an object is in contact with a surface, air or water.
Deformation	Changing shape due to a force.
Equilibrium	State of an object when opposing forces are balanced.
Extension	The difference between the original length of an object and the length when you apply force.
Friction	Force opposing motion which is caused by the interaction of surfaces moving over one another.
Gravity	A force that attracts all masses
Interaction pairs	When two objects interact there is a force on each one that is the same size but in opposing directions.
Mass	The amount of 'stuff' in an object. This value is constant and measured in kg.
Reaction force	The support force provided by a solid surface like the floor.
Resultant force	Single force which can replace all the forces acting on an object and have the same effect.
Streamlined	Shaped to reduce resistance to motion from air or water.
Tension	Force extending or pulling apart.
Upthrust	The upward force that a liquid or gas exerts on a body floating in it produced by the collisions of particles in the liquid or gas.
Water resistance	The force on an object moving through water that causes it to slow down (also known as drag).
Weight	The force caused by the pull of gravity

Y7: Genetics

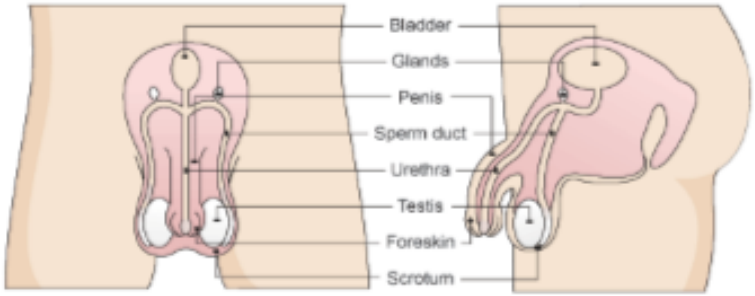
Big Idea 7.7: Genetics

Box 1

Female reproductive system



Male reproductive system



Box 2

Oviduct—They carry an egg to the uterus.

Ovaries—They contain the egg cells.

Uterus (womb) - This is where a baby develops until it is born.

Bladder—stores urine.

Cervix—A ring of muscle at the entrance to the uterus. It keeps the baby in place while the woman is pregnant.

Vagina—Receives the sperm during sexual intercourse. This is where the man's penis enters the female's body.

Urethra—A tube that carries urine from the bladder out of the body.

Testes—Produce **sperm cells** and **male sex hormones**, contained in a bag of skin called **scrotum**.

Glands—Produce a fluid that keeps sperm alive. The fluid and sperm together are called **semen**.

Sperm duct—**Carry** the sperm from the testes to the penis.

Penis—The penis swells with blood and stiffens. This is called an erection and allows the male to **release** sperm into a female during **sexual intercourse**.

Box 3

Changes during adolescence can be either physical or emotional. These changes are caused by sex hormones.

Males	Females	Both
Voice breaks	Breasts develop	Underarm hair
Testes and penis get bigger	Ovaries start to release eggs	Pubic hair
Testes start to produce sperm	Periods start	Emotional changes
Hair grows on face and body	Hips widen	Increased growth rate

Box 4

The Menstrual Cycle:

Day 1 - The menstrual period. The egg and uterus lining are released from the body through the vagina.

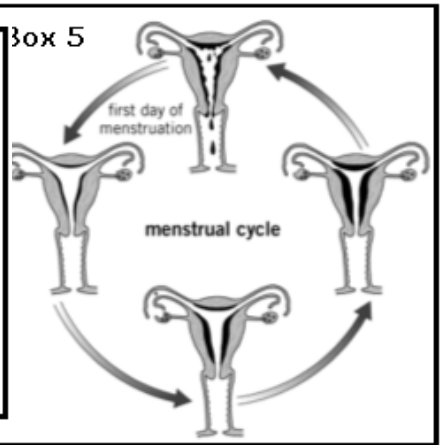
Day 5-14 - The uterus lining begins to thicken and the egg starts to mature in the ovary.

Day 14 - The egg is released. This is called ovulation.

Day 14-21 - The egg moves down the oviduct and the uterus lining fills with blood.

Day 21-28 - The uterus lining breaks down.

Box 5



Box 6

Variation is the differences in characteristics between individual organisms.

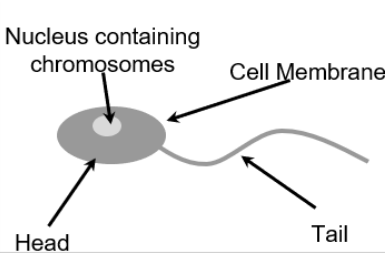
There are 2 types of variation:

1. Genetic Variation: Genes control the development of characteristics. Eg, eye colour.

2. Environmental Variation: Characteristics may be changed by the environment. Eg, personality.

Box 7

Gametes are our sex cells.
Male gametes are called **sperm**. Female gametes are called **eggs**.
Gametes must come together for new life to start – this is called fertilisation.



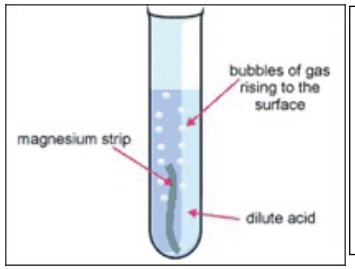
Y7: Reactions

BOX 1 METALS AND ACIDS

Metals are found on the left-hand side of the periodic table; the majority of elements are metals.

