

Home Learning Booklet



Knowledge Goals Year 7 Half Term 3

How to self-test

Mind mapping

- Mind mapping is simply a diagram to visually represent or outline information.
- Use information gathered from your knowledge goals booklet to create mind maps, make sure to use colour and images, keep writing to the bare minimum.

How to mind map:



Information for parents on knowledge retrieval



Flash cards

Use your knowledge goals booklet to make flash cards. Write the questions on one side and on the other record the answer. Test yourself or work with a friend to make sure you know all the key information for each topic.

How to mind map:



How should students use the Knowledge Goals booklets?

Your Knowledge Goals booklet provide the essential knowledge that you need to learn in each subject this half term. You are **expected to spend 30 minutes per subject per week 'learning' the content**. You will be assessed during lessons using 'low stake' quizzing. **Your teacher may choose to set you additional homework.**

How can parents support?

- Read through the organiser with your child – if you don't understand the content then ask them to explain it to you – 'teaching' you helps them to reinforce their learning.
- Test them regularly on the spellings of key words until they are perfect. Get them to make a glossary (list) of key words with definitions or a list of formulae.
- Read sections out to them, missing out key words or phrases that they must fill in. Miss out more and more until they are word perfect.

Subject Index

Suggested Homework Schedule (1 hour of independent study per night if you have not been set homework by your class teacher).

To help you get organized, we have planned out your weekly home learning to cover all subjects. You may choose to create your own version:

Week A

Day	Subject 1 (20mins)	Subject 2 (20mins)	Subject 3 (20mins)
Monday	Art	English Language	Physics
Tuesday	Biology	Technology	Maths
Wednesday	Chemistry	Spanish	Music
Thursday	Computer Science	Geography	RS
Friday	Design Technology	History	PE

Week B

Day	Subject 1 (20mins)	Subject 2 (20mins)	Subject 3 (20mins)
Monday	Drama	Personal Development	Teir 2 Vocab
Tuesday	Maths	English	Physics
Wednesday	Chemistry	English	Music
Thursday	Teir 2 Vocab	Maths	Biology
Friday			

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Literacy Tier 2 Vocabulary

These words are all 'tier 2' words; in other words, they are seen as 'academic vocabulary' and if you know them, can understand them and use them, you will do better in your exams and be able to communicate more precisely and effectively in life.

#	Key word	Definition
1	Adequate	
2	Ambiguous	
3	Attribute	
4	Decipher	
5	Exemplify	
6	Pivotal	
7	Stability	
8	Sufficient	
9	Turbulent	
10	Validity	

Literacy Tier 2 Frayer Model

examples

Definition	Characteristics
Examples	Non-examples

Definition	Characteristics
A shape with equal length sides and equal angles between each side. They differ from irregular polygons in that they not only cannot have unequal length sides or angles, but they can also not have curved lines.	Enclosed shape of straight sides Sides are equal length Angles are equal between the sides No curved lines Can be drawn on flat surface
Regular Polygons	
Examples 	Non-examples

DEFINITION	CHARACTERISTICS
The multiple created when a positive integer is multiplied by the same positive integer	<ul style="list-style-type: none"> The process of creating a square number is called "squaring" and is shown using an exponent of 2 (c^2)
Square Number	
EXAMPLES	NON-EXAMPLES
$4 (-2^2)$ $9 (-3^2)$ $100 (=10^2)$ $454 (=22^2)$ $1 (-1^2)$ $10\,000 (=100^2)$	$2 (\neq 1^2)$ 10 1000 5 -4 $\frac{1}{4}$

Definition:	Characteristics:
A cold-blooded, air breathing animal that has scales instead of hair or feathers. There are around 6,000 species	<ul style="list-style-type: none"> - Dry, scaly skin - Reproduce by laying eggs - Cold blooded & air breathing - Backbone
Reptiles	
Examples:	Non-examples:
Four existing orders of reptiles: Turtles, crocodiles & alligators, lizards & snakes, and tuataras.	<ul style="list-style-type: none"> - Amphibians e.g. frogs - Mammals e.g. elephants - Fish e.g. sharks

Definition	Characteristics/Features
A change beginning around 1750 where a greater number of goods were produced in large factories rather than in homes or small family businesses.	<ul style="list-style-type: none"> improved agricultural production increase in population and number of cities steam-driven machinery used for transport and goods production use of coal as an energy source greater availability of iron
Industrial Revolution	
<ul style="list-style-type: none"> First mechanical reaper in 1834. Increase city size and density: London increased from 5 million in 1700 to nearly 9 million by 1800. Mass production of goods occurs: <ul style="list-style-type: none"> Britain: textile manufacture centralised to mills by 1780s USA: by 1914, the USA was producing more steel than Britain, Germany, France and Austria-Hungary combined 	<ul style="list-style-type: none"> isolated communities with a hunter-gatherer economy people living as subsistence farmers on small plots people working fields by hand transport predominately by horse and cart
Examples	Non-Examples

Have a go at creating a Frayer Model for each of the 6 tier 2 words from this term (blank templates are at the back of the booklet for you to complete this activity).

Art year 7 term 2

Module overview

Using **portraiture** as your theme, you will investigate a range of media and techniques to create a self-portrait using **paint and printmaking**. We will explore the work of **Delita Martin** to gain understanding of how culture and narrative can be used to convey meaning.

Key words

Vibrant, collaged, overlapped, contrasting, pattern, focal point, culture, symbolic

Delita Martin information

Delita Martin was **born in Conroe, Texas in 1972**. She is currently based in Huffman, Texas. Martin received her BFA in drawing from Texas Southern University and MFA in printmaking from Purdue University.

Martin's **influences include Elizabeth Catlett**. Delitia also inspired by the **African aesthetics** she has learned exists throughout **Black culture**.

Delita Martin uses **drawing and printmaking** to create works that explore identity. In her work, she combines **signs and symbols to create a visual language**. Martin offers identities and narratives for women of colour.



LINE

A **Line** is the path left by a moving point, e.g. a pencil or a brush dipped in paint. A **line** can take many **forms**, e.g. horizontal, diagonal or curved. A **Line** can be used to show **Contours, Movements, Feelings and Expressions**.

TONE

Tone means the lightness or darkness of something. This could be a **shade** or how **dark** or **light** a colour appears

SHAPE & FORM

A **shape** is an area enclosed by a **line**. It could be just an outline or it could be **shaded** in.

Form is a **three dimensional shape** such as a sphere, cube or a cone.

Sculpture and **3D design** are about creating **forms**

Space

Refers to the **distances or areas around, between, and within components of a piece**.

Assessment criteria

- ⇒ Clear textured and patterned prints
- ⇒ Clear textured wax rubbings
- ⇒ Neat application of paint with smooth outlines
- ⇒ A high level of detail in your drawing
- ⇒ Smooth shading and blending with pencil
- ⇒ Neat and precise cutting out
- ⇒ Creative use of your chosen colour theme

COLOUR

There are 3 **Primary Colours**: **RED, YELLOW and BLUE**.

By mixing any two **Primary Colours** together we get a **Secondary Colour**: **ORANGE, GREEN and PURPLE**

PATTERN

A **pattern** is a design that is created by repeating **lines, shapes, tones or colours**.

Patterns can be **manmade**, like a **design** on fabric, or **natural**, such as the markings on animal fur.

TEXTURE

Texture is the surface quality of something, the way something feels or looks like it feels. There are two types of texture: **Actual Texture** and **Visual Texture**.

Actual Texture—really exists so you can feel it or touch it

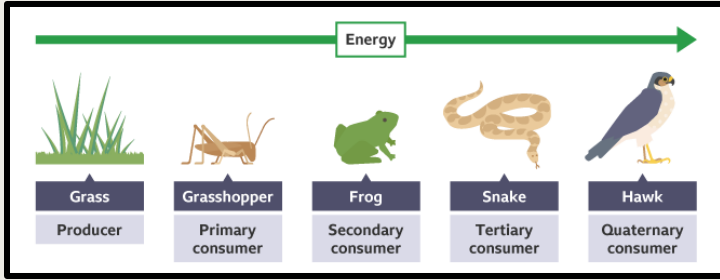
Visual Texture—created using different marks to represent actual **texture**.



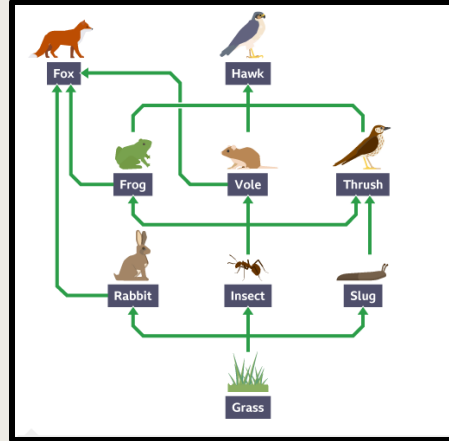
Martin's work *Mirror Mirror*, currently on view at the Art Museum of Southeast Texas

“These images **represent strength and emotion** in the aftermath of Diaspora - the displacement of the African people. These works are a gathering of sisters, mothers, daughters and women who show a solid resolve to **survive life's obstacles** and define love and commitment. Their faces also reflect the love and passion they feel for their men, their fathers, husbands and sons. These women challenge us to reflect on a **deeper meaning behind the surface**. They compel us to look into their faces and respond to their tenacity for life. In these works I have used my experiences as a Black woman and artist to speak about women of colour. I believe these **portraits present a humble, yet very solid awareness of the diversity among women of colour**. Throughout the series, women are represented by earth tones such as amber, mahogany, and Indian red. These images come from my **cultural memory**; the faces belong not just to one woman who lived before, but come from many. I create these images as a visual language to tell the **story** of each woman. The frame surrounding each portrait embodies the act of memory; it relates to the preservation of the past and constructs meaning for the present. **By combining portraits, text, and symbols; I offer a glimpse into the life of women who carry the weight of the world on their shoulders**. Whether bitter or sweet, fearful or courageous; **they tell stories and sing songs of patience, integrity, faith, strength and always love**” delita martin

