



FRAMWELLGATE
SCHOOL DURHAM

KNOWLEDGE ORGANISER

YEAR 7 – 2026/27

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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.**

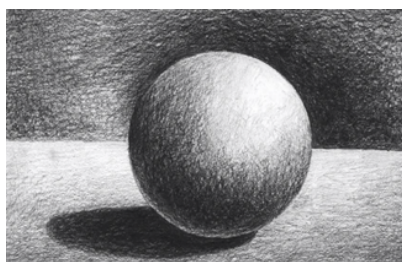
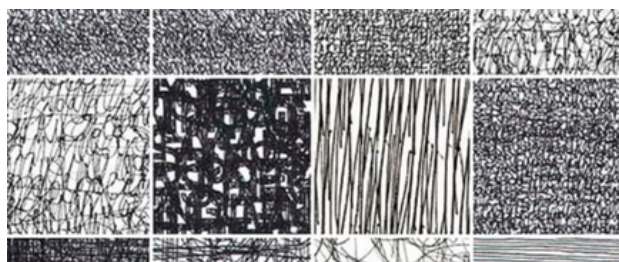


Scan the QR codes with a phone to access the pages

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.**



UNIT 2

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.**



UNIT 3

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.**



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.**



INDEPENDENT LEARNING - YOU ARE AN ARTIST

Scan the QR code for access to our **Independent Learning Tasks**; quick weekly things for you to do to develop as an artist.

Each half term we will **select the pupil with the most points for completing tasks** and **issue them with a prize.**



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 Class Charts** or by **typing the address below into your web browser.**

Talk to your teacher or 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

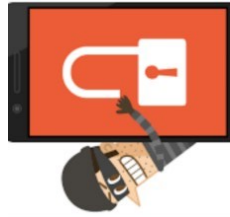
You need to have a strong password to make sure your work and personal details are safe.

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.



PASSWORD STRENGTH:

Build a Strong Password:

- ✓ Lowercase letter (a-z)
- ✓ Uppercase letter (A-Z)
- ✓ Numeral (0-9)
- ✓ Punctuation or other (!@#&...)
- ✓ Minimum 7 characters
- ✓ Better with 8 or more characters

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.

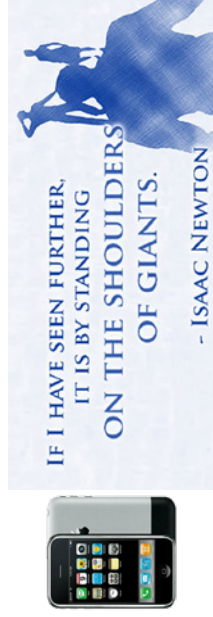


Evolution of Computing Technology

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.

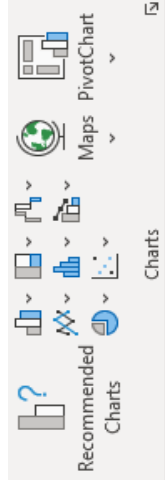
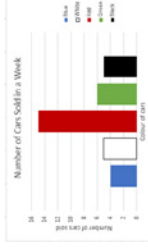


Spreadsheets are used to prepare accounts by businesses and they are ideal for making

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
= VLOOKUP
= AVERAGE

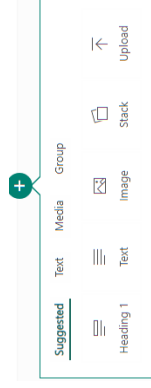


Using MS Sway to store all of your work

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:

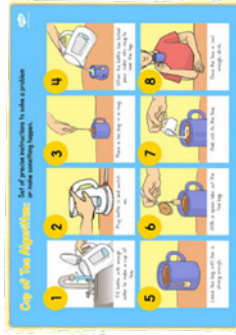
- Create a new Sway site
- Add a new entry
- Add a heading and text
- Upload a file
- Upload an image
- Change the layout
- Add a stack



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

Flowcharts - Variables, Input and Output

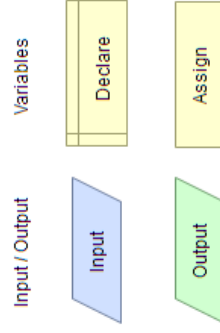
Algorithms can be described by using diagrams known as flowcharts, which show how data and processes "flow" together.

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

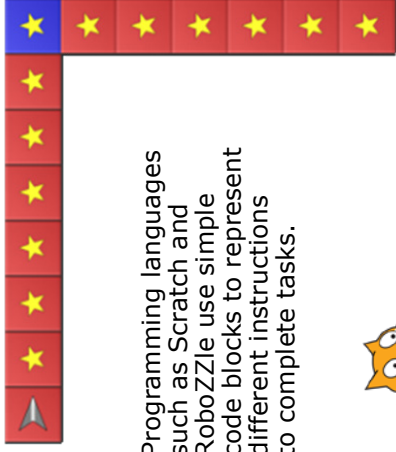
Variables are used to store data such as numbers (e.g. integers are whole numbers) or text (known as "strings").

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

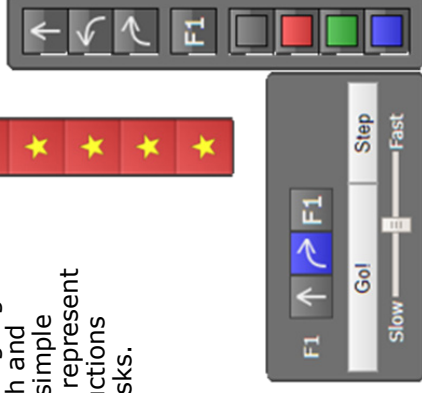
Output displays something on the screen.



Graphical or Block-based Algorithms

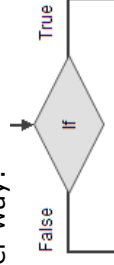


Programming languages such as Scratch and RoboZZle use simple code blocks to represent different instructions to complete tasks.

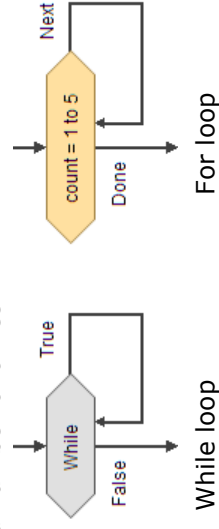


Flowcharts - Selection and Iteration

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:



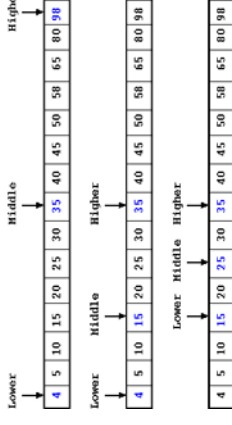
Binary Search Algorithm

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:

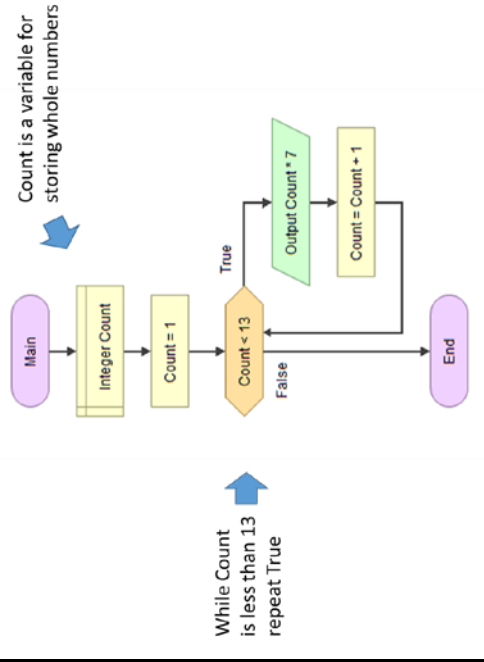
1. Find the middle item in the list
2. If the item is not the one that you want
3. Then keep the higher or lower half of the list
4. Repeat from step 1 until found!

E.g. find 25 :



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.

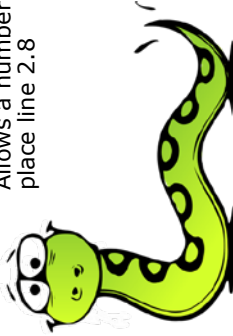
Hexadecimal
Longer binary numbers can be represented using hexadecimal which is known as base 16. Hex numbers will include letters to represent numbers.

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 like 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.

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	8	4	2	1
0	0	1	0	1	0	1	0

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

0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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
- 2. 0 + 1 = 1
- 3. 1 + 0 = 1
- 4. 1 + 1 = 0
- 5. 1 + 1 + 1 = 1

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

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

Year 7 Term 1.1: Mythology

KEY CONCEPTS	
What is a myth?	An ancient story explaining the early history of a group of people and their culture. They were often told orally, before being written down.
Why are myths important?	Myths were created to answer questions? For example, where did the universe come from? Where did people come from? Why are we here?
Power	Myths give people a sense of community and belonging. They might connect to a person's culture and identity. Many myths presents gods, goddesses, and other beings as very powerful. Other myths show humans taking power from the gods.

Coyote

Pan Gu (written by Shelley Fu)

Thor (written by Kevin Crossley-Holland)

Anansi

Prometheus (written by Stephen Fry); Penthesileia (written by Natalie Haynes); and Odysseus

VOCABULARY	
Hierarchy	A society where some people are more important than others
Powerful	Having great strength
Dominant	Being stronger or more powerful than others
Superior	Being better or more important than others
Invincible	Being impossible to defeat
Courageous	Being brave
Triumphant	Feeling proud and successful after winning
Defeated	Being beaten by an enemy
Cunning	Clever in a sneaky way
Manipulative	Controlling people unfairly to get what you want
STRETCH	
Aetiological myth	A story that explains why something happened in the world
Historical myth	A story about a real-life event
LANGUAGE METHODS	
Noun	A person, place, object, or idea
Adjective	A word that describes a noun
Verb	An action word
Adverb	A word that describes a verb
Symbol	An object that represents an idea
Triple	A list of three things
WRITING A PEA PARAGRAPH	
Point: In this myth, the writer presents... in order to...	
Evidence: The writer describes how "... "	
Analysis: At first glance, perhaps the writer uses [method] to suggest that... Upon closer inspection, the [method] also suggests that...	

Year 7 Term 1.2: Describing Natural World

Task: using a picture as a starting point, write a description of the natural world. For example:



LANGUAGE METHODS	
Noun	A person, place, object, or idea
Adjective	A word that describes a noun
Verb	An action word
Adverb	A word that describes a verb
Symbol	An object that represents an idea
Triple	A list of three things
Personification	Giving an object human characteristics
Pathetic fallacy	Giving human emotions to something in the natural world

STRUCTURAL METHODS	
Start by focussing on the weather	Beneath...
Describe the natural objects in the picture	Standing tall... Waiting...
Introduce a character	A lone figure...
Introduce a shift in the setting or weather	After a moment...

VOCABULARY	
Describing trees	Verdant (green), towering (tall), looming (tall), ancient (old), gnarled (twisted)
Describing mountains	Majestic (large), rugged (rough), snow-capped, shrouded (covered) in mist
Describing the sea	Turbulent (large waves), vast (large), shimmering (shining), boundless (large), roaring
Describing open landscapes	Expansive (large), windswept, vast (large), exposed (unprotected), undulating (rolling hills)
Describing peaceful places	Calm, tranquil, serene, quiet, harmonious
Colours	Blue – azure Yellow – golden Red – crimson Green – verdant Black – obsidian White – ivory
PUNCTUATION	
Semi-colon ;	Replaces a connective in a sentence. Both sides of the semi-colon must make sense on their own.
Colon :	Emphasises a key piece of information.
Comma ,	Adds extra information into a sentence.

SENTENCE STARTERS	
Adjective start	Bleak and barren , the moor shuddered in the wind.
Verb start	Twisting and turning , the vines wrapped around the tree.
-ly Adverb start	Silently , the shadow crept along the forest floor.
Preposition start	Beneath the watchful moon , the trees waited.

Year 7 Term 2.1: Shakespeare's Romeo and Juliet

KEY CONCEPT – Shakespeare wrote *Romeo and Juliet* to reveal how love transcends challenges and can last forever

CHARACTERS	
Montagues	Capulets
Romeo – loves Juliet Benvolio – Romeo's cousin Mercutio – Romeo's close friend	Juliet – loves Romeo Tybal – Juliet's cousin Nurse – Juliet's nanny Paris – wants to marry Juliet

PLOT

Act 1: The Montagues and Capulets are hostile towards each other. Romeo attends a masked ball at the Capulets'. He meets Juliet; they fall in love. However, his presence at the ball causes conflict so Tybal (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. With the help of the Nurse and Friar Lawrence, they secretly marry.

Act 3: Mercutio fights Tybal and is murdered. Vengeful Romeo then impulsively murders Tybal 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.

VOCABULARY	
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.

LANGUAGE METHODS	
Symbol	An object that represents something else.
Motif	A repeated symbol throughout a text.
Juxtaposition	Two opposites placed next to each other.
Foreshadowing	To give a hint of something yet to happen.
Dramatic irony	Audience knows more than characters.

STAGING METHODS	
Stage directions	Instructions for the director and actors
Set	The physical environment on stage
Props	Objects used by the actors
Costume	Clothes worn by the actors
Positioning	Where the actors stand on stage
Lighting and sound effects	

	Symbolism	Costume
LOVE	Water: Lohrmann uses the <u>symbol</u> of water to <u>represent</u> the purity of Romeo and Juliet's love, <u>foreshadowing</u> that their love will cleanse the families of hatred.	Angel: Juliet's costume suggests how pure and celestial she is. Knight: Romeo's costume suggests he is a hero, saving Juliet from her forced marriage.
CONFLICT	Storm: Lohrmann uses the <u>symbol</u> of a storm to <u>foreshadow</u> the rage, destruction and violence that will follow.	Tybal's black costume <u>foreshadows</u> death. The white bloodstained shirt <u>foreshadows</u> the destruction of innocence in murdering Tybal.
DEATH	Candles: Lohrmann uses the <u>symbol</u> of candles to highlight that life does not last forever. It <u>foreshadows</u> the lovers' deaths and reminds us it is <u>inevitable</u> .	The wedding dress is a symbol of innocence and purity, which makes their death more shocking. The wedding ring is a symbol of how their love <u>transcends</u> death and lasts forever.

WRITING A PEA PARAGRAPH	
Point: In this extract, Shakespeare/Lohrmann presents... in order to...	
Evidence: Shakespeare/Lohrmann describes how ... " ..."	
Analysis: At first glance, perhaps Shakespeare/Lohrmann uses [method] to suggest that... Upon closer inspection, the [method] also suggests that...	

