The Trafalgar School at Downton

Knowledge Organiser

Year 8: Terms 5 and 6

2024/2025

Contents

Name……House……

Being Trafalgar

At the end of your time at the school your knowledge organisers will provide you with lots of help and support when your prepare for your GCSE exams.

To help yourself you should:

- Keep your Knowledge Organisers as tidy as possible
- Highlight parts of them as you go through learning lessons or add in post-it notes etc. to help you learn key knowledge
- Keep your used Knowledge Organisers safe at home. If you have used them since Year 7 you will end up at the end of Year 11 with 14 Knowledge Organisers. Line them up on your shelf at home and keep coming back to them for your revision, homework and learning
- Show them to your parents and talk through with them the facts and knowledge you have learned about in lessons – help them to learn new things too!
- Take your Knowledge Organiser for the term you are in to school every day and use it in every lesson you can!

Using a Knowledge Organiser well

What is a Knowledge Organiser?
A Knowledge Organiser is a document that sets out the key information you need to understand, learn and memorise in each of the subjects you study this term.

Why do I have to carry my Knowledge Organiser around with me?
Your teachers will want you to use your Knowledge Organisers in lessons. They are yours forever and you may want to annotate or highlight on them when your teacher talks about things in them. They will certainly be used in lessons when you have a cover teacher and you can use them whenever you find yourself with some spare time.

How should I use my Knowledge Organiser?
You should use your Knowledge Organiser to learn this key information and commit it to memory. Your teachers will often quiz you on the information on the Knowledge Organiser in your lessons. The best way of using it is to use the look, cover, write, check method which you will have been introduced to in your Knowledge Organiser launch assemblies.

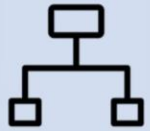
What do I do with my Knowledge Organiser at the end of the term?
You don't have to carry your Knowledge Organiser around with you anymore but you should keep it somewhere safe where you can easily get it out and use it. Remember that the information on the Knowledge Organiser includes things you will need to remember for your GCSE exams, so your teachers will continue to quiz you on it.

Why is a Knowledge Organiser important?
GCSE specifications require students to memorise more facts, equations, quotations and information than ever before and there are things you will learn right from the start of year 7 that you will need to know in year 11 when you sit your GCSE exams – the Knowledge Organiser helps you to identify the things that you need to try and commit to your long term memory and return to over and over again during your time at secondary school. There are also things that we think it is important you learn about and remember that might not be in a GCSE exam but represent useful knowledge for life.

Your Knowledge Organiser is a vital document. It contains all the key things from your lessons that you will need to work on committing to your long-term memory. Here are some useful methods to use that will help commit the information to your long-term memory

The Trafalgar School AT DOWNTON

How to use a knowledge organiser – step by step guide

	Look, Cover, Write, Check	Definitions to Key Words	Flash Cards	Self Quizzing	Mind Maps	Paired Retrieval
Step 1	Look at and study a specific area of your knowledge organiser 	Write down the key words and definitions 	Use your knowledge organiser to condense and write down the facts and or information on flash cards 	Use your knowledge organiser to create a mini quiz. 	Create a mind map with all the information you can remember from your knowledge organiser. 	Ask a partner or family member to have the knowledge organiser in their hands, read out what you remember. 
Step 2	Cover or flip the knowledge organiser over and write down everything you remember. 	Try not to use your knowledge organiser to help you 	Add pictures to help support. Then quiz yourself using the flash cards. You can write questions on one side and answers on the other. 	Answer the questions and remember to use full sentences 	Check your knowledge organiser to see if there were any mistakes with the information you have made. 	They can test you by asking you questions on different sections of your knowledge organiser. 
Step 3	Check what you have written down. Correct any mistakes in green pen and add anything you missed. Repeat. 	Use a different coloured pen to check and correct your work. 	Use a parent/carer or friend to help quiz you on the knowledge. 	You can also use family to quiz you. Keep self-quizzing until you get all questions correct. 	Try to make connections that link information together. 	Write down your answers. 

Language Methods to Practise in your Fortnightly Writing Challenge and Examine in your Reading

alliteration:	the repetition of a consonant sound to begin a series of words.
anecdote:	a short story to prove a point e.g. a dad, talking to his children about the dangers of running in the house, a dad might include an anecdote about falling in his home as a boy and breaking his arm.
antithesis:	putting two opposite ideas together to highlight contrasts.
emotive language:	words and phrases that are used to make the reader feel a particular emotion.
extended metaphor:	a version of metaphor that extends over the course of multiple lines, paragraphs, or stanzas of prose or poetry.
foreshadowing:	the writer hints at an event that will happen later in his story/poem/play/writing.
imperative verbs:	instructional/command words that give the action the speaker/writer wants you to do.
metaphor:	like a simile, but instead of using 'like' or 'as' it compares two things by suggesting that something is something else.
modal verbs:	help show the level of possibility, ability, obligation or permission of the main verb/action e.g. might, can, must, may ...
pathetic fallacy:	the projection of human emotions/mood onto non-human objects found in nature e.g. the weather.
sensory description:	employing the five senses in writing to evoke a mental image and/or sensation for the reader.
simile:	a comparison which finds similar characteristics in two objects and compares them, always by using the words 'like' or 'as'.
statistics:	factual data used in a persuasive way.
superlative:	an adjective or adverb that shows the highest or lowest degree of comparison e.g. best, worst, finest, most, etc.
onomatopoeia:	using words that sound like the noise they represent.
personification:	a type of figurative language that gives an object human characteristics (emotions, sensations, speech, physical movements).
rhetorical question:	a question asked for a purpose other than to obtain the information the question asks e.g. create a dramatic effect; emphasise a point; make you think about/eager to learn the answer.

Apostrophe To Show Ownership

1 normal singular noun

the man's idea ✓

add 's

2 normal plural noun

the girls' idea ✓

add '

3 singular noun ending s

Moses' idea ✓

add '

or...

Moses's idea ✓

add 's

4 plural noun not ending s

the children's idea ✓

add 's

Using Apostrophes (Showing Joint Ownership)

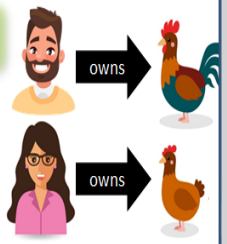
The Rules

Joint possession?
Make the last word in the series possessive.

Individual possession?
Make all parts possessive.

Examples

Janet and John's chickens



Janet's and John's chickens

Fortnightly Writing Challenge Year 8

Use fronted adverbials:

Rather slowly, (manner)
During the night, (time/temporal)
Every minute or two, (frequency)
At the end of the corridor, (spatial)

Just beyond the stairwell on his left, he opened the door.

Use a two and then three word sentence:

It hurt. I was dying!

Snow fell. Flakes floated precariously.

Use anaphora:

Now is the time for action. **Now is the time** to take up arms. **Now is the time** to fight for your country.

Use epiphora (epistrophe)

I can't believe I was robbed. Everything is **gone**. My television and electronics are **gone**. The money I left on my nightstand is **gone**.

Use a range of sentence structures:

The spotted green frog jumped into the pond.
(simple)

The spotted green frog jumped into the pond **and** he splashed water on me.
(compound – coordinating conjunction: for, and, nor, but, or, yet, so)

The spotted green frog jumped into the pond **when** the hawk flew overhead.
(complex – subordinating conjunction: if, although, as, before, because, when, after, since, until, so that, while etc.)

When the hawk flew overhead, the spotted green frog jumped into the pond.
(subordinate/dependent clause start)

The frog, **which had been lurking underwater,** jumped on the lily pad.
(embedded clause)

Use a past participle - 'ed' start:
Glazed with barbecue sauce, the rack of ribs lay nestled next to a pile of sweet coleslaw.

Use a present participle - 'ing' start:
Whistling to himself, he walked down the road.

Use a tricolon (tripartite list):

'I stand here today **humbled** by the task before us, **grateful** for the trust you have bestowed, **mindful** of the sacrifices borne by our ancestors.'

Snap! Crackle! Pop! **(Rice Krispies slogan)**

Use a conditional sentence:

When people smoke cigarettes, their health suffers.

If I had cleaned the house, I could have gone to the cinema.

Use paired adjectives to describe a noun:

Take a look at this bright red spider.

Luckily, it isn't a wild, dangerous one.

Use anadiplosis (yoked sentence):

Building the new motorway would be **disastrous, disastrous** because many houses would need to be destroyed.

'Fear leads to **anger**. **Anger** leads to **hate**. **Hate** leads to suffering.'
Yoda, *Star Wars*.

Use different sentence types:
The wind is blowing. **(declarative)**

Put your pen down. **(imperative)**

Who do you trust most in the world? **(interrogative)**

Pollution is killing us! **(exclamation)**

Use discourse markers to begin paragraphs and start/link some sentences:
First of all, To begin with, Firstly,

Therefore, Consequently, Hence, As a result,

Furthermore, In addition, Additionally, Moreover,

Meanwhile, Later that day, Seconds later, Subsequently, That afternoon,

On the whole, Interestingly, Basically, In short, Broadly speaking,

Alternatively, Conversely, Similarly, On the other hand, Despite this, Likewise, However,

To conclude, Finally, In conclusion, Eventually, In the end,

PUNCTUATION PIT STOP

Full Stop

Full stops are used to:

1) **mark the end of a sentence.**

Carefully, he kicked the ball into the goal.

2) show when a word has been abbreviated.

Saint Peter's Road is on the High Street.

→ St. Peter's Road is on the High Street.

COMMAS

Commas are used to separate:

1) items in a list .

Bert, Ernie and Elmo are my three pet rats.

2) dependent clauses and phrases.

While I was in the bath, the cat scratched at the door. That meant, because I was on my own in the house, I had to get out to let him in. Thankfully, I had a towel handy!

Quotation Marks

Quotation marks show exact words that are spoken or written by someone.

'Don't be late!' shouted Mrs Smith.

'I will be,' Molly said, and added, 'so don't expect me before 11.'

Question Mark

Question marks are used at the end of direct questions instead of a full stop.

What is your favourite food?

How do you feel today?

An indirect question ends with a full stop, rather than a question mark:

I'd like to know what you've been doing all this time. I wonder what happened.

Exclamation Mark

Exclamation marks express strong emotions: forcefulness, commands, anger, excitement, surprise etc.

Don't buy that car! Stop telling me what to do! I'm free! You're late! She actually won!

They're also used for most interjections:

'Hi! What's new?' 'Ouch! That hurt.'

'Oh! When are you going?'

Semi-colon

Semi-colons are used to separate two sentences that are closely related:

It was winter; the snow was falling heavily.

They can also be used to separate items in a list made of longer phrases. I have been to Newcastle, Carlisle, and York in the North; Bristol, Exeter, and Portsmouth in the South; and Cromer, Norwich, and Lincoln in the East.

Colon

Colons are used to:

1) **begin a list.**

I have three pet rats: Bert, Ernie and Elmo.

2) **indicate that what follows it is an explanation or elaboration of what precedes it.**

Unfortunately, the weather forecast was wrong: it rained all day!

Apostrophe

An apostrophe is used to show:

1) **omission - where a letter or letters has been missed out.**

does not → doesn't I am →I'm

2) possession – when some thing/one owns something. Thankfully, they played Susan's game. Interestingly, David's house has no garden, but Susan's ~~house~~ does.

Dash –

Dashes are used for parenthesis: a word or phrase inserted as an explanation or afterthought into a passage which is grammatically complete without it. E.g.

Last year, they roasted the winning brisket — the size of a pillow — in a mighty clay oven. Paul felt hungry – more hungry than he'd ever been.

Brackets

Brackets are used in pairs for parenthesis: a word or phrase inserted as an explanation or afterthought into a passage which is grammatically complete without it. E.g.

Andrew Jacklin (last year's losing finalist) is expected to win this heat.

Tigers are carnivores (meat eaters)!

Ellipsis ...

Ellipsis is used to:

1) **show a pause or hesitation in someone's speech or thought.**

I don't know … I'm not sure.

2) build tension or show that something is unfinished.

Looking up, Paul couldn't believe what he saw …

Writing the text for a Leaflet/Guide

Stay Safe and Sound Online — clear/apt/original title

Manage your online reputation — subtitles

Anything that you upload, email or message could stay online forever. Therefore, before you post anything online, consider whether or not you would want your parents, teacher or a future employer seeing it. If the answer is no, don't post it! Your privacy is key here.

effectively/fluently sequenced paragraphs

Privacy Matters

Make sure you set high privacy settings on networks. Regularly you should change passwords and never share or put online any of your personal details like a phone number, address or your school details. Make sure your safety and privacy settings are activated on your mobile devices too, so you aren't sharing private information. Be aware that using public WiFi might not filter inappropriate content, so look for friendly WiFi symbols when you're out and about.

....

Remember: — bullet points

- make sure you know how to block abusive comments and report worrying content;
- don't arrange to meet people in real life that you've only talked to online;
- use secure and legal sites to download music and games;
- when using the internet for homework, use information appropriately and explain things in your own words rather than copying.

Text for a Speech/Talk

'Address to Nation on the Challenger' by Ronald Regan (28th January, 1986)

Ladies and Gentlemen, I'd planned to speak to you tonight to report on the state of the Union, but the events of earlier today have led me to change those plans. Today is a day for mourning and remembering. Nancy and I are pained to the core by the tragedy of the shuttle Challenger. We know we share this pain with all of the people of our country. This is truly a national loss.

a clear address to an audience

...

For the families of the seven, we cannot bear, as you do, the full impact of this tragedy. But we feel the loss, and we're thinking about you so very much. Your loved ones were daring and brave, and they had that special grace, that special spirit that says, 'Give me a challenge and I'll meet it with joy.' They had a hunger to explore the universe and discover its truths. They wished to serve, and they did. They served all of us.

rhetorical indicators that an audience is being addressed throughout

...

The crew of the space shuttle Challenger honoured us by the manner in which they lived their lives. We will never forget them, nor the last time we saw them, this morning, as they prepared for the journey and waved goodbye and 'slipped the surly bonds of earth' to 'touch the face of God.'

Thank you.

a clear sign off e.g. 'Thank you for listening'.

Writing Forms

Article

Andy Murray's Appliance of Science — clear/apt/original title

By Jim White — by-line

If the Caledonian superman wins Wimbledon this year, it will be thanks to [illegible] pieces of sushi a day, a magic potion and a battalion of experts. — strapline

If you want to know what it is about Andy Murray that makes him stand out from the rest of us – apart from that fizzing backhand return and the huge-mouthed celebratory yodel – it is summed up in one word: science!

sub-headings

Sample Check

introductory (overview) paragraph

Today, before he even steps out on to the Centre Court for his Wimbledon semi-final against huge-hitting Pole Jerzy Janowicz, Murray will [illegible] have been subject to several of these. He does [illegible] time he pops to the lavatory. The osmolality check is conducted by one of his staff, its purpose to gauge the percentage of water and minerals in his urine, to show whether his body is correctly hydrated. The fact is, if Murray wins [illegible] it will partly be thanks to the bloke who inspects his wee.

fluently sequenced paragraphs

fluently sequenced paragraphs

Daily Diet

At 7.30 this morning, while many of [illegible] arriving at Wimbledon's press restaurant will have begun their day assaulting a tottering Himalaya of fried starch, Murray will have eaten yogurt, fruit and a bagel smeared in peanut butter ...

Writing to Review

clear, engaging title

Feeling Icy About Frozen?

effective introduction

Last weekend I **was forced to endure** a new DVD that has been added to **my little sister's** ever-growing Disney collection: Frozen 2. For those of you who have been living on a different planet for the last few years, the Frozen franchise is particularly big business for girls under the age of around 7 or 8.

At first, **I have to be honest**, I was pretty reluctant to watch it. The first version of Frozen followed the usual Disney drama of: boy meets girl, dramas occur, friends are made, and annoyingly catchy songs are sung. There were the conventional talking animals too and (**I have to admit it**), a cute little snowman. In hope of reacquainting myself with the humour of this cold, carrot-nosed cutie – **I gave up the fight**, and decided **I'd try to grin and bear it** through the sequel...!

use topic specific language

use your tone to make the reader feel like you are sharing personal information and advice.

Surprisingly, having sat through the whole of the movie, **I'm willing to confess**: it actually wasn't too bad. The music is slightly better than the first one. In Frozen 2, there are some instrumental versions of songs and the riffs are well pitched and engaging. This was a definite **positive for me**, although I was a little annoyed when **I started humming the tune** on the school bus yesterday morning!

...

effectively/fluently linked paragraphs to sequence a range of ideas (no room to produce the other paragraphs/conclusion here).

As for the characters... Elsa and Anna are still the leading ladies, with Sven, Olaf, and the talking reindeer, (whose name I can't actually remember). Elsa is still a little too overly heroic as she constantly runs off to try and fix things with the customary 'we know it's going to end badly' music tinkering away in the background...

Writing a formal letter

writer's address

35 Hibiscus Crescent
Andover
Hants
SP10 3WE

221B Bakers Street
London
NW1 6XE

reader's address

date

20th February, 2020

Dear Sir or Madam

Formal Salutation: Sir/Madam/Mr Roderick/Mrs Roderick

I am writing because you chair a committee in charge of the compulsory wearing of school uniforms. I am a student at Brinsley High School, a friendly and successful school where uniforms are not worn.

Of course, I understand that students won't spend all morning choosing what to wear or beg parents for clothes that will impress. However, there is another side to this case: uniforms breed uniformity. We are a culturally diverse nation and by making us all dress the same, this encourages us to be the same. At Brinsley High, we are encouraged to express our individuality, yet this seems to be in contradiction of the message enforced uniform sends to us.

fluently sequenced paragraphs

fluently sequenced paragraphs

Furthermore, ...

Yours faithfully
Boris Johnson

formal sign off: Yours faithfully (Sir/Madam = Faithfully) (Mr/Mrs = Sincerely)

Description of Place

spatial discourse markers

adjectives

Green limbs tangled above the decaying shells of long-abandoned vehicles, forming a canopy that barely permitted the harsh rays of the sun to burn through. The stealthy fingers of squat oak trees reached out tenaciously towards them. The vehicles themselves were coated in a thick layer of rust, a colour of burnt copper – and were battered and bruised through years of exposure to the elements.

Metaphor, simile, personification

Like a queue of taxi cabs, the vehicles waited patiently in the forgotten depths of the forest. Specks of light from the midday sun, which had successfully fought their way through the overhead canopy, lit up their broken bodies. Their trunks gaped open woefully and their shattered eye sockets stared blindly forward.

sensory description

sensory description

The aroma of rust and decay occupied the clearing: it was choking, corrosive. No fresh breeze could infiltrate the thick shrubbery to provide relief. The cars lay there, suffocating on their own putrid stench. It was overpowering. Meanwhile, the squawks of blackbirds echoed like sirens around the clearing. The chilling sound was relentless. It echoed through the car's hollow bodies, feeding its way through the cracks in windows and doors, stroking the upholstery of the rotting seat as it passed.

sensory description

spatial discourse markers

Spread over the floor of the clearing, a thick blanket of autumn leaves hid the earth beneath. They had turned a shade of burnt red and had bleached edges that resembled torn parchment. They were brittle and cracked from the heat in the clearing. Amongst them, all manner of insects scuttled- manoeuvring themselves between moments of shade, before the unforgiving rays of sun could scorch their exposed bodies.

adjectives

Dystopian Narrative: *The Machine Stops* by E.M. Forster

Above her, beneath her, and around her, the Machine hummed eternally; she did not notice the noise, for she had been born with it in her ears. The earth, carrying her, hummed as it sped through silence, turning her now to the invisible sun, now to the invisible stars. She awoke and made the room light.

"Kuno!"

"I will not talk to you," he answered, "until you visit me."

"Have you been on the surface of the earth since we spoke last?"

His image faded.

Again she consulted the book. She became very nervous and lay back in her chair palpitating. She directed the chair to the wall, and pressed an unfamiliar button. The wall swung apart slowly. Through the opening she saw a tunnel that curved slightly, so that its goal was not visible. Should she go to see her son, this would be the beginning of the journey.

Of course she knew all about the communication-system. There was nothing mysterious in it. She would summon a car and it would fly with her down the tunnel until it reached the lift that communicated with the air-ship station: the system had been in use for many, many years, long before the universal establishment of the Machine. Those funny old days, when men went for change of air instead of changing the air in their rooms! And yet — she was frightened of the tunnel: she had not seen it since her last child was born.

Journey Description

Sitting in my seat – aisle, two rows from the front – I look out. Illuminating a town engulfed in darkness, lights flash past me: shop lights, street lights, car lights, and as the clouds part just enough for the moon to penetrate through the smog, moonlight!