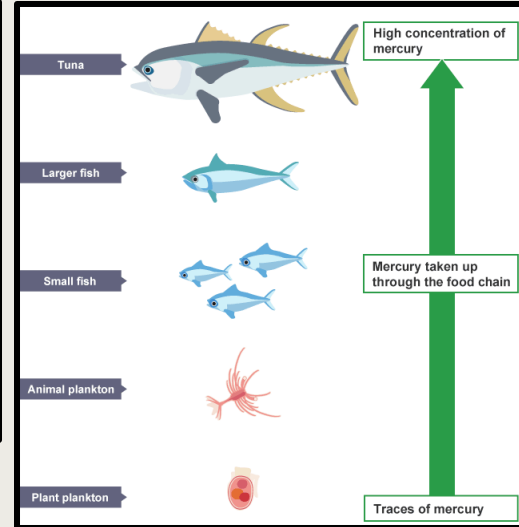
Knowledge Goals: Biology – Interdependence and plant reproduction



- The arrows in a food chain or web represent the transfer of **energy** from one organism to another.
- All food chains and webs must begin with a **producer**, an organism that produces its food using **photosynthesis**.
- **Energy is lost** along a food chain this is why food chains don't contain more than 5 different organisms.



- Food webs show how many different food chains are linked. The food web above includes the following food webs:
 - grass → insect → vole → hawk
 - grass → insect → frog → fox
 - grass → insect → vole → fox

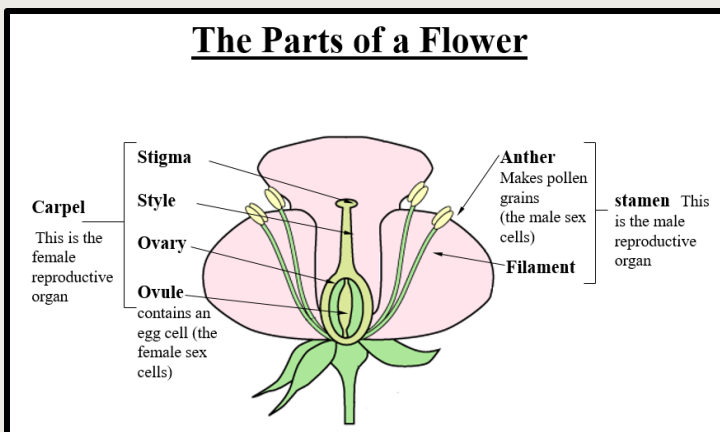


- Toxic materials are poisonous. Some quickly break down into harmless substances in the **environment**. Others are persistent (they stay in the environment and do not break down). These substances **accumulate** in the food chain and damage the organisms in it, particularly in the predators at the end of the chain.

- Insect-pollination of flowering plants is responsible for the majority of the world's flowering diversity and is an essential part of plant reproduction.
- Flowers have bright colours, smells and nectar which encourage pollinators to pay them a visit.

- Many crops depend on pollination by insects to survive. Bees, butterflies, beetles, moths and flies are all . Without them, would be threatened and there would be a worldwide shortage of fruit; especially apples, plums and pears. Many plant species could also decline or become along with the organisms that directly or indirectly depend on them.
- Bees are facing many threats globally. These include habitat loss, climate change, toxic pesticides and disease.

- **Self-pollination:** The pollen grain lands on the same flower it originated from.
- **Cross-pollination:** The pollen grain lands on a different flower to the one it originated from.



- The male gametes are contained in the pollen grains produced in the .
- The female gametes (egg cells or ova) are produced in the ovule found in the ovary.

Knowledge Goals: Chemistry – Metals and non-metals / acids and alkalis

Metals	Non-metals
Shiny	Dull
High melting points	Low melting points
Good conductors of electricity	Poor conductors of electricity
Good conductors of heat	Poor conductors of heat
High density (heavy for its size)	Low density (light for its size)
Malleable (hammer into shape) Ductile (make into wires)	Brittle (breaks easily)

Reaction:	Metal + acid
General equation:	Metal + acid \longrightarrow Salt + hydrogen
Example:	Iron + hydrochloric acid \longrightarrow Iron chloride + hydrogen
Observations:	Bubbles, change in temperature, change in mass

Reaction:	Metal + oxygen
General equation:	Metal + oxygen \longrightarrow Metal oxide
Example:	Iron + oxygen \longrightarrow Iron oxide
Observations:	Change in colour, change in mass

Some **acids** and **alkalis** are safe to handle but most are dangerous chemicals.

Hazard symbols are used to show the risks associated with each chemical.



Corrosive



Irritant

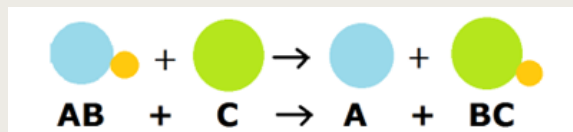


Toxic

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, more reactive iron will displace less reactive copper from a copper sulfate solution.
Iron + copper sulfate \longrightarrow Iron sulfate + copper

The **pH scale** tells us how acidic or alkaline a substance is.

Neutral solutions = pH 7 exactly
Acidic solutions have pH of < 7
Alkaline solutions have pH of > 7

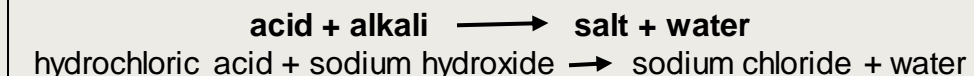
Indicators are used to find out whether a solution is **acidic** or **alkaline**.

There are two main types of indicator:

- **Universal indicator** = turns **red** in acids, **purple** in alkaline solutions, and **green** in neutral solutions.
- **Litmus paper**
 Red litmus turns blue in alkaline solutions
 Blue litmus turns red in acidic solutions

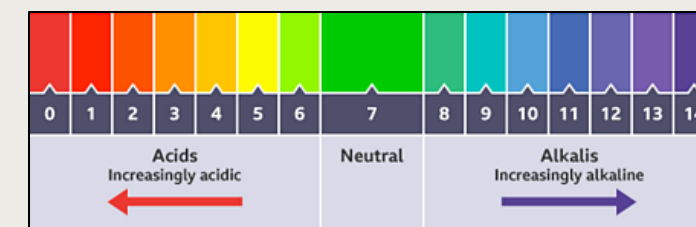
NEUTRALISATION

A **neutralisation** reaction occurs when an acid and an alkali are mixed together. The acid and base react together to form two neutral substances: salt and water.



Uses:

- Indigestion tablets to neutralise stomach acid
- Neutralising acidic soils to improve crop yields.



Knowledge Goals: Computer Science – Spreadsheet Modelling

A screenshot of a Microsoft Excel spreadsheet titled 'Book1'. The spreadsheet contains a table with the following data:

Fruit	Price each	Number needed	Costs
Apple	£0.30	3	£0.90
Orange	£0.25	2	£0.50
Banana	£0.50	4	£2.00
Cherry	£0.03	Value 36	36
Grape	£0.02	30	30
Pineapple	£1.50	1	£1.50

Callouts in the image include: 'Rows (numbers)' pointing to row numbers 1-11; 'Text labels' pointing to the column headers; 'Columns (letters)' pointing to column letters A-D; 'Active Cell' pointing to cell D11; 'A worksheet' pointing to the spreadsheet area; and 'Each cell has a unique cell reference e.g. D11' pointing to cell D11.

A screenshot of the AutoSum dropdown menu in Microsoft Excel. The menu is open, showing the following options: Sum, Average, Count Numbers, Max, Min, and More Functions...

A screenshot of a Microsoft Excel spreadsheet showing a formula being entered into cell D4. The formula bar shows '=C3*D3'. Callouts explain: 'Formulae can also be viewed and edited here in the formula bar.'; 'Start with = then create the formula'; and 'When you press Enter, the formula will automatically be calculated.'

A spreadsheet is a tool that is used to store, manipulate and analyse data. Data in a spreadsheet is organized in a series of rows and columns and can be searched, sorted, calculated and used in a variety of charts and graphs. Data is stored in **Cells**, each having a unique identifier made up of its **Column letter** and **Row number**, just like coordinates on a map.

Data in a spreadsheet can be manipulated by using many in-built functions which can be accessed from the AutoSum dropdown menu.

Mathematics can be used to manipulate data. Here are the common symbols used in computing. These are called **Mathematical Operators**.

Formula Rules:

- All formula must start with =
- To add something, use +
- To subtract something, use -
- To multiply something, use *
- To divide something, use /

Knowledge Goals: Drama

<https://www.bbc.co.uk/teach/school-radio/history-ks2-world-war-2-clips-news-report-on-evacuation/z74q8xs>

Notes:

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Split Staging

Some plays demand that you divide the acting area into more than one space, eg the office and the factory floor.

This may or may not be created realistically. If you're performing with the minimum of staging, it's important that you maintain the illusion of the two areas by very precise positioning of imagined doors.

You must make sure any mimed routines such as using door keys are repeated in exactly the same way by each performer. Even with realistic staging you'll probably need to be careful about things like entrances to each area in order to sustain the illusion.



A thought-track is when a character steps out of a scene to address the audience about how they're feeling. Sharing thoughts in this way provides deeper insight into the character for an audience. In rehearsal it's an effective way of exploring characters and scenes in greater depth.