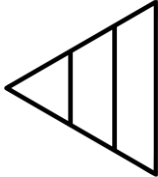
Year 7 Term 2.1: Animal Farm by George Orwell (Reading)

KEY CONCEPTS – Orwell wrote <i>Animal Farm</i> to....	
<u>warn</u> readers about how power <u>corrupts</u>	<u>criticise</u> tyrannical leaders

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

PLOT
Ch1: Old Major delivers a speech promoting a <u>revolution</u> against man.
Ch2: Old Major dies. The animals change his dream into a system called Animalism; they want to be <u>equal</u> with humans. Mr Jones is driven out.
Ch3: Snowball and Napoleon become leaders, but they always disagree. The pigs take the milk and the apples for themselves.
Ch4: News of the <u>revolution</u> spreads. A group of men return to take control of the farm. Snowball leads the animals to victory in The Battle of the Cowshed.
Ch5: Disagreements between Snowball and Napoleon continue. Snowball is attacked by Napoleon's dogs and is driven off the farm.
Ch6: The animals work even harder, while the pigs move into the farmhouse. A storm destroys the windmill and Napoleon blames this on Snowball.
Ch7: The animals face starvation. After the hens learn that they must give up their eggs, they <u>protest</u> . Napoleon's dogs kill animals accused of crimes.
Ch8: The animals still work harder, but eat less. The pigs continue to change the Commandments. Humans invade the farm and destroy the windmill.
Ch9: Boxer collapses. The pigs sell Boxer to the knackers, as he can't work.
Ch10: The pigs walk on hind legs and Napoleon carries a whip. The animals can no longer tell the difference between the pigs and humans.

VOCABULARY	
Allegory	A 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
Tyrant	A leader who is cruel and unfair to others
Tyrannical	Leading in a cruel and unfair way
Corrupt	To act dishonestly



LANGUAGE METHODS	
Emotive language	Words which make the reader feel an emotion
Rhetorical question	A question that doesn't require a response
Triple	A list of three
Repetition	Repeating a phrase
Imperative verb	A command
Plural first-person pronoun	e.g. we, us, our

PEA SENTENCE STARTERS
Point: In his allegory, Orwell presents... in order to...
Evidence: Orwell describes how... " " ..."
Analysis: At first glance, perhaps Orwell uses [method] to suggest that... Upon closer inspection...

Year 7 Term 3.1: Persuasive Writing (Animal Farm)

Task: Write a persuasive speech linked to *Animal Farm*.

KEY CONCEPTS	
Exploitation of the animals Hardworking animals like Boxer are used and discarded, showing how the powerful exploit loyalty.	Use of fear and intimidation An atmosphere of fear and deception has been created.
Inequality The animals have been made inferior by the pigs.	Manipulation of truth and language The pigs have altered the commandments.
Suppression of free speech and ideas The Sunday meetings have been stopped. Animals are not allowed to express their opinions without fear of retaliation from the pigs.	Abuse of power Power is now held by some of the animals. This is in direct opposition to the principles of Animalism.

GAP	
Genre	The type of text e.g. speech, article, letter
Audience	Who you are writing for
Purpose	The reason why you are writing
Features of a speech	Introduction; argument; counter argument; conclusion; discourse markers

STEPS TO SUCCESS WHEN WRITING A SPEECH	
Brain dump ideas	Mindmap or list
Organise your ideas	Number your ideas
Write your introduction	Imagine this: ...
Write your first main body paragraph	Most importantly,...
Write your second main body paragraph	Secondly,...
Write your third main body paragraph – this may be a counterargument	The simple fact is... OR Whilst some might claim that..., the reality is...
Write your conclusion	Ultimately, it is undeniable that...
Check your work	Check capital letters, punctuation, and spelling

VOCABULARY			
Hierarchy Superior Inferior Inequality Protest	Revolution Manipulate Tyrant/tyrannical Corrupt/corruption	Freedom Choice Equality Comfort Fair	Just Elections Unity Rights Trust
LANGUAGE METHODS			
Emotive language	Words which make the reader feel an emotion	Our voices have been silenced , our dreams have been crushed , our freedom has been snatched from us.	
Rhetorical question	A question that doesn't require a response	Why should one animal have more than another? Why are lies treated as the truth?	
Triple	A list of three	Corruption, deceit, manipulation: Napoleon's tyranny must end!	
Repetition	Repeating a phrase	We were promised freedom. We were promised equality. We were promised a better life.	
Imperative verb	A command	Remember Old Major's speech, comrades! Revolt! Make Animalism happen!	
Plural first-person pronoun	e.g. we, us, our	We must stand together.	
SENTENCE STRUCTURES AND PUNCTUATION			
One word sentence	E.g. Freedom. Join the revolution!		
Compound sentence using because/but	E.g. The pigs say that we are equals, but they have more power. The pigs don't work all day because they think they are superior.		
Apostrophe	Possession: Napoleon's control over the farm is absolute. Contraction: Some animals don't realise we are being manipulated.		
Question mark	Use at the end of a question sentence E.g. Is this really the freedom we were promised?		
Colon	Introduce a surprising idea. E.g. Comrades, there is only one way forward: rebellion!		

Year 7 – 3.2: Performing Poetry about Growing Up

KEY CONCEPTS		
Parents and carers can struggle to let their children become independent, because this brings significant changes.	Siblings often argue, but love can transcend differences.	Young people often face challenges growing up at school, due to peer pressure , needing to complete schoolwork, and developing integrity .

ORACY SKILLS	
Voice	- Speak at an appropriate speed - Vary your tone to communicate the poem's emotions - Pronounce words clearly - Project your voice so you can be heard
Body Language	- Posture: position your body towards your audience
Working with others	- Listen actively to others - Respond by clapping and giving positive, supportive feedback

VOCABULARY: What qualities do you develop as you grow up?	
Experience	Developing knowledge and skills through joining in with activities
Independence	Not relying on others
Integrity	Being honest and making good choices
Maturity	Being grown up
Resilience	Keeping on going even when life is challenging
Responsibility	Being able to act independently and accepting the results of your actions
Selfhood	Your identity

LANGUAGE AND STRUCTURAL METHODS	
Speaker	The narrator of the poem
Reader	The person reading or listening to the poem
Stanza	A verse or paragraph in a poem
Rhythm	The beat of the poem
Tone	The emotion you communicate using your words or voice
Imagery	Visually descriptive language
Symbol	An object that represents something else; something with a deeper meaning
Verb	Doing word
Adjective	Describes a noun
Adverb	Describes a verb
Direct address	Speaking directly to the reader e.g. "you"
Repetition	Using a word or phrase more than once
Personification	Giving an object human characteristics

VOCABULARY: What challenges might you face as you grow up?	
Peer pressure	Being influenced by others to behaviour in a certain way
Feeling inferior	Feeling less important
Feeling that things are unequal	Feeling that situations are unfair
Feeling vulnerable	Being easily hurt
Transcending challenges	To go beyond a difficulty

A large, stylized eagle graphic in a light blue color, spread across the entire page. The eagle's wings are spread wide, and its head is turned to the right. The graphic is composed of simple, flowing lines that define the feathers and the bird's form. In the upper left quadrant, there is a rectangular area with diagonal hatching lines.

YEAR 7

FOOD & NUTRITION

Knowledge Organiser 1



Eight tips to healthy eating

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

Fruit

- Classified in groups
- Soft fruits – raspberry, blackberry
- Citrus fruits – orange, lime and lemon
- Stone fruits – plum, apricot, cherry.
- Tree fruits – apple, pear
- Exotic fruits – banana, kiwi, pineapple
- Dried fruits – dates, sultana

Seasonality

Foods that are ready to eat in a certain season.

Examples include strawberries in the summer and pumpkins in autumn.

Advantages

- less harmful to the environment due to less pollution
- help the local economy.

Disadvantages

- Food only available at certain times of the year
- Can get gluts (too many of them)

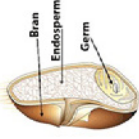
Weighing and measuring

- 1000g = 1kg
- 1000ml = 1l
- 1 tablespoon = 15g
- 1 teaspoon = 5g

Wheat

- 1 During primary processing of wheat, the outer layers need to be separated from the inner layers, this is done by milling.

- 1 The type of flour depends on the rate – how much of the grain is used.
- 2 100% extraction rate – wholewheat or wholemeal flour.
- 3 85% extraction rate – brown flour
- 4 70% extraction rate – white flour



Vegetables

- Classified according to which part of the plant they come from:

- Fruit vegetables – tomatoes, cucumbers
- Seeds and pods – peas and beans
- Flower vegetables – broccoli and cauliflower.
- Leafy vegetables – spinach, cabbage and parsley.
- Stem vegetables – celery
- Tubers – potatoes and sweet potatoes
- Fungi – mushrooms
- Bulbs – onion, garlic and leeks
- Roots – beetroot, swede and carrot.

Food hygiene

- Wash hands
- Tie hair up
- Put on apron
- Take off jewellery



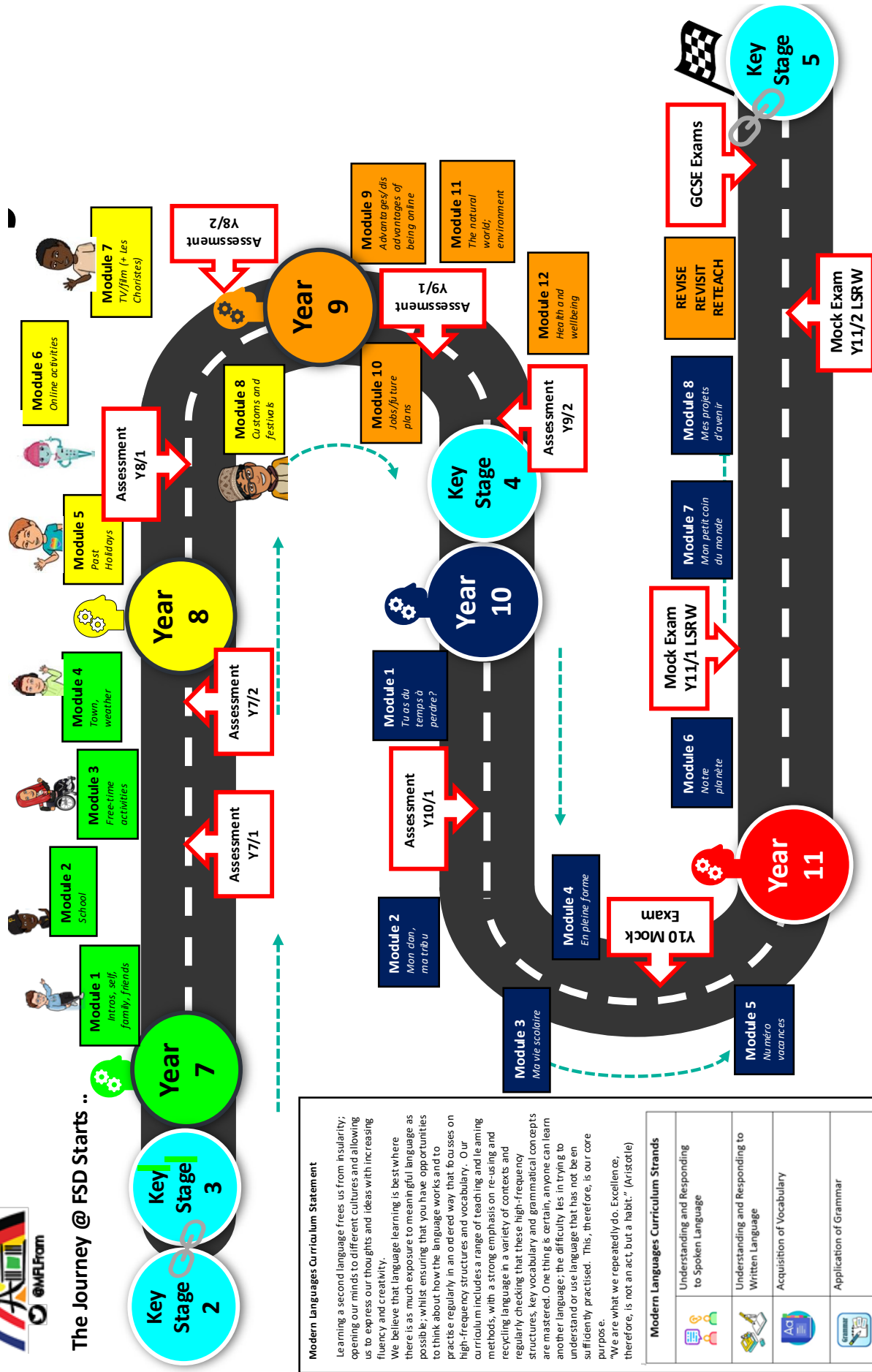
YEAR 7

FRENCH

Modern Languages Learning Journey



The Journey @ FSD Starts ..



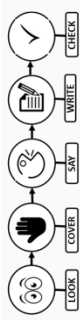
Modern Languages Curriculum Statement

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 focuses 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)

<u>Days</u>		<u>Months</u>	
Monday	lundi	janvier	
Tuesday	mardi	février	
Wednesday	mercredi	mars	
Thursday	jeudi	avril	
Friday	vendredi	mai	
Saturday	samedi	juin	
Sunday	dimanche	juillet	
<u>Seasons</u>		août	
Spring	le printemps	septembre	
Summer	l'été	octobre	
Autumn	l'automne	novembre	
Winter	l'hiver	décembre	

<u>Saying the date in French</u>			
Le + number+ month			
e.g. le deux avril = the 2 nd April			
le vingt juin = the 20 th June			
EXCEPTION			
the 1 st = le premier			
e.g. le premier mai = the 1 st May			

<u>Numbers</u>			
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

<u>Colours</u>			
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

<u>Connectives & other little words</u>		<u>Time markers</u>	<u>Intensifiers and Adverbs</u>	<u>Comparisons</u>
et mais pourtant cependant si avec sans sauf aussi parce que car à cause de grâce à pour (+ <i>infinitive</i>) afin de (+ <i>inf.</i>) avant de (+ <i>inf.</i>) bien que ce soit comme puisque par exemple y compris en plus donc / alors par conséquent quand pendant que en bref peut-être malgré heureusement malheureusement sauf même si c'est-à-dire d'un côté de l'autre côté par contre	and but however however if with without except also because because because of thanks to in order to in order to before ____ing although it is as/such as since/seeing as for example including in addition so/therefore as a result when while/whilst in short perhaps/maybe in spite of fortunately unfortunately except that is to say on the one hand on the other hand on the other hand	pour commencer to start with tout d'abord au début puis ensuite après (ça) plus tard mais maintenant tout de suite immédiatement soudainement enfin / finalement aujourd'hui bientôt un jour vers ____ heures at about ____ o'clock after 5 minutes/ après 5 minutes minutes	assez très un peu (de) peu de trop trop de assez de beaucoup (de) bien de plein de pas mal de pas grand chose plusieurs quelques vraiment complètement extrêmement absolument tout à fait surtout actuellement (not 'actually'!!)	que plus (+ <i>adj</i>) moins (+ <i>adj</i>) plus de (+ <i>noun</i>) moins de (+ <i>noun</i>) le plus (+ <i>adj</i>) le moins (+ <i>adj</i>) meilleur mieux pire than more (+ <i>adj</i>) less (+ <i>adj</i>) more (+ <i>noun</i>) less/fewer (+ <i>noun</i>) the most (+ <i>adj</i>) the least (+ <i>adj</i>) better (<i>adjective</i>) better (<i>adverb</i>) worse
		Negatives To use these in a sentence, the <u>verb</u> 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 (not 'actually'!!)		
<u>Opinion phrases</u>		<u>Possessives, a & the</u>		
j'aime/je n'aime pas j'adore je déteste selon moi personnellement à mon avis je pense que je crois que il me semble que je suis d'accord je pense le contraire ça peut être certains disent que	I like/I don't like I love I hate according to me personally in my opinion I think that I believe that it seems to me that I agree I think the opposite it can be some people say that	Masc un le mon ton son votre notre leur	Fem une la ma ta sa votre notre leur	Plural des les mes tes ses vos nos 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**

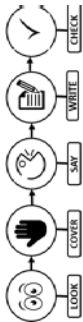
Expressing Future plans

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



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 mercredi après-midi. Tu aimes ton college? Quelle est ta matière préférée?