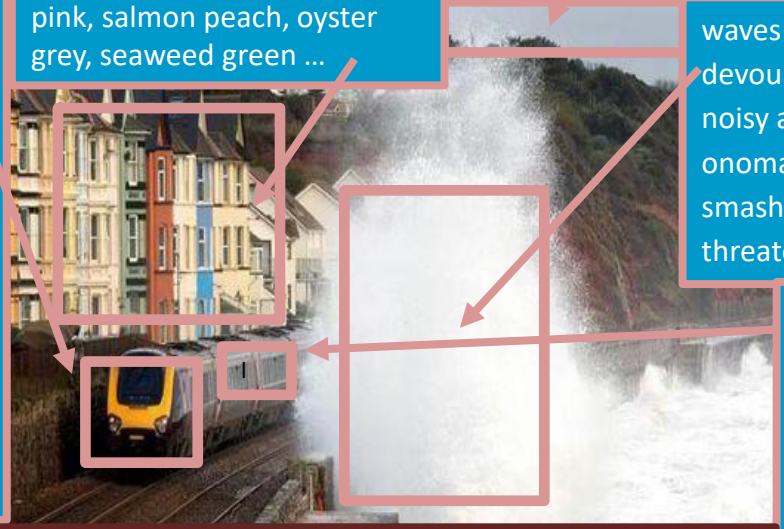
Inside it's silent. No one speaks. The bus windows shut, lulled by the rocking motion, side-to-side, back-and-forth, up-and-down, my eyes feel heavy. Outside, I'm mesmerised by the noise I can only see, only imagine: mouths asking, replying, laughing, traffic screeching, angry drivers honking, shop doors opening and closing.

Once more the bus door opens and, as if I've lifted my head out from underwater, I can hear the street bustle, smell the takeaways, taste the diesel fumes.

Personify train - a victim moving along railway line, past houses, towards destination - metaphor: caterpillar train sways and pitches precariously along the track to its daily destination. Snatching bites, the sea salt nips at its metal skin as passes, gnawing at it, killing it. Rattles. Will it survive?

houses , like soldiers standing to attention - defending their inhabitants. Diff pastel colours of a seaside town: prawn pink, salmon peach, oyster grey, seaweed green …

canopy of sky above threatening Adjectives for mood: grey sky, stuffed clouds full of cold, sharp rain, Verb: beating down, attacking!



waves engulfing and devouring the sea side town - noisy and disruptive, onomatopoeia: Crash! whip, smash personify so violent/ threatening movement.

zoom in - one carriage window. Windows hit by spray that's 'like a tame cat turned savage'. Passenger pitched side-to-side; bubbling sickness, rising bile from stomach!

Plan describing pictures by boxing/framing parts of the image to help you to focus description on specific areas, zooming in on minute detail, and out again to another area. Each boxed area = a paragraph.

1. Intro: Here you will find everything you need to know about buying a goldfish. Follow this advice to …
2. First of all, research the fishes needs and best fish breeds …
3. Next, decide where to put … bedroom could be best habitat for your fish because … However, it might be better to …
4. After this, it's back to the research. Make a list of … Don't …. Do …
5.

Linear flow and vertical charts are useful for planning writing that has to follow a step-by-step process. Each section/shape = a paragraph.

The Grid Plan is good for making sure you include lots of different methods, or to compare two/more things side-by-side. Each row/column = a paragraph.

Paragraph content/ topic	Language method/vocab	Sent structures	Punc
1: waves engulfing and devouring the sea side town - noisy and disruptive, movement	onomatopoeia crash, whip, smash personify so violent/threatening	'ing' start verbs (pres part)	! ;
2: train victim moving across railway line past houses towards destination	personify - victim, alliteration, metaphor: A caterpillar, the train sways and pitches precariously along the track to its daily destination. Snatching bites, the sea salt nips at its metal skin as it passes, eating away at it, killing it. Rattles. Will it survive?	Chain/ tricolon Question	? - -
3: zoom in on one carriage window, motion sick	Windows hit by spray that 'like a tamed ca' has 'turned savage' today. Passenger pitched side-to-side; bubbling sickness rising bile from stomach!	Anadiplosis (yoked)	' ' ; !
4: houses	Like soldiers standing to attention they are defending their inhabitants. Diff pastel colours of a seaside town: prawn pink, salmon peach, oyster grey, seaweed green, cracking paintwork	Fronted spatial adverbials	( ) :
5: canopy of sky above threatening	Adjectives for mood: grey sky, stuffed clouds full of cold, sharp rain, Verb: beating down, attacking,	Two then three word sentences	… ;

Fail to Plan
Plan to Fail!

Climax (turning point, height of action/problem at its worst):

- use exciting adverbs and verbs;
- accelerate pace and heighten tension using lots of shorter sentences.

Fail to Plan
Plan to Fail!

Rising Action (build towards conflict):

- build on character, setting, plot;
- introduce a complication/problem;
- build tension/ excitement;
- use interesting adjectives, sensory description, figurative language etc.

Freytag's Pyramid/ the Story Mountain is the best for planning narratives (stories).

Falling action (turning point, height of action/problem at its worst):

- what events happen to solve the problem?

Exposition (Introduction):

- use an opening hook to grab attention e.g. mysterious atmosphere, in medias res, etc.
- use descriptive vocabulary to set the scene and describe the main character/setting;
- foreshadow what is to come.

Dénouement/Resolution (ending):

- link back to the start (circular);
- what has the character learned?
- how are things different now?
- is there an exciting twist or cliff-hanger ending?

Conclusion: To conclude, repeat RQ, Quite simply, yes!

Yours Sincerely

Intro: My address right hand side, + date, school address left,
Dear Mr Cole
Should we consider discontinuing wearing a school uniform, you've asked? Quite simply, yes! Within this letter, you will find several arguments setting out precisely why we should make this change.

Counter reason: old-fashioned tradition, so easier to continue
Argument reason: other traditions - burnt witches, slept on straw, walked barefoot – now discontinued so …
Supporting example: anecdote, use experts

P1

Form: Letter
Audience: Headmaster
Purpose: Argue change uniform

P2

Counter reason: all look same so no prejudice/bullying over clothes,
Argument reason: no individualism, learning who we are
Supporting example: RQ +triple
Isn't part of our learning at school about learning how to dress appropriately, learning who we are, learning how to judge people on what is inside, not what wear?

P3

Counter reason: cost cheaper as not designer or from shops making huge profit
Argument reason: cost of blazers, trousers and skirts from school uni shop expensive as no competition, own clothes mix 'n' match so fewer outfits needed, wear weekends so more use,
Supporting example: emotive language: force poorer families to go without, statistics

Mind maps/spider diagrams, allow you to jot down content ideas in no particular order and then decide on the best order to write them up in – so they're ideal for non-fiction writing. Each leg = a paragraph

Writing Purposes	Key Language/Structural methods	Chocolate Model!
Inform: tell the reader what they want/need to know.	➢ **Use interesting facts details;** ➢ **use brackets to explain technical terms.**	**Interestingly, chocolate** is actually made from the seeds of a cacao tree. After fermentation, the beans are dried, cleaned, and roasted. The shell is then removed to produce cacao nibs **(unadulterated chocolate in rough form).**
Explain: tell the reader how and why.	➢ **Use connectives: 'as a result', 'because', 'so that', when;** ➢ **use sequence discourse markers: Eventually, Another, Furthermore.**	**Often, when** in need of comfort or reassurance, or in stressful situations, people crave chocolate. Primarily, this is **because** dopamine is released into your brain **when** you eat chocolate, and **as a result** it can lower levels of anxiety ...
Describe: help the reader to picture it and imagine the experience.	➢ **Use similes, metaphors, personification, interesting adjectives/verbs, sensory description.**	**Enticingly,** the **dome** of **dark** chocolate**, flecked sporadically** with **lime slivers, remained encased** in its **fluted carapace. Around** the outside of it **cleaved** the **diminutive remains** of its **neighbour:** a **praline** long ago eaten**! Velvety smooth,** this **solitary bead** of **ganache glistened, revelling** in its **escape**, yet **mourning** its **rejection.**
Narrate: tell the reader a tale that will have them hanging on your every word.	➢ **Use the mountain/ pyramid structure;** ➢ **use some description;** ➢ **use a few lines of direct speech.**	**Suddenly**, she was aware she had arrived at her destination! On the door in front of her, a **scarlet square of shiny plastic printed** with the words 'Chocolate Laboratory' stood out on **splintering wood**. **Why she was standing on this doorstep, though, and what, or who, had led her here in the first place?**
Persuade: try to get the reader to do as you ask/agree with you.	➢ **Use APE FOR REST: anecdote, personal pronouns, emotive language, fact, opinion, rhetorical questions, repetition, experts, statistics, triples.**	**One of** the **world's greatest comfort** foods, Chocolate, is **the unrivalled 'go-to'** when **life takes a bad turn**, an **easy gift** to **thrill** just about **everyone,** and a **tasty treat** that will **uplift even the most melancholy of moods.**
Argue: present two sides, but ensure your side appears strongest so reader agrees with you.	➢ **Use sequence discourse markers;** ➢ **use 'Some believe ..', 'However, most people would agree that';** ➢ **use APE FOR REST (above).**	**First of all, some believe that as chocolate** is high in calories, it is bad for you. **However, scientific experts have proven** that chocolate, as it contains high levels of antioxidants, could **lower cholesterol levels, improve mood and prevent memory decline**!
Advise: help warn and guide reader, but reassure with carefully considered advice.	➢ **Use imperative verbs (stop, do, don't, wait etc.), and modal verbs (if, could, might, should).** ➢ **use second person (you, your).**	**Most importantly, if you** are feeling bored and craving chocolate, **don't** give in to your yearning. Instead, **you could go** for a walk, **run** errands, **call** a friend or **read** a book. **If you** can take your mind off food for a short time, the craving **may** pass.

Most Often Misspelled words

caught	occasion
comparative	possible
could	receive
February	seize
guile	scissors

Term 5 & 6 SPIVoT words

appropriate	competent
definitely	guarantee
gauge	necessary
brought	people
desperate	science
immediately	conjecture
antithesis	enmity
autocracy	epiphany

Characters

Cassie Logan – Protagonist and narrator of the novel. She is 9 years old and naïve about the issues of racism and prejudice.

Stacey Logan – Oldest of the Logan siblings at 12 years old. He is protective of his siblings and understands the issues of racism and prejudice.

Christopher-John Logan – He is 7 years old. His character is timid and therefore the opposite of his siblings.

Clayton 'Little Man' Logan – Youngest of the Logan siblings at 6 years old. He does not understand racism or prejudice but he knows he does not like it.

David Logan, 'Papa' – He values his independence and works on the railroad.

Mary Logan, 'Mama' – Mother of the family. Worked at the elementary school until T.J. gets her fired.

Caroline Logan, 'Big Ma' – Grandmother of the Logan children. Main caretaker of the house.

Uncle Hammer – Uncle of the Logan children. He does not like racism. He is hot tempered and has a lot of money.

T.J. Avery – The Logan children's friend at the start until he gets Mama fired from the school. He is at the same school as the Logan children but has been held back a year and likes to attempt to cheat on tests.

Mr Morrison – Papa brings him home to help work on the land and protect the family. He is a massive and strong character who appears quite intimidating.

Mr Jamison – A white lawyer who genuinely wants to help the local farmers.

About the Author

"By the time I entered high school, I had a driving compulsion to paint a truer picture of Black people… I wanted to show a Black family united in love and pride, of which the reader would like to be a part." – Mildred D. Taylor.

Mildred D. Taylor was born on September 13, 1943, in Jackson, Mississippi. Like the Logan family, the Taylor family had lived in Mississippi since the days of slavery, long before 1865! However, when Mildred was just a tiny baby, her parents decided to make a new life in the North. The Taylors moved to Toledo, Ohio. The family was large, close and loving.

When she was 10, Taylor was the only student of colour in her class. She was upset about the one-sided stories about Americans of colour in her history books. There was no pride in these stories. When she shared her own facts about black history with the class, they thought she was making things up – so she turned to writing stories for herself.

Context to the Novel

The Reconstruction Era (1865-1877)
A turbulent era in America following the Civil War in which Southern states were brought back into full political participation in the Union, guaranteeing rights to former slaves and defining new relationships between African Americans and white people.

The Great Depression
The worst economic downturn in the history of the USA, lasting from 1929 – 1939. It began after the stock market crash of October 1929.

Sharecropping
A type of farming in which families rent small plots of land from a landowner in return for a portion of their crop, to be given to the landowner at the end of each year.

The American Dream
The American Dream is the belief that anyone, regardless of where they were born or what class they were born into, can attain their own version of success in a society in which upward mobility is possible for everyone.

The 'Jim Crow' Laws
These began in 1877 and were enforced until 1965. The 'Jim Crow' laws mandated racial segregation in all public facilities in the South.

The Night Men
Following the Civil War, groups emerged to suppress and victimise newly freed slaves. The groups took violent steps in an effort to ensure white racial and economic superiority in the South.

Key Vocabulary

Prejudice	Preconceived opinion that is not based on reason or actual experience; an irrational attitude of hostility towards an individual, group or race.
Discrimination	The prejudicial treatment of different categories of people, especially on the grounds of race, age, sex, or disability.
Segregation	The action or state of setting someone or something apart from others.
Justice	Fairness in the way people are dealt with.
Injustice	A situation in which there is no fairness and justice.
Civil Rights	A class of rights that protect an individual's freedom from violation by governments, social organisations, and anybody else.
Intolerance	Refusing to accept ideas, beliefs, or behaviours that are different from your own.

Command Words in Maths questions

These words are the clue to what the examiner expects you to do. Remember to always show your workings. You can get marks for it, even if you get the final answer wrong.

TECHNICAL VOCABULARY	
Factor	A number which divides exactly into another.
Multiple	A multiple is a number made by multiplying two other numbers.
Prime	A prime number has exactly two factors.
Integer	The positive and negative whole numbers.
Estimate	Usually a calculation where the numbers have been rounded before the operation is performed.
Index (indices plural)	An index is a power or exponent.
Square root	Is the number that was multiplied by itself to get the square number.
Square number	Is a number that has been multiplied by itself.
Cube number	Is a number that is multiplied by itself then again by the original number.
Cube root	Is the number that was multiplied by itself and itself again to get the cube number
Numerator	The number on the top of the fraction. Shows how many part there are.
Denominator	The number on the bottom of the fraction. Shows how many equal parts the item is divided into.
Common denominator	When two or more fractions have the same denominator.
Equivalent	Having the same value
Inverse	The opposite mathematical operation.
Reciprocal	The number produced by dividing 1 by a given number
Odd	An integer that cannot be divided exactly by two.
Even	An integer that can be divided exactly by two.

	Divisibility Test
2	Even
3	Digits sum to a multiple of 3
4	Last 2 digits are divisible by 4
5	Ends in 5 or 0
6	Divisible by 2 and 3
8	Can be halved 3 times
9	Digits sum to a multiple of 9

Millions	Hundreds of thousands	Tens of thousands	Thousands	Hundreds	Tens	Units	Tenths	Hundredths	Thousandths
1000000	100000	10000	1000	100	10	1	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
M	HTh	TTh	Th	H	T	U			
5	2	9	7	8	2	1	6	0	3

Five million, two hundred and ninety seven thousand, eight hundred and twenty one point six zero three.

12 X 12 Multiplication Table

X	0	1	2	3	4	5	6	7	8	9	10	11	12
0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10	11	12
2	0	2	4	6	8	10	12	14	16	18	20	22	24
3	0	3	6	9	12	15	18	21	24	27	30	33	36
4	0	4	8	12	16	20	24	28	32	36	40	44	48
5	0	5	10	15	20	25	30	35	40	45	50	55	60
6	0	6	12	18	24	30	36	42	48	54	60	66	72
7	0	7	14	21	28	35	42	49	56	63	70	77	84
8	0	8	16	24	32	40	48	56	64	72	80	88	96
9	0	9	18	27	36	45	54	63	72	81	90	99	108
10	0	10	20	30	40	50	60	70	80	90	100	110	120
11	0	11	22	33	44	55	66	77	88	99	110	121	132
12	0	12	24	36	48	60	72	84	96	108	120	132	144

Squares

$1^2 = 1 \times 1 = 1$	$5^2 = 5 \times 5 = 25$	$9^2 = 9 \times 9 = 81$
$2^2 = 2 \times 2 = 4$	$6^2 = 6 \times 6 = 36$	$10^2 = 10 \times 10 = 100$
$3^2 = 3 \times 3 = 9$	$7^2 = 7 \times 7 = 49$	$11^2 = 11 \times 11 = 121$
$4^2 = 4 \times 4 = 16$	$8^2 = 8 \times 8 = 64$	$12^2 = 12 \times 12 = 144$

Square Roots

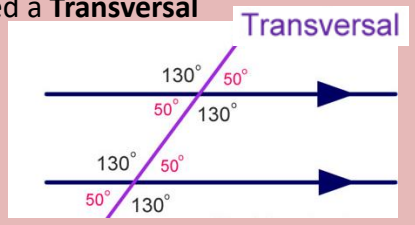
$\sqrt{1} = \pm 1$	$\sqrt{25} = \pm 5$	$\sqrt{81} = \pm 9$
$\sqrt{4} = \pm 2$	$\sqrt{36} = \pm 6$	$\sqrt{100} = \pm 10$
$\sqrt{9} = \pm 3$	$\sqrt{49} = \pm 7$	$\sqrt{121} = \pm 11$
$\sqrt{16} = \pm 4$	$\sqrt{64} = \pm 8$	$\sqrt{144} = \pm 12$

Websites to help you with understanding and revision

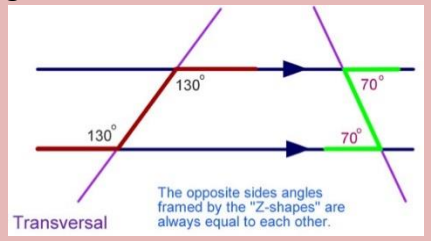
- SparxMaths.com
- CorbettMaths.com
- Trafalgar Maths Site
- Maths Genie
- OnMaths

Angles in Parallel lines

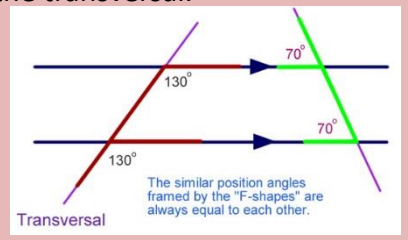
Parallel lines never get closer or further apart and therefore never intersect.
A line that intersects a pair of parallel lines is called a **Transversal**



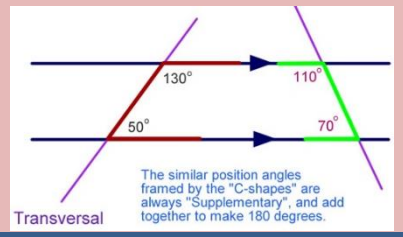
Alternate angles are **equal**, they form a 'Z' shape. When you think of 'alternate' you might think backwards and forwards, similar to how a 'Z' goes backwards and forwards. Alternate angles are on either side of the transversal.



Corresponding angles are **equal**, they form an 'F' shape. Corresponding angles on the same side of the transversal.

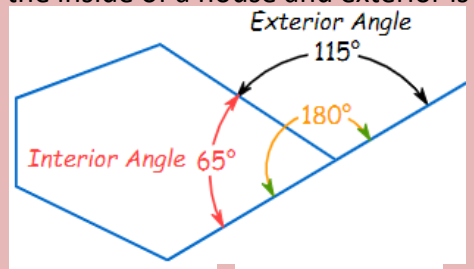


Co-interior angles sum to 180°, they form a 'C' shape.



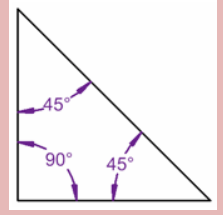
Sum of Interior angles in Polygons

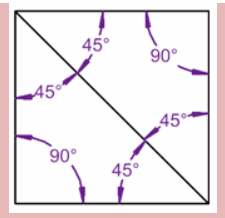
Polygons are 2D shapes with straight lines. Polygons have **Interior** and **Exterior angles**, think interior like the inside of a house and exterior is the outside.



Two angle facts we already Know are 'angles in a triangle sum to 180°' and 'angles in a quadrilateral sum to 360°'.

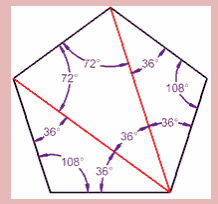
Spot the pattern……





Number of sides:	3	4
Split into least number of triangles:	1	2
Sum of interior angles:	180°	360°

If we follow this pattern then we can predict the sum of the interior angles on a pentagon…..hexagon…..heptagon…..etc.



N° of sides:	5
N° of triangles:	3
Sum of interior angles:	3 x 180° = 540°

General Rule: The number of triangles is always 2 less than the number of sides. The number of triangles multiplied by 180° equals the sum of the interior angles. In a regular polygon all angles are equal.