Knowledge Goals: Drama

Half Term 3: Tier 3 Vocabulary

#	Key word	Definition
1	Freeze Frame	Creating an image to tell a story with your bodies. No movement.
2	Thought Tracking	when a character steps out of a scene to address the audience about how they're feeling
3	Improvisation	Making it up as you go along!
4	Hot Seating	A way to get to know your character by answering questions, in character.
5	Mime	Movement without sound.
6	Role Play	Imagining the perspective of a person in a situation and speaking and behaving in the way you think they would.
7	Empathy	Understanding and sharing another person's experience.
8	Flashback	interrupt the chronological order of the main narrative to take a reader back in time to the past events in a character's life

Notes:

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<https://www.youtube.com/watch?v=0SYDBJAwYCI>

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

Crime and Mystery Genre: Key Features

A puzzling problem or crime

- A detective or investigator
- Suspects and a villain
- A trail of clues
- A final plot twist

Characters
A mystery needs to keep the reader turning the pages by building up tension and suspense. There needs to be jeopardy, memorable characters and a plot twist

Home Learning Tasks:

- 1) Complete 15 minutes of reading every night, using your AR book.
- 2) Complete the vocabulary acquisition quizzes, set on Teams every fortnight.
- 3) Using this knowledge organiser, learn and review the key ingredients of crafting effective narratives.
- 4) Read at least one text from

Characters

You will find many different characters in a crime story: victims, suspects and villains, but the most important character is often the detective – the person investigating the crime itself. This could be: an amateur sleuth, a private investigator or a police detective.

How you can learn about characters:

Physical traits – what the character looks like

Dialogue – what the character says

Actions – what the character does

Point of view – what the character thinks How other characters react to them

The History of Crime Fiction

The roots of the crime and mystery genre can be traced back to the 18th century, when stories of real-life crime, and the biographies of notorious criminals, were published in The Newgate Calendar. (Newgate was a famous prison in London, where condemned prisoners were held before being executed at Tyburn gallows.) In the first half of the 19th century, readers could find sensationalist stories of crime and mystery in 'penny dreadfuls' – inexpensive novels printed on cheap paper and published in instalments. 'The Murders in the Rue Morgue' (a short story written in 1841 by Edgar Allan Poe) is viewed by many people as the first classic mystery story. It introduced features that now define the genre: • a puzzling crime • a masterful detective • an ingenious solution.

Narrative voice - Crime stories are often told in the first person ('I') so that the reader shares the narrator's viewpoint as they uncover the clues to solve the mystery. The perspective or opinion the story told from, the narrative voice, will create different responses from the reader depending on who is narrating the story.

Pronouns:

First person = 'I'

First person plural = 'we' Second person = 'you'

Third person = 'he'/'she'/'they'

The Apostrophe

Apostrophes are used either to show ownership or to show a letter is missing.

Possession

In speech we add an s to show possession or ownership. In written English, we also add an apostrophe.

Singular Possession

When showing ownership by one person or subject, an apostrophe and an s are added.

The cat's tail is black.



The man's hat is yellow.



The shop's sign is broken.



Aisha's homework was late.



Plural Possession

When showing ownership by more than one person or subject, two different rules apply:

When a word already ends in s, only add an apostrophe.



The cats' tails are black.



Their parents' house was huge.



He found two suspects' DNA.

When a word does not end in s, add an apostrophe and an s.



The men's hats are yellow.



The children's school is closed.



The media's coverage was biased.

When showing ownership by more than one person or subject in a list, only add an apostrophe and an s to the last mentioned person or subject.



Sophie, Ben and Maya's dog had to go to the vet.

You do not need to add an apostrophe to pronouns such as:

its whose yours his hers ours theirs

Missing Letters

An apostrophe can be used to indicate that letters have been missed out.

Do not get dirty.



Don't get dirty.

Where is the map?



Where's the map?

I am taller than my brother.



I'm taller than my brother.

Anna does not need her gloves.



Anna doesn't need her gloves.

To catch the train, she would have to get up at 6 o'clock.



To catch the train, she'd have to get up at 6 o'clock.

Common Mistakes

It's = It is
It's time to go home.



It's or Its



Its = possessive pronoun
Its tail is very long.

You're = You are
You're going to be late.



You're or Your

Your = possessive pronoun
Your coat is too small.



Who's = Who is
Do you know who's coming to the party?



Who's or Whose

Whose = possessive pronoun
Whose house is that?



We're = We are
We're the best team in the league.



We're or Were



Were = verb
You were at the shops.

Can you complete the following sentences?

It's or Its

_____ a long way to the train station.

We're or Were

Who knows where _____ going?

You're or Your

_____ rugby kit is in the wash.

Remember, do not use an apostrophe to make a plural.

CD's will soon be obsolete, just like video's. ✗
CDs will soon be obsolete, just like videos. ✓

PARTS OF SPEECH

Noun

A noun is the name of a person, place, or thing.

Person: girl, boy, teacher
Place: school, home, store
Thing: pencil, jacket, dog

Adjective

An adjective describes a noun or a pronoun. An adjective tells what kind, how many, or which one.

What: kind, happy, brave
How: slow, more, two
Which: one, this, that

Verb

A verb can tell what action someone or something is doing. A verb can also express a state of being.

Action: run, jump, sit, think
State of being: am, is, are, was, were

Pronoun

A pronoun is used in place of a noun in a sentence. A pronoun may take the place of the name of a person, place, or thing.

I, you, she, he, it, we, they, me

Article

The words a, an, and the belong to a special group of adjectives called articles. An article can be used before a noun in a sentence.

a, an, the
a dog, an apple, the boy
a rabbit, an ant, the bird

Adverb

An adverb describes a verb, adjective, or another adverb. An adverb tells how, when, where, or to what degree.

How: quickly
When: today
Where: outside
To what degree: barely

Preposition

A preposition combines with a noun or pronoun to form a phrase that tells something about another word in a sentence.

from, to, with, until, over, after

Conjunction

A conjunction joins together single words or groups of words in a sentence.

and, but, or, so

Interjection

An interjection expresses strong feeling or emotion. An interjection can be a single word or a phrase.

Help! Oh! Ouch!
Ugh! Whew! Ah!
Wow! Look out! Oh dear!

The boy yelled, "Help!" and he saw a brave dog quickly run to the rescue.

Sentences

When writing, you will need to use different sentences to suit your purpose, audience, and text type. Use a variety of sentences to make your writing interesting and lively.

Minor Sentences

Minor sentences are very short, incomplete sentences:



Stop!



Hi!



Go.

Simple Sentences

A simple sentence consists of only one clause, with a single subject and predicate (verb or verb phrase).

I drove.



I drove slowly through the huge puddle.

Megan read.



Megan read her favourite actor's autobiography.

The dog barked and growled.



The fierce dog barked and growled loudly.

Simple sentences can contain multiple nouns, verbs, adjectives, adverbs, connectives and prepositions, but they cannot contain more than one clause.

Compound Sentences

A compound sentence contains two or more main (independent) clauses that are linked by a coordinating conjunction (e.g. and, but, so, for, or).

The comedian told a joke, and the audience laughed uncontrollably.



It was hot and sunny, so we went to the beach.



Complex Sentences

A complex sentence contains a main clause and a subordinate clause. The subordinate clause supports the main clause and does not make sense on its own.

When he saw the first exam question, he knew he was in trouble.



Halle was late for school despite waking up early.



To make your writing more interesting, try to vary the types of sentences you use. Including adjectives, adverbs and imagery will also make your sentences more engaging.

Capital Letters

- and when to use them.

Starting a Sentence

Every sentence starts with a capital letter.

A long time ago, in a galaxy far, far away...

A capital letter is usually required at the start of direct speech.

"Stop that man!" shouted the police officer.

Names and Titles

Sarah took her son to see Dr. Williams because he was ill.

Days of the Week and Months

The football game is on Monday 2nd July.

Place Names

I'm moving to Sydney, Australia.

Nationalities and Languages

The man is Mexican but he speaks Spanish.

Companies and Organisations

The RSPCA takes care of injured and abandoned animals.

Headings and Book/Film Titles

My favourite book is Alice in Wonderland.

Punctuation

Full Stop

A full stop marks the end of a sentence.

Josephine had to push her bins all the way home. The front tyre had a puncture and was completely flat.

Comma

A comma separates items in a list. It is also used to punctuate speech and separate parts of a sentence, such as clauses, to help clarify meaning.

The bag contained trainers, shorts, a shirt, socks and a water bottle.

Let's eat Grandma.

Let's eat, Grandma.

Question Mark

A question mark indicates the end of a question.

What is your name?

Do you know when to use a question mark?

Exclamation Mark

An exclamation mark is used to end a dramatic sentence or statement.

Don't put your hand in the fire!

Look out!

Speech Marks

Speech marks, or inverted commas, indicate direct speech, i.e. the exact words spoken.

"I like football," said Sam.
"Me too," replied Ella.
"Which team do you support?"

Colon

A colon introduces extra information, such as a list. It connects parts of a sentence, where the second part provides further explanation of the first.

George thought it was his mum's fault; she shouldn't have moved his homework when she was tidying up.

Semi-Colon

A semi-colon links two clauses of equal importance. It is also used to separate items in a list, when the list already contains commas.

The expedition may be on or off; it all depends on the weather. The guides are: Sam Yates, Biology; Amy Elliot, Physics; and Julie Cooper, Chemistry.

Apostrophe

An apostrophe is used to show ownership or that a letter is missing.

The rabbit's tail is black. (The tail belongs to the rabbit.)

It is going to rain.

It's going to rain.