Metal + acid ⟶ ***salt + hydrogen***

Magnesium + hydrochloric acid ⟶ magnesium chloride + hydrogen



Sulfuric acid ⟶ sulfate

Nitric acid ⟶ nitrate

Hydrochloric acid ⟶ chloride

BOX 2 METALS AND OXYGEN

Metal + oxygen ⟶ ***metal oxide***

Magnesium + oxygen ⟶ magnesium oxide

BOX 3 METALS AND WATER

Metal + water ⟶ ***metal hydroxide + hydrogen***

Potassium + water ⟶ potassium hydroxide + hydrogen

BOX 4 REACTIVITY

Reactivity series describes the patterns of metal reactions with acids, oxygen and water. Metals get less reactive as you go down the group.

BOX 5 DISPLACEMENT REACTIONS

Displacement reactions involve a reaction between a metal and a compound of a different metal.

A more reactive metal will displace a less reactive metal from its compounds.

AB + C → A + BC

For example, the more reactive magnesium will displace the less reactive copper from the copper sulfate solution.

Magnesium + copper sulfate ⟶ magnesium sulfate + copper

Big Ideas 7.7- Reactions

KEYWORD	DEFINITION
Ceramic	A compound that is hard, strong and has a high melting point.
Chemical property	How a substance behaves in its chemical reactions.
Displaces	A more reactive metal displaces – or takes the place of – a less reactive metal from its compound.
Oxidation	A chemical reaction in which a substance combines with oxygen.
Oxides	A substance made up of metal or non-metal element joined to oxygen.
Physical property	A property of a material that you can observe and measure.
Polymers	A molecule made by joining up thousands of smaller molecules in a repeating pattern. Plastics are synthetic polymers. Starch is a natural polymer.
Reactive	A substance is reactive if its reacts vigorously with dilute acid or water.
Reactivity	The tendency of a substance to undergo a chemical reaction.
Thermite reaction	Reaction of aluminium with iron oxide to make aluminium oxide and iron.

BOX 6 Extracting metals

Aluminium is extracted from bauxite rock (an ore). Extraction depends on the reactivity of the metal. Any metal below carbon in the reactivity series (e.g. zinc, iron, lead, copper) can be displaced from its compound by carbon. For example;

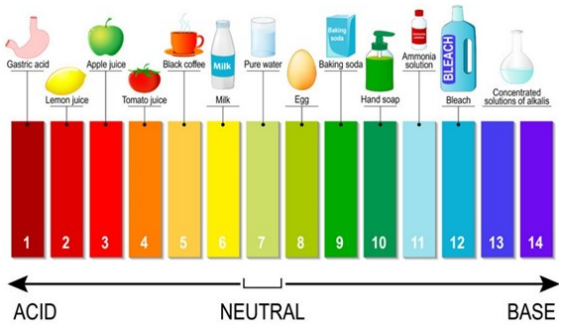
carbon + copper oxide ⟶ copper + carbon dioxide

If a metal is above carbon in the reactivity series (e.g. aluminium, magnesium, sodium), it will be extracted from its ore by electrolysis. This is an expensive.

Y7: Reactions - Acids and Alkalis

Big Idea 7.8 : Reactions– Acids and alkalis

BOX 1 ACIDS AND ALKALIS



neutral solutions = pH 7 exactly
acidic solutions have pH values < 7
alkaline solutions have pH values > 7

BOX 2 INDICATORS

Universal indicator (solution or paper) is a mixture of different indicators. It can show us whether a solution is acid or alkali AND how strongly acidic or alkaline a solution is. This is measured using the pH scale.

Litmus indicator solution turns red in acidic solutions and blue in alkaline solutions. It turns purple in neutral solutions.

BOX 3 NEUTRALISATION

A chemical reaction happens if you mix together an acid and an alkali. The reaction is called neutralisation. A **neutral solution** is made if you add just the right amount of acid and base together. The products formed are **salt and water**.

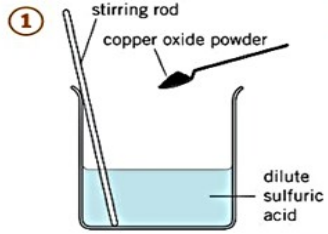
acid + alkali → salt + water

Soil for crops: Can add base (alkali) to the soil to neutralise some

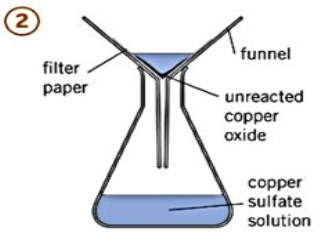
BOX 4 MAKING SALTS

How can you make crystals of salts?

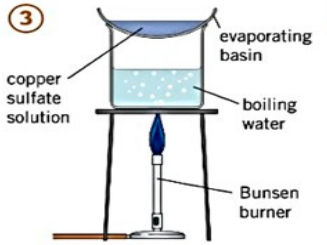
The reactions of acids with metals or bases make salt solutions. Removing water makes salt crystals. The diagrams show how to make copper sulfate crystals.



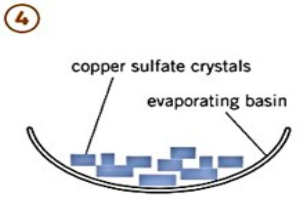
▲ Add copper oxide powder (a base) to dilute sulfuric acid. Keep adding until some copper oxide is left over. All the acid has now reacted.



▲ Filter to remove the copper oxide that has not reacted.



▲ Heat the copper sulfate solution in an evaporating basin until most of the water evaporates.



▲ Leave the evaporating basin in a warm place. The rest of the water evaporates. Copper sulfate crystals remain.