Therefore: (**n** = N° of sides)

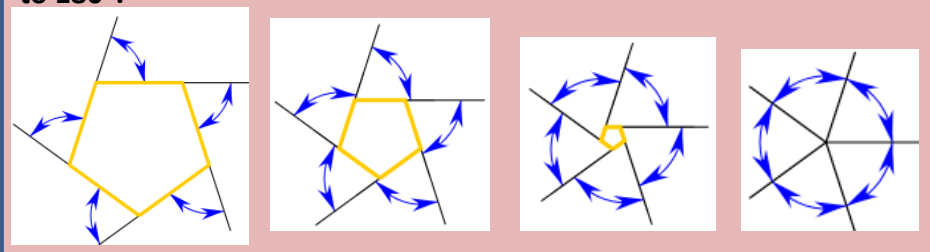
Sparx M653

Sum of Interior Angles = $(n-2) \times 180°$

Each Angle (of a Regular Polygon) = $(n-2) \times 180° / n$

Sum of Exterior angles in Polygons

The exterior angle is formed by extending the side of a polygon, therefore the interior and exterior **angles on a straight line** will **sum to 180°.**

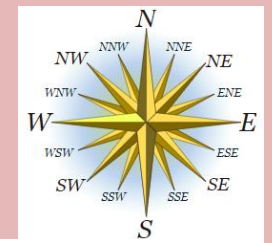


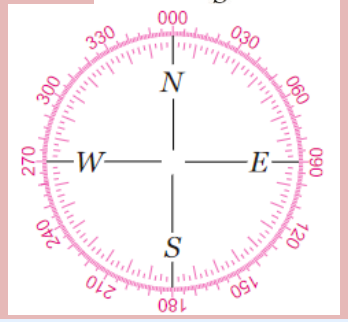
If we bring all the exterior angles on a polygon together we can see they meet at a point. We already know that angles at a point sum to 360°. Therefore the general rule is:

The Exterior Angles of a Polygon add up to 360°

Three Figure Bearings

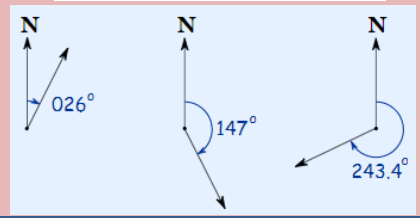
Bearings tell us direction. You are familiar with compass bearings - North, East, South and West.
Three figure bearings are an alternative to compass bearings that are much more precise, measured in degrees.





3 things to remember:

- Bearings always use three figures. Eg. North is 000°, East is 090°, South is 180° and West is 270°
- Bearings are always measured from North (000°)
- Bearings are always measured Clockwise



Sparx M260, M416

Year 8 Term 5 and 6: Working in 2D

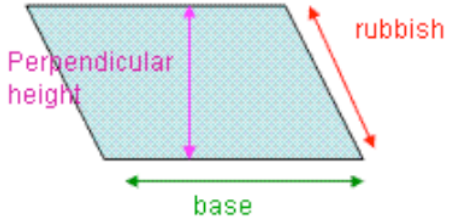
What do I need to be able to do?

- Use standard units of measure (mm, cm, m, km)
- Measure line segments and angles accurately
- Use scale drawings and bearings
- Know and apply formulae to calculate the area of triangles, parallelograms, trapezia and composite shapes
- Identify, describe and construct reflections, rotations, translations and enlargements
- Identify and apply circle definitions, properties and formulae

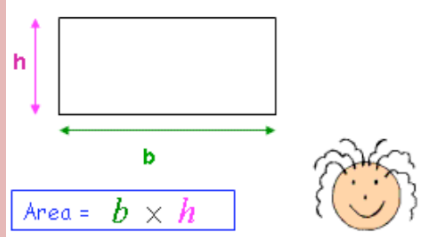
NEVER FORGET every time you work out an area, give your answer as SQUARED UNITS e.g. m^2, cm^2, km^2, mm^2 etc

The Importance of Perpendicular Height

- As you will see, most of the formulas for area involve multiplying the base of the shape by it's height... but it's not just any old height!
- The height must be perpendicular to the base!



1. Rectangle

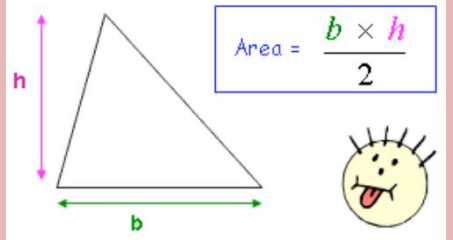


Area = $b \times h$

What to do: Multiply the base by the height!

Sparx M390

2. Triangle

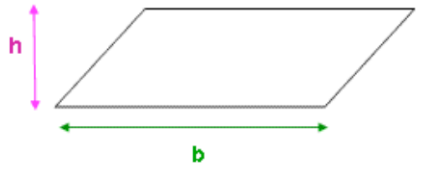


Area = $\frac{b \times h}{2}$

What to do: Multiply the base by the (perpendicular) height and remember to divide your answer by 2!

Sparx M610

3. Parallelogram

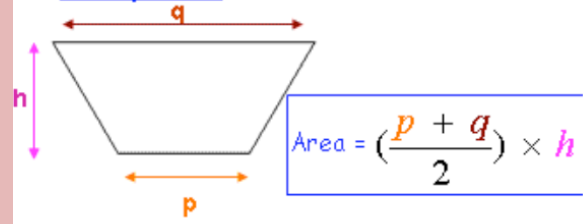


Area = $b \times h$

What to do: Multiply the base by the perpendicular height... definitely not the slanted height!

Sparx M291

4. Trapezium

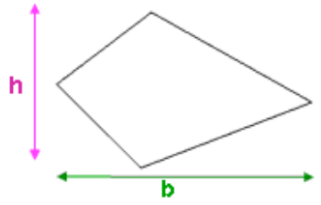


Area = $(\frac{p + q}{2}) \times h$

What to do: Add together the lengths of your two parallel sides and divide the answer by 2. This gives you the average length of your base. Then multiply this by the vertical height!

Sparx M705

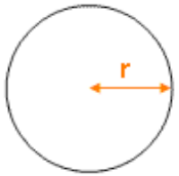
5. Kite



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

What to do: The base and height in a kite are just the two diagonals from point to point... so multiply them together!

6. Circle

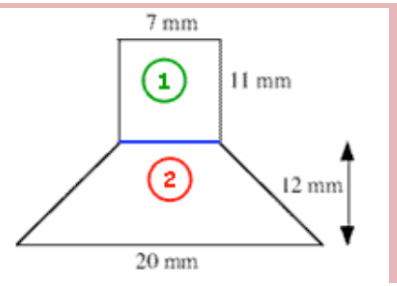


Area = $\pi \times r^2$

What to do: Find the radius of your circle (if you are given the diameter, just halve it!). Square the radius, and multiply your answer by pi!

Sparx 231

Compound Area



I have chosen to split this shape up into a rectangle and a trapezium. It is also possible to split it up into rectangles and triangles. It is completely up to you!

1 Rectangle

Area = $b \times h$

Area = 7×11 = 77mm²

2 Trapezium

Area = $(\frac{p + q}{2}) \times h$

Area = $(\frac{20 + 7}{2}) \times 12$ = 162mm²

Total Area

77 + 162

= 239 mm²

Sparx M269

Year 8 Maths Term 5 & 6

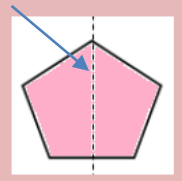
Keywords

Mirror line: a line that passes through the center of a shape with a mirror image on either side of the line
Line of symmetry: same definition as the mirror line
Reflect: mapping of one object from one position to another of equal distance from a given line.
Vertex: a point where two or more-line segments meet.
Perpendicular: lines that cross at 90°
Horizontal: a straight line from left to right (parallel to the x axis)
Vertical: a straight line from top to bottom (parallel to the y axis)

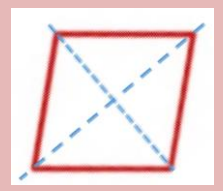
Lines of symmetry

Sparx M523

Mirror line (line of reflection)



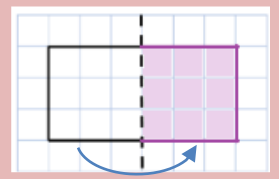
Shapes can have more than one line of symmetry….
This regular polygon (a regular pentagon has 5 lines of symmetry)



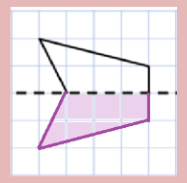
Rhombus
two lines of symmetry

Parallelogram
No lines of symmetry

Reflect horizontally/ vertically

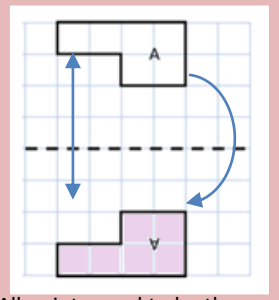


Reflection in a vertical line



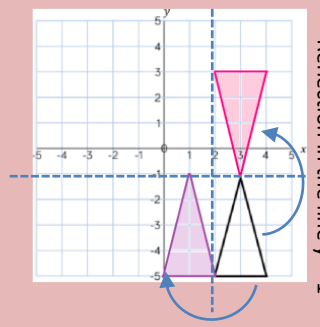
Reflection in a horizontal line

Note: a reflection doubles the area of the original shape



All points need to be the same distance away from the line of reflection

Reflection on an axis grid

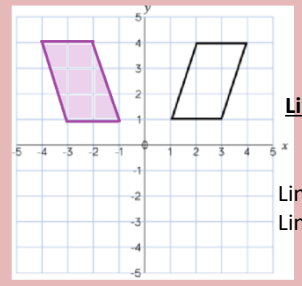


Reflection in the line y= -1

Reflection in the line x=2

Sparx M290

Reflection in the line y axis
This is also a reflection in the line x=0

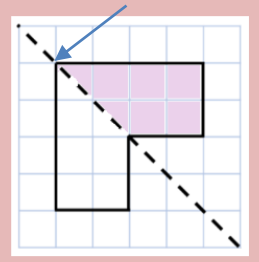


Lines parallel to the x and y axis

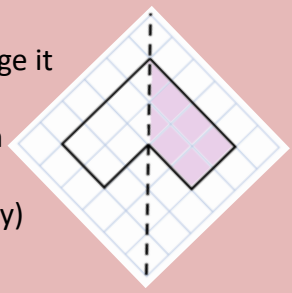
REMEMBER
Lines parallel to the x-axis are y = __
Lines parallel to the y-axis are x = __

Reflect Diagonally

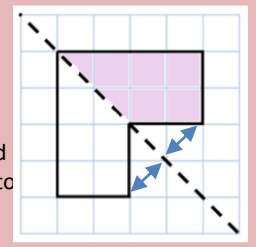
Points on the mirror line don't change position



Turn your image
If you turn your image it becomes a vertical/ horizontal reflection (also good to check your answer this way)



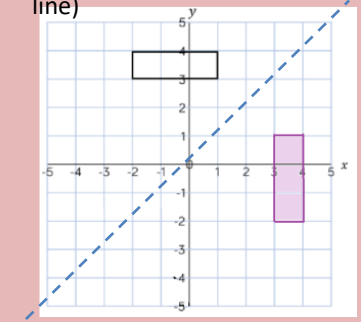
Drawing Perpendicular lines to and from the mirror line can help you to plot diagonal reflections



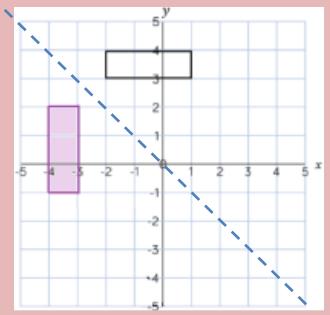
Sparx M290

Fold along the line of symmetry to check the direction of the reflection

This is the line y = x
(every y coordinate is the same as the x coordinate along this line)



This is the line y = - x
The x and y coordinate have the same value but opposite sign



Year 8 Maths Term 5/6: Statistics and Handling Data

What do I need to be able to do?

- **Understand what is data and what are the different types of data**
- **What are the different ways of collecting and organising data?**
- **Understand what averages are and how to calculate the Mean, Median, Mode and Range**
- **Construct accurate statistical representations including Pictograms, Bar charts, Pie charts and Scatter graphs.**
- **How to interpret data from a table, graph and chart and make reasonable deductions**

Key words

Data

Discrete
Continuous
Primary
Secondary
Qualitative
Quantitative
Numerical
Primary
Secondary
Tally
Frequency
Class Intervals
Averages
Mean
Median
Mode
Range
Ascending
Correlation

What is Data and what are the different types of data?

Data – Information in the form of words, numbers or symbols collected together for reference or analysis.

If the data is **numerical** (in numbers) we call this **quantitative** data, think quantity like amount. Example: How many pets do you have? "4" the answer is quantitative.

If the data is in words we call this **qualitative** data, think quality like the quality of an essay. Example: What's your favourite food? "Curry" the answer is qualitative.

Quantitative data can be split into 2 types;
Discrete data is when the answer is counted. Example: How many computer games do you own? You count how many games you have "10 games" and your answer is specific and therefore discrete.

Continuous data is measured.
Example: What is your foot length?
You can never measure anything exactly, your answer might be different depending on the tool you use and the accuracy with which you measure. You might measure your foot with a ruler to be 18cm but in a shoe shop with more accurate tools might measure it as 186mm, therefore the answer is continuous.

Sparx GCSE U322

Collecting Data

Primary data – data you collect yourself. Questionnaires, surveys, observation, experiments, interviews etc.
Secondary data – Using data collected by someone else.
Research, books, internet, newspapers, articles, studies etc.

Sparx M597

Organising Data

Once the data has been collected it needs to be organised so it can be be analysed.
I ask 67 people what their favourite colour is, their responses can be organised in a **tally** chart like this one. Tallys are recorded in groups of 5. Adding the tally gives the **frequency**. Frequency is the total number of times an answer has been selected.

Colour	Tally	Frequency
Red	𝍸 𝍸 | | |	13
Blue	𝍸 | | | |	9
White	𝍸 𝍸 𝍸 𝍸 | | | |	24
Black	𝍸 𝍸 | |	12
Other	𝍸 | | | |	9

When there are many options the answers can be grouped into **class intervals**, or groupings. Grouped frequency table:

Number of magazines	Tally	Frequency
0 - 4	𝍸 | | |	8
5 - 9	𝍸	5
10 - 14	𝍸 | |	7
15 - 19	| | |	3
20 - 24	𝍸 | | | |	9
25 - 29	| | |	3
30 - 34		0
35 - 39	𝍸	5
40 - 44		0
45 - 49	| | |	3
more than 49		0

Analysing Data

Average – A number that best represents a set of data. A calculated "central" value of a set of numbers. There are 4 mathematical averages, the best type of average to use depends on the data set.
Mean – The most common type of 'average' It is easy to calculate: **add up** all the numbers, then **divide by how many** numbers there are.

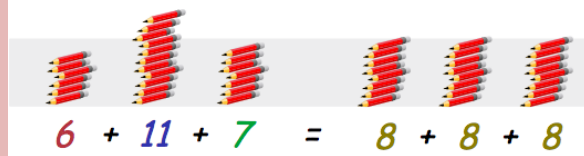
Sparx M940

Example 1: What is the Mean of these numbers?

6, 11, 7

- Add the numbers: **6 + 11 + 7 = 24**
- Divide by *how many* numbers (there are 3 numbers): **24 / 3 = 8**

The Mean is 8



It is like you are "flattening out" the numbers

Mode – The ***"most common"*** or the appears most often. There can be more than one Mode.

Sparx M841

Example:

3, 7, 5, 13, 20, 23, 39, 23, 40, 23, 14, 12, 56, 23, 29

In order these numbers are:

3, 5, 7, 12, 13, 14, 20, **23, 23, 23, 23**, 29, 39, 40, 56

This makes it easy to see which numbers appear **most often**.

In this case the mode is **23**.

Range – The **difference** between the largest and smallest values in a data set.
Biggest – smallest = Range

Sparx M328

Sparx M934

Analysing Data

Median – The ***"middle"*** of a sorted list of numbers.

Step 1 – Put the numbers in **ascending** order (smallest to biggest)

Step 2 – Find the **middle** number. **count how many numbers, add 1 then divide by 2.**

$\frac{n+1}{2}$ n = how many numbers in the data set

Example 1: Calculate the median of 3, 13, 7, 5, 21, 23, 39, 23, 40, 23, 14, 12, 56, 23, 29

Step 1 – Order the numbers

3, 5, 7, 12, 13, 14, 21, 23, 23, 23, 23, 29, 39, 40, 56,

Step 2 – There are 15 numbers

n =15 $\frac{n+1}{2}$ $\frac{15+1}{2}$ = 8th

The middle number is the 8th number:

3, 5, 7, 12, 13, 14, 21, **23** 23, 23, 23, 29, 39, 40, 56,

The Median is 23

If the data set has an even amount of numbers then the median is mid-point between the 2 middle numbers.

Example: Calculate the median of 5, 7, 3, 9,

Step 1: Order numbers 3, 5, 7, 9,

Step 2: n =4 $\frac{n+1}{2}$ $\frac{4+1}{2}$ = 2.5th

The median is half way between the 2nd and 3rd number. The median is 6.

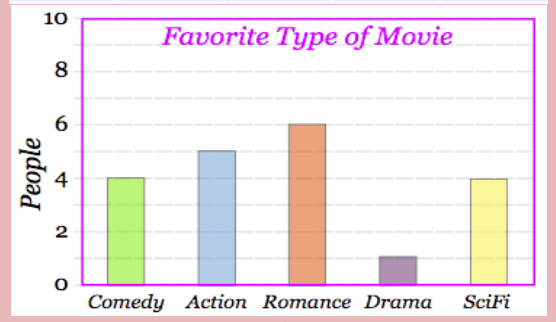
Sparx M460, M738

Presenting Data

The data has been collected, it has been sorted and now it can be presented.

Bar Chart:

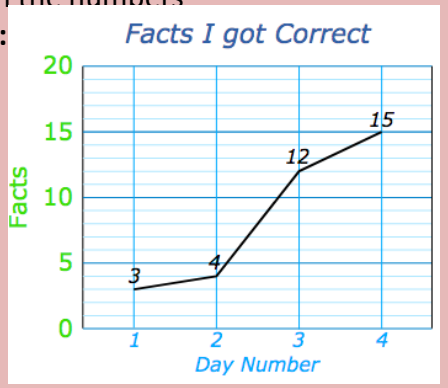
Table: Favorite Type of Movie				
Comedy	**Action**	**Romance**	**Drama**	**SciFi**
4	5	6	1	4



The perfect **Bar chart** must:

- Be drawn with a pencil and ruler
- Have a title
- Have spaces between the bars
- The axes must be labelled
- Have bars of equal width and equal sized spaces between the bars
- Have and even scale – equal sized space between the numbers

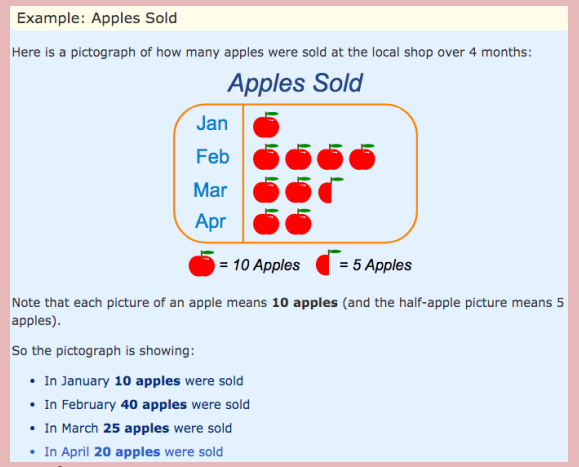
Line graph: Same as a bar chart but data points connected by straight lines.



Pictogram/pictograph – showing data using images. Each image represents a specific value.

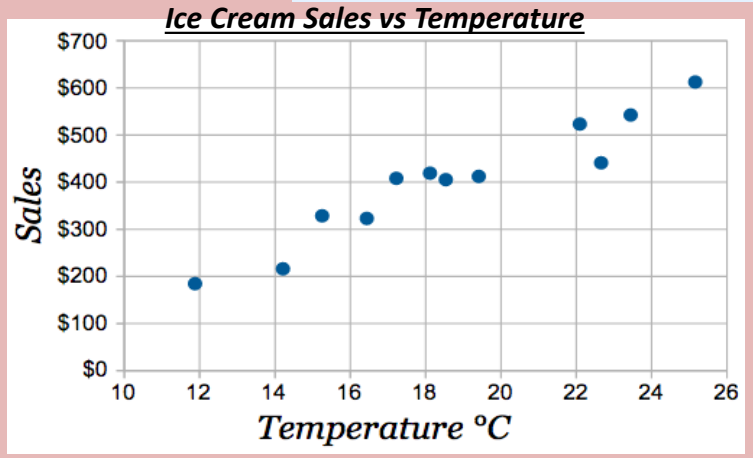
The perfect **Pictogram** must:

- Have a title
- Have a key showing the value of the image
- Have images of an equal size and shape with equal distance between each image

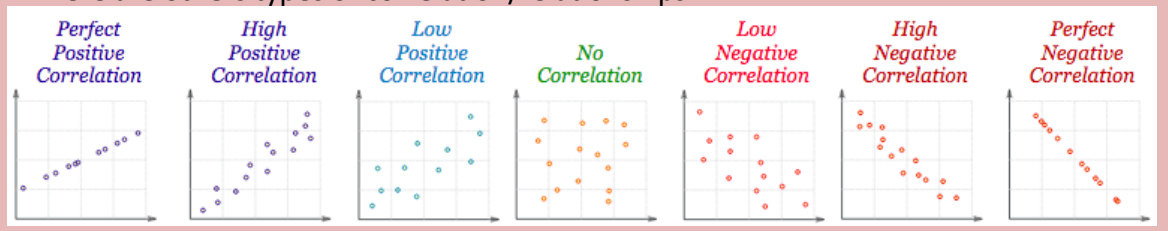


Scatter Graph – shows the relationship between two quantitative data sets**.**

Ice Cream Sales vs Temperature	
Temperature °C	**Ice Cream Sales**
14.2°	$215
16.4°	$325
11.9°	$185
15.2°	$332
18.5°	$406
22.1°	$522
19.4°	$412
25.1°	$614
23.4°	$544
18.1°	$421
22.6°	$445
17.2°	$408



This type of graph allows us to draw a conclusion about the relationship between two things, in this example we can say as the temperature increases, so does the number of ice creams sold. We call this a positive correlation as both values are increasing together. There are others types of correlation/relationships:



Pie chart

Represents data in a way that shows the relative size of the category. A good way of displaying data if there are large differences between the categories but not accurate when interpreting the data.