Brackets

Brackets are used to indicate parenthesis - extra information that is separate from the main sentence or statement.

Dashes (see below) can also be used to separate extra information.

Dashes

Dashes are also used to indicate parenthesis - extra information that is separate from the main sentence or statement. They are twice the length of a hyphen.

All of the ingredients - tomatoes, basil, onion, garlic and chilli - were ready for cooking.

Hyphen

A hyphen is used to join words together. It can join prefixes to root words, and words that are linked, such as compound adjectives.

She is an award-winning novelist.



Digging Deep

Why are readers attracted to this genre?

How do writer's create effective narrative voices?

How do the conventional techniques of a mystery story create suspense?

Is there an archetypal detective and if so, what are the most effective characteristics?

How has the success of the mystery genre been demonstrated in popular culture?

How can you take inspiration from real-life events to create your own mystery story?

Literary Terminology

argument: a reason or set of reasons given in support of an idea, action or theory.

genre: a category of things distinguished by some common characteristic or quality e.g. mystery, adventure, horror

inference: a conclusion which is based on evidence

deduction: the process of drawing a conclusion based on a general principle

subordinate clause: a clause which is dependent upon a main clause and cannot stand alone as a complete sentence

main clause: a clause which contains a subject and verb and makes sense on its own

adjectives: a word that describes a noun, e.g. *happy, blue, ferocious*

third-person narrative: when the narrator is not a character in the story and relates the action using third-person pronouns, such as 'he' and 'she'

tense: past, present or future

physical traits: The physical characteristics you see when you look at someone. It could be their hair, clothes, nose, or figure

dialogue: conversation

point of view: the opinion of who is telling or narrating the story

climax: the most intense and exciting part of the story

quotation: a word or phrase taken from a longer piece of writing

characterisation: the strategies a writer uses to create a character

tension: suspense or threat

narrative voice: the voice of the character or narrator telling the story

New Vocabulary

jeopardy danger

sleuth detective

amateur person who does things as a hobby, rather than a job

plot twist an unexpected event such as the death of a suspect that sends the plot in a new direction

pitiable deserving sympathy

agitation upset

haggard tired-looking

all-comprehensive taking in every detail

dog-cart a horse-drawn carriage

forensic using scientific and other techniques to study evidence in detail, usually to solve a crime

impending about to happen

blanched turned white

fain an old-fashioned word meaning 'readily'

red herrings false clues that are planted to mislead

brogues a type of shoe

torpor inactivity

alluded hinted

philosophical instruments scientific equipment

Knowledge Goals: Food Technology

Personal Hygiene

Good personal hygiene is vital when cooking to avoid the risk of food poisoning.

- Short Fingernails
- Hair Tied back
- Cuts covered with a BLUE plaster
- Wear clean apron
- Jewellery removed
- Wash hands before cooking, after blowing nose, visiting toilet or touching face or hair

Health and Safety

These are essential for everyone's safety

- Wash in hot soapy water
- Don't put hot food in fridge
- Turn saucepan handles when using
- Don't touch electrical appliances with wet hands
- Store high risk food in fridges
- Use oven gloves

Food Senses

taste, smell, touch, sight, hear

Macronutrients

Needed in large amounts to help the body to function properly



Fat

Function:
Energy
Warmth

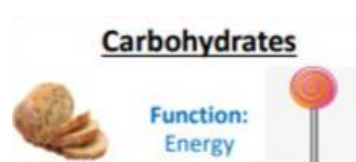
Protection of organs

Sources

Saturated Fat (Bad Fats) Meat, Processed Foods, Lard
Unsaturated Fat (Good Fats) Avocado, Nuts, Olive oil

Saturated Fats - solid at room temperature and are from animal sources. Unsaturated fats are liquid at room temperature and are vegetable sources..

Too much	Too little
<ul style="list-style-type: none"> • Obesity • Type 2 diabetes • Heart Disease 	<ul style="list-style-type: none"> • Fat soluble vitamin deficiencies



Carbohydrates

Function:
Energy

Sources:

Bread, Pasta, Rice, Wheat, Potatoes, Cereals

Sugars:

Cakes, Sweets, Fizzy drinks

We should consume no more than 30g of sugar per day

Too much	Too Much
<ul style="list-style-type: none"> • Obesity • Type 2 diabetes • Heart Disease 	<ul style="list-style-type: none"> • Tooth decay • Type two diabetes • Obesity



Protein

Function:
Growth and Repair
Energy

Sources:

Plant: Nuts, Quorn, Beans, Lentils

Animal: Eggs, Fish, Meat

Too much	Too little
<ul style="list-style-type: none"> • Turns to fat if not turned into energy 	<ul style="list-style-type: none"> • Anaemia • Slow growth in children

Water
Keeps us hydrated.

Source
Drinks, fruit and vegetables, soup.

Function
• Controls body temperature.
• Gets rid of waste in the body.

Too little
• Dehydration leads to headaches, irritability and loss of concentration.

Fibre
Function:
It helps with digestion
It helps to get rid of waste

Source:
Wholegrain, Whole wheat, Wholemeal cereals, Peas and beans

Too Little
• Constipation
• Bowel Cancer

Colour Coded Chopping Boards

- Blue – fish
- White – bread and dairy
- Brown – root vegetables
- Red – raw meat
- Yellow – cooked meat
- Green – vegetables and salad



Knife Skills

Bridge Hold



Claw Hold



Knife pointing down



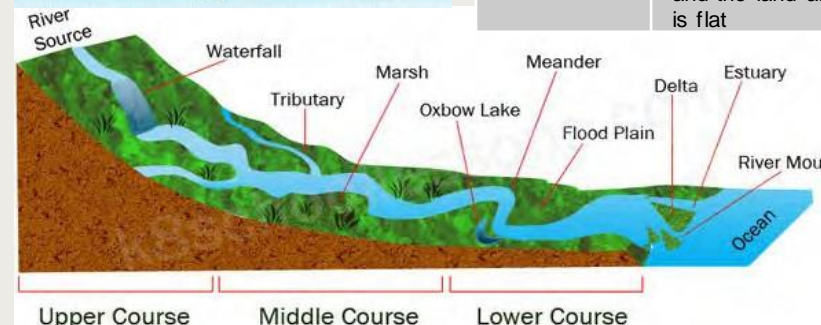
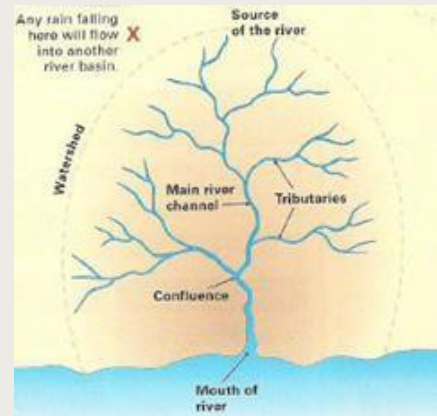


Knowledge Goals: Geography From Bela to Bay

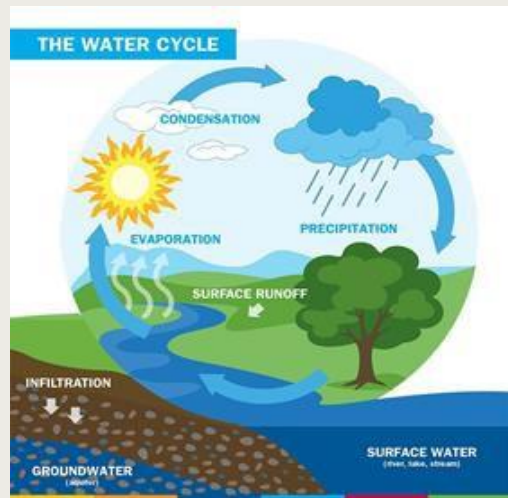
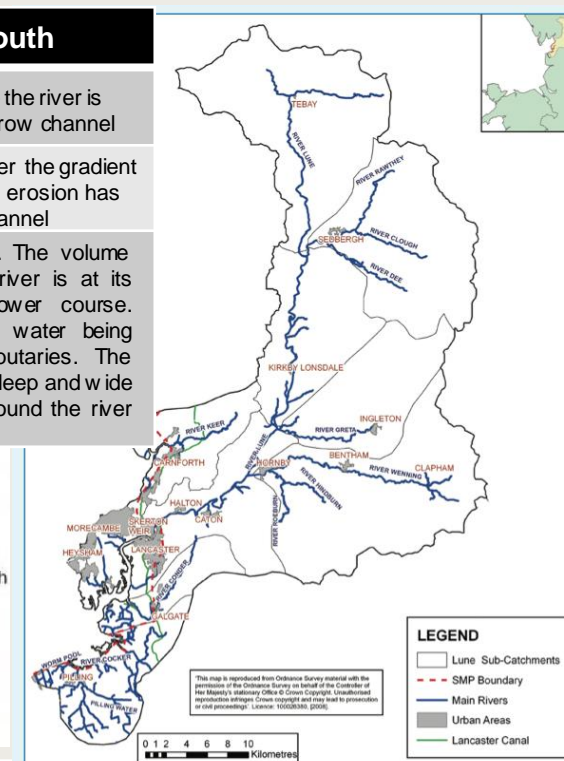


The Water Cycle	
Precipitation	Any moisture/w ater falling from the sky
Condensation	Water vapour (gas) cooling down and turning into a liquid.
Evaporation	Water (liquid) warming up and turning into water vapour (gas).
Infiltration	Water Soaking into the ground.
Surface runoff	Water running over the surface of the land. It happens when the ground is too wet and no more water can soak in.
Throughflow	Water soaks into the soil and flows downhill through the soil
Groundwater flow	Water that has infiltrated deep underground slowly flows back to the sea or river through the rocks

Drainage Basin	
Source	Where the river begins.
Mouth	Where the river meets the sea.
Tributary	A small river that joins a larger river.
Confluence	The point 2 rivers join.
Drainage basin	An area of land drained by a river and its tributaries .
Watershed	An imaginary line that marks the edge of a drainage basin.
Catchment area	the area of land, including the hills and mountains, woodlands, and buildings w hich water drains from, before flowing into the streams, rivers, lakes and tarns



From source to mouth	
Upper course	Near the source the river is steep with a narrow channel
Middle Course	Middle of the river the gradient is less steep and erosion has widened the channel
Lower Course	Near the mouth. The volume of water in a river is at its greatest in the lower course. This is due to water being added from tributaries. The river channel is deep and wide and the land around the river is flat



River Processes: Erosion	
Hydraulic Action	Water is forced into cracks in the rock. This forces the air out quickly and breaks down the bank.
Attrition	The rocks being carried by the water knock into each other and break. This will make them smaller and rounder.
Abrasion	Rocks carried by the water rub against the river bed and bank, wearing it away like sandpaper.
Corrosion	Acids in the water dissolve some of the rock.