KEYWORD	DEFINITION
Acid	Solution with a pH value less than 7.
Alkali	A soluble base with a pH value more than 7
Chemical reaction	A change in which atoms are rearranged to create new substances.
Concentrated	A solution is concentrated if it has a large number of solute particles per unit volume.
Concentration	A measure of the number of particles in a given volume.
Dilute	A solution is dilute if it has a small number of solute particles per unit volume.
Indicator	Substances used to identify whether unknown solutions are acidic or alkaline.
pH scale	Shows whether a substance is acid, alkali or neutral. It ranges from 0 – 14.
Physical change	A change that is reversible, in which new substances are not made. E.g. ice à water.
Reversible	A change in which it is possible to get back to the original substance.
Salt	A compound in which the hydrogen atoms of an acid are replaced by atoms of a metal element.

Y7: Waves

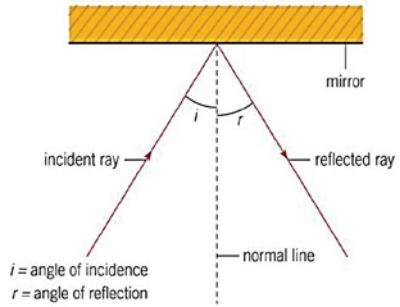
Big Idea 7.9: Waves- Light

Box 1: Light Waves

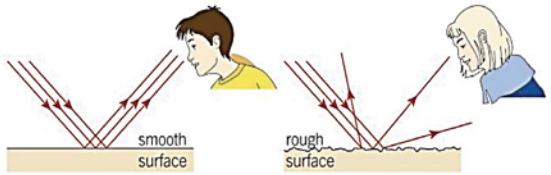
- Light is a transverse wave. It travels at a speed of 300 000 000 m/s.
- Light can travel through gas (air), some liquids (water) and some solids (glass).
- Light waves travel in straight lines.
- Seeing luminous objects (a); light travels directly to the eyes.
- Seeing non-luminous objects (b); light reflects off the book and into your eye.

Box 2: Reflection

The law of reflection states that the angle of incidence is equal to the angle of reflection.



Box 3: Types of Reflection

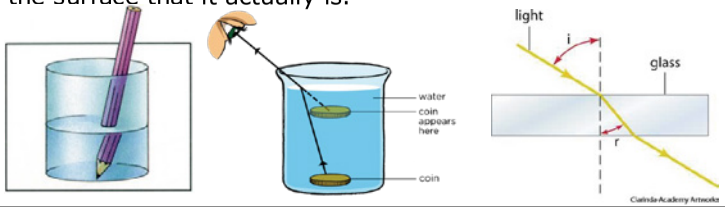


▲ Reflection from a smooth surface (specular reflection).

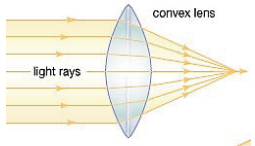
▲ Reflection from a rough surface (diffuse reflection), or scattering.

Box 4: Refraction

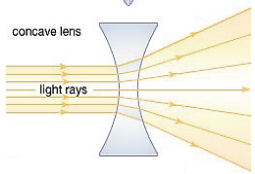
REFRACTION happens when light travels from one medium (material) to another. Refraction explains why the pencil appears to be bent in water or why the coin looks closer to the surface that it actually is.



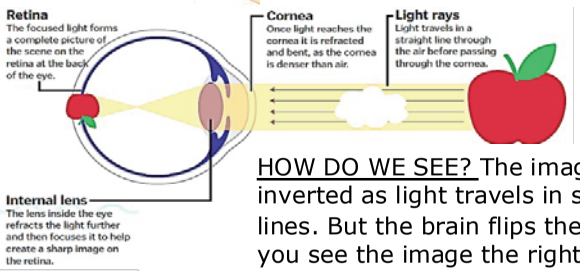
Box 5: Lenses and the Eye



CONVEX LENS: found in cameras, telescopes, glasses and contact lenses. They produce real images (camera) and virtual images (magnifying glass).



CONCAVE LENS: found in door spyholes. Only produce virtual images.

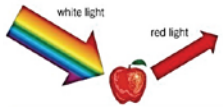


HOW DO WE SEE? The image is inverted as light travels in straight lines. But the brain flips the image so you see the image the right way up.

Box 6: Colour

- Your eye detects three primary colours: red, blue and green. Mixing two primary colours makes a secondary colour.
- Objects look different colours as they absorb and reflect different light into the eyes.

▲ Your eye and brain perceive no light as black and all the frequencies of light as white.

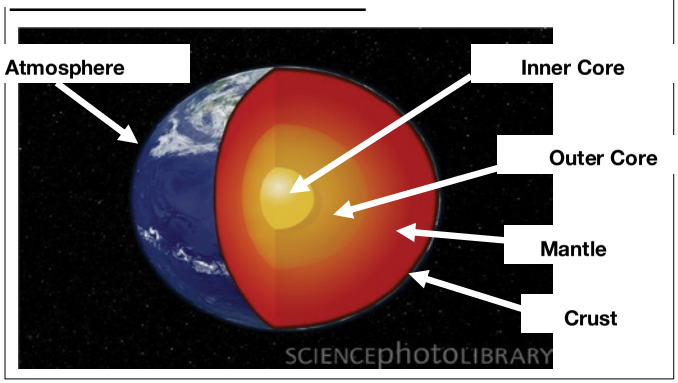


◀ An apple reflects red light and absorbs the other colours.