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ui

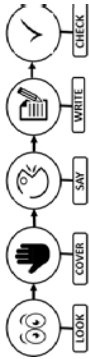
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B	Français	Anglais
1	Je fais	I do
2	J'ai	I have
3	L'anglais	English
4	Les maths	Maths
5	Les sciences	Science
6	Le français	French
7	La religion	R.E.
8	Les arts plastiques	Art
9	L'EPS	P.E.
10	L'informatique	Computer Science
11	La technologie	DT
12	La 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'après-midi	On an afternoon

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	A 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)	Didier	bleus/verts/gris (blue/gree/grey)
			marron (brown)
	suis (am)		blonds (blond)
			noirs (black)
	ai (have)		roux (red)
		les cheveux .. (..hair)	grand.e (tall)
			petit.e (small)
		les yeux .. (.. eyes)	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)	

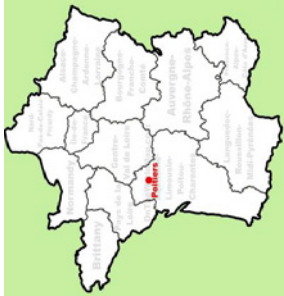
SB3 : Quelle est ta matière préférée? – What is your favourite subject?				
Subject	Verb	Object	Connective	Adjective
Je/j' (I)	aime (like)	l'anglais (english)	car (because)	intéressant (interesting)
	n'aime pas (don't like)	les maths (maths)	parce que (because)	amusant (fun)
Ma matière préférée (my favourite subject)	déteste (hate)	les sciences (science)	mais (but)	facile (easy)
		le français (french)	c'est (it is)	difficile (difficult)
		l'EPSPE)	ce n'est pas (it isn't)	ennuyeux (boring)
	est (is)	La technologie (DT)		utile useful)
Le/la prof (the teacher)	est (is)			stricte (strict)
	n'est pas (isn't)			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)	un (a)	grand (big)	terrain de sport (sport's field)	
			cour (yard)	
	une (a)	petit (small)	bibliothèque (library)	
		grande (big)	salle de sports (sports hall)	
On a (we have)		petite (small)	salles de classe (classrooms)	
	des (some)	vieilles (old)	toilettes (toilets)	
		nouvelles (new)		
On commence (we start)	Qualifier		Adjective	
	très (very)		tôt (early)	
	assez (quite)		tard (late)	
	un peu (a bit)		vieux (old)	
On finit (We finish)	trop (too)		moderne (modern)	
			grand (big)	
			petit (small)	
Mon collège est (my school is)				

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(xeuse)	curious
12	généreux(xeuse)	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



Salut!

Je m'appelle Paul et je suis de Poitiers en France. Je suis parfois génèreux 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!



oi



eu



an



é

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	it / 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

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	resents
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	cyding
12	du patin à glace	ice skating
13	de la natation	swimming
14	de la danse	dancing
15	de l'équitation	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



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)		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)		très (very) assez (quite) vraiment (really)	
Je (I)	ne suis (am)			
Il (he) Elle (she)	n'est (is)	jamais (never)		

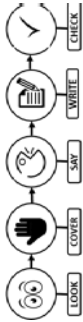
SB3 : Qu'est-ce qu tu fais à Noël? – What do you do at Christmas?				
Time expression	Subject	verb	Object/adverb	Connective
Chaque année (every year) À Noël (at Christmas) D'habitude (usually) Normalement (normally) Tous les ans (every year)	on (we)	fête (celebrate) mange(eat) décore (decorate) s'offre (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)

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

SB2 :Parle-moi de ta famille. – Tell me about your family		
Subject	Verb	Object
Ma mère (my mum) Mon père (my dad) Mon frère (my brother)	s'appelle a (has /is) est (is)	Maurice/ Héléne douze ans (12 years old) les yeux verts/marron/bleus (green/brown/blue eyes) les cheveux roux/blonds/longs (red/blonde/long) hair Adjective poli(e) (polite) marrant(e) (funny) grand(e) (tall) / de taille Moyenne (medium height)/petit(e)(short) Object ma mère (my mum) mon père (my dad) mon frère (my brother)
Je	(ne) m'entends (pas) bien avec ... (I don't) get on well with..	

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) faire (to do) regarder (to watch) aller (to go) écouter (to listen)	au foot (football) à la pétanque (French bowls) aux échecs (chess) les magasins (shopping) du vélo (cycling) de la natation (swimming) des promenades (walks) la télé (TV) au cinéma (to the cinema) de la musique (to music)	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

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



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

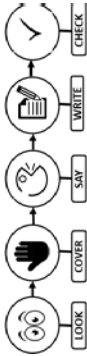
eil

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	Où	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>

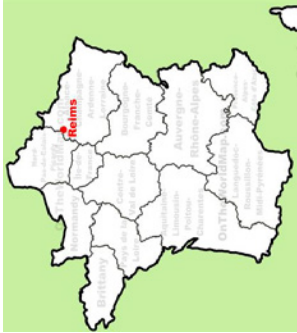
SB1 : Qu'est-ce qu'il y a dans ta ville ? – What is there in your town?		
Subject	Verb phrase	Object
Dans ma ville (in my town)	il y a (there is)	un cinéma (a cinema)
	il n'y a pas de (there isn't a)	un centre commercial (a shopping centre)
		un parc (a park)
		un marché (a market)
		une piscine (a swimming 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
Je (I)	peux (can)	aller (go)
	ne peux pas (can't)	visiter (visit)
	peut (can)	manger (eat)
On (we)	ne peut pas (can't)	faire (do)
		regarder (watch)
		retrouver (meet)
		trainer (hang out)
		jouer (play)

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	Adjective
Je pense que (I think that)	ma ville est (my town is)	grand(e) (big) / petit(e) (small)
Je trouve que (I find that)	ma région est (my region is)	moderne (modern)
À mon avis (in my opinion)	ma ville a (my town has)	historique (historic)
		joli (e) (pretty)
		tourisme (tourism)
		magasins (shops)

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



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.



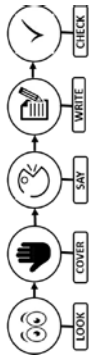
A	Français	Anglais
1	Le matin	In the morning
2	Le midi	At lunchtime
3	Le soir	In the evening
4	Le petit-déjeuner	Breakfast
5	Le déjeuner	Lunchtime
6	Le dîner	Dinner
7	Je mange	I eat
8	On mange	We eat
9	Je voudrais manger	I would like to eat
10	Je bois	I drink
11	Le poulet	Chicken
12	Le poisson	Fish
13	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	Dégoutant	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

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)	Influent
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!



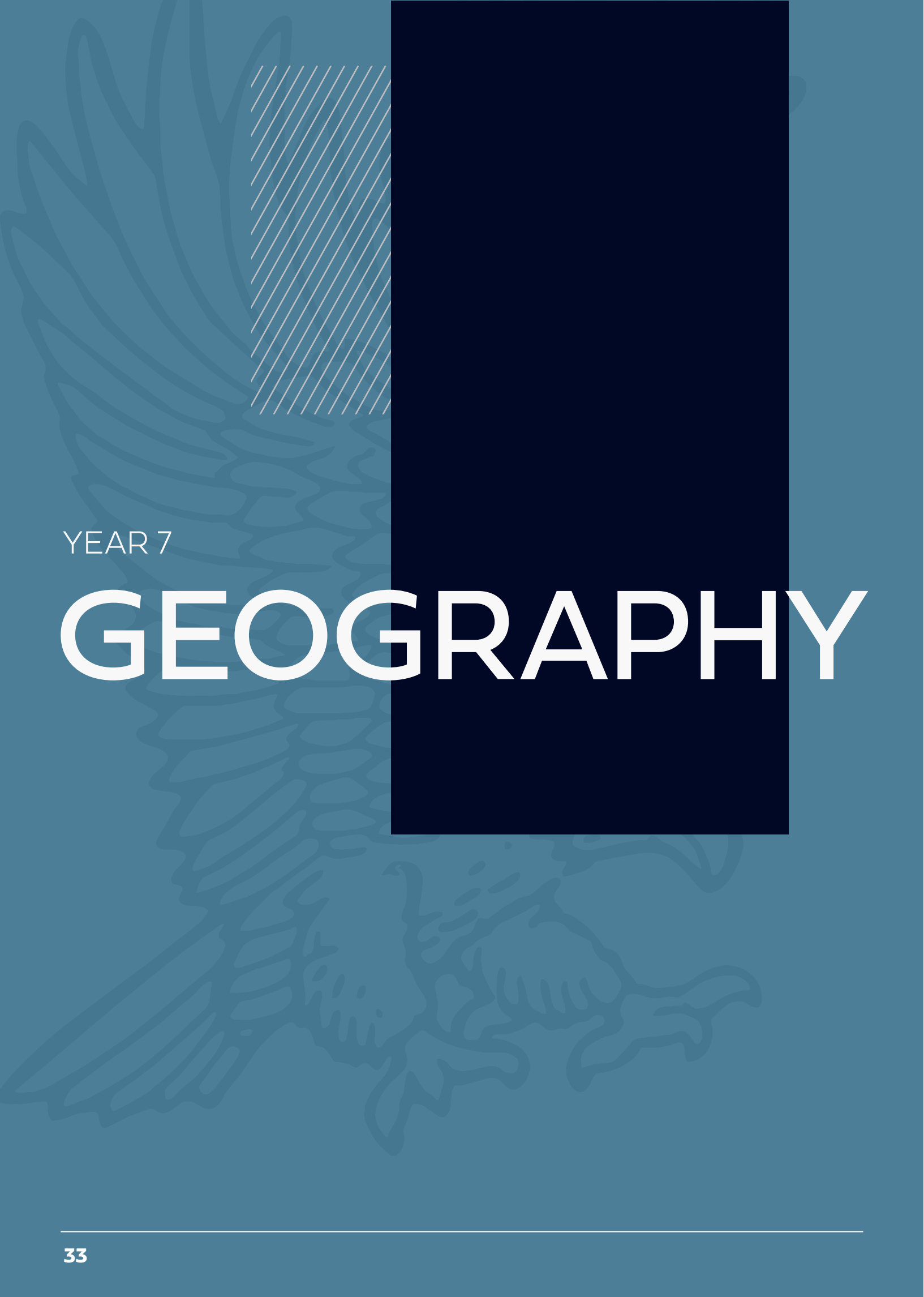
Use Sentence Builders to help you answer the question. Use this method to help learn the phrases <https://youtu.be/cMKo65JKVhU>

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)		épicé (spicy)
	de la limonade (lemonade)	mais ce sont (but they are)	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)
	Léa Seydoux		sportif.ve (sporty)
	Stromae	Je le/la trouve (I find him/her)	intéressant.e (interesting)
Il/elle/iel est (he/she is / they are...)	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 apartment)		

A large, stylized eagle graphic in a light blue color, spanning the entire page. The eagle's wings are spread, and its head is turned to the right. The graphic is composed of simple, flowing lines that define the feathers and the bird's form. In the upper left quadrant, there is a rectangular area with a pattern of thin, parallel white diagonal lines.

YEAR 7

GEOGRAPHY

Geography Teaching Block 1

EQ1: Why is life in semi-arid regions of Africa so challenging?

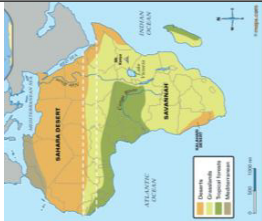
Continent	A large landmass
Climate	The average weather conditions over a large area for 30 years +
Biome	A large ecosystem E.g. TRF, Hot Desert
Drought	When an area receives less precipitation than expected
Desertification	Land turns into a desert as the quality of the soil declines

Location of Africa

Africa is the **2nd largest continent** by land mass and population. It is made up of **54 countries**. Africa is located in **both hemispheres**, south of Europe and west of South America. The Indian ocean is to the east, and the Atlantic ocean to the west.

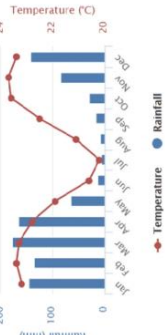
Biomes in Africa

There are four main biomes in Africa. The largest biome is the **Savanna Grasslands** and can be found in Tanzania. This biome has a **wet and dry** season and is made up of **grasses and a few trees**. Animals such as **zebras** and **giraffes** live here.



Climate of Africa

Climate graphs show the **temperature** (line) and **precipitation** (bar) of an area.



Temperatures Range – The difference between the minimum and maximum temperature.

Annual precipitation – The total amount of precipitation in a year.

Drought in the Horn of Africa

The Horn of Africa is located in the **east of Africa** and is made up of four countries (E.g. Ethiopia, Somalia). It is currently experiencing its **most severe drought** in 40 years.



Impact of People

- Crops can't grow causing lack of food and a famine
- Increase in waterborne diseases
- Loss of livestock
- Food prices rise

Impact of Animals

- Animals die due to no grass for them to graze on
- Animals migrate in search for food & water
- Loss of biodiversity

Desertification in the Sahel

The Sahel is located **south of the Sahara Desert** and stretches from the east to west coast. The **quality of the soil declines** overtime as surface runoff removes the nutrients from the soil as the ground is baked.



The Great Green Wall - 8000km of trees planted along the Sahel. The leaves provide shade and the roots bind the soil.



Diguettes - Walls of stones built around the edge of fields to catch the surface runoff.

EQ2: Why is our world so unequal?

Development	The economic progress of a country and improvement in quality of life
HIC / LIC	High income country / Low income country
Colonisation	Occurs when a country takes control of another country
Urbanisation	The increasing proportion of people living in towns and cities
Megacity	A city with more than 10 million people

Measures of Development

GNI Per Capita	The total amount of money in a country divided between the population.	Higher in HICs as there are higher paying jobs.
Life Expectancy	The average number of years a person is expected to live.	Higher in HICs as there is better healthcare.
Literacy Rate	The % of adults who can read and write.	Higher in HICs as there is better levels of education.