Example: You survey your friends to find out their favourite genre of movie. The results are

Sparx M574, M165

Table: Favorite Type of Movie				
Comedy	Action	Romance	Drama	SciFi
4	5	6	1	4

Table: Favorite Type of Movie					
Comedy	Action	Romance	Drama	SciFi	TOTAL
4	5	6	1	4	20

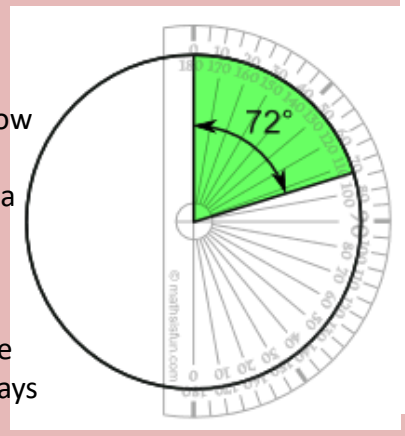
$\frac{360}{20} = 18°$

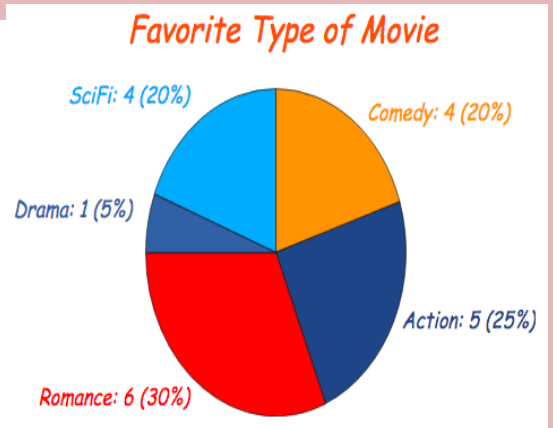
How to draw a pie chart:

1. Calculate the total frequency (add up all of the people in your survey)
2. There are 360º in a full circle, Divide 360 by the total frequency (the number of people in your survey) to calculate how many degrees each person is worth $\frac{360}{20} = 18°$
3. Multiply each frequency by the number of degrees per person to calculate the angle size of the sector (slice of the pie)

Table: Favourite Type of Movie					
Comedy	**Action**	**Romance**	**Drama**	**SciFi**	**Total**
4	**5**	**6**	**1**	**4**	**20**
4 x 18 = **72°**	5 x 18 = **90°**	6 x 18 = **108°**	1 x 18 = **18°**	4 x 18 = **72°**	20 x 18 = **360°**

4. Draw a circle using a compass and pencil
5. Draw a line from the centre of the circle to the edge, this is the base line
6. Line up a protractor with the base line, the centre of the circle positioned with the central cross of the protractor. Follow the base line to the edge of the protractor and counting up from zero, measure the angle of the first sector (slice). Make a mark, remove the protractor and draw a straight line to complete the first slice
7. Line up the protractor on the line you have just drawn and repeat the last step, this time measuring the slice to the angle of the next slice, repeat until complete. Remembering to always line up with the last line drawn.
8. Don't forget to add a title and Key.





Sparx M460, M738, M644

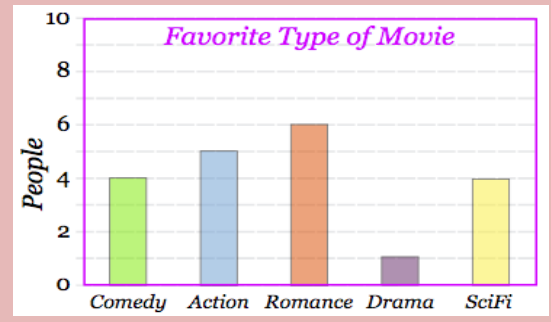
Interpreting Data

To interpret data is to analyse data and make deductions and infer relationships.

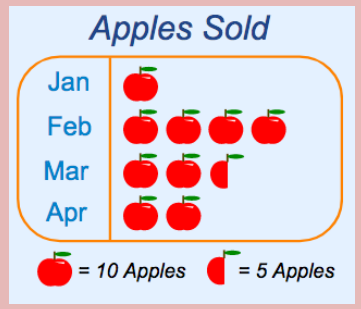
Examples:

Colour	Tally	Frequency
Red	𝍸 𝍸 |||	13
Blue	𝍸 ||||	9
White	𝍸 𝍸 𝍸 𝍸 ||||	24
Black	𝍸 𝍸 ||	12
Other	𝍸 ||||	9

By analysing this tally chart we can deduce that the most popular colour is white.



By analysing this bar chart we can deduce from the survey that the most popular genre of Movie is Romance and the least popular is Drama.



From this pictogram We can deduce that The most number of Apples were sold in February (40) and the least in January (10). The Range is 30.

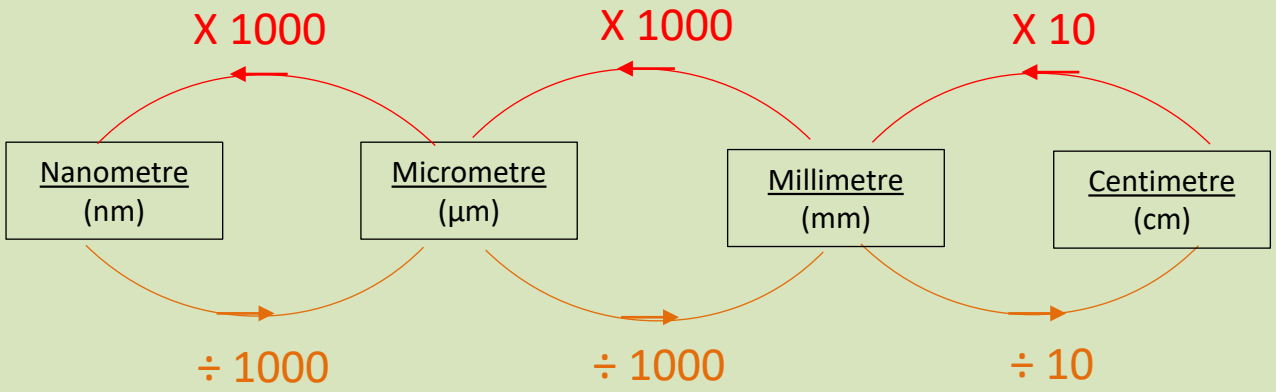
The way in which the data is presented can show relationships and differences quickly and efficiently. Making analysis and interpretation easy depending on the type of graph/chart used.

Science: Useful Information

Key Word / Term	Definition
Accuracy	Results are close to the true value
Precision	Results are similar to each other but not necessarily close to the true value
Repeatable	Similar results are obtained if the investigation is done again by the same person
Reproducible	Similar results are obtained if it is repeated by a different person
Resolution	Is the smallest change a measuring instrument can detect
Validity	A measure of how correct the results of an experiment are

Prefix	Number	Standard Form	e.g. metres
Giga	1,000,000,000	$1x10^{9}$	Gm
Mega	1,000,000	$1x10^{6}$	Mm
kilo	1,000	$1x10^{3}$	km
----------	1	1	m
milli	0.001	$1x10^{-3}$	mm
micro	0.000001	$1x10^{-6}$	µm
nano	0.000000001	$1x10^{-9}$	nm

Converting units of measure:



Variables:

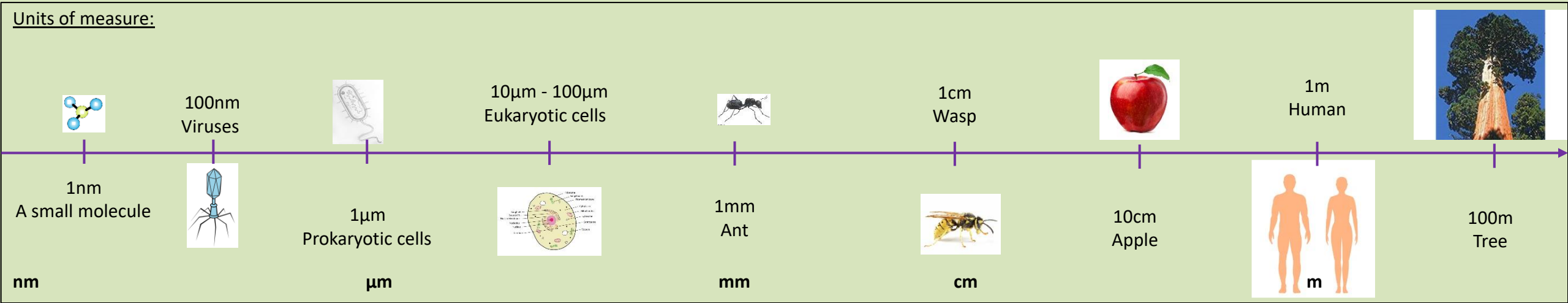
Independent: the variable that is being changed during the experiment

Dependent: the variable being tested or measured during the experiment

The independent variable affects the dependent variable, the others must be controlled

Control: Keep the same (there can be more than one control variable) so that they do not affect the independent variable

Units of measure:



The Periodic Table of Elements

1	2											3	4	5	6	7	0
							1 **H** hydrogen 1										4 **He** helium 2
7 **Li** lithium 3	9 **Be** beryllium 4											11 **B** boron 5	12 **C** carbon 6	14 **N** nitrogen 7	16 **O** oxygen 8	19 **F** fluorine 9	20 **Ne** neon 10
23 **Na** sodium 11	24 **Mg** magnesium 12											27 **Al** aluminium 13	28 **Si** silicon 14	31 **P** phosphorus 15	32 **S** sulfur 16	35.5 **Cl** chlorine 17	40 **Ar** argon 18
39 **K** potassium 19	40 **Ca** calcium 20	45 **Sc** scandium 21	48 **Ti** titanium 22	51 **V** vanadium 23	52 **Cr** chromium 24	55 **Mn** manganese 25	56 **Fe** iron 26	59 **Co** cobalt 27	59 **Ni** nickel 28	63.5 **Cu** copper 29	65 **Zn** zinc 30	70 **Ga** gallium 31	73 **Ge** germanium 32	75 **As** arsenic 33	79 **Se** selenium 34	80 **Br** bromine 35	84 **Kr** krypton 36
85 **Rb** rubidium 37	88 **Sr** strontium 38	89 **Y** yttrium 39	91 **Zr** zirconium 40	93 **Nb** niobium 41	96 **Mo** molybdenum 42	[98] **Tc** technetium 43	101 **Ru** ruthenium 44	103 **Rh** rhodium 45	106 **Pd** palladium 46	108 **Ag** silver 47	112 **Cd** cadmium 48	115 **In** indium 49	119 **Sn** tin 50	122 **Sb** antimony 51	128 **Te** tellurium 52	127 **I** iodine 53	131 **Xe** xenon 54
133 **Cs** caesium 55	137 **Ba** barium 56	139 **La*** lanthanum 57	178 **Hf** hafnium 72	181 **Ta** tantalum 73	184 **W** tungsten 74	186 **Re** rhenium 75	190 **Os** osmium 76	192 **Ir** iridium 77	195 **Pt** platinum 78	197 **Au** gold 79	201 **Hg** mercury 80	204 **Tl** thallium 81	207 **Pb** lead 82	209 **Bi** bismuth 83	[209] **Po** polonium 84	[210] **At** astatine 85	[222] **Rn** radon 86
[223] **Fr** francium 87	[226] **Ra** radium 88	[227] **Ac*** actinium 89	[261] **Rf** rutherfordium 104	[262] **Db** dubnium 105	[266] **Sg** seaborgium 106	[264] **Bh** bohrium 107	[277] **Hs** hassium 108	[268] **Mt** meitnerium 109	[271] **Ds** darmstadtium 110	[272] **Rg** roentgenium 111	[285] **Cn** copernicium 112	[286] **Nh** nihonium 113	[289] **Fl** flerovium 114	[289] **Mc** moscovium 115	[293] **Lv** livermorium 116	[294] **Ts** tennessine 117	[294] **Og** oganesson 118

Key

relative atomic mass
atomic symbol
name
atomic (proton) number

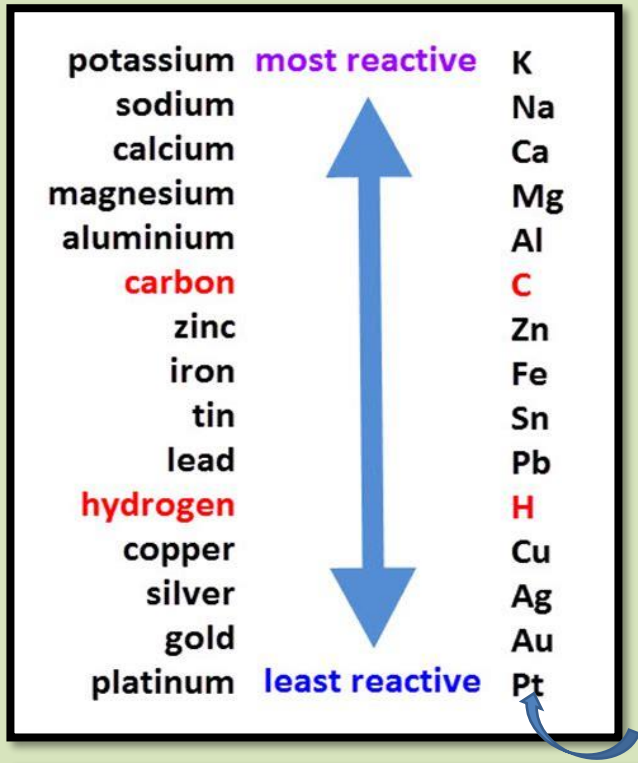
* The Lanthanides (atomic numbers 58 – 71) and the Actinides (atomic numbers 90 – 103) have been omitted.

Relative atomic masses for **Cu** and **Cl** have not been rounded to the nearest whole number.

KS3 Chemistry:
Chemical Reactions

Keyword	Definition
Activation Energy	The minimum amount of energy that colliding particles must have for them to react.
Catalyst	A substance that increases the rate of a reaction but is not itself used up.
Combustion	Burning fuel in oxygen.
Displacement	A more reactive metal will displace a less reactive metal from its compound.
Endothermic	Reactions that take in heat.
Exothermic	Reactions that give out heat.
Fuel	Contain hydrocarbons – compounds containing hydrogen and carbon atoms only.
Oxidation	Reaction of other elements in oxygen.
Polymer	Long chain molecules made up of many monomers.
Reactivity Series	List of metals in order of reactivity.
Thermal Decomposition	When a substance is broken down into 2 or more products by heat.

Reactivity Series



Displacement Reactions

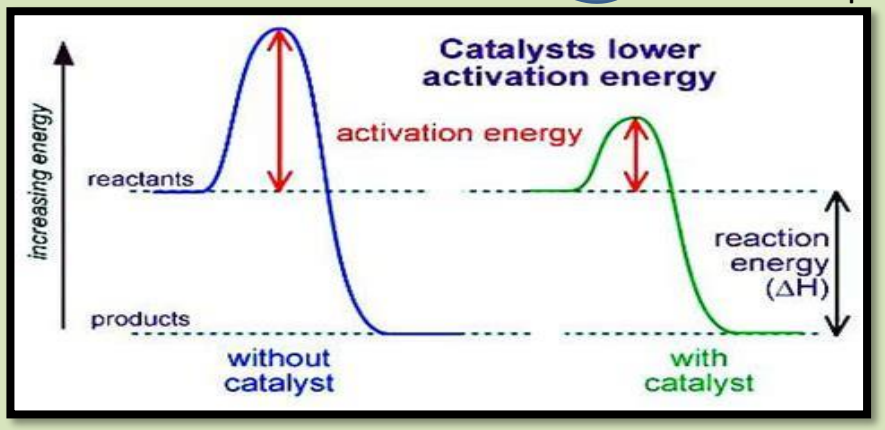
Displacement reactions involve a metal and a compound of a different metal. In displacement reactions, a more reactive metal will displace a less reactive metal from its compound.

Magnesium + Copper Sulfate → Magnesium Sulfate + Copper

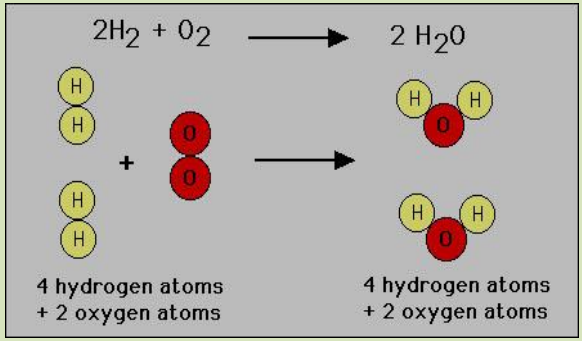
Magnesium is more reactive than copper, so it displaces (pushes out) the copper within the compound.

Metals can be organised according to their reactivity in the reactivity series.
A more reactive metal will displace a less reactive one from its compound.

Chemical reactions lose and gain no atoms. They just rearrange, so equations must be balanced to show equal numbers of atoms on each side of the reaction.



A catalyst speeds up the rate of reaction by reducing the amount of energy needed to get the reaction going.



COMBUSTION (BURNING) OF FOSSIL FUEL

FOSSIL FUEL + OXYGEN → CARBON DIOXIDE + WATER

methane + oxygen → carbon dioxide + water

$CH_4 + 2O_2 \longrightarrow CO_2 + 2H_2O$

Metal oxide + acid → salt + water

Help with naming the salt:

Hydrochloric acid makes chlorides.

Sulfuric acid makes sulfates.

Nitric acid makes nitrates.

Endothermic Reactions

In an endothermic reaction, thermal energy is taken in from the surroundings, therefore there is a temperature decrease. Thermal decomposition is an example.

Exothermic Reactions

In an exothermic reaction, thermal energy is given out to the surroundings, therefore there is a temperature increase. Combustion, oxidation and neutralisation reactions are all examples.

Temp increase →

Temp decrease →

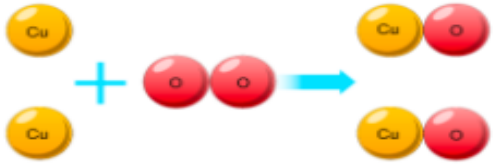
Oxidation Reactions

In an oxidation reaction, a substance gains oxygen. Metals and non-metals can take part in oxidation reactions.

Metals react with oxygen in the air to produce metal oxides. For example, copper reacts with oxygen to produce copper oxide when it is heated in the air.

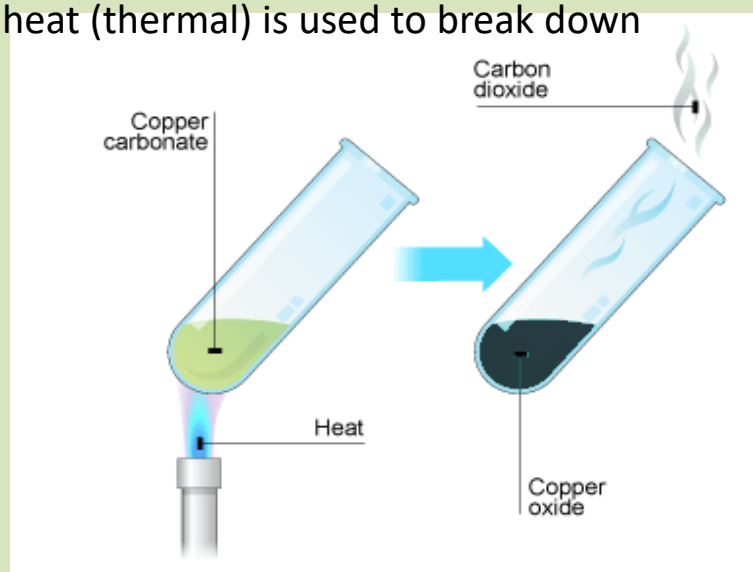
Copper + Oxygen → Copper Oxide

$2Cu + O_2 \rightarrow 2CuO$



Thermal decomposition is when heat (thermal) is used to break down (decompose) something.

Here –
Copper carbonate is
Decomposing to
Copper oxide and
Carbon dioxide



$H_2 + O_2 \rightarrow H_2O$

reactants products

A chemical reaction is represented as an equation.
Reactants are on the left of the arrow
Products are on the right of the arrow.