KEYWORD	DEFINITION
Concave	A lens that is thinner in the middle and that spreads out light rays (diverging).
Convex	A lens that is thicker in the middle and that bends light rays towards each other (converging).
Diffuse reflection	Reflection from a rough surface.
Dispersion	The splitting up of a ray of light of mixed wavelengths by refraction into its components.
Filter	A piece of material that allows some radiation (colours) through but absorbs the rest.
Image	The point from which rays if light entering the eye appear to have originated.
Incident ray	Incoming ray from a source of light.
Inverted	Upside down
Luminous	Object that gives out light.
Non-luminous	Objects that produce no light.
Prism	A triangular shaped piece of glass used to produce a spectrum of light.
Reflected ray	The outgoing ray that has been reflected from a surface.
Reflection	The change in the direction of light when it hits a boundary and bounces back.
Refraction	Change in the direction of light going from one material into another.
Spectrum	A band of colours produced when light is spread out by a prism.
Specular reflection	Reflection from a smooth surface.
Virtual (image)	An image that cannot be focused onto a screen, unlike a real image which can be put on a screen.

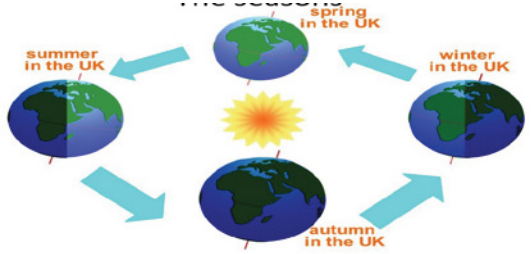
Y7: Earth

Big Idea 7.10: Earth



Box 5: Seasons

The Earth's axis is the imaginary line through the centre of the Earth between the South and North poles.
This axis is tilted slightly.
We get different seasons because the Earth is tilted



Box 2: Sedimentary Rocks

Formed from layers of sediment, and can contain fossils.
Examples are limestone, chalk and sandstone.

How sedimentary rocks are formed:
1. Weathering (rock sediments are loosened from the surface of the rock e.g. by rain, ice, heat etc.)
2. Erosion (rock sediments are worn away/ broken off)
3. Transportation (rock pieces moved further away, e.g. by a river)
4. Sedimentation (rock pieces collect in layers)
5. Compaction (sediments squashed together)
6. Cementation (sediments 'glued' together by minerals)

Box 3: Igneous Rocks

Formed from cooled magma, with minerals arranged in crystals.
Examples are granite, basalt and obsidian.

The size of the crystals depends on how quickly they cooled. Large = it cooled slowly, small = it cooled quickly.

2 types of igneous rocks:
1. **Extrusive rock – when the rock forms above the surface of the earth from lava after a volcanic eruption.**
2. **Intrusive rock – when the rock forms underground from magma.**

Box 4: Metamorphic Rocks

Formed from existing rocks exposed to heat and pressure over a long time.
Earth movements can put pressure on buried rocks and proximity to magma can cause chemical changes.
Examples are marble, slate and schist.

Box 6: Space

Moons - Our moon is the Earth's only natural satellite.

Planets - We have 8 planets in our Solar System.

Stars - The Sun is the closest star to Earth and is actually a relatively small star.

Solar system - Made up of planets, moons and other celestial objects, all orbiting around the Sun.

Galaxy - The Solar System is part of the Milky Way galaxy.

Universe - The observable universe is the part that can be seen / observed.

Box 7: The Solar System
The order of planets in our solar system:

Mercury - closest to the Sun
Venus
Earth
Mars
Jupiter
Saturn
Uranus
Neptune - furthest from the Sun

Mnemonic to help you remember: My Very Easy Method Just Speeds Up Naming.

KEYWORD	DEFINITION
Rock cycle	Sequence of processes where rocks change from one type to another.
Weathering	The wearing down of rock by physical, chemical or biological processes
Erosion	Movement of rock by water, ice or wind (transportation).
Minerals	Chemicals that rocks are made from.
Strata	Layers of sedimentary rock
Sediment	Small grains of sand, mud, dirt or rock
Galaxy	Collection of stars held together by gravity. Our galaxy is called the Milky Way.
Light year	The distance light travels in a year (over 9 million, million kilometres).
Stars	Bodies which give out light, and which may have a solar system of planets.
Orbit	Path taken by a satellite, planet or star moving around a larger body. Earth completes one orbit of the Sun every year.

Y7: Ecology - Retrieval Questions

Part A

Box 1

1. What is a producer?
2. What is a consumer?
3. What does a food chain show?
4. What is a better alternative to a food chain?
5. What is an ecosystem?
6. What is meant by the term biomagnification

Box 2

Look at the food web shown and write down 2 food chains.

What do the arrows in a food chain represent?

Part B

Box 1 & 2

1. What is the name of the male reproductive part of the plant?
2. Which part produces pollen?
3. What is the name of the female reproductive part of the plant?
4. Which part catches the pollen?
5. What does the ovary contain?

Box 2

1. What are the 2 types of pollination?

Y7: Matter - Particle Model - Retrieval Questions

Box 1

1. How are particles arranged in a solid?
2. List 3 properties of a gas.
3. Which of the states: solid, liquid or gas, has a fixed shape?
4. Daw a particle diagram for a liquid.

Box 2

1. What does a 'change of state' mean?
2. What word can we use to describe a change of state from a liquid to a solid?
3. What change of state occurs if we witness boiling?
4. What rare process describes a solid turning into a gas?
5. At what temperature will ice start turning into liquid water?

Box 3

1. What is pressure?
2. What three factors affect pressure?
3. If the temperature of a gas was increases, what would happen to the pressure of the gas?
4. If the volume of a container of gas was really large, what could you say about the pressure of the gas?

Box 4

1. What is diffusion?
2. What factors affect the rate of diffusion?
3. Does diffusion happen faster in a solid, liquid or a gas?
4. What temperature of water, hot or cold, will a teabag diffuse fastest in?

Keyword Box

1. What is the melting point of a substance?
2. What is the boiling point of a substance?
3. What is the density of a substance?
4. What is the particle model of matter?
5. What are properties of matter?