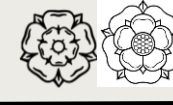
River Processes: Transportation	
Traction	Large stones are rolled along the riverbed
Saltation	Smaller stones bounce along the river bed over on another
Suspension	Small particles of rock, dirt and plants float in the water of a river, making it look cloudy
Solution	Particles of rock and chemical are dissolved and carried along in the water unseen

River Processes: Deposition	
Rivers deposit (drop) eroded material as they lose speed when:	
-	the river becomes shallower
-	the amount of water is reduced
-	the amount of material being carried increases
-	the river reaches its mouth

BBC Bitesize

SCAN ME

Year 7 Knowledge Goals – Medieval and Early Modern England



1135
The Anarchy

1170
Murder of Thomas

15th June 1215
Magna Carta

December 1282
Llywelyn the Great killed

1296
Edward I takes control of

1348
Black Death reaches England

1381
Peasants Revolt

1455
Wars of the Roses begin

Changes to the monarchy

Changes to the Church

The Anarchy, 1135-1153

- Began after son of King Henry died racing a boat drunk in 1120.
- Lords promised Henry his daughter, Matilda, would become Queen. But when she died, they chose his nephew Stephen.
- Civil War began in England until 1153. It was agreed Stephen would remain King of England. In return, Matilda's son would be the next King.



Magna Carta, 1215



The Barons of England became angry with King John because of the failures of his wars in France and him raising taxes without asking him.

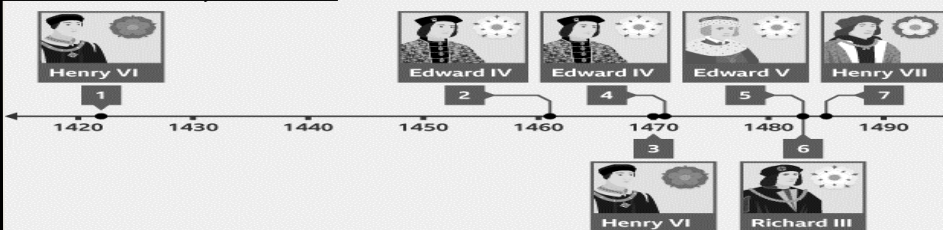
- They met the King and gave him list of rules that to agree to.
- This included no man being arrested unless he has broken the law, the King had to ask permission to raise taxes and for trials

Scotland and Wales, 1200-1300

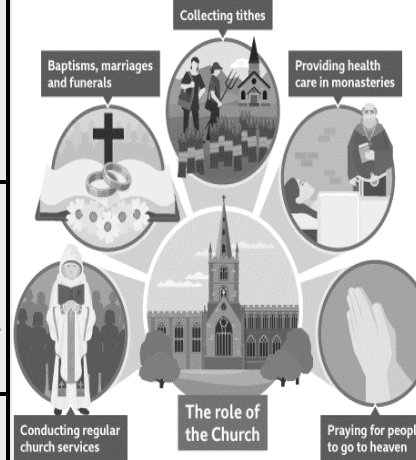
- English monarchs began taking more power from Scotland and Wales.
- The Prince of Wales Llywelyn the Great was killed in 1282, with the title passing to the son of King Henry III
- In 1292 after Edward I was able to choose John Baliol as the next King of Scotland, Edward was able to get more involved in Scotland. By 1296, he became the overlord of the Scottish nobles



Wars of the Roses, 1455-1485



- Henry VI (1422-1461). Briefly replaced by Richard, Duke of York during periods of poor mental health.
- Edward IV (1461-1470). Son of Richard, Duke of York. Defeated Henry VI at Towton to become king.
- Henry VI (1470-1471). Received support from the Earl of Warwick to reclaim the throne.
- Edward IV (1471-1483). Reclaimed the throne after defeating Henry VI at Tewkesbury.
- Edward V (1483-1483). One of the princes in the tower and the son of Edward IV.
- Richard III (1483-1485). Uncle of Edward V, became king after Edward V disappeared.
- Henry VII (1485-1509). Defeated Richard III at the Battle of Bosworth. Henry married Elizabeth of York, uniting the rival families.



What caused conflict between the Church and state under Henry II?

- Henry II appointed Thomas Becket as Archbishop of Canterbury in 1162.
- Becket tried to increase the power of the Church. In 1164 Henry tried to limit the power of the Church by passing laws called the Constitutions of Clarendon.
- After Becket got rid of bishops who had been helping Henry, Henry went into a rant which was heard by some knights.
- The knights went to Canterbury cathedral and murdered Becket.
- Henry II failed to reduce the power of the Church, no monarch challenged the Church again until Henry VIII in the

Changes to society

Black Death, 1348



Impact of the Black Death:

- Killed between third and half of population.
- Upper class donated more money to the Church as they feared it was a punishment from God.
- Peasants asked for more wages, but the 1351 Statute of Labourers made banned this.
- 3000 villages wiped out.

Peasants Revolt, 1381



Impact of the Peasants Revolt:

- Rules forcing peasants to stay on the land they worked on were relaxed.
- Warning to the monarchy that they had to listen to the people of

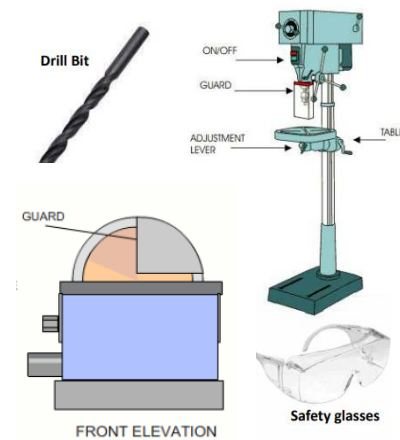
Knowledge Goals: Materials

Health and Safety

It is really important we **ASSESS** the **RISK** and **REDUCE** the **RISK** of Injury by **LISTENING** To the **TRAINING** and following the correct **PPE** usage

- Hair must be tied up in the workshop
- Blazers and ties must be removed
- Jewellery must be removed
- Only use machines you have been told to use and have been demonstrated to you
- Ensure you know where the emergency stop button is
- Do not eat or drink in the workshop
- No running

Pillar drill and disc sander



2D DESIGN

CAD: Computer Aided Design



Icon	Meaning
	Used to draw straight lines
	Used to draw freeform curves
	Used to draw circles
	Used to add text
	Click and hold for Shapes tools

Softwoods	Hardwoods	Manufactured boards															
<p>Coniferous trees - Trees stay evergreen all year round.</p> <ul style="list-style-type: none"> • Coniferous trees will grow at a faster rate. • Tend to have needles rather than leaves <p><i>evergreen all year round</i></p> <p>Examples of softwoods</p> <p>PINE - used in household furniture</p> <p>CEDAR - used for outdoor furniture</p>	<p>Deciduous trees - Trees will lose their leaves in the winter.</p> <ul style="list-style-type: none"> • Hardwood trees tend to be slow growing broad leaved trees. <p>Summer Water</p> <p>Examples of Hardwoods</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Properties</th> <th>Uses</th> </tr> </thead> <tbody> <tr> <td>Beech</td> <td>Hard wearing and strong</td> <td>Fruit Bowl</td> </tr> <tr> <td>Oak</td> <td>Tough and durable</td> <td>Garden furniture</td> </tr> <tr> <td>Mahogany</td> <td>Durable and easy to work with</td> <td>Pianos and furniture</td> </tr> <tr> <td>Teak</td> <td>Strong, durable, resistant to moisture</td> <td>Boats</td> </tr> </tbody> </table>	Name	Properties	Uses	Beech	Hard wearing and strong	Fruit Bowl	Oak	Tough and durable	Garden furniture	Mahogany	Durable and easy to work with	Pianos and furniture	Teak	Strong, durable, resistant to moisture	Boats	<p>Manufacture - It means the making of goods by manual labour or by machinery.</p> <p>MDF - stands for Medium Density Fibreboard.</p> <ul style="list-style-type: none"> • a high quality board made by pulping wood fibres and then compressing them greatly. It is very smooth and stable, it cuts well and is used in high quality furniture. • Easy to work with • Stable and uniform strength <p>Plywood</p> <ul style="list-style-type: none"> • Plywood is made by gluing together thin layers of wood called veneers. Each layer has the grain going across the one below. This makes it strong and strong. It is used for shops, interior doors and lockers of drawers. • Veneers glued at 90 degrees • Very fire and strong • Used in toys and exterior doors <p>Examples of Manufactured Boards</p> <p>Normally household items</p>
Name	Properties	Uses															
Beech	Hard wearing and strong	Fruit Bowl															
Oak	Tough and durable	Garden furniture															
Mahogany	Durable and easy to work with	Pianos and furniture															
Teak	Strong, durable, resistant to moisture	Boats															