Factors affecting Africa's development

Human Factors

- **Colonisation** meant natural resources were taken from Africa and sold by Britain (The Mother Country)
- Countries at **war** spend money on weapons and repairing damages

Physical Factors

- **Landlocked countries** do not have access to the sea which means it is difficult to trade and earn money.
- Areas with harsh **climates** cannot produce enough food.

Lagos, Nigeria

Lagos is a **coastal city** located in the SW of Nigeria. Historically, Lagos was a small fishing village but the oil boom in the 1970s caused **rapid urbanisation**. Lagos is now one of Africa's richest cities.



Better education, healthcare and more job opportunities in the oil industry (pull factors) have caused **rural to urban migration**. More young people in the city has caused the birth rate to increase resulting in **natural increase**. Now more than 24 million people live in Lagos.

However, there is **huge inequality** in Lagos with 4 billionaires at the top and 1.3m people in poverty.

Life in Makoko, Lagos

- Small shacks on stilts above the water with no sanitation
- People work hard to make a living by selling goods e.g. fish
- Poor living conditions
- Access to education provides hope for many people

Life in Banana Island, Lagos

- Luxury apartments with lots of facilities e.g pool
- People have well-paid professional jobs
- High living costs, traffic and power cuts can cause problems for the residents

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

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

Geography Teaching Block 3

Location, Climate & Coober Pedy

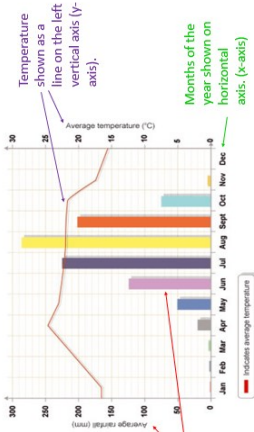


Rainfall in Australia is mostly Relief rainfall— shown in the diagram above where mountains cause air to rise and water to condense forming rain.

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.

Climate graphs show rainfall and temperature on the same graph.

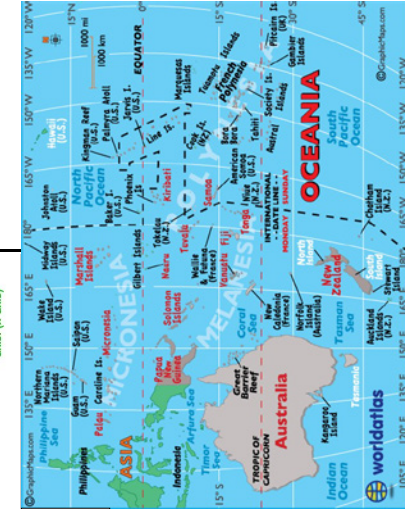


It is an important skill to be able to read a climate graph and describe (say what you see) its trends.

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 losing 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 & POLITICS

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

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

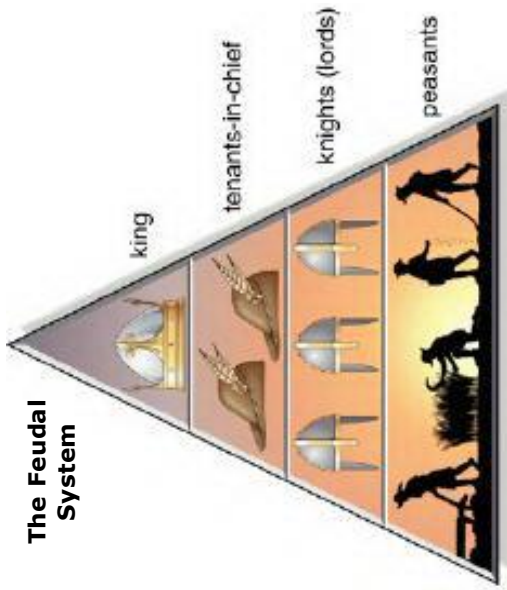
2. Key Dates	
5 January 1066	Edward the Confessor dies without leaving an heir.
25 September 1066	Battle of Stamford Bridge.
14 October 1066	Battle of Hastings.
25 December 1066	William crowned King of England.
1086	The Domesday Book was completed.

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.



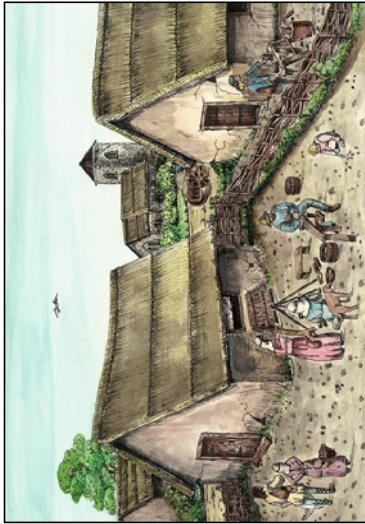
Year 7 Unit 1: The Norman Conquest 1066 – 1087; Knowledge Check Questions

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

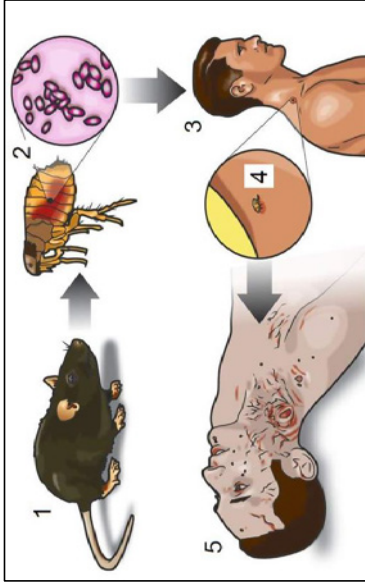
The Middle Ages 500 – 1500	The Tudors 1485 - 1603	The Stuarts 1603 - 1714
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The Medieval Village	
1.Lord	Landowner in charge of a local area / village.
2. Villein or Peasant	Poor people who work the land in the village.
3.Agricultural	The medieval economy 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.



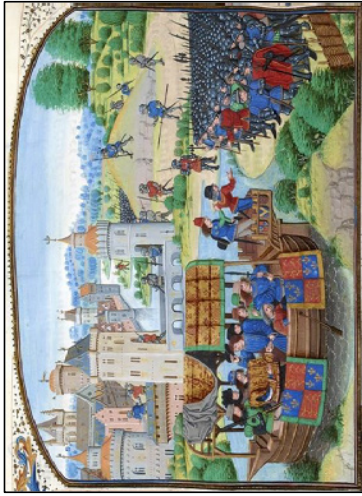
A typical medieval village

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.



How the Bubonic Plague was spread

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.



King Richard meets the peasants

Year 7 Unit 1: The Norman Conquest 1066 – 1087; Knowledge Check 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. Henry VIII and the “break with Rome”			
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 16 th century European movement that reformed (changed) the church from Catholic to Protestant.				
5. Devout	Someone with deep religious feeling (“devoted”).				
Protestant		Catholic			
					

3. Tudor monarchs			
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 16 th 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
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1. The Gunpowder Plot		
Key dates:		
1603	King James VI Scotland and I of England ascends to the throne.	
4 th 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.

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

2. Stuart Monarchs

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

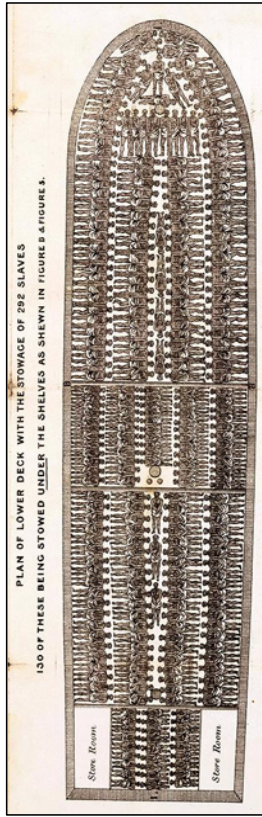
Knowledge Check 1 (section 1 of your KO)	Knowledge Check 1 (section 2 of your KO)	Knowledge Check 1 (section 3 of your KO)
1. Who was monarch at the time of the Gunpowder Plot?	1. What religion was James I of England / James VI of Scotland?	1. In what year was the trial and execution of Charles I?
2. 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 <i>between the reigns</i> 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, <i>restoring</i> 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	Royal African Company is founded	1739	Jamaican Maroons granted land and freedom by British government	1765	Parliament passes the Stamp Act	1775	The American Revolution begins at Lexington	1776	Continental Congress approves the Declaration of Independence	1777	Continental Army wins victory at Saratoga	1782	Parliament votes to end war in America	1787	Thomas Clarkson forms the Society for the Abolition of the Slave Trade	1788	The United States Constitution is approved	1807	Parliament passes the Slave Trade Act	1833	Parliament passes the Slavery Abolition Act	1909	NAACP founded National Association for the Advancement of Coloured People	2007	Memorial campaign for victims of the Transatlantic slave in London	2020s	BLM protests
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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 18 th and early 19 th 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.

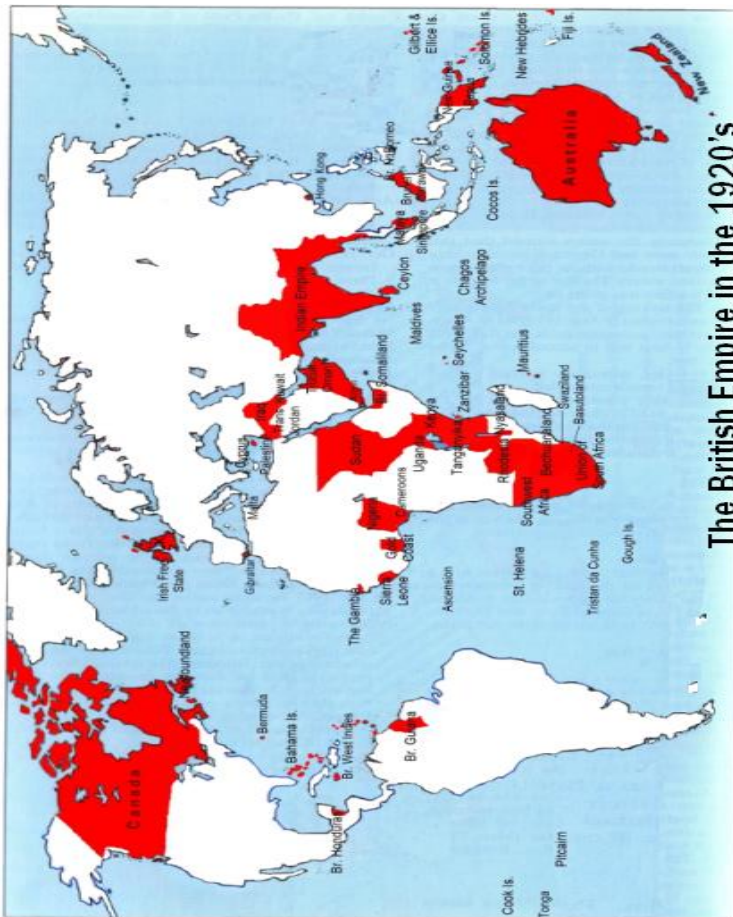
Year 7 Unit 5, Transatlantic Slave Trade c16th -19th centuries; Knowledge Check Questions

Knowledge Check 1 (section 1 of your KO)	Knowledge Check 2 (section 2 of your KO)	Knowledge Check 1 (section 3 of your KO)
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 18 th and early 19 th 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?

Timeline of Key Events

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

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



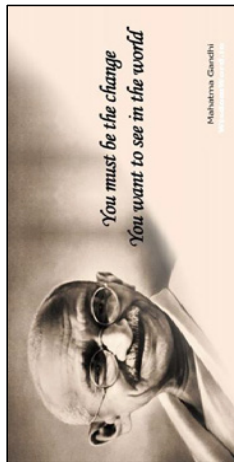
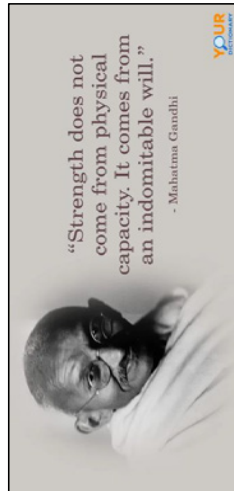
The British Empire in the 1920's

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.

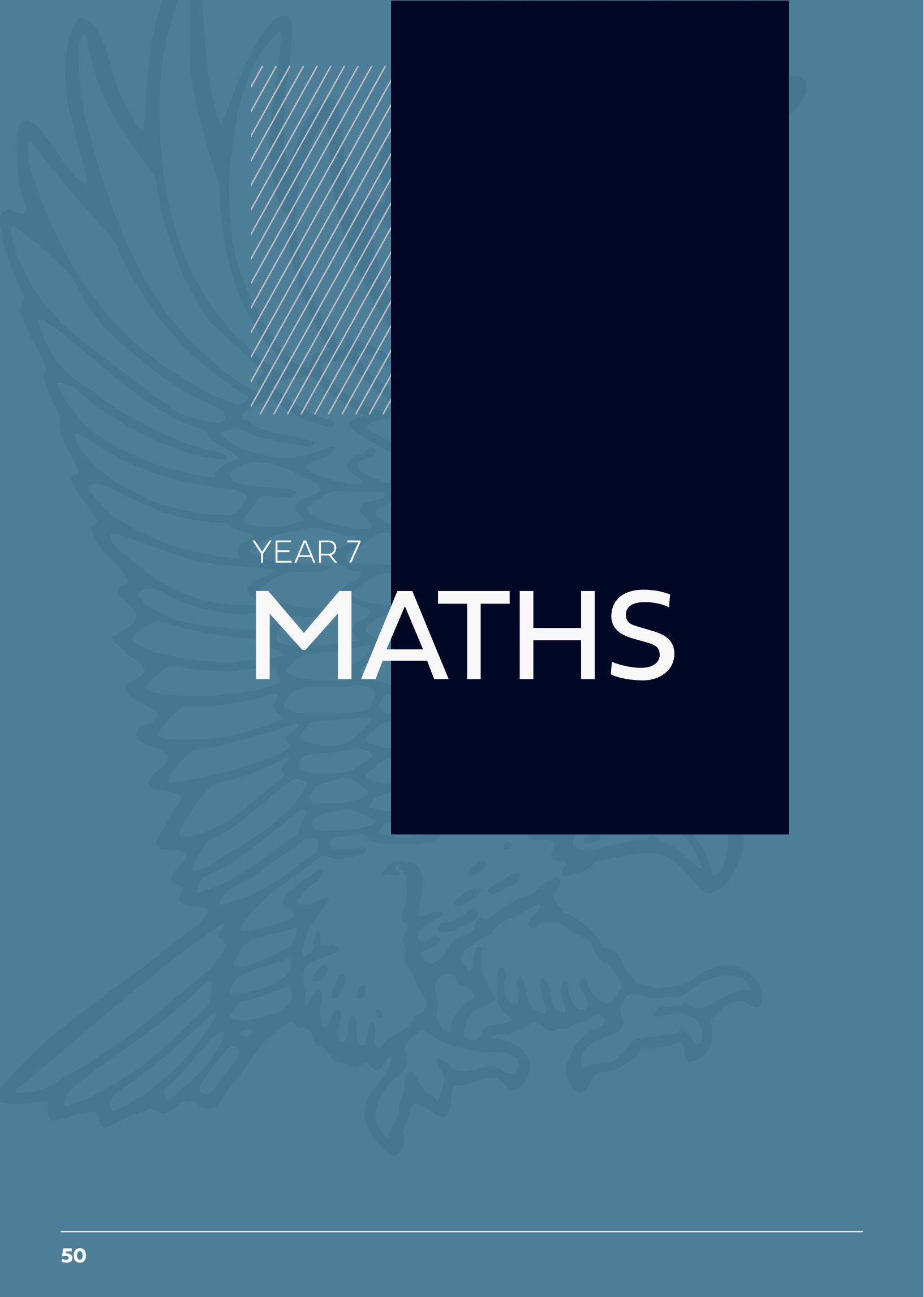
3. Key Individuals (Empire)

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?