Y7: Matter Separations - Retrieval Questions

Box 1: Mixtures and pure substances

1. **What is a mixture?**
2. **What is a pure substance?**
3. **What is fixed for a pure substance?**
4. **What happens to the temperature of an impure mixture as it melts?**

Box 2: Dissolving and forming solutions

1. **What is a solvent?**
2. **What is a solute?**
3. **What is a solution?**
4. **Describe how a solution can become saturated.**

Box 3: Solubility

1. **What does solubility mean?**
2. **Describe how temperature affects solubility.**
3. **Want does insoluble mean?**
4. **Explain what a solubility curve tells us.**

Box 4: Filtration

1. **What is filtration?**
2. **What is a residue?**
3. **What is a filtrate?**
4. **Give an example of why filtration is useful.**

Box 5: Distillation

1. **What is distillation?**
2. **Distillation can be used to separate an ink solution. What else can be separated?**
3. **Why does salt not boil when water does?**
4. **Describe how the condenser works.**

Box 6: Chromatography

1. **What is chromatography? Give three examples of why this is useful separating technique.**
2. **Why do some substances travel further up the paper/chromatogram compared to others?**
3. **How would you know if the substance is pure?**
4. **How could you tell if a mixture contained two of the same substance?**

Y7: Electromagnets - Retrieval Questions

Box 1

1. What are the two types of electrical charge that exists?
2. What happens if two objects that have the same charge are brought near each other?
3. What happens if two objects that have opposite charge are brought near to one another?
4. What is the name of the force that exists between the two charges called?

Box 2

1. What is resistance?
2. What unit do we measure resistance in?
3. What equation links the potential difference (V) with current (I) and resistance (R) ?
4. Why does resistance occur in a wire?
5. What three factors affect resistance?

Box 3 & 4

1. Draw a simple circuit diagram showing a bulb connected in series with a cell.
2. Describe the current in a series circuit.
3. Draw a circuit diagram that shows two bulbs connected in parallel with a battery.
4. State what you know about the potential difference in a parallel circuit.
5. What happens in a series circuit if a bulb breaks? How is this different to a parallel circuit?

Box 5

1. Sketch a circuit diagram for a cell
2. Sketch a circuit diagram for a battery
3. What is the circuit diagram for a bulb?

Keyword Box

1. What is an ammeter?
2. What is a voltmeter?
3. Where must a voltmeter be placed in a circuit to get a reading for the potential difference of a component?
4. What is the difference between a cell and a battery?

Y7: Energy - Retrieval Questions

Box 1

1. List four different energy stores.
2. What is the law of conservation of energy?
3. Which energy store describes the energy contained in an object at a height above the surface of a planet?
4. Name two different pathways that energy transfers can follow.
5. Which energy store best describes the energy of a moving object?

Box 2

1. What is power?
2. What unit is energy measured in?
3. What formula links the power of an object to the energy transferred and the time taken?
4. What is the unit of power?
5. What unit should we always measure time in for our formula to work?

Box 3

1. What 3 ways can heat be transferred?
2. What can you do to an object to reduce the thermal energy transfer it may experience?
3. Which state of matter does conduction occur in?
4. Which thermal energy transfer does our sun use in order to provide the Earth with heat?
5. What is conduction?

Box 4

1. What are fossil fuels?
2. What are non renewable fuels?
3. What are renewable fuels?
4. What advantages do fossil fuels have over renewable fuel sources?
5. Why are renewable fuel sources better for the environment?
6. Which renewable fuel provides us with energy from our sun?
7. Describe the process used by a power station to turn fossil fuels into electricity

Keyword Box

1. What is it mean if energy is dissipated?
2. What dis the chemical store of energy?
3. What is the elastic store of energy?
4. What is an energy resource?
5. What is the thermal energy store?

Y7: Organisations - Retrieval Questions

Part A

Box 1, 2 & 3

1. What is the smallest thing that makes up a living organism?
2. What do many tissues come together to make?
3. What is an organ system?
4. Give an example of an organ system.
5. Give an example of an organ within that system.

Box 4 & 5 (+ keywords)

1. What are the names of the 2 bones that make up the head?
2. Name one of the bones of the arm.
3. Name one of the bones of the leg.
4. What is a joint?
5. Give an example of a type of joint.

Box 6, 7 & 8 (+ keywords)

1. Name the 4 main functions of the skeleton.
2. What is meant by the term antagonistic muscles?
3. What is a tendon?
4. What is a ligament?
5. What is the name of the piquid that keeps cartilage slippery?

1. Name the organelles in an animal cell.
2. Name the organelles a plant cell has that an animal cell does not have.
3. What is the function of the nucelus?
4. What is the difference between a cell wall and cell membrane?
5. Which organelle is the site of respiration?

Box 3, 4 & 5

1. How do you calculate total magnification?
2. What are the 2 types of lens in a microscope?
3. Where should the stage be to start with?
4. If the eyepiece lens magnification is 10x and the objective lens magnification is 40x, what is the to magnification?

Box 6, 7 & 8

1. What is an organism?
2. What is a unicellular organism?
3. Give 3 examples of unicellular organisms.
4. What do you need to do to cells before you view them under the microscope?

Y7: Forces – Retrieval Questions

Box 1

1. What unit do we measure force in?
2. What three things can a force do to an object?
3. True or false: forces always work in pairs?
4. What do force arrows show in a force diagram?
5. What instrument can we use to find the size of a force acting on an object?

Box 2

1. What does friction do to an object?
2. What name is given to the drag force that slows us down if we move through water?
3. What will streamlining an object do?
4. What force will balance air resistance on a sky diver?