CAM: Computer Aided Manufacture

Laser cutter

Laser cutting works by directing the output of a high-power laser. The focused laser beam is directed at the material, which then cuts the material leaving an edge with a high-quality surface finish. In school we mainly cut and engrave on Plywood and Acrylic

Saws

Tenon Saw
For straight lines

Coping Saw
For cutting curves



Knowledge Goals: Maths

Unit 6 – Introduction to algebra

Topic	Video	Resource
Using function machines	Watch this	Complete Q1 and 2 Check your work
Algebraic notation	Watch this	Complete Q1 and 2 Check your work
Forming simple expressions	Watch this	Complete Q1 and 2 Check your work
Collecting like terms	Watch this	Complete Q1 & 2 Check
Substitution	Watch this	Complete Q1&3 Check
Expanding	Watch this	Complete Q1&2 Check
Factorising	Watch this	Complete Q1&2 Check
Sequences nth term	Watch this	Complete Q1&2 Check

Using letters to represent numbers

$5 + 5 + 5$	$y + y + y + y$	$20 - h$
3×5	$y \times 4$	$\frac{20}{h}$
5×3	$4 \times y$	
	$4y$	

↑
Addition and multiplication can be done in any order
Cumulative calculations

↑
4 lots of 'y'

↑
20 shared into 'h' number of groups

Single function machines (algebra)

INPUT → **x 10** → OUTPUT

a → $10a$

$3c$ → $30c$

← **- 10**

To find the input from the output Use the **INVERSE** operation

Substitution into expressions

$4y$ ← 4 lots of 'y'

If $y = 7$ this means the expression is asking for 4 'lots of' 7

4×7 OR $7 + 7 + 7 + 7$ OR 7×4 **= 28**

eg: $y = 2$
 $- 7 - 2 = 5$

Substitution into an expression

Put the expression into a function machine

INPUT → **+ 3** → **x 2** → OUTPUT

Odd 3 to the input then times 2

If $x = 10$
 $10 + 3 = 13 \dots 13 \times 2 = 26$

Forming a sequence $2(x + 3)$

INPUT	1	2	3
OUTPUT	8	10	12

← The substitution is the 'input' value
The OUTPUT becomes the sequence

Describe and continue a sequence diagrammatically

Count the number of circles or lines in each image

1 3 5

↑ +2 ↑ +2

What will the next number be? Can you draw this?

Explain term-to-term rule How you get from term to term

Try to explain this in full sentences not just with mathematical notation
Use key maths language – doubles, halves, multiply by two, add four to the previous term etc

To explain a whole sequence you need to include a term to begin at...

The next term is found by tripling the previous term
The sequence begins at 4

4, 12, 36, 108...

↑ First term $\times 3$ $\times 3$ $\times 3$

Knowledge Goals: Maths

Unit 7 – Angles and 2D shapes

Topic	Video	Resource
Drawing angles	Watch this	Complete Q2&3 Check here
Measuring angles	Watch this	Complete Q1&2 Check here
Finding missing angles (angle facts)	Watch this	Complete Qs 4-6 Check here
Finding missing angles in a triangle.	Watch this	Complete Q1&2 Check here
Finding missing angles in a quadrilateral	Watch this	Complete Q1&2 Check here
Calculating missing interior angles in a polygon.	Watch this	Complete Q1

Sum of angles on a straight line
Adjacent angles that share a common point on a line add up to 180°

Find angle XWY

$$72^\circ + 42^\circ = 114^\circ$$

$$180^\circ - 114^\circ = \underline{66^\circ}$$

Sum of angles in triangles

Sum of interior angles in a triangle = 180°

Look at triangle notation
This indicates an isosceles triangle

$$\therefore 180 - 43 = 137$$

$$137 \div 2 = 68.5^\circ$$

A triangle can only have ONE right angle

Have a go!
Tearing the corners from triangles forms a straight line which is therefore 180°

Sum of angles in quadrilaterals

Sum of interior angles in a quadrilateral = 360°

Interior Angles

A quadrilateral is made up of two triangles - the sum of interior angles is the same as two triangles
 $180^\circ + 180^\circ = 360^\circ$

Interior angles are those that make up the perimeter (outline) of the shape

Classify angles

Acute Angles
 $0^\circ < \text{angle} < 90^\circ$

Obtuse
 $90^\circ < \text{angle} < 180^\circ$

Reflex
 $180^\circ < \text{angle} < 360^\circ$

Right Angles
 90°

Right angle notation

Straight Line
 180°

Measure angles to 180°

This is the angle being measured

Read from 0° on the base line
Remember to use estimation
This is an obtuse angle so between 90° and 180°

Make sure the cross is at the point the two lines meet

Draw angles up to 180°

Draw a 35° angle

Make a mark at 35° with a pencil
And join to the angle point (use a ruler)

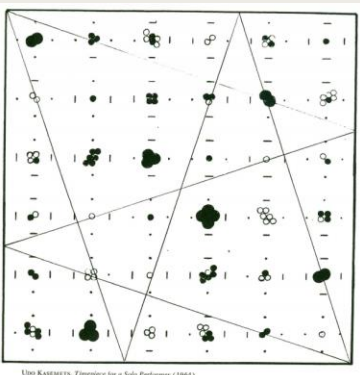
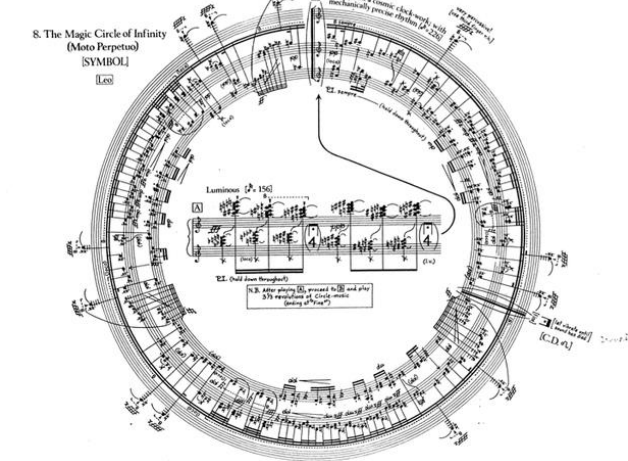
Make sure the cross is at the end of the line (where you want the angle)

The angle

Knowledge Goals: Music – Graphic Scores

Half Term 4: Tier 3 Vocabulary

#	Key word	Definition
1	Graphic Score	A score which uses images, symbols and shapes, not traditional notation.
2	John Cage	An important minimalist composer who used alternative notation.
3	Prepared Piano	A piano which has been adapted to change its sound.
4	Rhythm	Different note and rest lengths organised to make interesting patterns.
5	Avant Garde	New and experimental ideas and methods in art, music, or literature.
6	Abstract	Music that is not explicitly "about" anything



Why did Cage use graphic scores?

["Thunderstorm" a graphic notation composition by Alex Chorley, age 12 - YouTube](#)

How has this student used graphic scores?

MONTHLY BUDGET PLANNER

Budget Goal: _____ Month: _____

Income

Date	Description	Amount
Total		

Fixed Expenses

Date	Description	Amount
Total		

Other Expenses

Date	Description	Amount
Total		

Bills

Date	Description	Amount
Total		

Recap

	Goal	Actual	Difference
Earn			
Spent			
Debt			
Saved			

Knowledge goals: PDev

TYPES OF BANK ACCOUNTS

Current Accounts

This type of deposit bank has to pay the money on demand to the depositor. The cost to maintain the accounts is high and banks ask the customers to keep a minimum balance.

Savings Accounts

Savings Accounts are subject to restrictions on the number of withdrawals as well as on the amounts of withdrawals during any specified period.

Fixed Deposit Accounts

Fixed Deposits (FD) are investment instruments offered by banks and non-banking financial companies, where you can deposit money for a higher rate of interest than savings accounts.

Recurring Accounts

Fixed amount is deposited at regular intervals for a fixed term and the repayment of principal and accumulated interest is made at the end of the term.

How to Get Out of Debt

1. Understand your debt
2. Plan a repayment strategy
3. Understand your credit history
4. Make adjustments to debt
5. Increase payments
6. Reduce expenses
7. Consult a professional financial advisor
8. Negotiate with lenders

Investopedia



POCKET MONEY SAVINGS CHART

NAME: _____ MONTH: _____

DATE	ALLOWANCE	SAVINGS	TOTAL

MUM

DATE	DESCRIPTION	WITHDRAWAL	DEPOSIT	BALANCE
	Previous balance			27,584.38
03/02	Internet Bill	75.99		27,508.39
03/05	Electric Bill	253.68		27,254.71
03/06	Check No. 4598 <i>Payment from Lisa Williams</i>		456.84	27,711.55
03/10	Deposit from Credit Card Processor		5,891.26	33,602.81
03/12	Payroll Run	3,894.75		29,708.06
03/16	Debit Transaction <i>Main Office Wholesale</i>	243.46		29,464.60
03/21	Rent Bill	750.00		28,714.60
03/21	Check No. 234 <i>Payment from Mark Moore</i>		268.84	28,983.44
03/26	Payroll Run	3,743.23		25,240.21
03/28	Deposit		3,656.45	28,896.66
03/29	Debit Transaction <i>ABC Business Supplies</i>	1,548.96		27,347.70
	Ending balance			27,347.70

Credit Cards vs. Debit Cards

Borrowed funds issued by a bank

Can reap rewards, travel points, and discounts

Helps you build credit

Interest rates and fees vary

Too much spending can lead to debt

Offers fraud protection as well as protection against unauthorized purchases

vs.