A large, stylized eagle graphic in a light blue color, spread across the entire page. The eagle's wings are spread wide, and its tail feathers are visible at the bottom. The graphic is semi-transparent, allowing the text and other elements to be seen through it.

YEAR 7

MATHS

Year 7 Maths Course Content

Term 1

Units

Number sense
Adding and subtracting
Multiplying
Dividing
Calculating with negative numbers
Order of operations
Expressions
Substitution
Solving equations
Time
Measures

Sparx topic codes

M763 M704 M522 M527 M111 M431
M928 M429 M347 M152
M113 M911 M187 M803
M462 M354 M873 M262
M106 M288
M135 M521 M952 M409
M813 M830 M795 M531 M949
M417 M327 M208 M979
M707 M509
M515 M892 M627 M963 M747
M828 M774 M487

Term 2

Units

Line and shape properties
Perimeter
Area
Coordinates and shapes
Factors and multiples
Primes
Writing and comparing fractions
Adding and subtracting fractions
Single brackets

Sparx topic codes

M814 M276 M523
M920 M635 M690
M900 M390 M269 M610 M996
M618 M230
M227 M823 M698
M322 M108
M158 M939 M410 M671 M335 M601
M835 M931
M637 M237 M792 M100

Term 3

Units

Angles
Finding unknown angles
Averages and range
Tables and charts
Collecting and presenting data
Proportion word problems
Multiplying and dividing fractions
Fractions of an amount
Fractions decimals and percentages
Theoretical probability

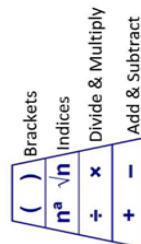
Sparx topic codes

M502 M541 M780 M331
M818 M163 M351
M328 M934 M841 M940
M899 M597 M644 M460 M738
M945 M450 M127 M440
M478
M216 M157 M110 M197 M265
M695 M684
M958 M264 M553 M235
M655 M941 M938 M755 M718

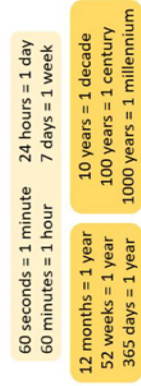
Year 7 - Maths

-20 -19 -18 -17 -16 -15 -14 -13 -12 -11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

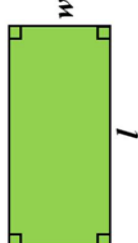
Order of Operations



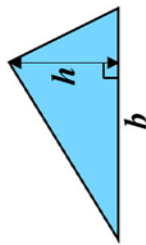
Converting Units of Time



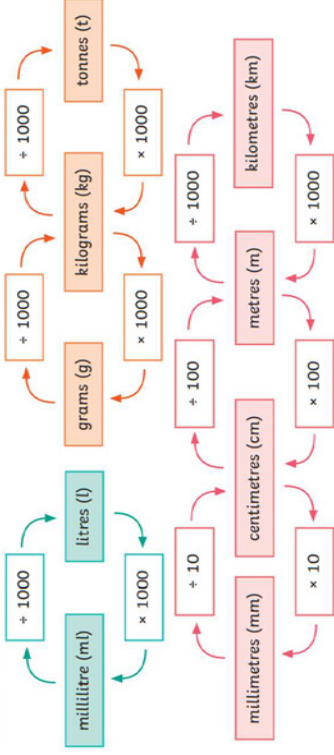
Area



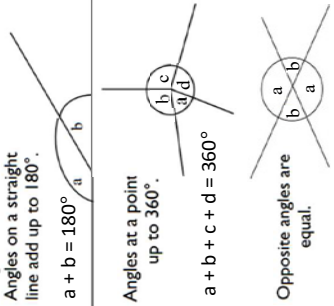
Area of a triangle = $\frac{1}{2} b \times h$



Metric Conversions



Angle Facts



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

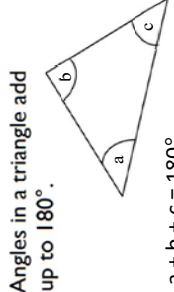
mode/modal	most common value or values (modal class).
median	the middle number when they are in ascending order.
mean	add the numbers up and divide by how many there are.
range	the difference between the largest and smallest value.

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

Mathematical Symbols

- $\neq$ is not equal to
- $<$ is less than
- $\leq$ is less than or equal to
- $>$ is greater than
- $\geq$ is greater than or equal to

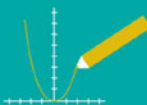
Angles in Triangles



x	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

Year 7 Maths Cheat sheet

Command words:

Explain Write a sentence or a mathematical statement to show how you got to your answer or reached your conclusion. 	Show All working needed to get to a given answer or complete a diagram to show given information. 	Expand Remove brackets. 	Describe Write a sentence that gives the features of the situation. 	Justify Show all working and/or give a written explanation. 												
Draw Produce an accurate drawing (unless a sketch is being drawn). 	Find Some working will be needed to get to the final answer. 	Expand and simplify Remove brackets and then collect like terms. 	Complete Fill in missing values. <table border="1" data-bbox="990 785 1143 906"><thead><tr><th>x</th><th>y</th></tr></thead><tbody><tr><td></td><td>-3</td></tr><tr><td>-1</td><td></td></tr><tr><td>0</td><td>1</td></tr><tr><td></td><td>3</td></tr><tr><td>2</td><td>5</td></tr></tbody></table>	x	y		-3	-1		0	1		3	2	5	Solve Find the solution of an equation or inequality. 
x	y															
	-3															
-1																
0	1															
	3															
2	5															
Draw a sketch of... Sketch Produce a drawing that does not have to be drawn to scale or a graph that is drawn without working out each coordinate. 	Factorise Insert brackets by taking out common factors. 	Work out Some working will be needed in order to get the answer. 	Write down No working is needed. 	Solve algebraically Find the solution of an equation or inequality; algebraic manipulation must be shown. 												
Simplify Simplify the given expression. 	Factorise fully Insert brackets by taking out all the common factors. 	Change Usually convert from one unit to another; either using known metric unit conversions or the use of a conversion graph. 	Write No working needed for 1 mark questions. Working may be needed for questions with more than 1 mark. 	Prove More formal than 'show', all steps must be present. In the case of a geometrical proof, reasons must be given. 												
Simplify fully Simplify the given expression. Answer must be given in its simplest form. 	Express Re-write in another form, some working may be needed. 	Give a reason Must be clear and accurate reasons. If the reasons are geometrical then make sure you: ✓ provide a reason for each stage of working (if required) ✓ use correct geometric terminology.	Calculate A calculator and some working will be needed. 	Prove algebraically Use algebra in the proof. 												

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/>

The image displays four music knowledge organiser posters arranged in a 2x2 grid. Each poster is decorated with musical notes and symbols.

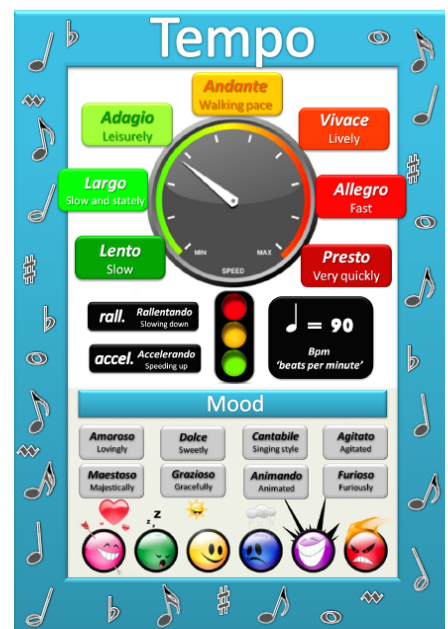
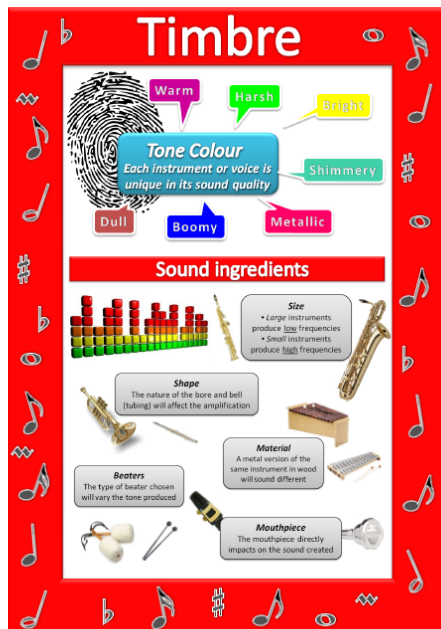
- Duration (Green background):** Features a table for note values (Semibreve, Minim, Crotchet, Quaver, Semiquaver) and their corresponding counts (1, 2, 3, 4). It also includes a section for Time Signature, showing various ratios like 6/8, 9/8, 4/4, 2/2, 3/4, 5/4, 12/8, and 4/2, with labels for 'Number of beats in a bar' and 'Type of beat'.
- Pitch (Yellow background):** Shows a piano keyboard with notes labeled C through B. It includes a diagram of the vocal range (Low, Mid, High) and a section for Clefs (Bass, Alto, Treble) with their respective note ranges. It also features illustrations of various musical instruments.
- Texture (Orange background):** Defines different musical textures: Monophonic (one single melody line), Polyphonic (multiple layers simultaneously), Homophonic (layers moving together in harmony), Heterophonic (original and decorated versions of melody playing simultaneously), Imitative (melodies are copied by other players), Octaves (a melody heard in two or more parts at an interval of 8 notes), and Melody and Accompaniment (a tune supported by chords).
- Structure (Purple background):** Explains different musical forms: Binary form (two contrasting sections), Ternary form (three sections with contrasting middle), Rondo form (a returning section between contrasting sections), Theme and Variation (an original melody is repeated with alterations), Sonata form (for large works with three sections with defined roles: Exposition, Development, Recapitulation), Strophic (repeated section with new lyrics), Through Composed (section never repeats), Arch form (symmetrically ordered sections), 12 Bar Blues structure (three lines lasting four bars each; a specific chord pattern is used), 32 Bar song form (four sections of 8 bars including a contrasting section), and Pop song structure (a combination of sections including Intro, Verse, Chorus, Middle 8, and Outro).

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.

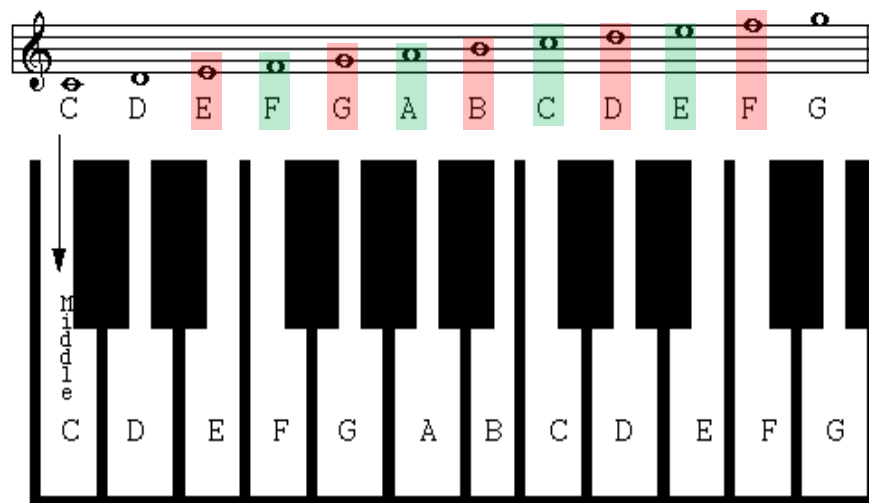
The aim of the music department is to provide all students with a wide range of music making experiences in both curricular and extra-curricular activities. Everything in our curriculum is geared towards taking pupils as far towards becoming a practicing musician as possible.

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.

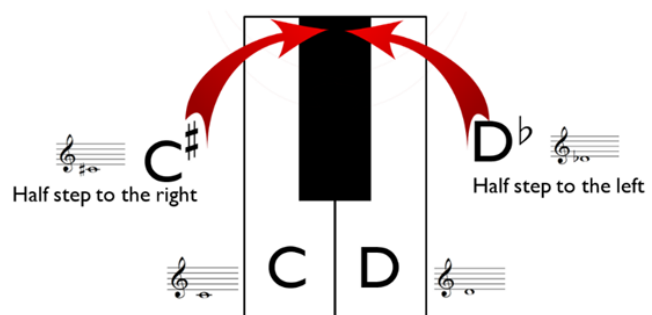
The department is a positive, inclusive environment where students can develop their imagination, self-esteem and teamwork skills.