Box 3

1. What is a resultant force?
2. If a force is pushing on a box and another force is pulling on the same box (I.e. the forces act in opposite directions) how would you find the resultant force?
3. What does it mean if there is a large arrow representing a force on a force diagram?
4. What does it mean if an object is in equilibrium?
5. What can you say about the forces acting on an object moving with a steady speed?

Box 4

1. What is Hooke's Law?
2. What equation links force with a spring constant and extension?
3. Sketch a graph showing the results of an experiment that we would expect to see if a spring that obeyed Hooke's Law was stretched.
4. What unit must we measure extension in?

Box 5

1. What is the mass of an object?
2. What is the weight of an object?
3. If a person goes to another planet, will their mass change?
4. What equation links mass with weight and gravitational field strength?
5. What is the job of gravity?

Keyword Box

1. What is a contact force?
2. What does it mean if an object has deformed?
3. What is gravity?
4. What name is given to the upward force that a fluid exerts on a body?
5. What is the extension of an object?

Y7: Genetics – Retrieval Questions

Part A

Box 1 & 2

1. Which part of the female reproductive system contains the egg cells?
2. Which part of the male reproductive system produces sperm cells?
3. What is the job of the uterus?
4. What is the job of the sperm duct?
5. What is the job of the oviduct?

Box 3 (+ keywords)

1. What is adolescence?
2. What is puberty?
3. Name a change that happens in males during puberty.
4. Name a change that happens in females during puberty.
5. Name a change that happens in both males and females in puberty.

Box 4 & 5

1. On which day of the menstrual cycle does the menstrual period occur?
2. What happens between days 5 and 14 of the menstrual cycle?
3. What is it called when the egg is released from the ovaries?
4. When in the menstrual cycle does the uterus lining begin to break down?

Box 6&7

1. What is variation?
2. What are the two types of variation?
3. What are gametes?
4. Describe how the sperm is adapted for fertilisation.

Y7: Reactions - Retrieval Questions

Box 1: Metals and acids

1. What is the general equation for the reaction of a metal and acid?
2. Write the word equation for the reaction of magnesium and hydrochloric acid.
3. Write the word equation for the reaction of calcium and hydrochloric acid.
4. Write the word equation for the reaction of copper and sulfuric acid.

Box 2: Metals and oxygen

1. What is the general equation for a metal reacting with oxygen?
2. Write the equation for magnesium and oxygen reacting.
3. Write the equation for calcium and oxygen reacting.
4. Write the equation for Lithium and oxygen reacting.

Box 3: Metals and water

1. What is the general equation for a metal reacting with water?
2. Write the equation for potassium and water reacting.
3. Write the equation for sodium and water reacting.
4. Write the equation for Lithium and water reacting.

Box 4: Reactivity series

1. What happens to the reactivity moving down the reactivity series?
2. Which is more reactive, aluminium or copper?
3. Which is more reactive, magnesium or calcium?
4. Why is gold used for jewellery?

Box 5: Displacement reactions

1. What does displace mean?
2. What is the displacement reaction between magnesium and copper sulphate?
3. Write the displacement reaction for zinc and copper sulphate.
4. Explain why copper cannot displace zinc from zinc sulphate solution.

Box 6: Extracting metals

1. What metal is extracted from bauxite (an ore)?
2. Which non-metal is often used to displace and remove metals from their ore?
3. Write the equation for the extraction of zinc from zinc oxide using carbon.
4. Why can't carbon be used to extract aluminium from bauxite?

Y7: Reactions - Acids and Alkalis - Retrieval Questions

Box 1: Acids and alkalis

What other word can be used for an alkali?
What pH are alkalis? Give two examples.
What pH are acids? Give two examples.
What is a neutral pH? Give one example.

Box 2: Indicators

What is an indicator?
Describe what a universal indicator shows.
What do universal indicators measure in?
Litmus paper changes colour.
Acidic=
Alkali=
Neutral=

Box 3: Neutralisation

What is neutralisation?
Describe how you can make a neutral solution.
What are the products when an acid and an alkali react?
Give an example of how neutralisation is useful.

Box 4: Making Salts

What acid is added to the copper oxide powder?
How is the unreacted copper oxide removed? What solution is left?
What change of state is used to remove the water from the solution?
What compound is left in the evaporating basin?

Y7: Waves - Retrieval Questions

Box 1

1. What kind of wave is a light wave?
2. What media can light waves travel in?
3. What is the speed of light in a vacuum?
4. Describe how we see an object that is luminous and non-luminous.

Box 2 & 3

1. What does the law of reflection state?
2. Draw a diagram that shows the law of reflection in action.
3. What is specular reflection?
4. What is diffuse reflection?
5. What surface will specular reflection occur on?

Box 4

1. What is refraction?
2. When does refraction occur?
3. Why does a pencil appear to 'bend' if it is put into water?
4. Draw a ray diagram that shows refraction in action.

Box 5

1. What are the two types of lenses that are used in physics?
2. Draw a ray diagram that shows a convex lens.
3. Draw a ray diagram that shows a concave lens.
4. How does the human eye allow us to see images?
5. What is the key difference between the images produced usir convex lens compared to a concave lens?

Box 6

1. What are the primary colours?
2. How are secondary colours produced?
3. How do we see coloured objects?
4. What colours of light are absorbed if an object appears to be black?
5. How many colours are in a white light spectrum?

Keyword Box

1. What is the incident ray of light upon an object?
2. What is the difference between a virtual image and a real im
3. What is a prism used for?
4. What happens to light if it is dispersed?