KS3 Biology: Inheritance

Keywords	
DNA	Genetic material. DNA is a polymer made up of two strands forming a double helix. The DNA makes up chromosomes.
Gene	A gene is a small section of DNA on a chromosome. Each gene codes for a particular sequence of amino acids, which make a protein.
Chromosome	A long coil of DNA. Found in the nucleus.
Heredity	The passing on of characteristics and traits from parents to offspring
Natural selection	The process by which the individuals best adapted to the environment survive and pass on their genes.
Species	Organisms that can produce fertile offspring
Continuous variation	Variation that shows a wide range of intermediate values between two extremes. These can be measured e.g. hand span
Discontinuous variation	Differences between individuals in a characteristic that can only be put into different categories e.g. blood groups
Biodiversity	The variety of plant and animal life in a particular habitat
Variation	Differences between individuals
Extinction	Where there are no more individuals of a species alive

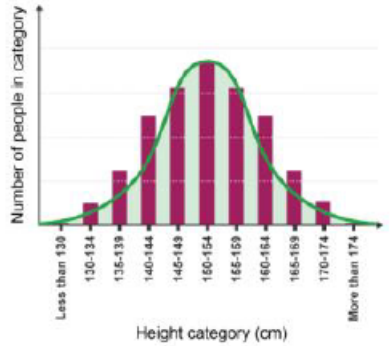
Variation

Variation in characteristics can be due to the environment, the organisms genetics or a combination of both.

Variation between species and between individuals of the same species can give an advantage. These organisms can then be more successful in their environment which means they survive and breed, passing on their genes which is known as natural selection.

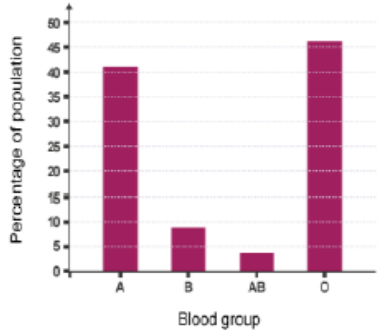
Continuous Variation

Human height is an example. It ranges from the smallest person on Earth to the tallest. Continuous variation shows characteristics that change gradually over time.

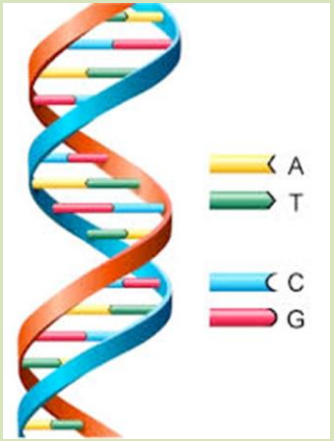


Discontinuous Variation

A characteristic of any species with only a limited number of possible values. Eye colour and blood group are examples.



DNA – double helix



DNA discovery

Rosalind Franklin made images of DNA in the 1950s and using her work James Watson and Francis Crick worked out a model for the structure of DNA. This model was then shown to be correct by Maurice Wilkins.

Watson and Crick worked out that in a DNS molecule:

- There are two strands
- The strands are twisted in a double helix
- The strands are held together by bonds between base pairs

Extinction

Changes in the environment (e.g. loss of habitat, climate change, lack of food) can lead to species being less able to survive and reproduce which may lead to extinction. Other factors include: new diseases, new competitors, new predators

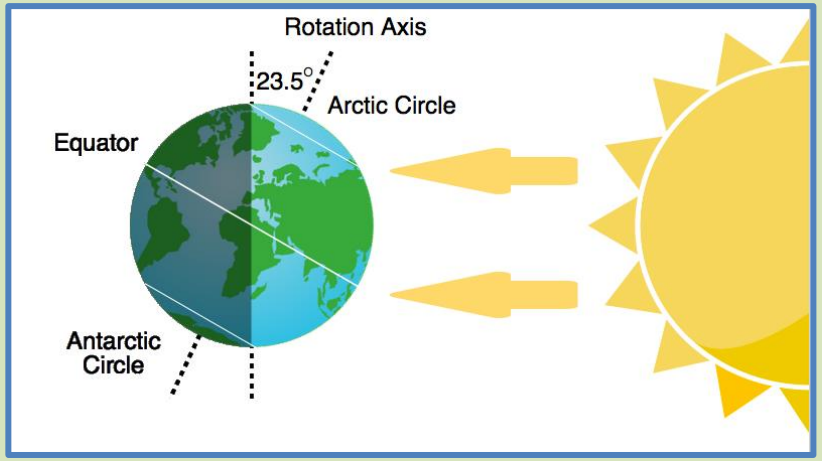
Chromosomes and Genes

DNA molecules are so long and thin, it is coiled into structures called chromosomes. The chromosomes are found in the nucleus of each cell.

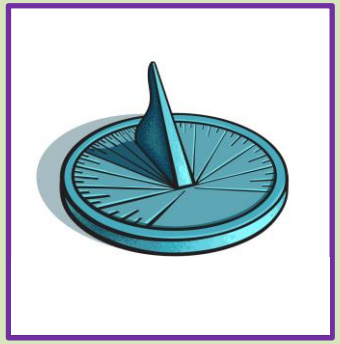
Human body cells each contain 23 pairs of chromosomes, half of which are from each parent. Human gametes (eggs and sperm) each contain 23 chromosomes. When an egg is fertilized by a sperm, it becomes a cell with 23 pairs of chromosomes. This is why children resemble both their parents – half of their chromosomes and DNA come from their mother, and half from their father.

A gene is a section of DNA that is responsible for characteristics such as eye colour. Humans have around 20,000 genes. One copy of all your chromosomes is called your genome.

KS3 Science – Space Physics



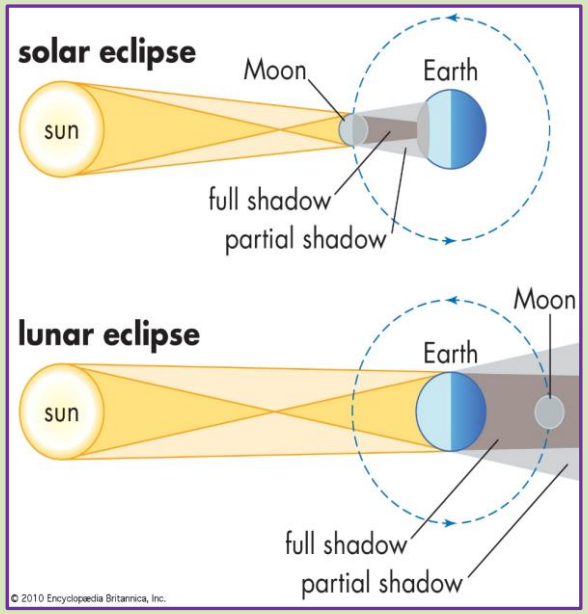
The Earth has day and night because Earths axis is tilted by 23°
It takes 24 hours for Earth to spin once on its own axis
The equator is an invisible line that separates the Northern and Southern hemispheres

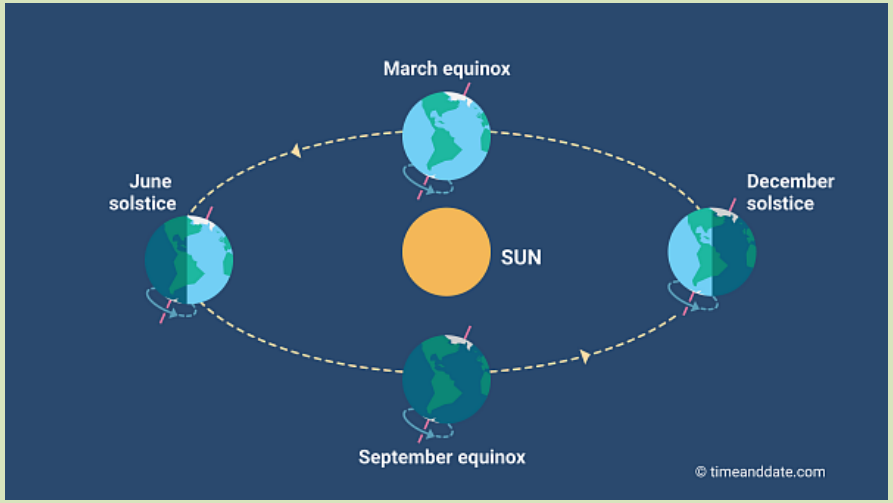


Sundials are primitive clocks. They use the length of the shadow created by the moving sun to tell the time.

The Earth takes 365.25 days to orbit the Sun. Every 4 years they add the 0.25s together to create an extra day = a Leap Year. When it is winter in the northern hemisphere it is summer in the southern hemisphere

A **solar eclipse** happens when the New Moon moves between Earth and the Sun while a **lunar eclipse** occurs when Earth casts a shadow on the Full Moon.

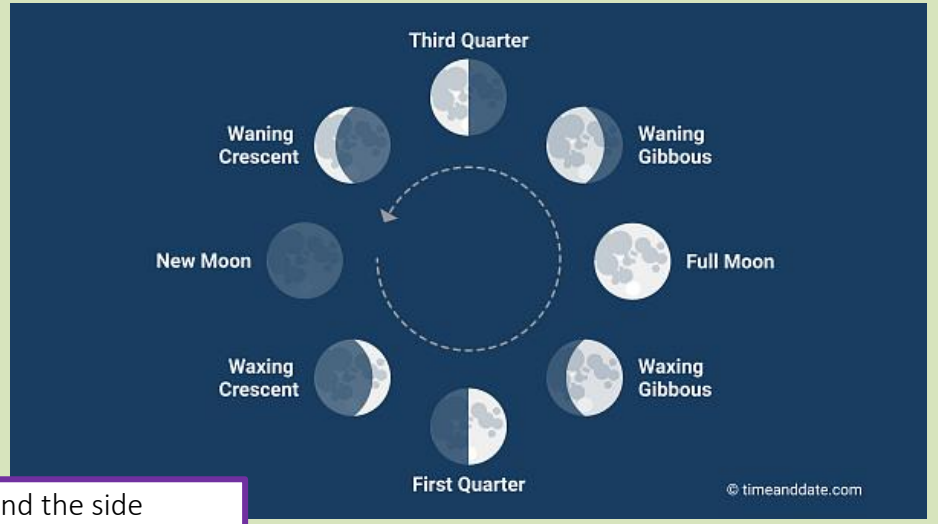




Key Word	Definition
Gravity	A force that attracts objects towards each other. The units are Newtons per kilogram (N/kg)
Mass	Mass The mass of an object is the amount of matter or 'stuff' it contains. Units are kilograms (kg).
Weight	The force of gravity pulling on an object. The units are Newtons (N)
Season	Is a period during the year linked to temperature and daylight
Satellite	A celestial or artificial body orbiting the earth or another planet
Axis	The imaginary line down the centre of the Earth that it spins around
Orbit	The path of a planet or satellite around a central object
Star	A large luminous object in the night sky
Solar System	Consists of the Sun surrounded by planets, comets and asteroids in orbit
Galaxy	a system of millions or billions of stars, together with gas and dust, held together by gravitational attraction
Exoplanet	a planet which orbits a star outside the solar system

Earth's Solar System consists of 8 planets orbiting the Sun

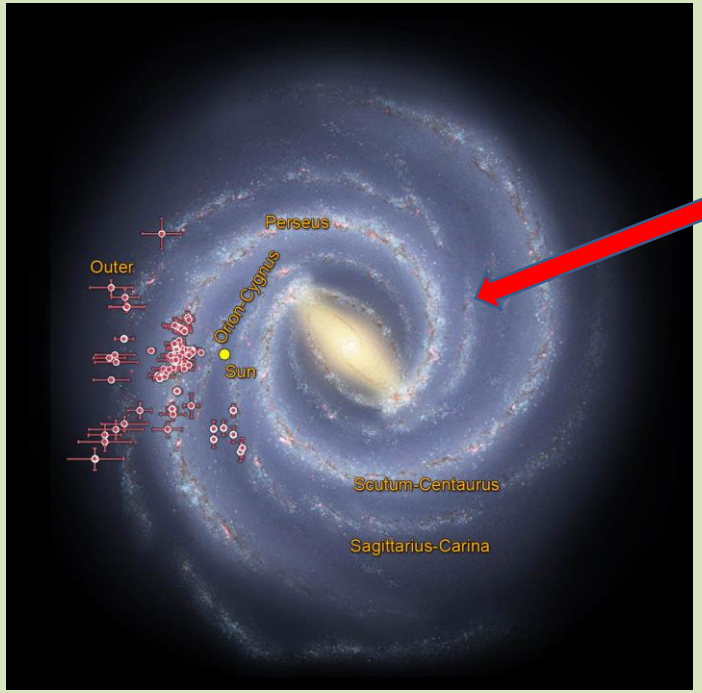
The moon has different "phases" – appears to change shape – because we only see the parts which are lit up by the Sun. It depends on the angle the Moon makes with the Sun as viewed from Earth. It takes 28 days for the Moon to orbit the Earth



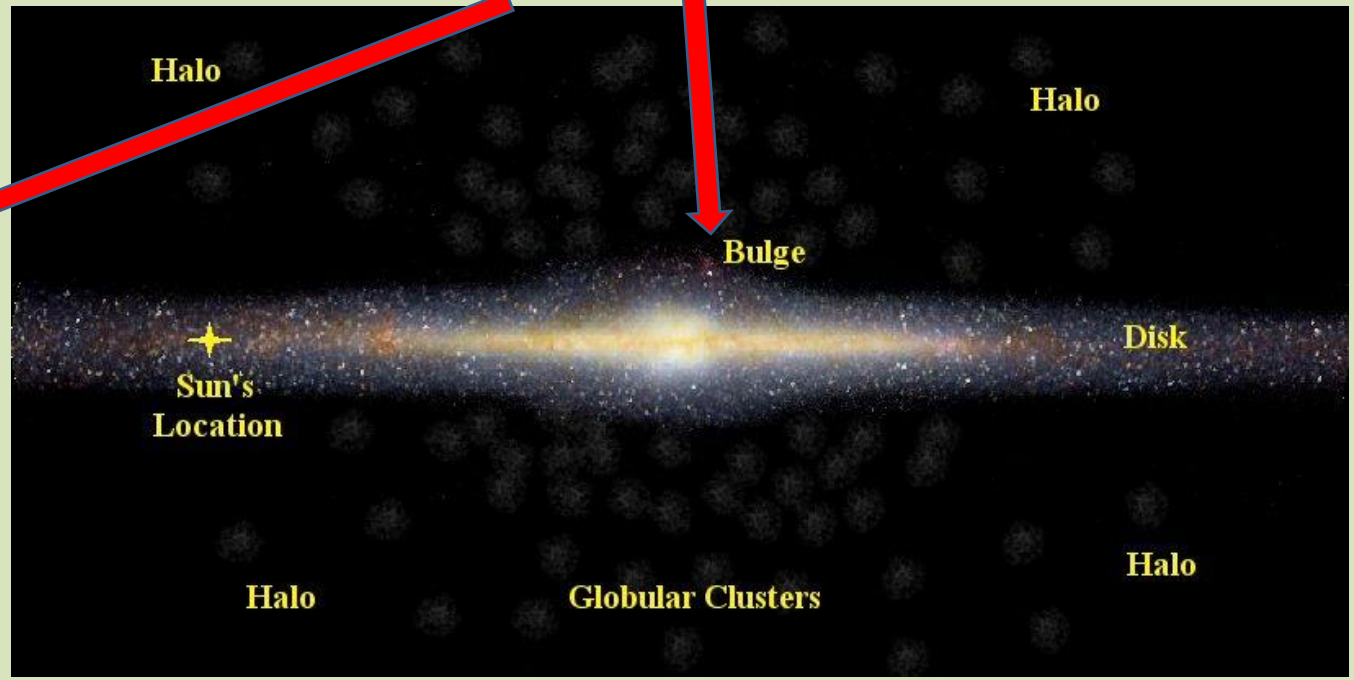
Other Useful Links

https://www.bbc.co.uk/bitesize/guides/z8wx6sg/revision/5
https://spaceplace.nasa.gov/
https://www.rmg.co.uk/royal-observatory

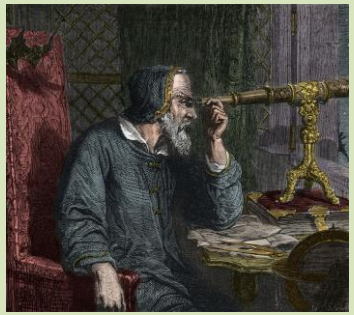
The Galaxy Earth is in is called The Milky way



The Milky way seen from the top and the side



Galileo



5. INTRODUCTION TO PYTHON

Year 8 Computer Science – Summer Term

Variables, Input, Output, and Commenting


```
#Program name: MyFirstPython.py
#firstname is a variable
 print ("What is your name?")
 firstname = input()
 print ("Hello,",firstname)
```

Data Types

- **String** holds alphanumeric data as text
- **Integer** holds whole numbers
- **Float** holds numbers with a decimal point
- **Boolean** holds either '*True*' or '*False*'

Operators

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

Error Messages

```
Traceback (most recent call last):
File "<pyshell#0>", line 1, in <module>
primt ("Hello World!")
NameError: name 'primt' is not defined
```

Types of errors: Syntax, Logic, and Runtime

Casting

```
str()     str(age)
int()     int(goals_scored)
float()   float(share_price)
```

Rounding within a program

```
hourspermonth = 228.37499999999997
round(hourspermonth) = 228
round(hourspermonth,2) = 228.37
```

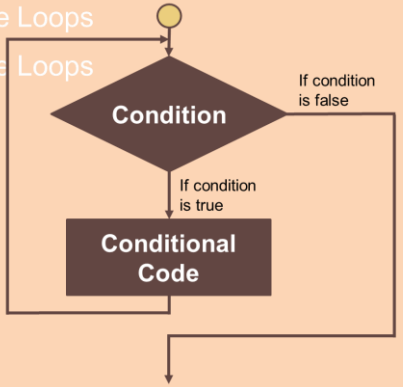
```
hourspernight = input("How many hours per night do you sleep? ")
hoursperweek = float(hourspernight) * 7
print ("You sleep",hoursperweek,"hours per week")
hourspermonth = hoursperweek * 4.35
hourspermonth = round(hourspermonth)
print ("\nYou sleep",hourspermonth,"hours per month")
```

Importing Libraries

```
#Import the random number module
import random

#Generate a random number between 1 and 6
number = random.randint(1,6)
```


• L5 While Loops
• L5 While Loops



Looking for the number **40** in a list 1–100

number	max	min	mid	number is
40	100	1	50	lower
40	49	1	25	higher
40	49	26	37	higher
40	49	38	43	lower
40	42	38	40	found!
40	found in 5 reads!			