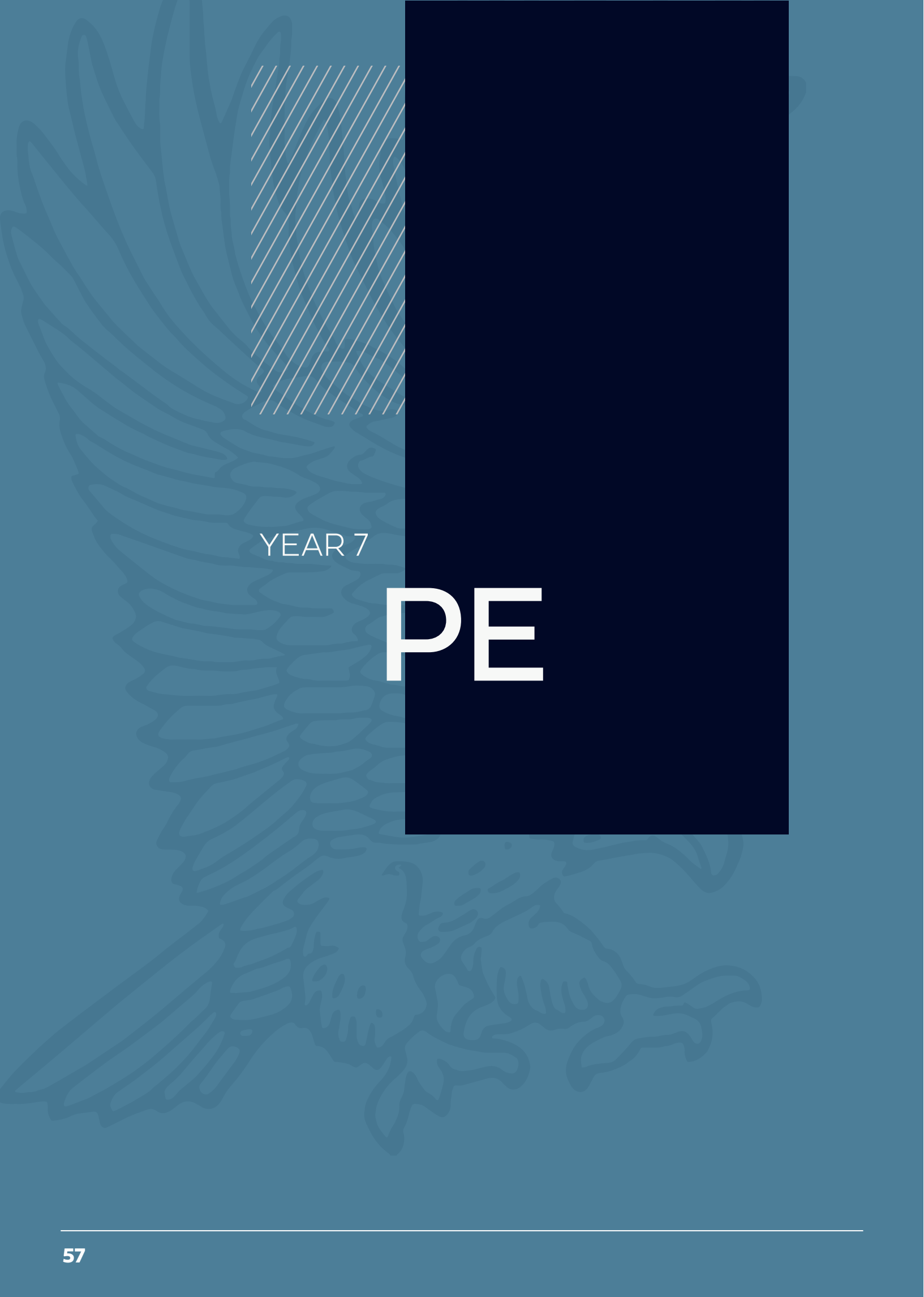


Every Good Boy Deserves Football FACE



Sign	Name	Value	Rest
	Semibreve	4 beats	
	Minim	2 beats	
	Crotchet	1 beat	
	Quaver	1/2 beat	
	Semiquaver	1/4 beat	



A large, stylized eagle graphic in a light blue color, spread across the entire page. The eagle's wings are spread wide, and its tail feathers are visible at the bottom. A dark blue vertical rectangle is positioned on the right side of the page, partially overlapping the eagle's body. A smaller, light blue rectangle with diagonal white lines is located in the upper left quadrant, overlapping the eagle's wing.

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

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	
Oakway	
Riverside	
Headlanders	
DPNC	
Great Park	
Cleveland Classics	
Novos	

U16	
Team Name	
Grangetown	
Oakway	
Riverside	
DPNC	
Headlanders	
Vixens	
Wildcats	
Seatonians	

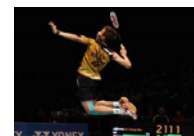
Competitive Opportunities

- 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

Junior Sessions run on a Friday night 5.45 – 8.45pm
Senior Sessions Mondays 6 – 8pm
contact Steve Dunnett 07500527212
steved50_6@live.com

Address Contact Details

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

Glaxo Badminton Club

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
Southmore road
Barnard Castle
DL12 8DS

Aycliffe Badminton Club

Aycliffe Badminton Club
Beveridge Way
Hareton Aycliffe
DL5 4BA

Durham Swifts Badminton Club

Durham Swifts Badminton Club
Buckinghamshire Road
Belmont
Durham
DH1 2QP

Durham County Badminton Association

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
@OCBA0001

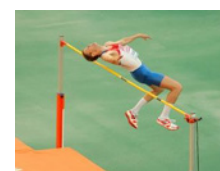
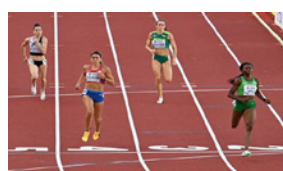
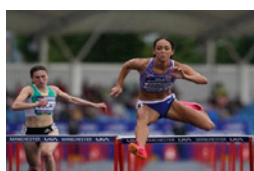
Competitive Opportunities

- 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



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 Diston 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 3LR

Durham Dales HC
21.9 MILES FROM DH15YN
Lifestyle Fitness
Leazes Ln
Worsingham, 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
Longenton 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/DurhamITC>

Coxhoe table Tennis Club

Associate Club Affiliation

4.96 Miles
ACTIVE LIFE @ COXHOE 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

matches:

Friday

7-9pm

teams:

→ Longbenton Black Sheep (Div 1)
→ Longbenton Bitter & Twisted (Div 2)
→ Longbenton Speckled Hens (Women's Div)

Longbenton High School
Hailsham Ave
Longbenton
NE12 8ER

Newcastle Panthers

location:

→ Newcastle upon Tyne

matches:

Tuesday

6-8pm (Cubs)

8-10pm (White, Black, Scarlet, Pink)

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)

Vertu Motors Arena
Scottswood 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



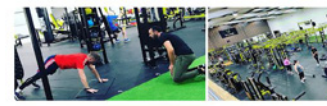
Core Skills to learn in this unit

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



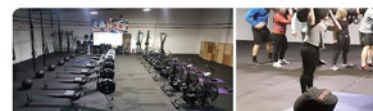
PureGym Durham Arnison



Unique Health Clubs



Result Fitness
4.4 ★★★★★ (72) Open



CrossFit DHM Durham
5.0 ★★★★★ (19)

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

 Langley Park Hotspurs Youth F.C. Langley Park Hotspurs Youth U16s Saturday 0.62 Miles	 Durham Corinthians F.C. Durham Corinthians U16s Sunday 1.75 Miles	 Durham Blue Star Youth F.C. Durham Blue Star Youth U16s Saturday 2.07 Miles
 Deerness Valley Youth F.C. 4 suitable teams Saturday 2.46 Miles	 Durham United FC Youth 6 suitable teams Saturday 2.46 Miles	 Durham Pass Soccer Juniors F.C. Durham Pass Soccer Juniors U13 s Greens Saturday 2.46 Miles

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

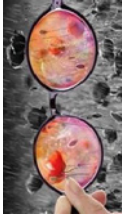
Worldview	Way of understanding and responding to the world
Organised worldview	Beliefs that give structure to a life, can be religious or not
Personal worldview	Individual's on way of understanding the world
Theology	Religion
Philosophy	Exploring through questions and exploring big ideas
Social Science	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 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: Judaism

Key Vocabulary	
Ethnicity	a grouping of people who identify with each other on the basis of shared attributes that distinguish them from other groups.
Covenant	An agreement between God and people, often involving specific promises and obligations.
Synagogue	The central place of worship, study, and community gathering for Jewish people.
The Ark	The most important place inside a synagogue. This is where the Torah scrolls are kept.
Torah	The Jewish Holy Book
Ner Tamid	Means eternal light. It is kept continuously burning in the synagogue and should not be allowed to go out.
Menorah	A symbol of the nation of Israel to be "a light unto the nations."
Siddur	A Jewish prayer book containing a set order of daily prayers.
Bimah	The raised platform where the Torah is read and some services are delivered.
Chair of Elijah	Used in Brit Milah ceremonies (when a boy is circumcised)
Sabbath	Shabbat is the Jewish day of rest, beginning Friday evening and ending Saturday night, when families pause work to rest, reflect, and spend time together.
Kosher	Kosher, from the Hebrew word meaning "fit" or "proper," is a set of dietary laws outlined in the Torah that guide what Jews can eat and how food must be prepared and consumed.
Passover	Passover is a celebration of the story of Exodus . Jews remember how their ancestors left slavery behind them when they were led out of Egypt by Moses.
Brit Milah	The circumcision ceremony that is carried out when a baby boy is eight days old
Bar Mitzvah	A ceremony for boys at the age of 13 where they are seen as adults in the eyes of God.
Bat Mitzvah	A ceremony for girls at the age of 12 when they are seen as adults in the eyes of God.

What is the covenant (agreement) between God and the Jewish people?

1. God had promised Abraham that he would look after his people after he was willing to sacrifice Isaac.
2. Then over 1000 years later when the Israelites were in slavery in Egypt, he saved them and had Moses free them from slavery.
3. It is believed that God fulfilled his covenant by helping the Jews to escape from slavery in Egypt in this way.
4. Then when Moses and his people reach Mount Sinai on the way to the promised land, God speaks to Moses.
5. Here he makes a covenant with Moses and the Jewish people that renews the one made by Abraham. God then gave him the Ten Commandments.

The Importance of Abraham

Why would Abraham sacrifice his only son for God?

1. To prove himself to God
2. To show his faith in God
3. Because he trusts God knows best
4. Knows that God has a plan for everything

Why would God ask Abraham to sacrifice his only son?

1. As a test of faith
2. Gives Abraham the opportunity to show how faithful he is to God
3. To offer Abraham the opportunity to lead (Father of Judaism)

What does this mean for Jew today?

1. Faith is different to belief
2. God would not allow us to sacrifice another for our belief
3. Humans may face challenges and difficult decisions

Why is Moses Important?

The **Torah** teaches Jews about the covenant **God** made with all Jewish people at Mount Sinai. **Exodus** tells the story of how God brought Jews out of slavery in Egypt with **Moses** as their human leader.

Moses was chosen by God not only to lead the **Jewish slaves to freedom** but also to **pass on God's laws** to all the Jewish people.

1. leading the Jewish slaves to freedom
2. passing on God's laws (Ten Commandments)

Jewish Denominations (Groups)

Orthodox Jews believe that the traditional ways of observing their religion are important. They believe that the Torah is the word of God

Progressive Jews believe that Judaism can change to suit different circumstances.

Why are the 10 Commandments important?

1. The freed slaves were beginning to worship false gods and live in a way that was not pleasing to God.
2. Without the rules it may have been hard to know exactly what God wanted.
3. Therefore, God directly communicated to humans ten commandments that would be their most basic rules that all people should live by.
4. However, there are actually 613 commandments (found in the Torah) that detail every aspect of Jewish life.

Jewish Appearance

The kippah, often referred to as a skullcap, is worn by Jews as a sign of Jewish identity.

The tallit, also known as the prayer shawl, is a shawl traditionally worn by Jewish men during prayer, festivals and on the Sabbath.

Tefillin are worn mainly by Orthodox (stricter) Jewish men during morning prayer.



Being Kosher

Food laws

Food that Jews can eat is called kosher.

Food that Jews cannot eat (forbidden) is treif.

Examples:

- **Kosher** – animals that chew the cud (eat grass) and have cloven (split) hooves, domesticated species, or fish with fins and scales.
- **Treif** – animals that do not chew cud or have split hooves, scavenger or predatory birds, or sea creatures without fins or scales.

Year 7: Islam

Key Vocabulary

Qur'an	The holy book. Muslims believe this to be the word of Allah as dictated to Muhammad.
Mosque	The name of the building where Muslims worship.
Allah	Meaning God.
Prophet	A messenger chosen by Allah to guide humanity.
Makkah (Mecca)	The holiest city in Islam, located in Saudi Arabia. It is the birthplace of Muhammad and the site of the Hajj.
Hajj	A pilgrimage or special journey for Muslims.
Ka'bah:	The black, cube-shaped building at the centre of the Grand Mosque in Mecca. It is the most sacred site in Islam, and the direction Muslims face during prayer.
Imam	religious leader who leads prayers in a mosque and provides community guidance.
Ummah	The worldwide community of Muslims, bound together by their shared faith.
Halal	Actions or things (especially food) that are permissible or lawful under Islamic law (e.g., eating meat slaughtered in a specified ritual way).
Hijab	A traditional veil or headscarf worn by many Muslim women as a symbol of modesty and privacy.

What do Muslims believe?

Muslims believe that Islam was revealed over 1,400 years ago in Makkah, Arabia through a man called Muhammad.

Muhammad is so respected that it is usual for Muslims to say 'peace be upon him' whenever they mention his name.

Muhammad is believed by Muslims to be the last prophet sent by God (Allah). They believe God sent prophets to mankind to teach them how to live according to His law.

Why is Halal important to Muslims?

•**Obedience to God:** Following Halal dietary laws is a way for Muslims to show obedience and respect to God's commands.

•**Health and Cleanliness:** Muslims believe that Halal laws protect their physical health by ensuring they only consume clean, pure, and wholesome food.

•**Respect for Life:** The rules around Halal meat remind Muslims that an animal's life is sacred and should not be taken lightly.

Who was Prophet Muhammad?

Muhammad is the final prophet in Islam, known as the Seal of the Prophets. This means that Muslims regard Muhammad as Allah's final messenger, and the Qur'an is formed from God's revelations to Muhammad, given through the Angel Jibril. According to Islamic belief, no further prophets will come after him.

Some rules that Muhammad laid down:

Do not ... Act out of anger.

Do not ... Hate, envy or provoke each other.

Do not ... Spy on each other or betray each other's trust.

Do not ... Drink alcohol or gamble.

Do not ... Cheat each other.

Do not ... Charge interest on money loaned to those in need.

Do not ... Pay bribes to get what is lawfully not yours.

Do not ... Be cruel to animals.

Five Pillars of Islam

The **Five Pillars of Islam** are an important part of Muslim life. They are five things that a Muslim must do so they can live a good and responsible life. They include:

•The **declaration of faith** (Shahada)

•**Praying** five times a day (Salat)

•Giving money to **charity** (Zakah)

•**Fasting** during the month of Ramadan (Sawm)

•A pilgrimage to **Makkah** at least once in a lifetime (Hajj)

Why Do Muslims Go on Hajj?

• To follow the footsteps of prophets: Muslims retrace the journeys of the Prophet Muhammad and the Prophet Ibrahim (Abraham).

• To show unity and equality: Millions of people from different countries, cultures, and backgrounds stand side-by-side, showing that everyone is equal in the eyes of God (Allah).

• To seek forgiveness: It is a time for deep prayer, reflection, and asking God to forgive past mistakes, starting fresh.



The Qur'an

This is the Muslim holy book and is written in Arabic. It must be kept at the highest point in a room and you must not eat or drink anything whilst handling it. The Qur'an is the word of God and gives clear instructions on how you should live your life

Ramadan and Eid ul Fitr

During the month of Ramadan, Muslims won't eat or drink during the hours of daylight. This is called **fasting**. Children are not expected to fast until they reach puberty, usually around the age of 14.

Ramadan remembers the month the **Qur'an** (the Muslim holy book) was first revealed to the Prophet Muhammad.

Most Muslims fast between dawn and sunset.

During Ramadan, it is common to have one meal (known as the **suhoor**), just before dawn and another (known as the **iftar**), directly after sunset.