Y7: Earth - Retrieval Questions

Box 1

1. State the four layers of the Earth.
2. What layer of the Earth is liquid?
3. What is the outer layer of the Earth known as?

Box 2,3,4

1. **Name the 3 different types of rocks.**
2. Describe the formation of the three types of rocks.
3. Which type of rock contains crystals?
4. Which type of rock is most porous?

1. What are seasons?
2. Why do we get different seasons?
3. How is the temperature different during different seasons?

Box 6

1. How is a planet different to a star?
2. What galaxy is the solar system part of?
3. What is an example of a natural satellite?

Box 7

1. Name the 8 planets in our solar system in order of distance from the sun.

Keyword Box

1. Define the term weathering.
2. Define the term sediment.
3. Define the term orbit.

YEAR 7

TECH

Year 7 Knowledge Organiser 1A

Keywords:

Rendering= Adding colour to make something look realistic

Crating= Using isometric drawing skills to convert 2D shape into 3D

Isometric= 3D drawing projected at a 30 degree angle

Abstracting= Use of lines and

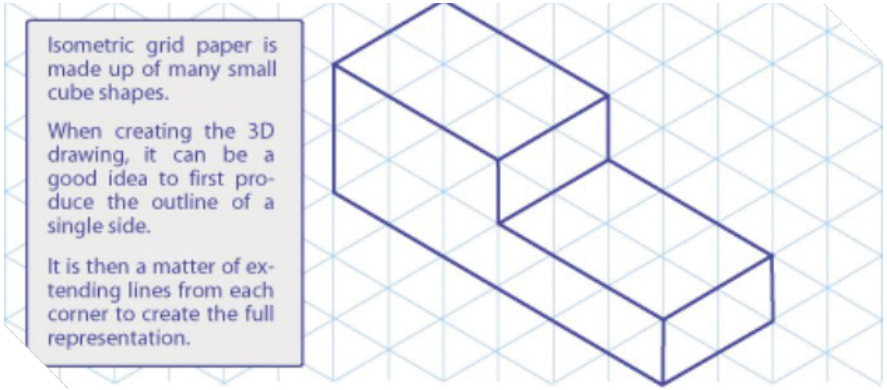
Annotation= Labelling design work in detailed sentences using accessfm.

Health and Safety Rules in the Workshop

Health and safety rules need to be followed in the workshop at all times, especially when participating in practical lessons:

1. Wear safety goggles when using machinery
2. Wear an apron before starting your task
3. Don't cross the yellow lines when others are on machines
4. Bags and coats away before the lesson begins
5. Don't run in the workshop at any time
6. Tie back long hair when working with machines and equipment.
7. Listen to the teachers' instructions when they start to speak.

http://www.technologystudent.com/despro_flsh/graphics_iso1.html



-Isometric drawing is way of presenting designs/drawings in three dimensions, projected at a 30 degree angle and using no horizontal lines, certain lines must be kept parallel.

Abstracting:

What is it?

-A way of drawing to form random shapes that can be removed to create a design.

How does it help with designing?

-It helps to make unusual shapes

that you wouldn't generate

another way.

Thermoplastics Explanation

Thermoplastic materials are types of plastic which become soft when they are heated and hard when they cool down

Thermoplastics Examples

PVC, polystyrene, Polyester, Acrylic, Polyamide, Polythene

Thermosetting Plastics Explanation

Synthetic materials that strengthen during heat treatment, but cannot be remoulded or reheated after their

Thermosetting Plastics Examples

Epoxy resin, Polyester resin, Phenol formaldehyde, Urea formaldehyde.

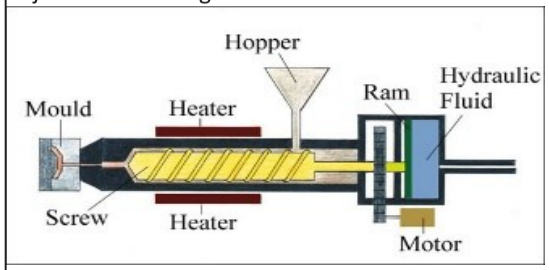

Nut& Bolt


Zip Fastener


Screws

Plastic Processes

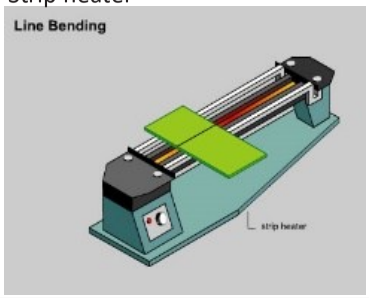
Injection moulding



Many products are made using this process. Injection moulding uses THERMOPLASTICS, such as Polystyrene, Nylon, Polypropylene, Polythene

Line bending is a way to bend plastic by using heat in a strip to apply it to the part you want to bend.

Strip heater

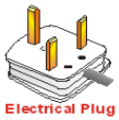


Standard Components

These are pre-manufactured parts which are bought in to aid the production of the product
Nuts, bolts, screws, buttons, zips etc. are all standard components


Buttons


Resistors


Electrical Plug

Year 7 Knowledge Organiser 1B

We use ACCESSFM to help with annotation of design ideas, to ensure that all information is included in reference to a design:

- **A** → Aesthetics, this is anything to do withthe way a product looks
- **C** → Cost, Explain how much the prod uct would cost to make and would sell for commercially.
- **C** → Customer, Why is the product suita ble for your customer
- **E** → Environment, How does the product effect the environment
- **S** → Size, what are the dimensions of the product and why
- **S** → Safety, How is the product safe?
- **F** → Function, What is the products main use, can it ne used for anything else?
- **M** → Materials/manufacture, What is the product made from and how it made.