Some further links

https://www.w3schools.com/python/
https://pythonprinciples.com/
https://www.pythonsponge.com/

While Loops

```
answer = input("What is the capital of France? ")
answer = answer.title()
counter = 1

while answer != "Paris":
    answer = input("Incorrect, try again: ")
    answer = answer.title()
    counter = counter + 1
print("Correct! You had ",counter, "attempts")
```

The Binary Search

```
max ← highest number
min ←1
mid ← (max + min) // 2
while number <> mid
    if number < mid then
        max ← mid - 1
    else
        min ← mid + 1
    end if
    mid ← (max + min) /2
end while loop
print 'number found'
```

The IF Statement

```
if grade >= 80:
    print("Distinction")
elif grade >= 70:
    print("Merit")
elif grade >= 60:
    print("Pass")
else:
    print("Fail")
```

Operators

Operator	Meaning	Example	Evaluates to
==	equal to	7==7	True
!=	not equal to	6!=7	True
>	Greater than	7>6	True
<	Less than	5<8	True
>=	Greater than or equal to	6>=8	False
<=	Less than or equal to	7<=7	True

5. INTRODUCTION TO PYTHON

Year 8 Computer Science – Summer Term

Basics

Print a number	`print(123)`
Print a string	`print("test")`
Adding numbers	`print(1+2)`
Variable assignment	`number = 123`
Print a variable	`print(number)`
Function call	`x = min(1, 2)`
Comment	`# a comment`

Useful functions

Write to the screen	`print("hi")`
Calculate length	`len("test")`
Minimum of numbers	`min(1, 2)`
Maximum of numbers	`max(1, 2)`
Cast to integer	`int("123")`
Cast to string	`str(123)`
Cast to boolean	`bool(1)`
Range of numbers	`range(5, 10)`

Types

Integer	`42`
String	`"a string"`
List	`[1, 2, 3]`
Tuple	`(1, 2, 3)`
Boolean	`True`

Comparisons

Equals	`==`
Not equals	`!=`
Less than	`<`
Less than or equal	`<=`
Greater than	`>`

Other Syntax

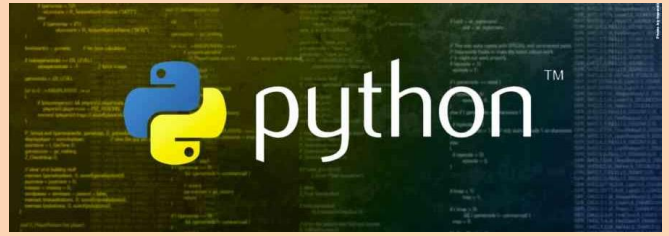
Return a value	`return 123`
Indexing	`"test"[0]`
Slicing	`"test"[1:3]`
Continue to next loop iteration	`continue`
Exit the loop	`break`
List append	`numbers = numbers + [4]`
List append (with method call)	`numbers.append(4)`
List item extraction	`value = numbers[0]`
List item assignment	`numbers[0] = 123`

Terminology

syntax	*the arrangement of letters and symbols in code*
program	*a series of instructions for the computer*
print	*write text to the screen*
string	*a sequence of letters surrounded by quotes*
variable	*a storage space for values*
value	*examples: a string, an integer, a boolean*
assignment	*using = to put a value into a variable*
function	*a machine you put values into and values come out*
call (a function)	*to run the code of the function*
argument	*the input to a function call*
parameter	*the input to a function definition*
return value	*the value that is sent out of a function*
conditional	*an instruction that's only run if a condition holds*
loop	*a way to repeatedly run instructions*
list	*a type of value that holds other values*
tuple	*like a list, but cannot be changed*
indexing	*extracting one element at a certain position*
slicing	*extracting some elements in a row*
dictionary	*a mapping from keys to values*

Reminders

- Strings and lists are indexed starting at 0, not 1
- Print and return are not the same concept
- The return keyword is only valid inside functions
- Strings must be surrounded by quotes
- You cannot put spaces in variable or function names
- You cannot add strings and integers without casting
- Consistent indentation matters
- Use a colon when writing conditionals, function definitions, and loops
- Descriptive variable names help you understand your code better



5. INTRODUCTION TO PYTHON

Conditionals

```
if x == 1:
    print("x is one")
else:
    print("x is not one")
```

Lists

```
numbers = [7, 8, 9]
first_number = numbers[0]
numbers[2] = 11
if 11 in numbers:
    print("11 is in the list!")
for n in numbers:
    print(n)
```

Loops

```
for number in [1, 2, 3]:
    print(number)
x = 0
while x < 10:
    print(x)
    x = x + 1
```

Dictionaries

```
numbers = {
    1: "one",
    2: "two"
        }

print(numbers[1])
```

Useful methods

String to lowercase	`"xx".lower()`
String to uppercase	`"xx".upper()`
Split string by spaces	`"a b c".split(" ")`
Remove whitespace around string	`" a string ".strip()`
Combine strings into one string	`" ".join(["a", "b"])`
String starts with	`"xx".startswith("x")`
String ends with	`"xx".endswith("x")`
List count	`[1, 2].count(2)`
List remove	`[1, 2].remove(2)`
Dictionary keys	`{1: 2}.keys()`
Dictionary values	`{1: 2}.values()`
Dictionary key/value pairs	`{1: 2}.items()`

Some bonus

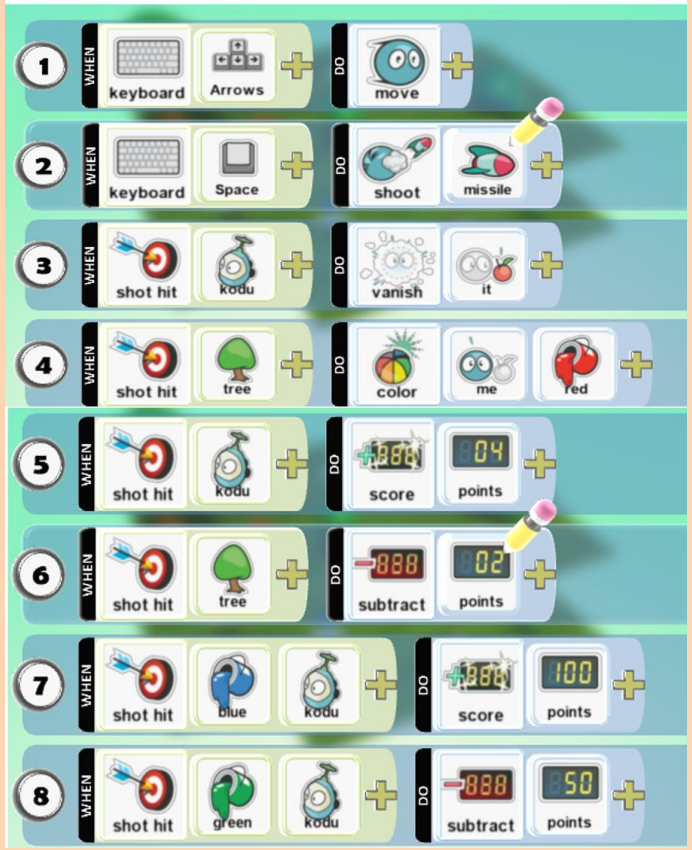
Zip lists	`zip([1, 2], ["one", "two"])`
Set	`my_set = {1, 2, 3}`
Set intersection	`{1, 2} & {2, 3}`
Set union	`{1, 2} | {2, 3}`
Index of list element	`[1, 2, 3].index(2)`
Sort a list	`numbers.sort()`
Reverse a list	`numbers.reverse()`
Sum of list	`sum([1, 2, 3])`
Numbering of list elements	`for i, item in enumerate(items):`
Read a file line by line	`for line in open("file.txt"):`
Read file contents	`contents = open("file.txt").read()`
Random number between 1 and 10	`import random; x = random.randint(1, 10)`
List comprehensions	`[x+1 for x in numbers]`
Check if any condition holds	`any([True, False])`
Check if all conditions hold	`all([True, False])`

6. CODING USING KODU

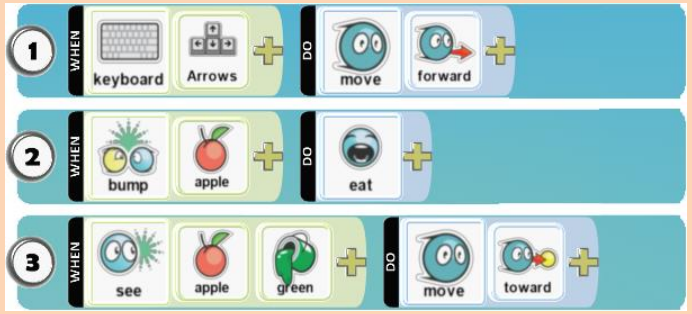
The Interface

Nested actions

Sequence examples – examples of actions



Sequence example



Exploring the Landscape Tools

- Ground Brush:
  - Paint, Add or Delete Ground

- Roughen:
  - Create Spikey or Hilly Ground

- Up/Down:
  - Create Hills or Valleys

- Water Tool:
  - Add, Remove, or Tint Water

- Flatten:
  - Make Ground Smooth or Level

- Change World Settings

Manual Navigation using the keyboard

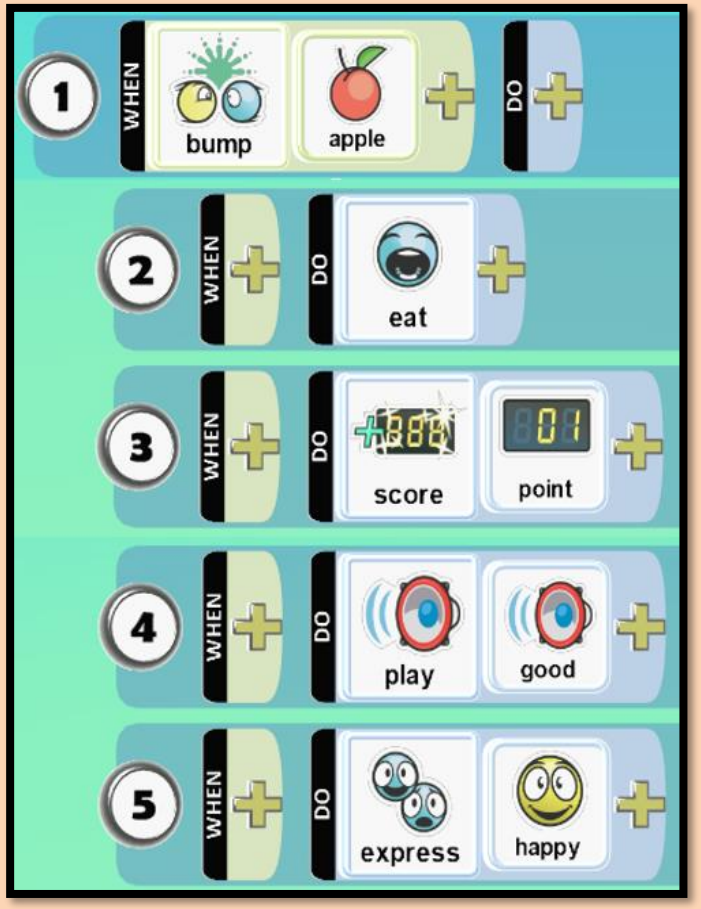
Automatic navigation using "When See…"

Automatic navigation using "Do Move…"

Automatic navigation using "Paths…"

6. CODING USING KODU

Using Selection in Kodu



You have worked with **Selection** in **Scratch**, and **Python** (The IF blocks/statement).

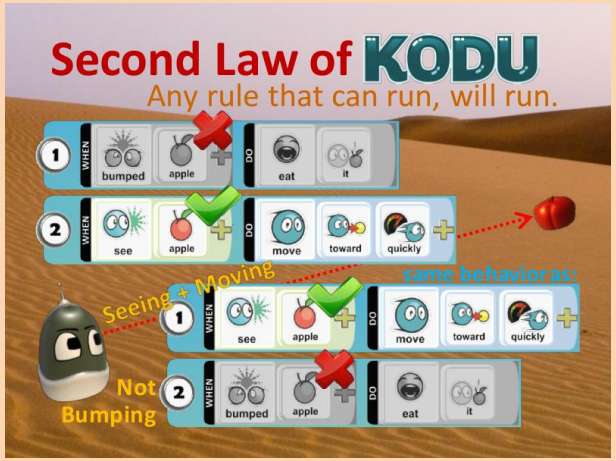
In tis example, we can see the **Nested When** acting as a selection as the actions are performed only IF a bump has happened against an apple.

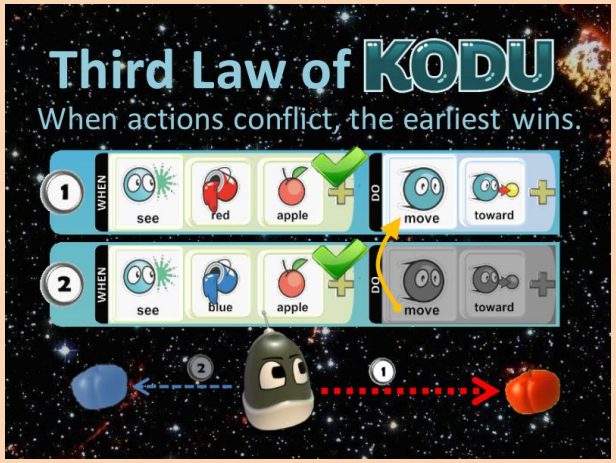
Additional Features to Research

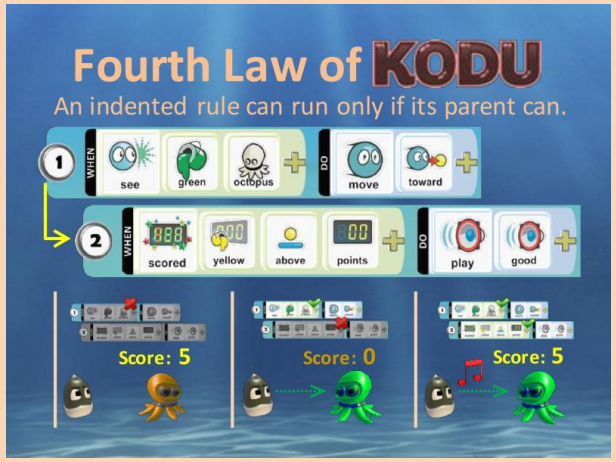
Shooting
Communication
Scoring
Music
Levels
Timers
Launching
Holding
Health
Special effects
Power Ups
On-Water / On-Land
Winning & Losing
Camouflage
Expressing
Grabbing
Colour winning
Lighting effects
Camera angles
Giving
Much more…

Download Kodu at Home and get creating!

The LAWS of KODU







Switching Pages

With the bump trigger event, the result is a change of an entire page. Kodu programs are organised into pages. There are 12 pages available. Characters always start on page 1. Each page can contain several rules.

THE INDUSTRIAL REVOLUTION

Year 8 Term 5

The **industrial revolution** period, was a change in Britain between 1750 and 1900. Britain's main source of income changed from **agricultural** to **industrial.** During which, the **population** grows from 10 to 40 million

Causes of the Industrial Revolution

Population
The population of Britain grew rapidly from roughly 10 million people in 1750 to 42 million people by 1900.

Attitudes
People of all classes were willing to accept change. For example, millions moved into crowded towns to work in new factories using machinery that had never been seen before.

Banking
Banks were confident that they could lend people money to start their own industry. There was more money available for the rich and for inventors to invest their money.

Transport
Canals and railways were built across Britain, linking key industrial towns and the countryside.
Railway stations were built in most areas of the country for the first time. Travel became quicker and transport carried vast weights of goods and resources.

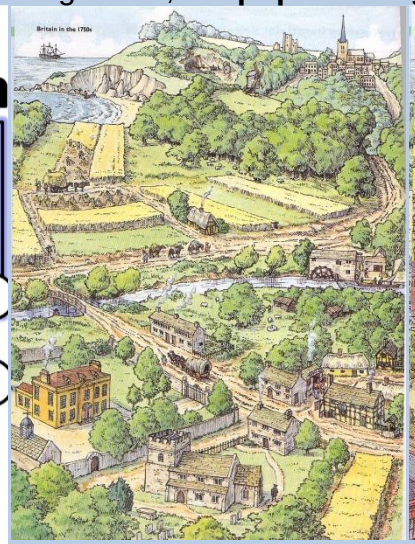
Raw Materials
Iron, coal and tin were found across Britain and needed in most new machinery and factories. Cotton was imported from abroad and manufactured into goods in the north of England and Scotland.

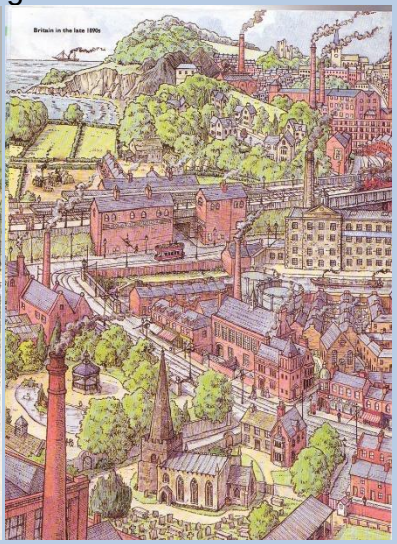
Inventors
Britain had many inventors who created new ideas for machines and transport. For example:
James Watt's 'steam engine' in 1769
George Stephenson's steam powered train in 1814
Isambard Kingdom Brunel's engineering and construction techniques.
Alexander Bell's telephone
Thomas Edison's lightbulb

Peace
Although Britain still fought to gain land for its empire, Britain was one of the few European countries not directly involved in fighting a war.

Trade/Empire
Britain could sell its inventions and manufactured goods to other countries in its huge Empire such as India, Australia and East Africa. In return, Britain gained other luxury goods such as tea, spices, gold and silk.

Agriculture/Farming
Farmers found more effective ways of growing crops and breeding animals for the growing population. Farmers made use of new steam powered machinery to increase this further.





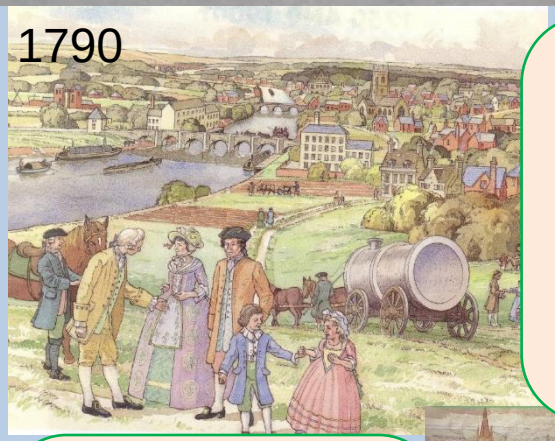
GROWTH of CAPITALISM
Introduced by Adam Smith, it allowed entrepreneurs to establish businesses.

AGRICULTURAL REVOLUTION
Led to increased food production which caused populations (and workforces) to grow.

CAUSES

Necessary to power the new machinery of industrialization.
COAL MINING

Helped countries (such as England) to bring in raw materials for the industrial process.
EUROPEAN IMPERIALISM

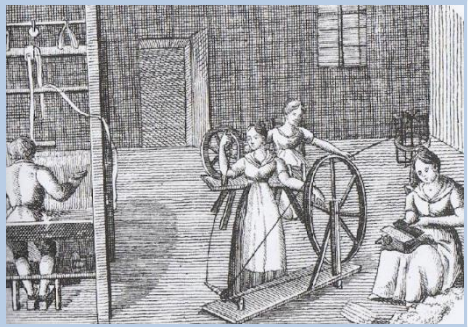


Economic changes:

- Change from domestic system (goods made in the home) to the factory system (mass production)
- New materials: Iron and Steel
- New energy source coal led to steam engine, internal combustion engine, electricity
- Growth of capitalism as consumer become more available

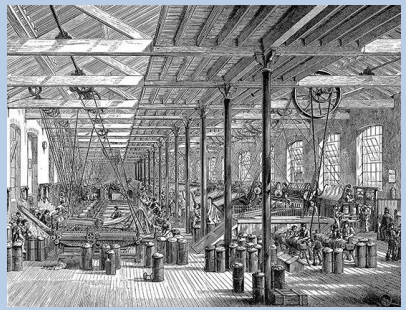
Political changes:

- Growth of Empire
- Decline in power of monarchy and increase in power of elected government (parliament)
- 1884 – All working men get the vote
- 1928 – All women get the vote

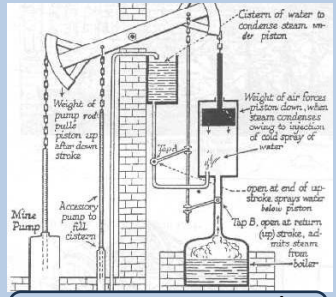


Domestic System

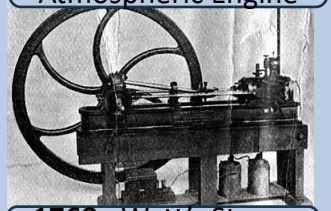
Goods are made in the home by hand.
Slow and inefficient.
Items are unique and hand crafted.
Families are skilled and work together to gain income.
Workers set their own prices.



From water and animal power to steam **power**



1712 –Newcomen's Atmospheric Engine



1768 –Watt's Steam Engine

Social changes:

- People migrate from villages to towns
- Population growth
- Improved public health
- Free education for all under 12
- Improved transport: steamboats, canals, railway network
- Trade unions created
- Laws for safe working conditions
- Growth of the middle class

Cannot meet demand for goods

Factory System

Goods are mass produced in factories using machines.
Production is fast and efficient.
Working conditions are dangerous.
Factory owners make large profits.

SCAN ME

A good overview of the I.R

YouTube

A more complex look at the changes and impact

SCAN ME

Industrial	Processing raw material into manufactured goods in factories.
Revolution	A rapid, dramatic change.
Agriculture	The process of producing food by farming plants or raising animals
Invention	Something new that is created, usually a machine or a process
Trade Union	Group who ensure workers have fair rights
Capitalism	Economic system which encourages the mass-production and sale of goods for profit
Reform	Making changes (particularly to an institution or practice) to improve it
Social	Parts of history related to ordinary people and society
Political	Parts of history related to government and laws.
Economic	Parts of history related to money
Urbanisation	Increase of people living in towns and cities
Slums	Housing where people lack necessities to sustain a safe and healthy lifestyle.
Migrate	Movement from one place to another
Public Health	The general health and cleanliness of the population (e.g – access to clean water, spread of disease, …)
Cholera	Infectious disease caught from infected water supplies. Causes severe vomiting, diarrhoea and often death

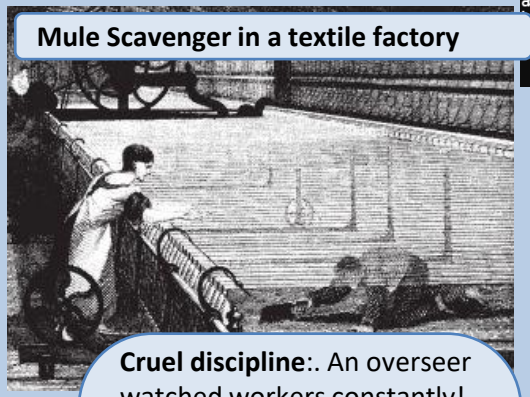
WORKING CONDITIONS

Working conditions in the Industrial revolution was very different to life in the countryside.

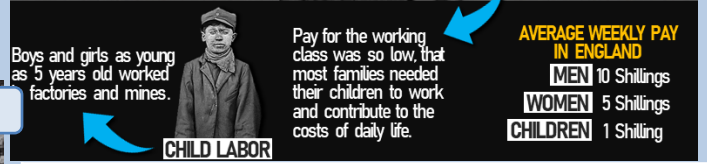
Factories and mines were **dangerous** places with **long hours** (12-15 hours, 6 days a week), **low pay** and **harsh conditions**.

Many **children** worked because they were **cheap** labour and could fit in **small** places.

Accidents, **disease** and **mistreatment** was common.