The end of Ramadan is marked by a big celebration called '**Eid ul-Fitr**' (the Festival of the Breaking of the Fast).

During Eid ul-Fitr Muslims dress in their finest clothes, give gifts to children and spend time with their friends and family. Muslims will also give money to charity at Eid.

A large, stylized eagle graphic in a light blue color, spread across the entire page. The eagle's wings are spread wide, and its head is turned to the right. The graphic is composed of simple, bold lines and shapes, giving it a modern, abstract feel. It is positioned behind the text and the dark blue rectangle.

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.

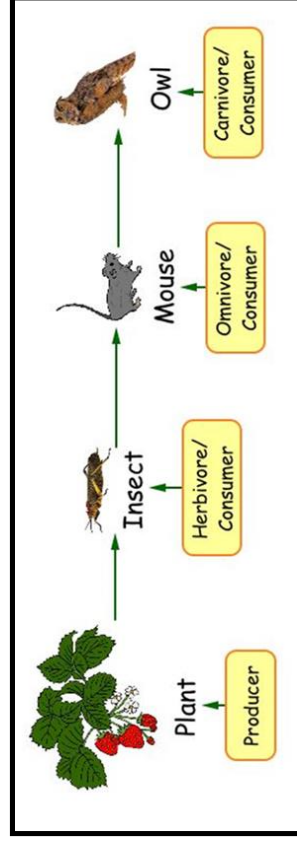
Predator - an animal that hunts and eats other animals.

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.



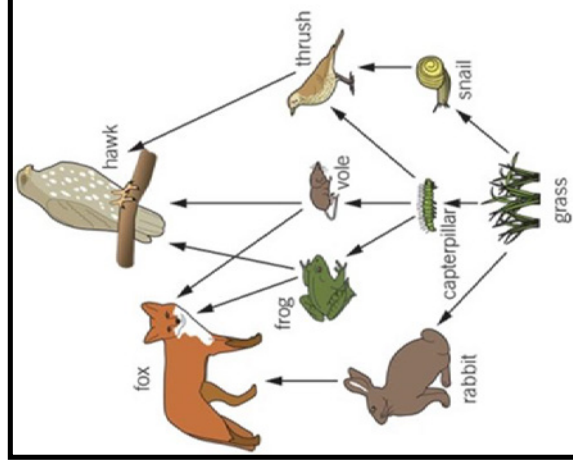
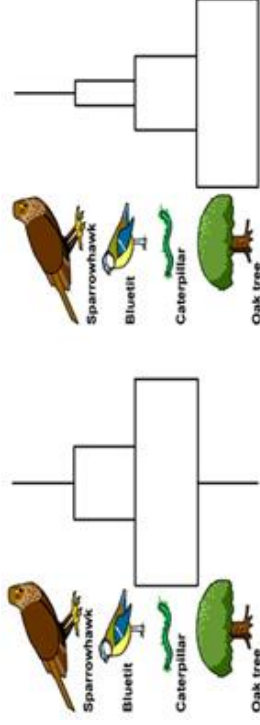
Box 3

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**.

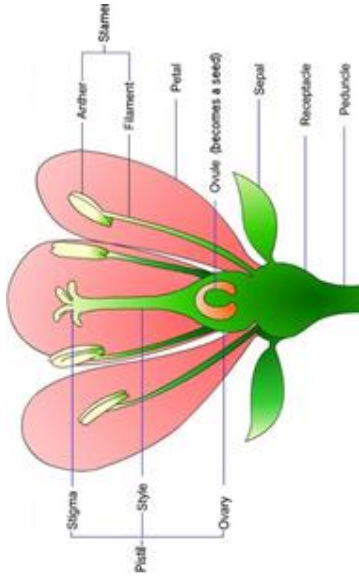
2. **Cross-pollination**—pollen is transferred from the stamen of one plant to the stigma of a **different plant**.

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.

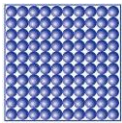
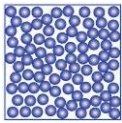
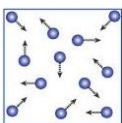
3. Pollination: Pollination occurs where the pollen from the anther of one plant reaches the stigma of another plant. This can happen by wind or insects.

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

Box 1: States of Matter

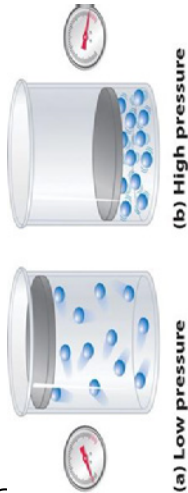
	Solid	Liquid	Gas
			
Fixed shape	No fixed shape	No fixed shape	No fixed shape
Fixed volume	Fixed volume	Fixed volume	No fixed volume
Do not flow easily	Flow quite easily	Flow very easily	Flow very easily
Very dense	Less dense	Not dense at all	Not dense at all
Cannot be squashed	Very difficult to squash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

Box 3: Gas Pressure

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

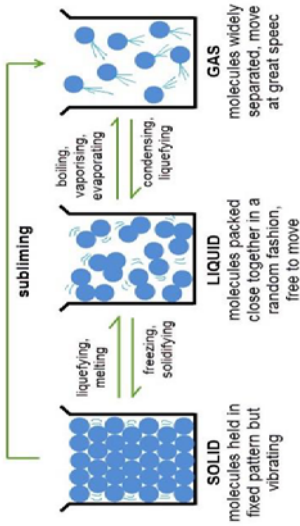
Factors that affect pressure:

- 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 2: Changes of State

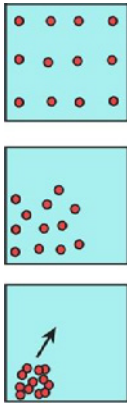
Transferring energy to or from a substance can change its state. Heating a substance in the **solid** state will cause it to **melt**, which changes it to the **liquid** state. Continued heating will cause the substance to **evaporate** or **boil**, which changes it to the **gas** state. A substance 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 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).



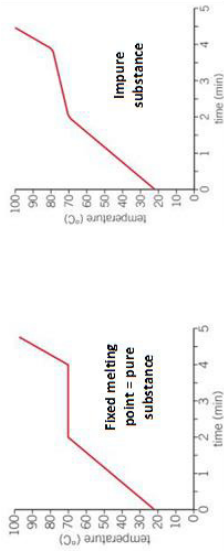
KEYWORD	DEFINITION
Boiling	The change of state from liquid to gas.
Boiling point	The temperature at which a substance boils.
Change of state	The process by which a substance changes from one state to another.
Condensation	The change of state from gas to liquid. It can happen at any temperature below 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.

Year 7 : Matter – Separation techniques

BOX 1 MIXTURES AND PURE SUBSTANCES

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

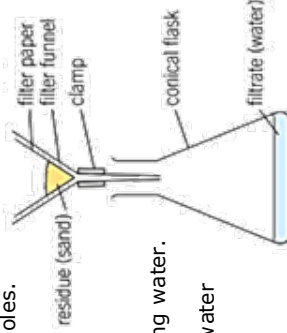
You can separate sand and water by pouring the mixture into filter paper. Water passes through the filter paper (filtrate) as water particles are smaller than the tiny holes in the filter paper. The grains of sand (residue) stay in the filter paper as they are bigger than the tiny holes.

How is it useful?

Oil filters in cars.

Sand filters for drinking water:

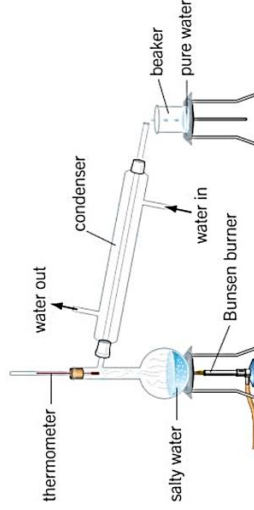
Sand filters to make water safe to drink.



BOX 5 DISTILLATION

Separating sea water

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



BOX 6 CHROMATOGRAPHY

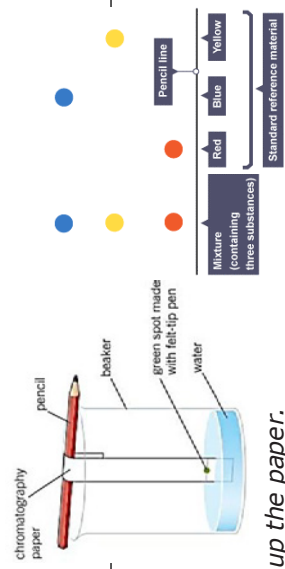
It is often used when the dissolved substances are coloured (inks, food colourings and plant dyes).

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.

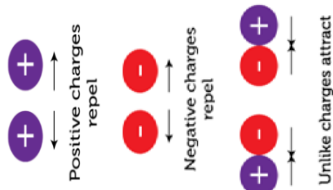
Two substances will be the same if they produce the same colour of spot, and their spots travel the same distance up the paper.

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.



Y7: Matter – Electromagnets – Circuits

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

VOLTAGE → **CURRENT**

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.

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

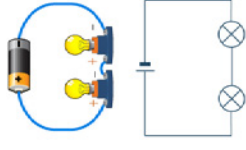
- Resistance in wires is caused by electrons colliding with metal atoms and transferring energy to them.

The following affects resistance:

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

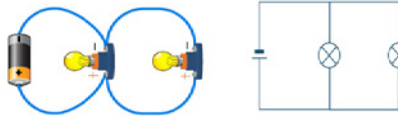
Box 3: Series Circuits

- 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	
	Ammeter
	Battery
	Bulb
	Buzzer
	Cell
	Closed switch
	Motor
	Open switch
	Resistor
	Voltmeter

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).

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.

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.

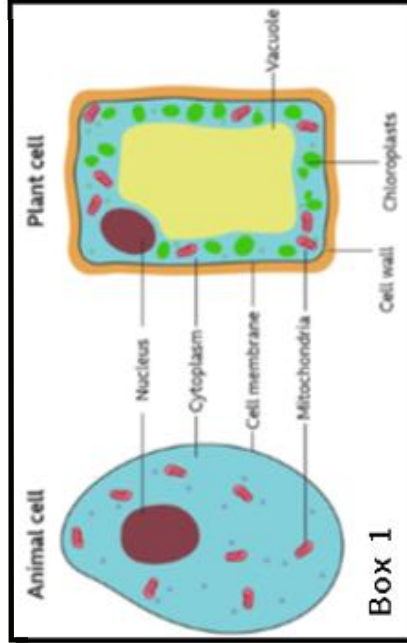
Renewable

Renewable fuels include solar, wind, tidal/wave, biofuels, hydro and geothermal.

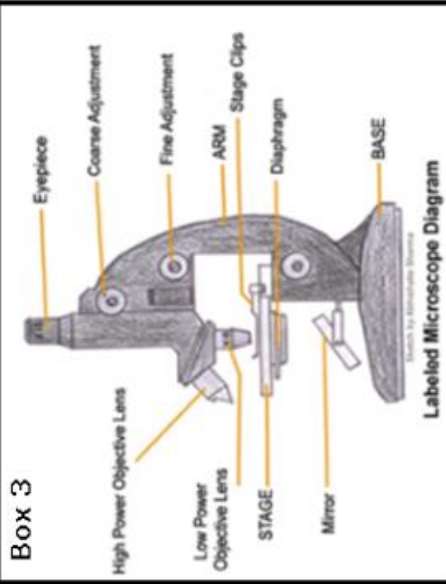
- ☺ No carbon dioxide released
- ☺ May be free to use (wind and Sun)
- ☹ Equipment may be expensive
- ☹ Can be unreliable (weather/ time of day dependent)

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 - Cells



Box 1



Box 4

Total magnification = eyepiece lens magnification $\times$ objective lens magnification

E.g.

$$10 \times 20 = 200$$

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 8

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

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 thin 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 releases 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 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

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 3: Force Diagrams

These forces acting on a body

Give this resultant force

0N (zero)

1N

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 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.



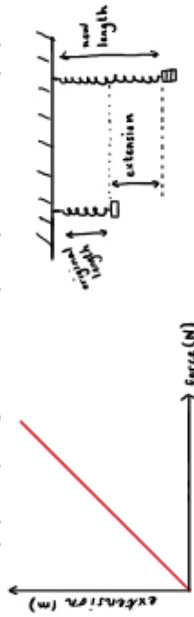
Box 4: Stretching and Hooke's Law

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

What happens when you stretch a spring?

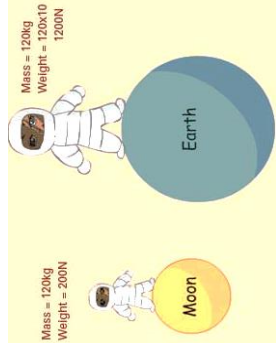
- If you double the force on the spring, the extension will double (Hooke's Law).
- At some point, when you remove the force it will not go back to its original length
- Not everything behaves like a spring when you stretch it.
- The formula for calculating the force applied to a spring is:

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;
 $weight (N) = mass (kg) \times gravitational\ field\ strength (N/kg)$
- 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.

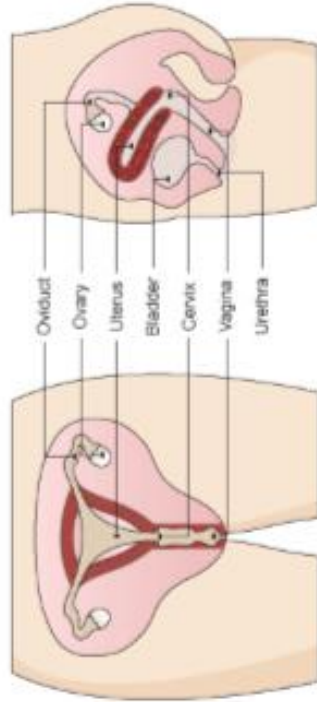


KEYWORD	DEFINITION
Air resistance	The force on an object moving through air that causes it to slow down, also known as drag.
Compression	Force squashing or pushing together.
Contact forces	A force that acts when an object is in contact with a surface, air or water.
Deformation	Changing shape due to a 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

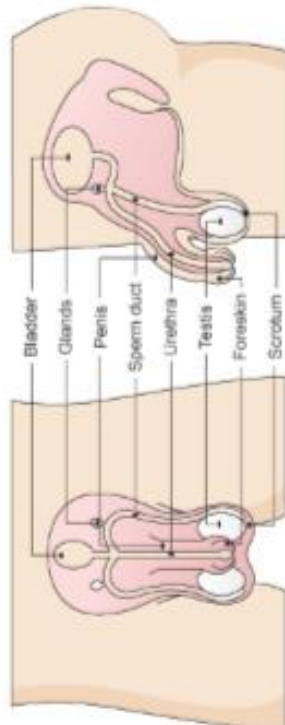
Y7: Genetics

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 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.

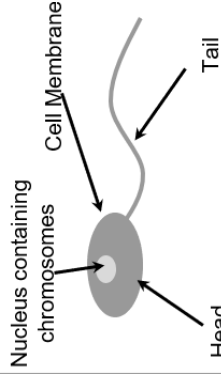
2. **Environmental Variation:** Characteristics may be changed by the environment. Eg, personality.