CAD/CAM

Computer-aided design/computer-aided manufacturing, computer systems used to design and manufacture products.

The advantages of CAD include: The ability to produce very accurate designs quickly, you can easily save and modify your work, you have many drawing tools available, you can email it anywhere instantly

Disadvantages of CAD include: Work can be lost because of the sudden breakdown of computers

The advantages of CAM include: Helps manufacturers increase the speed of making things, it is safer to use than manual machines, it is more accurate than manual machines

Disadvantages of CAM include: CAM requires advanced manufacturing devices that are also pricey, it requires training

Plastics, stock forms:

Stock form is the way in which plastic can be bought. There are stock forms of timber, metals and plastics.

Plastic stock forms are:

-Sheet

-Rods

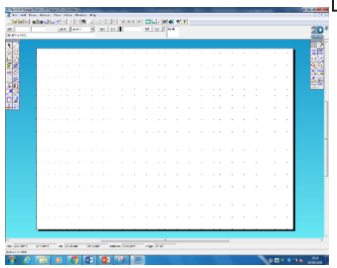
-Tube

-Granules

-Powder

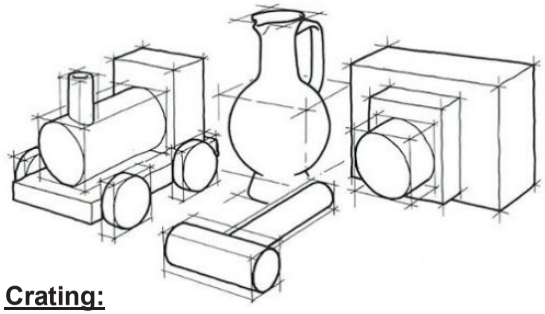
2D design

-This is a (Computer Aided Design) programme you will use on the computer to complete designs that can be used to create things on the laser cutter



Memphis, using designers to inspire your own work

Memphis is a design movement that began in 1981. Designer Ettore Sottsass founded the Memphis Group with other designers and architects. Like many creative movements, Memphis was a reaction against the status quo. The 1950s/60s mid-century modern and 1970s minimalism were about structure and straight lines.
Features of Memphis designs are: bright colours, geometric shapes and whacky!
Their designs were influenced by children's toys, architecture, Egyptology and animals



Crating:

Is a skill used to covert 2D drawings or objects into 3D sketches,. This is done by using an isometric cube or "cereal box" and drawing the shape accurately within the box. This successfully shows the crating technique.

Year 7 Knowledge Organiser 2

Keywords:

Rendering= Adding colour to make something look realistic

Isometric= 3D drawing projected at a 30 degree angle

Annotation= Labelling design work in detailed sentences using accessfm.

Coniferous= *Evergreen trees that grow quickly*

Deciduous= *Trees that grow slowly and lose their leaves*

Tips for good flashcards:

1. Use memorable images to help with your words!

2. Ask yourself a question, answer it on the back

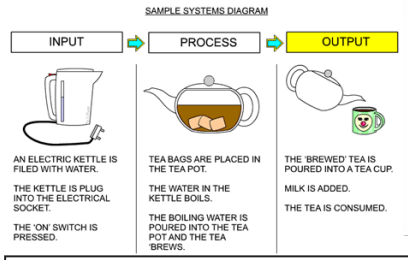
3. Don't over fill each card.

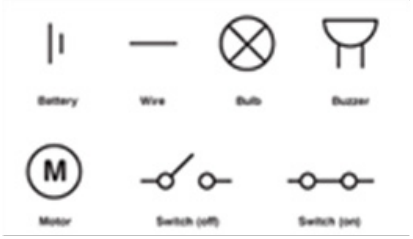
Example:

What are the 3 timber categories?	Hardwoods Softwoods Manufactured boards

Systems

Systems consist of an input (e.g. switch), process (e.g. microcontroller) and output (e.g. alarm). We are surrounded by many electronic and electric systems. In industry systems are used to control the production lines. An example would be an automatic robot which are used to ensure accurate products are made quickly and safely.





Types of timber

Softwoods:

-Come from coniferous trees

-Coniferous trees grow more quickly than those of hardwoods.

-The trees have needles instead of leaves, and are evergreen!

Hardwoods:

-Come from deciduous trees

-Deciduous trees grow slowly

-The trees have leaves and they only go green in the summer, winter time they loose them!

Manufactured boards:

-Made industrially in factories and turned into stock forms from there.

-Usually made of scrap wood, sometimes mixed with adhesive or resin, and compressed!

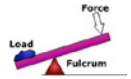
Examples ↓ Softwood	Examples ↓ Hardwood	Examples ↓ Manufactured
Pine	Ash	MDF
Spruce	Oak	Chipboard
Fir	Balsa	Plywood
Redwood	Beech	Hardboard

The 6 R's

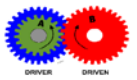
RETHINK: Do we make too many products? Design in a way that considers people and the environment.
REFUSE: Don't use a material or buy a product if you don't need it or it's bad for people or the environment.
REDUCE: Cut down the amount of material and energy you use as much as you can.
REUSE: Use a product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

Workshop Tools and Equipment

Mechanisms: A **lever** is a solid bar which rests on a fixed pivot point and decreases the amount of force needed to move a load.



A **gear** is a toothed wheel that works with others to alter the relation between the speed of a driving mechanism (such as the engine of a vehicle) and the speed of the driven parts (the wheels).



FRAMWELLGATE SCHOOL DURHAM

Excellence, compassion & respect for all

Framwellgate School Durham,
Newton Dr, Durham
DH1 5BQ

Email: enquiries@framdurham.com
Tel: 0191 386 6628

www.framdurham.com