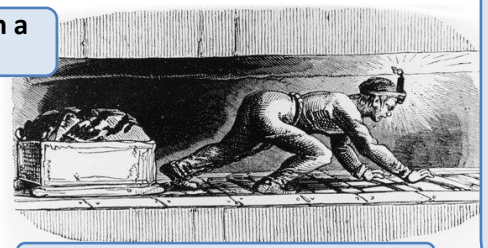


Mule Scavenger in a textile factory



Cruel discipline:. An overseer watched workers constantly! They were often fined or beaten.
Accidents: forcing children to crawl into dangerous, unguarded machinery led to many accidents and deaths.
Health: Chest and lung disease from dust, hearing loss, phossy jaw, burns, lost limbs from machinery, …

Breaking Stones in a workhouse



Child worker in coal mines

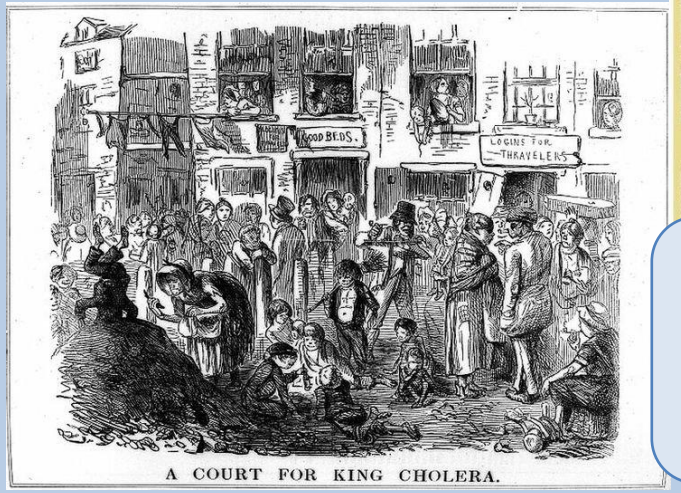
Factory Reform	
1800 – Combinations Law	Trade unions illegal
1833 - Factory Act	No work under 9's, max. 9 hour work day for 9-13 year olds
1842 - Mines Act	No women or under 10's
1844 - Factory Act	Women not to work longer than 12 hours. Inspectors appointed
1847 - Ten Hour Act	Max. 10 hour day for women and under 18's
1850 - Factory Act	Machines only to be operated by women and children 6am-6pm
1871 - Trade Union Act	Legal – can negotiate for pay and conditions
1895 - Factory Act	Under 13's work no more than 30 hours per week

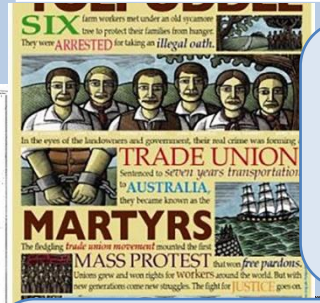
LIVING CONDITIONS

Rapid **urbanisation** led to **overcrowded**, **unsanitary** cities. The air and water was **polluted**. **Diseases** such as typhoid and cholera spread easily.

Slums and **back-to-back housing** were built to quickly and cheaply provided homes but they were often damp, dark and dirty.

There was widespread **poverty** in the towns.





Tolpuddle Martyrs 1834-36

Six farmers were sentenced to **transportation** for demanding better working conditions. This led to public **protest** and the Martyr's were **pardoned.**

Match Girl Strike July 1888

Protested dangerous conditions and poor pay. Their strike led to better wages, improved conditions, and greater awareness of workers' rights

DEMOCRACY AND THE FIGHT FOR UNIVERSAL SUFFRAGE

Suffrage	The right to vote in political elections
Democracy	A system of government where people vote for representatives
Chartist	A UK parliamentary reform movement of 1837-48 that called for universal suffrage (voting right) for men of all classes
Martyr	A person who dies for their beliefs and often becomes a symbol in the fight for rights of that group

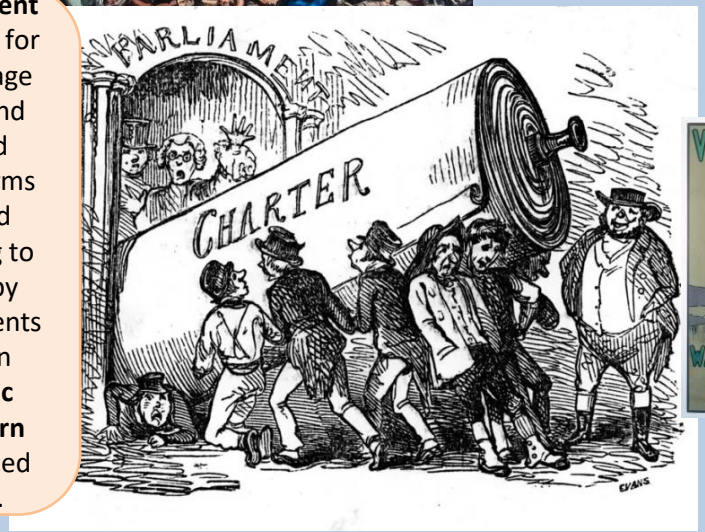
Key Developments in the Industrial Revolution

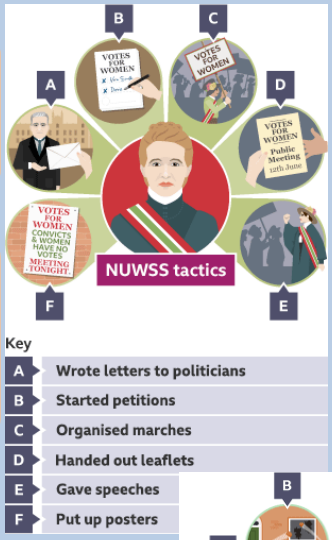
1832 - Great Reform Act	1838 – The People's Charter	1884 – Third Reform Act	1897 – National Union of Women's Suffrage Societies (NUWSS) founded	1903 – Women's Social and Political Union (WSPU) founded	1918 – Representation of the People Act	1928 – Equal Franchise Act
granted more men the vote but excluded many workers.	six demands for universal male suffrage	All working class-men could vote	peaceful campaigns	Militant tactics	All men over 21 and some women over 30	Voting rights to all men and women over 21

Industrialisation shifted **power** from **landowners** to the **middle** and **working classes**, who demanded **representation**.

The **Peterloo Massacre (1819)** saw troops kill protesters demanding reform. The **Great Reform Act (1832)** granted more men the vote but excluded many workers.

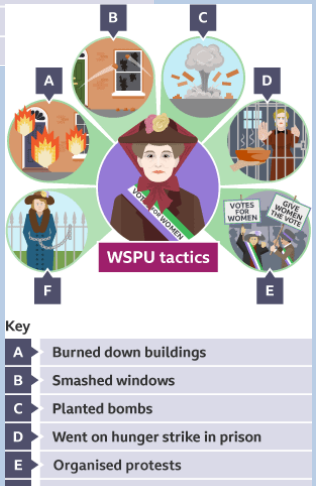
The **Chartist Movement (1838–1850s)** fought for universal male suffrage through **petitions** and **protests**, but faced rejection. Later reforms gradually expanded voting rights, leading to **full male suffrage** by **1918**. These movements transformed Britain from an **aristocratic** system into a **modern democracy**, influenced by public activism.

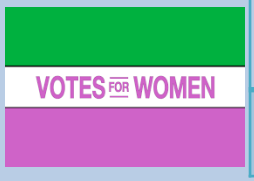




Emily Davison was a militant suffragette who fought for women's voting rights.

She was jailed multiple times for protests and force-fed during hunger strikes. In 1913, she ran onto the Epsom Derby racetrack and struck by the King's horse, becoming a martyr for the movement.

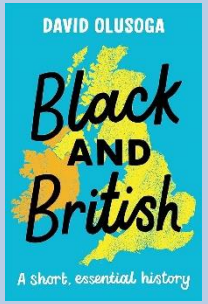


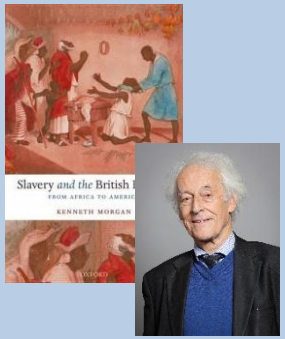


Suffragette	Campaigners for the right to vote for women who used extreme or violent methods and were willing to break the law (WSPU)
Suffragist	Campaigners for the right to vote who used peaceful campaigning methods (NUWSS)

David Olusoga, *Black and British: a short, essential history,* 2020

"Slavery was the best way of controlling the black population and making them useful. Many of the racist ideas that still exist today were invented by the enslavers and their supporters in the 18th century"





Kenneth Morgan, *Slavery and the British Empire,* 2007

"The forms of slavery in existence before the European discovery of America were radically different from the type of slavery that developed rapidly and on such a large scale on the Western shores of the Atlantic. One crucial difference was the latter was a radicalised version.

Africans were regarded as heathens, as racially and culturally different from Europeans, and as people lacking legal rights; they were prime candidates for enslavement."

Afua Hirsch, *Brit(ish): On race, identity and belonging,* 2018

"Britain's role in the transatlantic slave trade was not peripheral but central. It was not a sideshow, but a main event. The British economy was built on the backs of the enslaved Africans, and the wealth generated by the slave trade helped to fund the industrial revolution, which in turn made Britain the richest country in the world"

Language surrounding Slavery

Slave vs **Enslaved**	Today most historians speak of ***enslaved people*** instead of *'slaves'.* This language separates a persons identity from his/her circumstances and highlights what happened to these people.
Owner/Master vs **Enslaver**	The use of *'owner'* or *'master'* empowers the *enslaver* and **dehumanises** the enslaved person to a commodity rather than a person who has had slavery imposed upon them. *Enslaver* highlights the actions of those who purchased and kept slaves.

Key Words

Triangular Trade	Three part journey between GB, Africa and USA transporting goods and enslaved people.
Slave Forts	Forts built on the coasts and rivers of West Africa to store enslaved Africans, and prevent escape until their transportation.
Middle Passage	Journey of enslaved people between Africa and the Americas. It took 8-12 and 1 in 4 died in the awful conditions
Dysentery	A nasty form of diarrhoea killed many Africans on the journey.
Transatlantic	Going across the Atlantic ocean
Shackles	Iron chains used to fasten the legs or hands of a slave or prisoner.
Branding	To mark a person or animal with a hot iron to show ownership.
Cargo	Goods carried for trade
Zong Massacre	1781 slave ship Zong was carrying more than 470 enslaves people. The crew threw 132 people overboard.
Plantation	Large farm where one crop would be grown (typically cotton, sugar or tobacco)
Enslaved person	A person who is the property of another and is forced to work for little or no reward.
Overseer	The person in charge of the enslaved on a plantation
Abolition	Stopping a system, practice or institution by law
Abolitionist	Someone who campaigned to end the slave trade

Enslavement in Africa

The **Transatlantic Slave trade** involved the enforced **enslavement** of **12.5 million Black Africans** from the 16th to the 19th century leading to large profits for Imperial European Nations (Britain, Portugal, Spain)

Journey Part 1: European ships took cloth, guns, iron pots and swords to Africa. These were exchanged for enslaved African people.

Journey Part 3: In the Americas and West Indies enslaved people were sold to work on plantations and the money was used to purchase goods such as sugar, cotton and tobacco, to be returned to Europe and sold for large profits.

Journey Part 2: The Middle Passage- Enslaved were transported across Atlantic ocean. This journey was notorious for its brutality and overcrowded, unsanitary conditions.

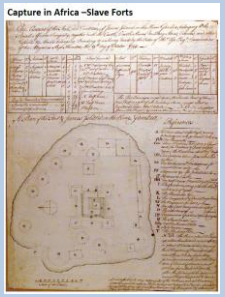
60 second video on the triangular trade

SCAN ME

YouTube

"One day, when all our people were gone out to their works as usual, and only I and my dear sister were left to mind the house, two men and a woman got over our walls, and in a moment seized us both, and, without giving us time to cry out, or make resistance, they stopped our mouths, and ran off with us"

Olaudah Equiano, *captured and enslaved African who later purchased his freedom and published the story of his life as part of his abolition campaigning.*



After capture, Africans were stored in **Slave Forts** or **barracoons** before the European traders arrived. These buildings were to prevent them escaping or fighting back.

Collars and **shackles** were used to keep control of enslaved peoples.

Why did African's Capture their own people?

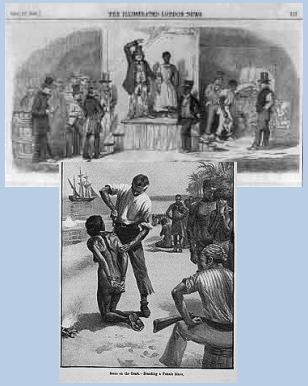
Africa was split into several kingdoms often at conflict and many enslavers did not view enslaved as their 'own people'. Enslaved people were exchanged for weapons to increase power and protect own people.

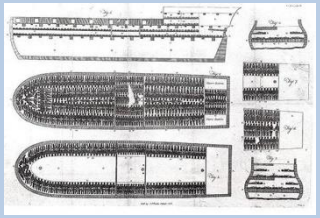
Many felt they had no choice, as they needed trade with and good relations with (more powerful) Europe.

Abolition of Slavery

Middle Passage

Ships carried between 150-600 enslaved Africans. Captives were chained together and forced into cramped lower decks. The average individual space was 6 feet long by 16 inches wide and 3 feet high. Food was rationed and limited. 25% of captives died of illness, starvation or stress during the journey. The British could claim back loss of cargo on their insurance!





Auctions

Enslaved would be washed and dressed up, then auctioned off to white Enslavers.
Africans would have to endure being poked, prodded and forced to open mouths for buyers.

"We were all pent up together, like so many sheep in a fold, without regard to sex or age… the buyers rush at once into the yard where the slaves are confined, and make choice of that parcel they like best… terrified Africans, relations and friends separated, most of them never to see each other again." **Olaudah Equiano**

Treatment of the Enslaved

Life on Plantations

The enslaved has to work long hours in the sweltering sun often without water. Work was physically difficult.
Enslaved were given little food and lived in poor conditions where disease and illness was common. On average 66% of enslaved children died.
Women also had to endure the risk of sexual exploitation.

Punishments

Enslaved people were punished by whipping, shacking, hanging, beating, burning, mutilation, being sold on, …
Punishments would be given for: not working hard/fast enough, being late, defying authority, attempting to escape…
Punishments would be given out by an **overseer.**

Slaves lived in ***Slave shack's*** on plantations. Theses were small, dirty, had little or no furniture and were often in disrepair.

"There have been instances of slitting of ears, breaking of limbs, so as to make amputation necessary, beating out of eyes, and castration... In short, in the place of decency, sympathy and, morality; slavery produces cruelty and oppression." **James Ramsay, Doctor working for several sugar plantations in the 1700's**

Timeline

1772- Somerset vs Stewart. English courts declare it is unlawful for enslaved African purchased in Virginia to be forcibly transported out of England

1787- The 'Society for Effecting the Abolition of the Slave Trade' was founded in England

1789 – Autobiography "The Interesting Narrative of the Life of Olaudah Equiano or Gustavus Vassa the African" was published

1791- The Haitian Revolution, led by Toussaint L'Ouverture results in Haiti becoming first independent black nation

1800- Enslaved Gabriel Prosser planned a large-scale rebellion against slave holders in Virginia. (Prosser was executed)

1807 – Slave Trade (not slavery) was abolished in England

1831- Autobiography "the History of Mary Prince, A West African Slave" published

1833- Slavery abolished in British Empire

1837 – Slave Compensation Act: £20 million in compensation awarded to over 40,000 slave owners. Britain was paying off this debt until 2015.

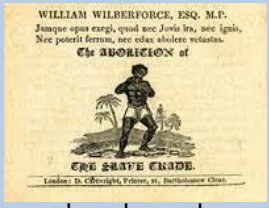
1865- End of the American Civil war leads to the abolition of Slavery in the USA.

1888- Brazil is the last country in the Western Hemisphere to abolish Slavery

Present – There are still countries where slavery is legal or common. The UN estimates there are currently over 40 million people living in some form of slavery.

Black people in Britain fought to end the Slave trade **Olaudah Equiano** campaigned for the end of slavery, along with **Mary Prince, Ottobah Cugoano** and many others.

White Campaigners such as **Sharp** and **Wilberforce** fought to change laws around the slave trade.



Furthermore, many enslaved people themselves **rebelled** to gain more rights and freedoms. Such as the rebellion in St Dominque and the Haitian revolution.

Jeffrey Boakye, 2022

"William Wilberforce is often seen as a great white saviour of the abolition movement, but the truth is that he was one of many people who fought for the abolition of slavery. He was not the only one, and he was not the first one. There were many black abolitionists who fought for the abolition of slavery and their contributions have been largely forgotten. We need to remember that the abolition movement was a collective effort and that many people, both black and white, played a role in ending the slave trade"

Types of employment

Informal Employment

A person who is informally employed does not receive a regular wage. They work when they need to or feel like it.

Sometimes there are no deductions (e.g. tax) made from their earnings but if they do not work for any reason, they receive no payment.

Formal Employment

Whereas, someone who is formally employed is contracted to work and will receive sick pay and holiday pay. This means they receive more regular work, but have deductions through taxes.

Types of Industry

Primary jobs – collect or produce natural resources e.g. fishing, mining

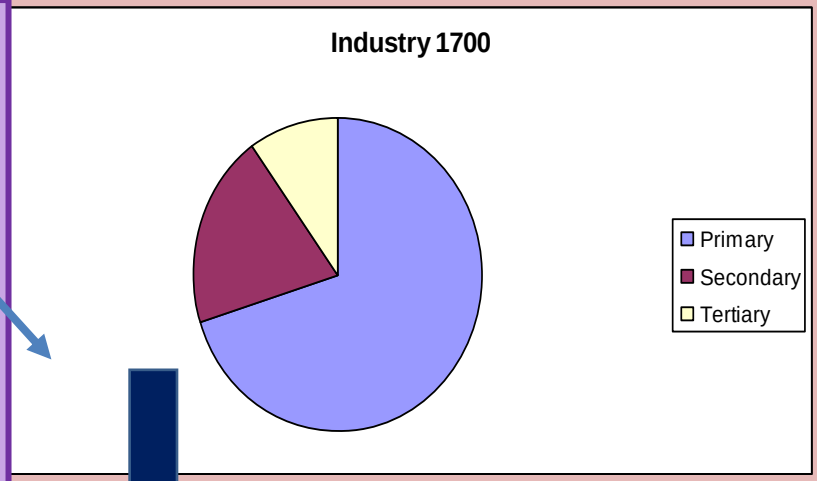
Secondary jobs – make or manufacture things e.g. building, car assembly

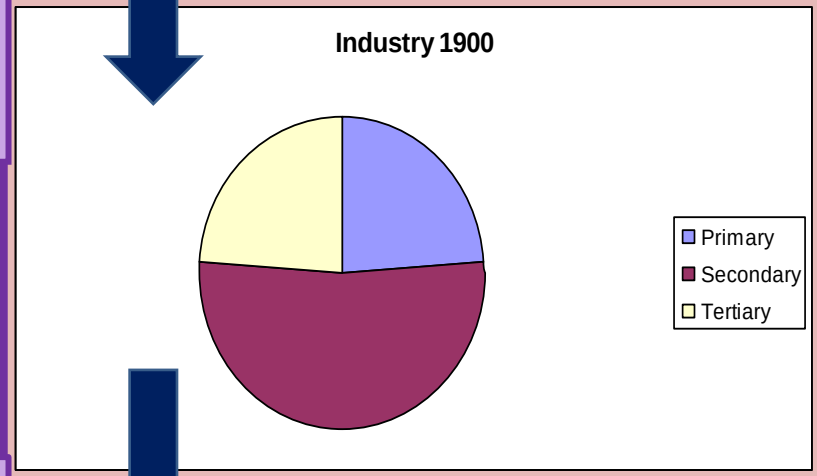
Tertiary jobs – provide a service e.g. jobs in health, education, retail

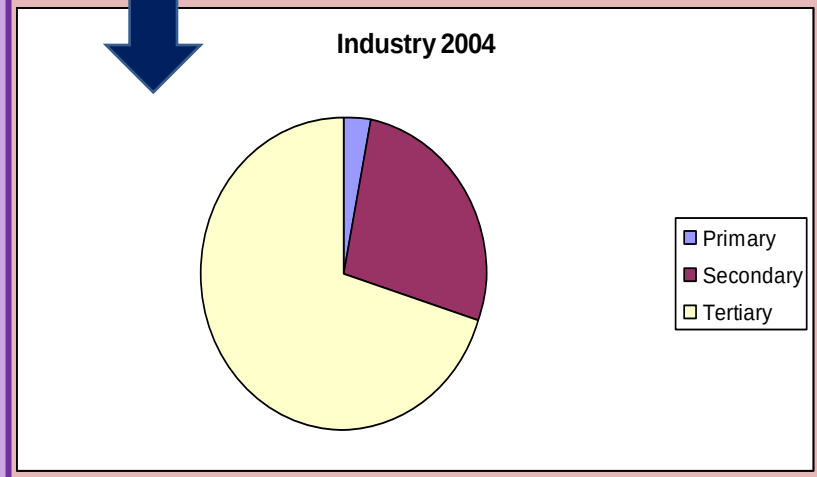
Quaternary jobs – high-tech service industry e.g. scientific research, advisory service

Changes in jobs through time

Normally we can tell how developed a country is by what employment structure you find there. An LIC (low income country) will generally have more primary jobs and a HIC (high income country) will tend to have more tertiary and even quaternary jobs. Take a look at the pie charts to the right. These show how the job structures change in the UK from 1700 to 2004. Notice how primary jobs decrease as we move through time. In the 1900s, manufacturing takes over (during the industrial revolution) and allows the UK to develop. Now in modern days, we have a service driven economy and find more tertiary jobs.