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.



Box 4

The Menstrual Cycle:

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

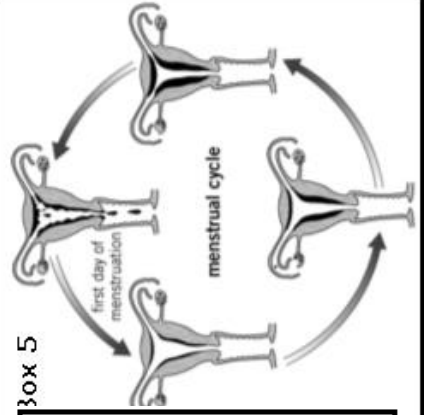
Day 5-14 - The uterus lining begins to thicken and the egg starts to mature in the ovary.

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 3

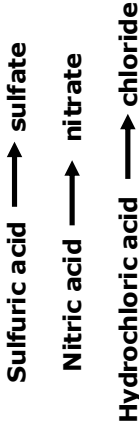
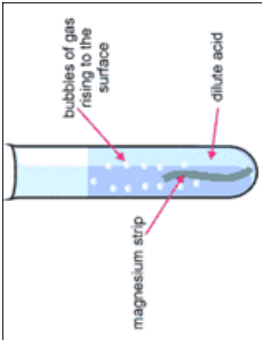
Changes during adolescence can be either physical or emotional. These changes are caused by sex hormones.

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

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.



BOX 2 METALS AND OXYGEN



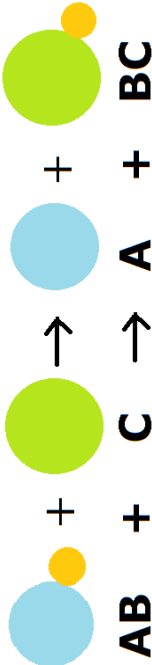
BOX 3 METALS AND WATER



BOX 5 DISPLACEMENT REACTIONS

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

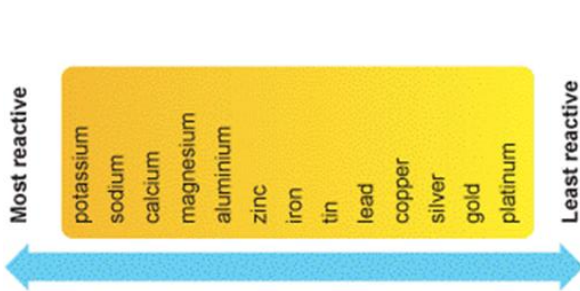
A more reactive metal will displace a less reactive metal from its compounds.



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



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.

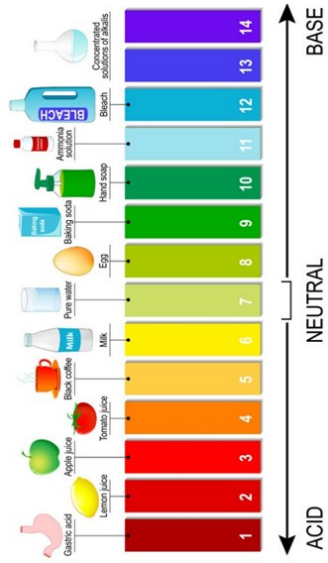
KEYWORD	DEFINITION
Ceramic	A compound that is hard, strong and has a high melting point.
Chemical property	How a substance behaves in its chemical reactions.
Displaces	A more reactive metal displaces – or takes the place of – a less reactive metal from its compound.
Oxidation	A chemical reaction in which 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.

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.

TRALISATION

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**.



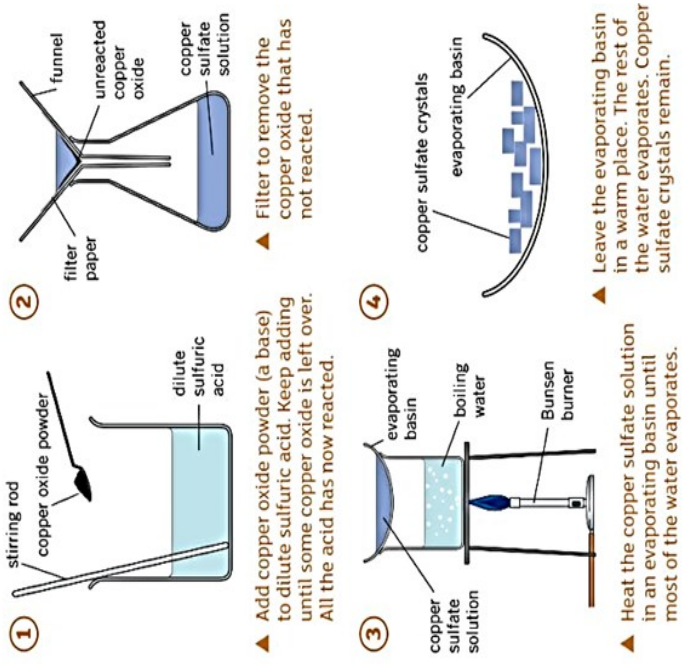
Soil for crops: Can add base (alkali) to the soil to neutralise some

BOX 3 NEU-

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.



KEYWORD

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

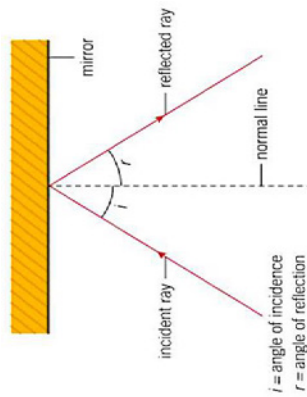
Box 1: Light Waves

- 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.

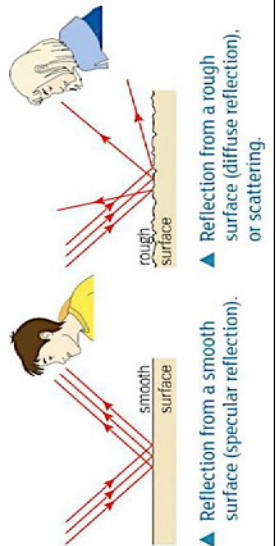


Box 2: Reflection

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

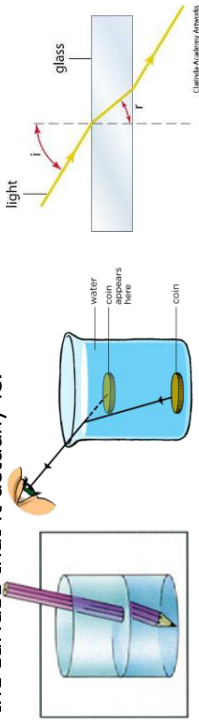


Box 3: Types of Reflection



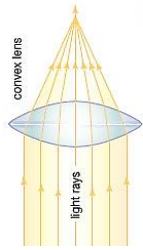
Box 4: Refraction

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.

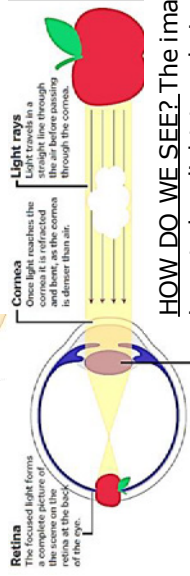
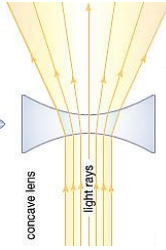


Box 5: Lenses and the Eye

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



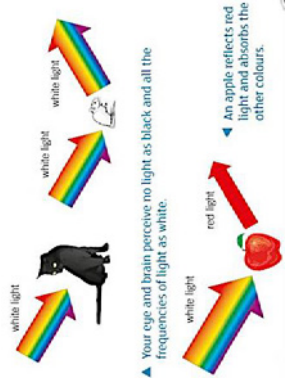
CONCAVE LENS: found in door spyholes. Only produce virtual images.



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.

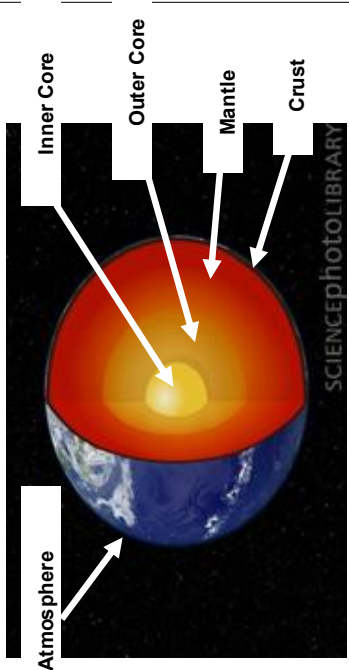
Box 6: Colour

- 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.



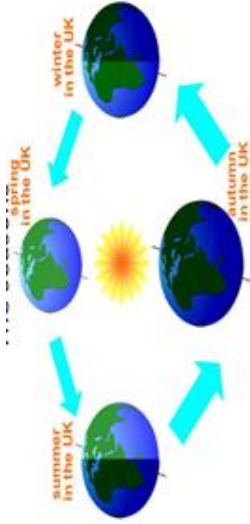
KEYWORD	DEFINITION
Concave	A lens that is thinner in the middle and that spreads out light rays (diverging).
Convex	A lens that is thicker in the middle and that bends light rays towards each other (converging).
Diffuse reflection	Reflection from a rough surface.
Dispersion	The splitting up of a ray 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 of 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.

Box 1: Earth Structure



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. Draw 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 increased, 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. What 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 is 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 liquid 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 nucleus?
4. What is the difference between a cell wall and a 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 total 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 using a 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 image?
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

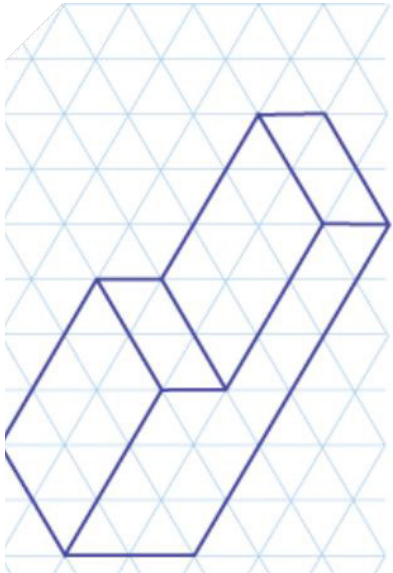
Annotation= Labelling design work in detailed sentences using accessfn.

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_flash/graphics_iso1.html



Isometric grid paper is made up of many small cube shapes.

When creating the 3D drawing, it can be a good idea to first produce the outline of a single side.

It is then a matter of extending lines from each corner to create the full representation.

-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

Thermoplastics 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 initial heat-forming.

Thermosetting Plastics Examples

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



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



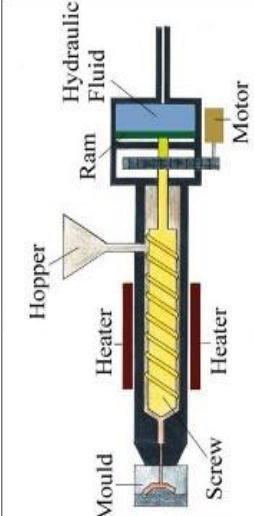
Buttons

Resistors

Electrical Plug

Plastic Processes

Many products are made using this process. Injection moulding uses THERMOPLASTICS, such as Polystyrene, Nylon, Polypropylene, Polythene. These come in granule form.



Injection moulding

Hopper

Heater

Mould

Screw

Hydraulic Fluid

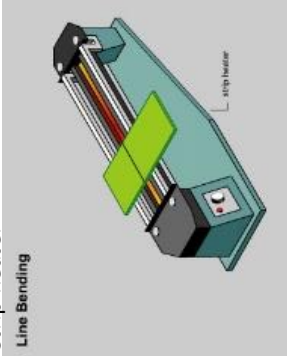
Ram

Motor

Strip heater

Line Bending

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



Year 7 Knowledge Organiser 1B

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

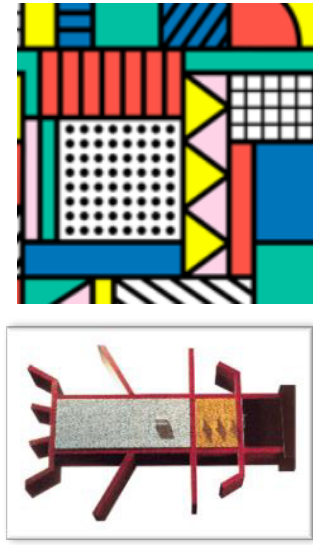
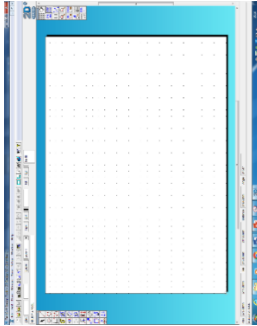


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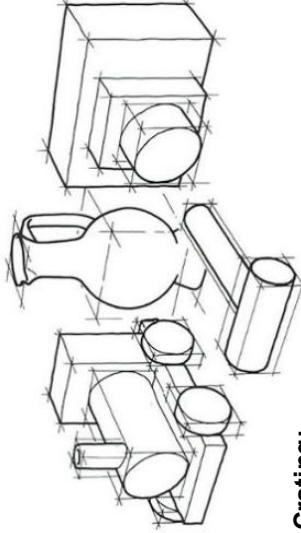
2D design

-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 convert 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.

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



Sustainability – the 6 'R's'

- Recycle**
- Repair**
- Refuse**
- Rethink**
- Reduce**
- Reuse**

Reprocess a material or product and make something else.

When a product breaks down or doesn't work properly, fix it.

Don't use a material or buy a product if you don't need it or it's bad for people or the environment.

Do we make too many products? Design in a way that considers people and the environment.

Cut down the amount of material and energy you use as much as you can.

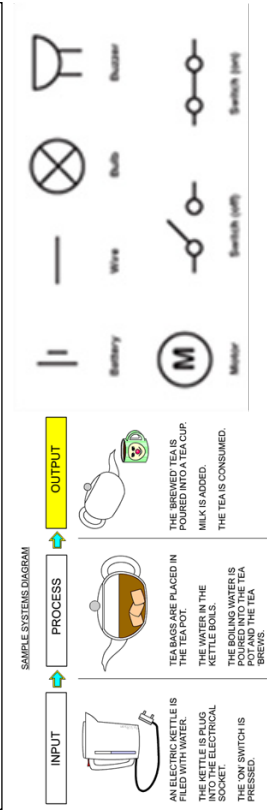
Use a product to make something else with all or parts of it.

Year 7

Knowledge

Organiser 2

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.



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
-----------------------------------	---

Types of timber		
Softwoods:	Hardwoods:	Manufactured boards:
-Come from coniferous trees -Coniferous trees grow more quickly than those of hardwoods. -The trees have needles, and instead of leaves, and are evergreen!	-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!	-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	Hardwood	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.



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).

Notes

Notes

Notes



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