Money deducted from your bank account

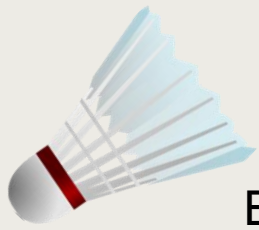
Helps avoid accumulation of debt

Little to no fees

No interest charges

Won't help you build credit

Investopedia



Badminton

- Serving** – I am able to hold the racket using the correct grip for a forehand + backhand serve
- The Clears** – To be able to shadow the correct movement and hit the shuttle using an overhead shot, with a forehand grip
- The Drop Shot** – I can perform a mid court rally with a partner, using overhead shots
- The Smash** – I can hit the shuttle with power in a downward direction using no net
- Net Play** – I can hit the shuttle softly over the net
- Game Play** – I understand which court lines are used for singles and doubles.

Knowledge Goals: PE



Football



- Ball Control** – I can control the ball when it comes to me using my feet while not under *pressure*.
- Passing** – I can pass the ball with some accuracy using my inside foot while not under pressure over a short distance.
- Dribbling** – I can dribble with the ball with some control over a short distance.
- Defending** – I can successfully tackle an opponent in a 1v1 situation.
- Shooting** – I can shoot from close range with some accuracy using the inside of my foot.
- Game Situations** – I understand the importance of getting into space to make myself available for a teammate.

Gymnastics

- Floor** – I can perform simple movements and balances, rolls and jump movements and include these in a sequence, holding them for 5 seconds with tension.
- Jumps** – I can recognise the correct take off technique. Perform flight movements (tuck) from the bench and springboard.
- Apparatus** – I can take off a springboard or trampette with two feet and squat onto a box.
- Performance** – I can perform a 6 balance routine showing tension and extension.



Hockey

- Ball Control** – I can identify the different parts of the stick and how to hold the stick correctly.
- Passing** – I can execute the sweep pass introducing power and speed but often make mistakes in the accuracy of the pass.
- Dribbling** – I can dribble the ball on my forehand side quickly. I can also dribble the ball in a zig zag pattern on the forehand side but sometimes lose control of the ball.
- Tackling** – I understand the rules associated with tackling.
- Game Situations** – At restarts, I can pass the ball to my own players or when receiving attempt to move to get free from defenders.



Netball

- Passing** – I am able to chest pass the ball to a partner using the correct technique. I am also able to shoulder pass to a partner with less accuracy.
- Footwork** – I can recognise which foot I am allowed to move when I have caught the ball and which one I need to keep still.
- Attacking skills** – I am able to move in to a space and catch a ball in a closed skill situation.
- Defending skills** – I am able to shadow a player in a closed skill situation.
- Games Situations** – I can identify all 7 positions on the court.



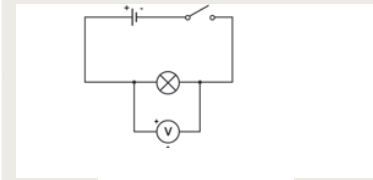
Rugby

- Evasion/Support Play** – I can run with the ball and step out of the way of a defender using a lot of space as part of a conditioned drill, working out methods to get past the defence. Demonstrating the 1st 'principle of play' – go forward.
- Passing & Catching** – I can pass the ball to a teammate whilst moving slowly forward. I can perform the pop pass whilst moving.
- Tackling/Defensive Strategies** – I can perform a side tackle from my knees or front tackle from crouching.
- Rucks & Mauls** – I can present the ball safely and correctly during contact.
- Game Play** – I can perform basic skills in a mini rugby game of 'tag' or 'touch' against players of similar standard.

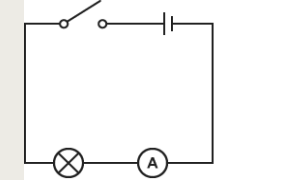


Knowledge Goals: Physics – Voltage, resistance, and current

	What is it?	Units	Measured with...	Connected in...
Voltage (potential difference)	The "push" provided to charges by the battery or cell.	volt (V)	Voltmeter	parallel
Current	The rate of flow of charge.	ampere (A)	Ammeter	series



A voltmeter is connected in parallel.

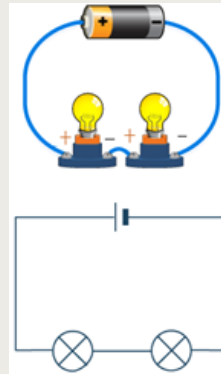


An ammeter is connected in series.

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

SERIES CIRCUIT

- The **current is the same** in all parts of a series circuit.
- If you add components, the current will get smaller because the resistance is bigger.
- 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.

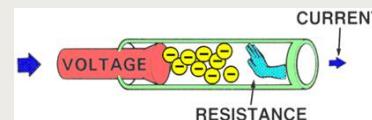


RESISTANCE

- Each component has a different resistance; this tells you how easy or difficult it is for charges (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 in wires is caused by electrons colliding with metal atoms and transferring energy to them.

- Length \rightarrow longer wire = more resistance
- Thickness \rightarrow thicker wire = less resistance
- Material of wire \rightarrow good conductor = less resistance.

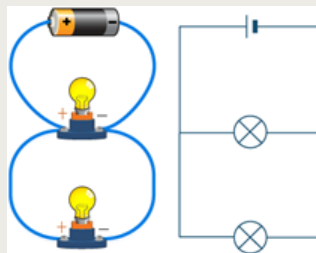


- There are two types of electrical charge: positive charge (+) and negative charge (-).
- Charged particles (or charges) attract or repel each other.
- There is an electrostatic force between the charges.

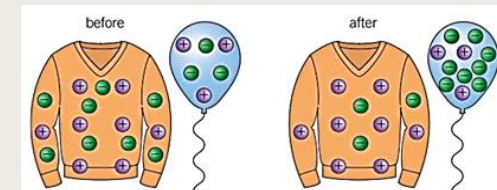


PARALLEL CIRCUIT

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



Electrons are transferred from the jumper to the balloon. The balloon is charged up. It has more electrons than protons, so it is negatively charged. The jumper is positively charged. They will attract.



$$\text{resistance } (\Omega) = \text{potential difference } (V) \div \text{current } (A).$$



Knowledge Goals: Year 7 Buddhism



Buddhism is one of the world's major religions. It is the world's 4th largest religion, with about 520 million followers.

Buddhists are the people who follow Buddhism. They follow the teachings of a man named Siddhartha Gautama, who became known as the Buddha.

The religion began when Gautama, a prince who had lived a life of luxury, realised that there was suffering in the world, and committed himself to understanding why.

This happened in India around 2,500 years ago.

The holy book in Buddhism is called Tipitaka. Buddhist Temples are buildings designed for Buddhist worship.



Buddhist Beliefs

Siddhartha Gautama's Story



- Siddhartha was a rich prince of an area north of India. His mother and father treated him well, and protected him from the suffering in the world.

- As a young man, Siddhartha left the palace for the first time, and was upset by the things that he saw: old age, sickness and death. He decided to leave his comfortable life to see if he could find an answer to the suffering.

- After many years of trying, he sat under a tree (the Bodhi tree) by a full moon and started meditating. In doing this he became **Enlightened** – he saw the meaning in all things. He was then known as the Buddha.

The Four Noble Truths

- The Buddhist teachings are known as Dharma. They include the Four Noble Truths and the Eightfold-Path.

Buddhism's Noble Truths are:

1. Life always involves suffering (dukkha).
2. Suffering happens because people are greedy and never satisfied with what they have.
3. Greed and selfishness can be overcome.
4. The way to overcome them is to follow the Eightfold Path.



The Eightfold Path

Siddhartha created a way of life which ensured that his basic needs were covered, but didn't require any extra comforts. Buddhists try to live following the Eightfold Path:

- | | |
|------------------------|-------------------------|
| 1. Right viewpoint | 2. Right values/thought |
| 3. Right speech | 4. Right actions |
| 5. Right livelihood | 6. Right effort |
| 7. Right concentration | 8. Right mindfulness |



Answers to Important Questions and Key Vocabulary

Where and how do Buddhists worship? Why?



- Buddhists worship either in temples or at home, often sitting or kneeling facing a shrine of Buddha.
- They may listen to monks reciting religious texts, take part in chanting, or meditate.
- Buddhists hope to achieve Enlightenment. They believe that there is a cycle of birth, life, death and rebirth. If a person gains Enlightenment (like the Buddha) they can break out of this cycle, to a place of eternal peace that is known as 'Nirvana.'

What is the Tipitaka?



- The Tipitaka is believed to be Buddha's teachings. It is written in an ancient Indian language known as Pali. It is a very large book, that takes up about forty volumes when translated into English! The Tipitaka is made up of three sections of wisdom.

Where do most Buddhists live in the world?



- About 7% of the world's population are Buddhists.
- China has the most Buddhists – about 250 million Buddhists live there.
- However, Cambodia has the highest proportion of Buddhists – about 97% of its population are Buddhists. There are also lots of Buddhists in Thailand, Sri Lanka, and Japan.
- Many Buddhists in the far east devote their lives to Buddhism, living in isolation in temples.

How many different types of Buddhists are there?



- Buddha's teachings spread far across the Asian continent. As it spread, different peoples formed their own approaches of Buddhism.
- The three main types are called Theravada, Mahayana and Tibetan Buddhists.
- Although they differ slightly, they all still keep the basic features of Buddhism.

Top 10 Facts!

1. Buddhists don't believe in a God who made the world and everything in it.
2. Siddhartha's family were Hindu.
3. The lotus flower is an important symbol in Buddhism. It is a symbol of enlightenment.
4. The name 'Buddha' means 'the enlightened one' or 'the one who knows.'
5. Some Buddhists have shrines at home where they are able to worship.
6. The teachings of Siddhartha Gautama were not written down until about 400 years after his death.
7. Siddhartha Gautama died around age 80.
8. 'Puja' is the name for worship in Buddhism. People often light candles as they worship.
9. In images of Buddha, faces are always made to look calm and serene, to show that he has a peaceful mind.
10. Wesak is an important festival in Buddhism.

Knowledge Goals: Spanish

Palabras

Mis hermanos	My brothers and sisters	En mi familia	In my family
¿Tienes hermanos?	Do you have any brothers or sisters?	¿Cuántas personas hay en tu familia?	How many people are there in your family?
tener	to have	En mi familia hay tres personas.	In my family there are three people.
Tengo ...	I have ...	mi madre	my mother
Tiene ...	He/She has ...	mi padre	my father
un hermano	one brother	mi abuelo	my grandfather
una hermana	one sister	mi abuela	my grandmother
dos hermanos	two brothers	mi tío	my uncle
tres hermanas	three sisters	mi tía	my aunt
No tengo hermanos.	I don't have any brothers or sisters.	mi primo	my cousin (male)
Soy hijo único.	I'm an only child. (male)	mi prima	my cousin (female)
Soy hija única.	I'm an only child. (female)	Los números 30-100	Numbers 30-100
¿Cómo se llama tu hermano?	What's your brother called?	treinta	30
¿Cómo se llama tu hermana?	What's your sister called?	cuarenta	40
Mi hermano se llama ...	My brother is called ...	cuarenta y tres	50
Mi hermana se llama ...	My sister is called ...	sesenta	60
¿Cómo se llaman tus hermanos?	What are your brothers (and sisters) called?	setenta	70
¿Cómo se llaman tus hermanas?	What are your sisters called?	ochenta	80
Mis hermanos se llaman ...	My brothers (and sisters) are called ...	noventa	90
Mis hermanas se llaman ...	My sisters are called ...	cien	100
su hermano	his/her brother	treinta y uno	31
sus hermanos	his/her brothers (and sisters)	cuarenta y dos	42
su hermana	his/her sister	cuarenta y tres	53
sus hermanas	his/her sisters	sesenta y cuatro	64
¿Cuántos años tiene tu hermano?	How old is your brother?	setenta y cinco	75
Tiene nueve años.	He's nine years old.	ochenta y siete	87
		noventa y nueve	99
		Los animales	Pets
		¿Tienes animales?	Do you have any pets?
		Tengo ...	I have ...
		un caballo	a horse
		una cobaya	a guinea pig
		un conejo	a rabbit
		un gato	a cat
		un hámster	a hamster
		un pájaro	a bird
		un perro	a dog
		un pez	a fish
		un ratón	a mouse
		una serpiente	a snake
		una tortuga	a tortoise

dos conejos	two rabbits	simpático/simpática	nice, kind
tres peces	three fish	perezoso/perezosa	lazy
No tengo animales.	I don't have any pets.	timido/timida	shy
		inteligente	intelligent
Los colores	Colours	Mis ojos y mi pelo	My eyes and my hair
amarillo/amarilla	yellow	¿De qué color son tus ojos?	What colour are your eyes?
blanco/blanca	white	Tengo los ojos ...	I have ... eyes.
negro/negra	black	azules	blue
rojo/roja	red	grises	grey
azul	blue	marrones	brown
gris	grey	verdes	green
marrón	brown	¿Cómo es tu pelo?	What's your hair like?
naranja	orange	Tengo el pelo ...	I have ... hair.
rosa	pink	blanco	white
verde	green	castaño	brown
El perro es blanco.	The dog is white.	gris	grey
La serpiente es amarilla.	The snake is yellow.	negro	black
¿Cómo es?	What's he/she/it like?	pelirrojo	red/ginger
bonito/bonita	cute, pretty	liso	blond
feo/fea	ugly	largo	straight
pequeño/pequeña	small	corto	long
grande	big	rizado	short
El perro es pequeño.	The dog is small.	ondulado	curly
La serpiente es bonita.	The snake is pretty.	Tengo barba.	I have a beard.
Los peces son grandes.	The fish are big.	Tengo bigote.	I have a moustache.
Las tortugas son feas.	The tortoises are ugly.	Tengo gafas.	I have glasses.
¿Cómo eres?	What are you like?		
ser	to be		
Soy ...	I'm ...		
Eres ...	You're ...		
Es ...	He's/She's ...		
un chico	a boy		
una chica	a girl		
alto/alta	tall		
bajo/baja	short		
delgado/delgada	thin		
gordo/gorda	fat		
guapo/guapa	good-looking		
feo/fea	ugly		
aburrido/aburrida	boring		
antipático/antipática	unpleasant		
divertido/divertida	amusing		
severo/severa	strict		

Estrategia

Words that you see everywhere!

In every language, there are some words that you will see and hear again and again in different situations. Because of this, they are called **high-frequency** words. The good news is that you can learn them once and use them again and again, too!

Have another look at Chapter 3. Can you find two or three sentences containing each of the words below?

tengo y no muy

Knowledge Goals: Spanish

Half Term 3: Tier 3 Vocabulary

#	Key word	Example
1	Connective	y, pero, también, porque
2	Opinion Verb	Me gusta, no me gusta, me encanta, odio
3	Justification	porque es....
4	Qualifier	un poco, bastante, muy, realmente
5	Adjective	divertido, aburrido
6	Time Phrase	normalmente, a veces

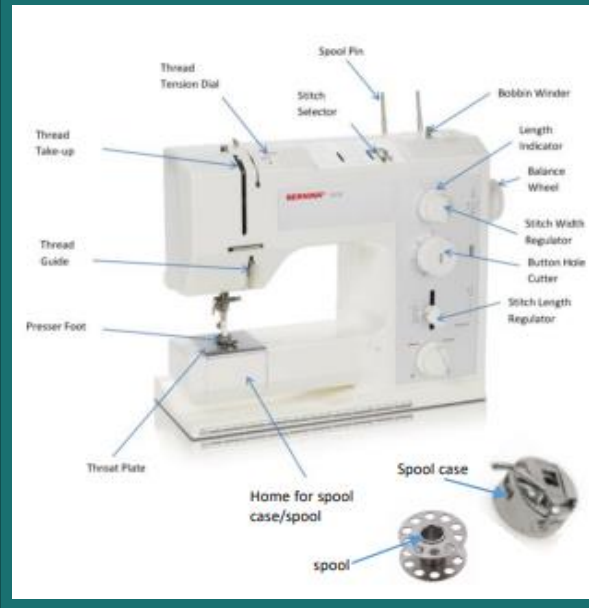
Knowledge Goals: Textiles

Health and Safety

It is really important we **ASSESS** the **RISK** and **REDUCE** the **RISK** of Injury by **LISTENING** To the **TRAINING** and following the correct **PPE** usage

- You must walk with scissors facing downwards next to your side
- Watch where you are sewing on the machine
- Do not press the foot pedal to the floor when using the sewing machine
- Make sure you had in Bodkin needles at the end of the lessons
- If the sewing machine makes an unusual noise, please stop using it and inform teacher

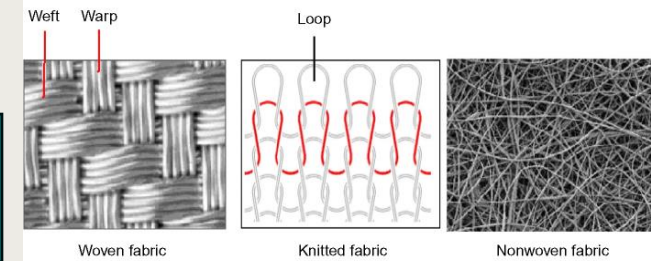
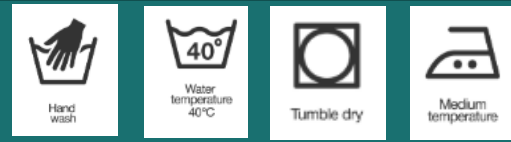
Parts of a Sewing Machine



Smart and modern materials

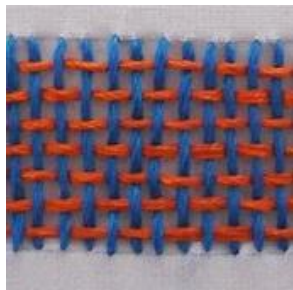
 Biodegradable Ink	 Aroma Pigments	 Sign in Daylight
 Hydrochromic Ink	 Thermochromic pigment	 Sign in Darkness
 dry wet		 Photochromic pigment

Care Labels Instructions for laundering



Technique

Weaving



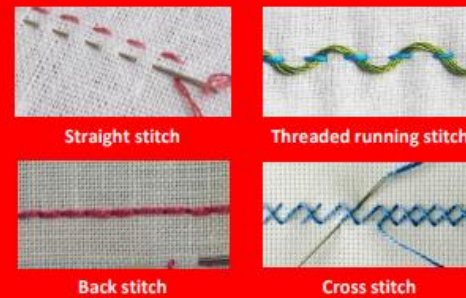
Embroidery



Applique

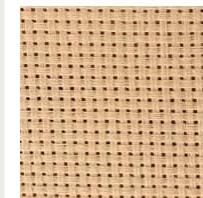


Hand stitches



Textile equipment

Binca



Bodkin



Wool



Thread