What is Globalisation?

Globalisation is the process by which the world is becoming increasingly interconnected. We now communicate, trade, travel and share each other's cultures more easily around the world.

Key Words

Globalisation, informal, formal jobs, primary, secondary, tertiary, quaternary, HIC, LIC, industry, Trickle down effect, FDI Foreign direct investment.

Benefits of globalisation	Costs of Globalisation
Free Trade – reduces barriers such as tariffs , taxes and subsidies between countries.	There isn't a trickle down effect from higher income countries
Free Trade promotes growth and creates jobs – lower prices for consumers	Lots of jobs in LICs are taken by low cost labour, poor wages ,poor working conditions
Poor countries benefit from FDI (foreign direct investment)	It can cause a dependence on HIC
Sharing technology can help LICs to progress	Creates a monopoly – big companies begin to dominate the market e.g Amazon, Apple, etc
Boots economies	Still trade limitations/ barriers

Transnational Corporations – TNCs

A **Transnational Corporation** is a company which operates in many different countries. It may manufacture its products in one country, but sell its products in another. One good example of this is the sporting company, Nike. Nike manufacture many of their sporting goods in Asia and sell a lot of their products in Europe, but their headquarters are in USA. Take a look at the map to see which countries Nike operates in.

Nike produces many of its goods in LICs (Low Income Countries) but sells many of its products in HICs (High Income Countries). This is because people in HICs have more **disposable income** to spend on buying commodities. **TNCs** tend to manufacture their goods in LICs where they do not need to pay the workers as much money and so saves the company money.

Nike have been criticised for their treatment of their workers in LICs, as many are underpaid and work long hours. Nike are not the only TNC who have been reported for exploiting their workers, many TNCs regularly do it, however if they start paying their workers fairly, they will receive less profits.

Positive impacts of TNCs	Negative Impacts of TNCs
They provide a vital source of FDI (Foreign Direct Investment)	TNC create lethal competition for local business – create a lot of upset with locals
Provide employment, sometimes reduce unemployment which was caused by mechanisation in agriculture	Often be high polluters- releasing lots of Greenhouse gases due to factories relying on fossil fuels.
They can improve local infrastructure- such as roads bridges- improving local welfare	They can often exploit cheap, flexible labour often in sweat shops or in very poor working conditions
Improve the local economy	Little portion for promotion or to increase wages
increase local skills and teach new skills.	Little of the Profit made from TNC will remain in the countries used for manufacturing.

TNCs and the environment

- TNC activities generate more than half of the greenhouse gases emitted by the industrial sectors with the greatest impact on global warming.
- TNCs control 50 percent of all oil extraction and refining, and a similar proportion of the extraction, refining, and marketing of gas and coal.
- TNCs have virtually exclusive control of the production and use of ozone-destroying chlorofluorocarbons (CFCs) and related compounds.

CASE STUDY: Shell Nigeria

Shell is a massive TNC that operates in many countries around the world. Extracting oil is a primary job, the refining of oil is a secondary job and they sell the final job which is a tertiary service. Shell's Nigeria operations are concentrated in the Niger Delta in a mining area of around 31,000sq km.

They have more than 6,000km of pipelines, 87 flow stations, 8 gas plants. This has lead to large scale deforestations, environmental mining leading to the destruction of habitats, biodiversity.

Key words

TNCs, exploitation, HIC, LIC

Greenhouse gases, infrastructure, FDI

Globalisation and Climate Change

As the world is becoming increasingly connected, we are able to import products from far away. This could be anything, from food to electronics. However, this generally results in increased emissions of greenhouse gasses.

This can be seen in Norfolk, which is a county in the East Anglia area of England. It has a large coastline with many settlements along it. Much of this coastline is under threat from sea-level rise. Norfolk has already suffered from some major flooding in recent years and it is only set to get worse.

Part of the reason why sea levels are rising is due to the rise in carbon dioxide and other greenhouse gasses in our atmosphere. One cause of this **food miles** - the distance your food travels from its source to your plate. As many foods are imported, this is causing sea levels to rise through ice caps melting and thermal expansion. Thermal expansion is where the volume of water increases due to heat expanding particles which in turn rises the level of the sea which could cause flooding.
Many kiwi fruits are grown in New Zealand but are sold in the UK. This means that the fruit have travelled over 11,000 miles for us to eat. Think of all the greenhouse gasses that were released for us to eat one fruit!
One solution to this is to buy fruit sourced more locally where the food miles are shorter and therefore releases less CO2 into the atmosphere.

Causes of the floods	Effects of the floods
Many fruits which are sold in the UK are grown in countries far away. For example, most kiwi fruits are grown in New Zealand and shipped over 11,000 miles. This emits a lot of CO2	Research commissioned by Natural England, showed that 25 square miles of Norfolk, including six villages, could be lost to the sea within a century.
Scientists in over 23 different countries have concluded that humans have caused all or most of the current global warming	The one metre sea level rise predicted by climate change scientists this century, would put £130 billion worth of coastal property at risk of flooding.
Factories, deforestation, and pollution have greatly increased greenhouse gases that help trap heat near Earth's surface.	Hundreds of homes destroyed and swathes of the counties' heritage wiped out.
Climate change is causing sea-level rise, experts predict that the sea could rise between 18 to 59 centimetres by 2100. Over hundred million people live within 1 metre of sea level.	A man living on the fastest eroding section of coast around Happisburgh, said: "Property value has decreased by as much as 30 per cent. It is ruining people's lives.

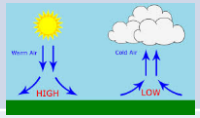

© d-maps.com
100 km
60 mi
N
Mercator

What is the difference between weather and climate?

Weather can affect us in many ways. Meteorologists study weather patterns to predict upcoming changes and hazardous conditions such as storms. Changes in climate occur over a larger span of time.

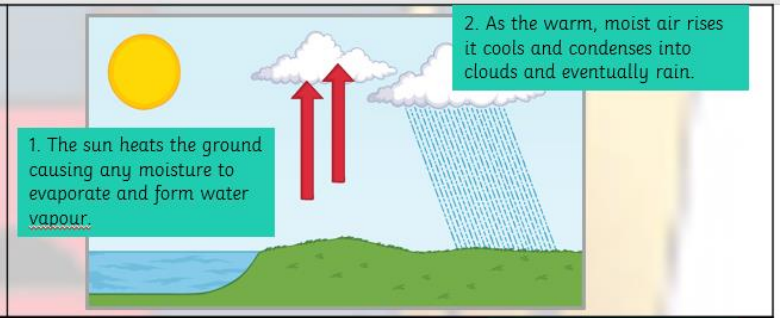
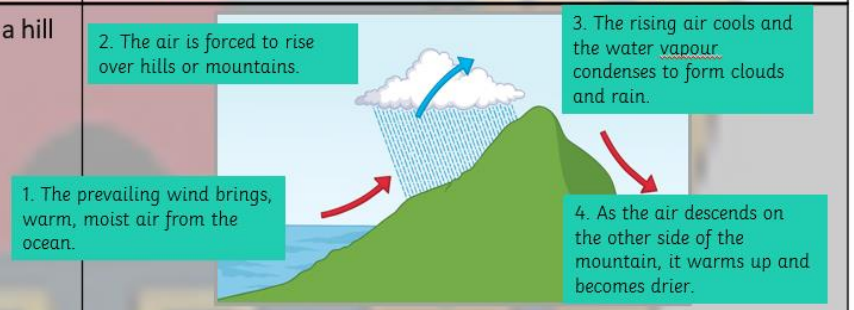
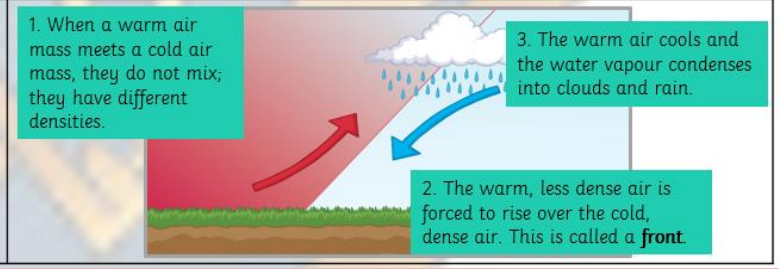
Weather describes the **day-to-day** conditions of the atmosphere. Weather can change quickly - one day it can be dry and sunny and the next day it may rain. **Climate** describes average weather conditions **over longer periods** and over large areas.

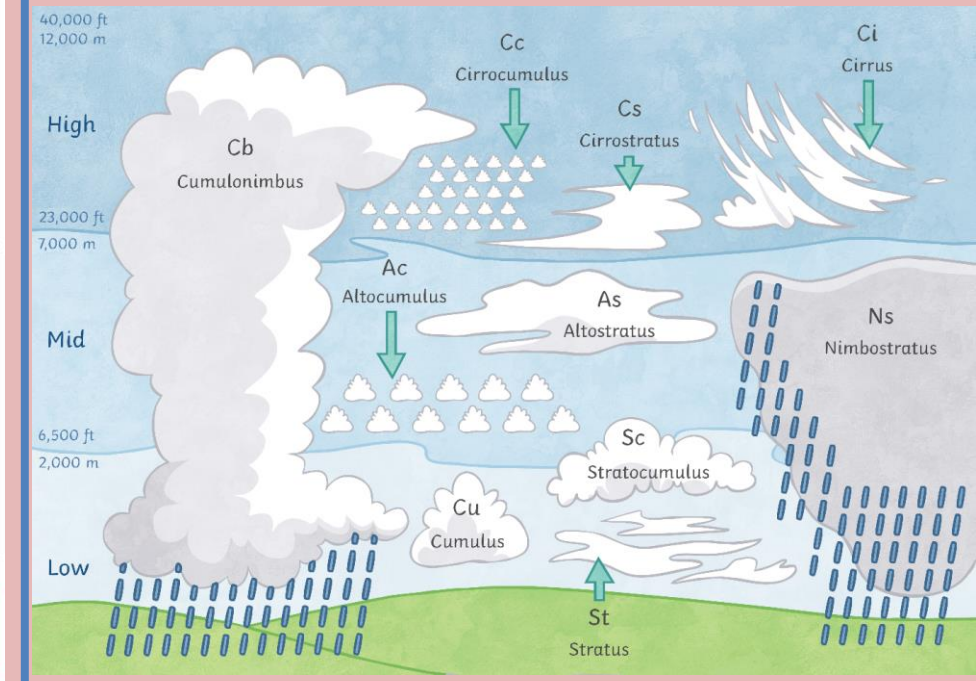
Aspects of Weather

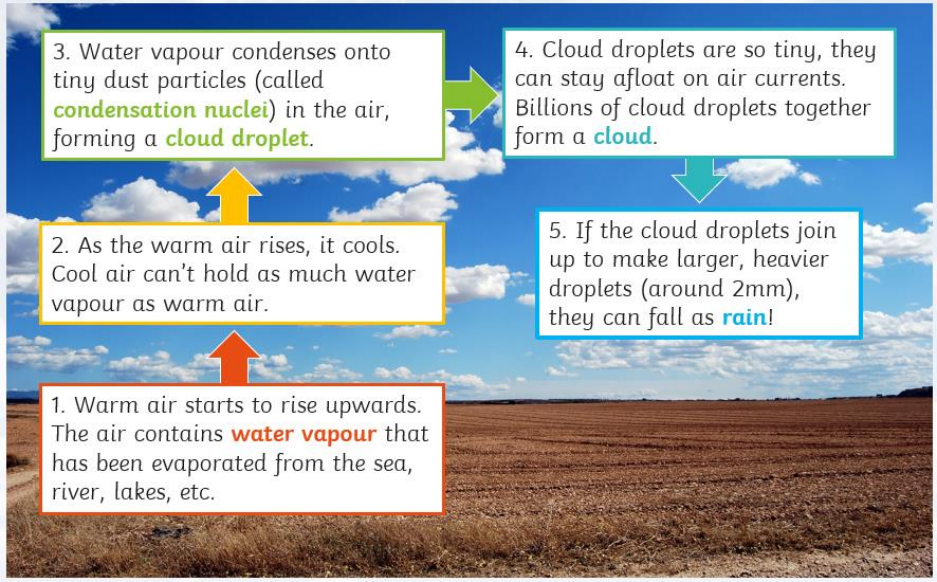
FACTOR	WHAT	HOW	SCALE
Temperature 	How hot or cold the air, water or ground is.	Thermometer	Measured in degrees Celsius (°C)
Wind speed + direction 	How fast the wind is moving.	Anemometer and weather vane	Can be measured in MPH, KM/H or Knots
Precipitation 	Moisture that falls from the sky.	Rain gauge	Millimetres
Humidity 	Amount of water vapour in the air	Hygrometer	Measured as a % of vapour in atmosphere
Pressure 	The amount of air pressing down on the Earth's surface	Aneroid barometer	Millibars
Sunshine 	The amount of direct sunlight or solar radiation.	Sunshine recorder!	Number of sunshine hours

Impact	Positive	Negative
Health	• Sunshine improves our wellbeing • Provides Vitamin D	• Can cause heatstroke, Sunburn • Young and elderly can fall in icy weather • Icy weather can increase car accidents
Agriculture (Farming)	• Warm weather and sunlight increases plant growth. • Sunny and wet weather are the perfect conditions for photosynthesis	• Hailstorms can damage crops- orchard in New Zealand lost $1million • Heavy rain can damage crops and grazing land • Drought can damage crops- need to buy irrigation systems
Transport	• Warm dry weather presents less hazardous conditions card perform between in better weather	• Snow can disrupt road, rail and air travel • Strong winds can disrupt travel • Sunny weather can cause congestion- going to the beach
Construction	• Windy weather/ storms can create work	• Rain, windy weather can delay building work
Retail (Shopping)	• Sales of barbecues, cold drinks, and ice cream increase in hot weather	• Can prevent people going shopping in bad weather
Tourism and recreation	• Good weather leads to an increase in domestic tourism	• Cold/wet weather can result in events being cancelled.
Energy	• Sunshine can produce an increase solar power • Strong winds can increase wind and wave powered energy	• Cold weather lends to an increased fuel being used for heating • Hot weather leads to increased fuel being used for air conditioning
Water	• Heavy rain can replenish rivers, reservoirs, lakes etc	• reservoirs levels can fall during dry weather/ drought
Other	• Good weather can boosts peoples mood	• Crime levels increase in heatwave conditions as people leave doors and windows open • Snow can cause school closures

Types of Rainfall

1. convectional rainfall – rain formed when the ground heats up during warm, sunny weather.	
2. relief rainfall – rain formed when air is forced to rise over a hill or mountain. (Relief means the shape of the land.)	
3. frontal rainfall – occurs when two air masses meet.	





Types of clouds

There are 3 main types of clouds:

- Cumulus clouds are the most common type of cloud. They are puffy white clouds. They form on sunny days but can form into thunder clouds! Cumulus is Latin for 'a heap or pile'.
- Stratus clouds are a featureless cloud like a layer of fog. They bring rain, drizzle and damp weather. Stratus is Latin for 'layer'.
- Cirrus clouds are the highest clouds in the atmosphere and are made of ice crystals. They appear as wispy streaks. Cirrus is Latin for 'wisp of hair'.

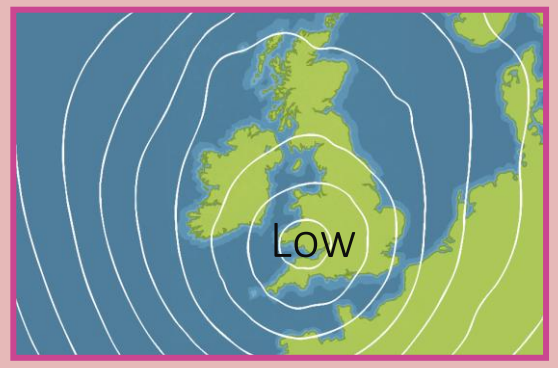
Heatwaves

When there is high pressure, the weather is usually clear and sunny. This is because air is sinking, so there are no clouds to block out the sunlight and there is no rain. Areas of high pressure are called **anticyclones**. In the summer when there is more high pressure, persistent hot weather can lead to a heatwave.

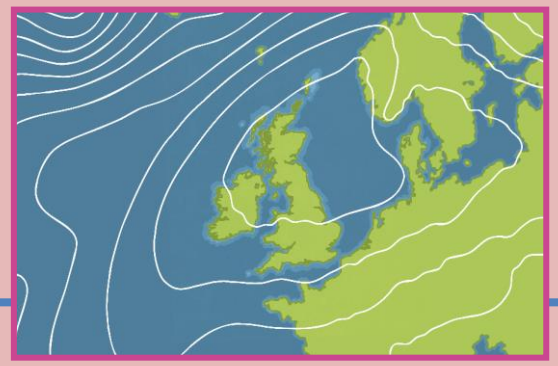
Impacts of heatwaves

Pressure in the Sky

You might have seen weather maps like these on a weather forecast! They are used to show air pressure. The lines are called isobars and show areas with the same air pressure.

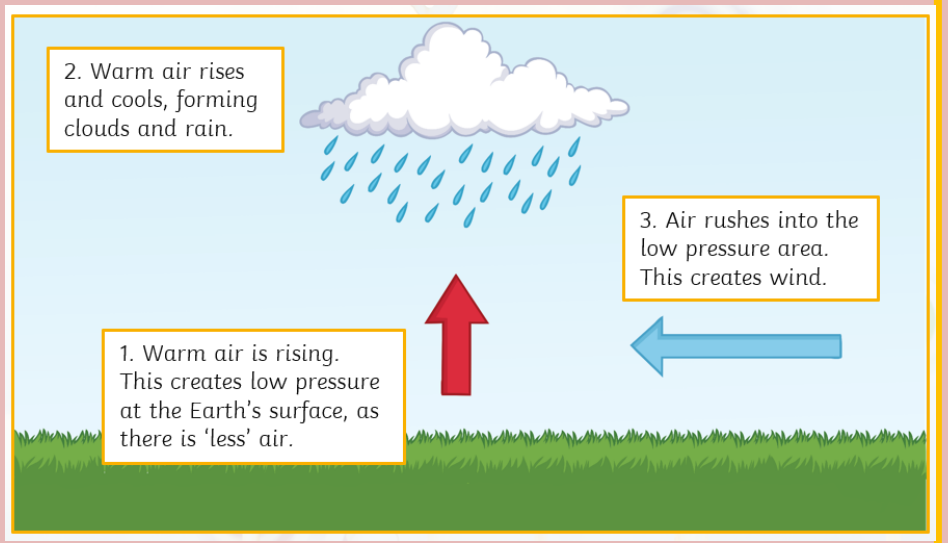


Low pressure brings wet, windy weather.

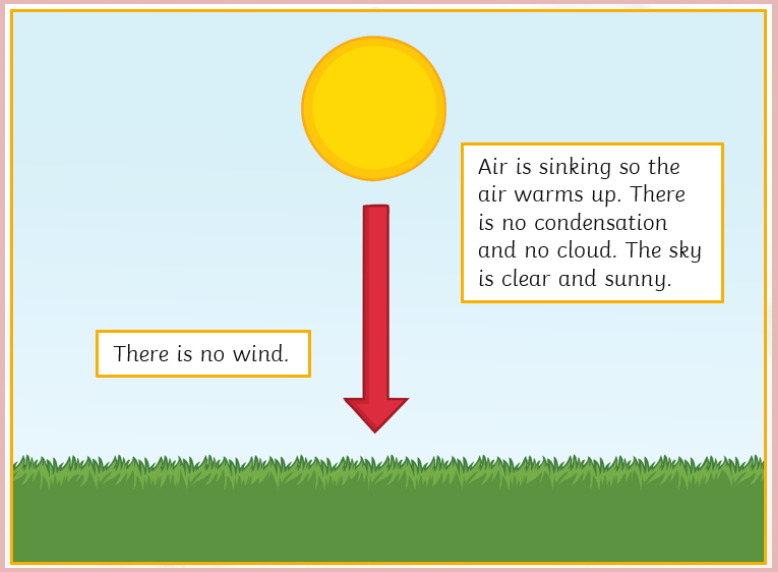


High pressure brings sunny weather.

Low Pressure



High Pressure



A. Thousands flock to the beach to enjoy the sunny weather!
In parts of the UK, people spent the day on the beach as temperatures rose to 39 degrees...

B. Travel chaos on hottest day!
Some railway tracks have buckled in the heat so trains have had to reduce speed. Some road surface have melted causing traffic delays.

C. Heatwave is good for tourism in Britain!
More people stayed in the UK for their holiday due to the good weather.

D. Tube passengers sweat!
Thousands of people travelling on the underground faced temperatures of 34 degrees. High temperatures can make some people very unwell.

E. Hosepipe bans!
There may be hosepipe bans in the UK as there is less water in reservoirs.

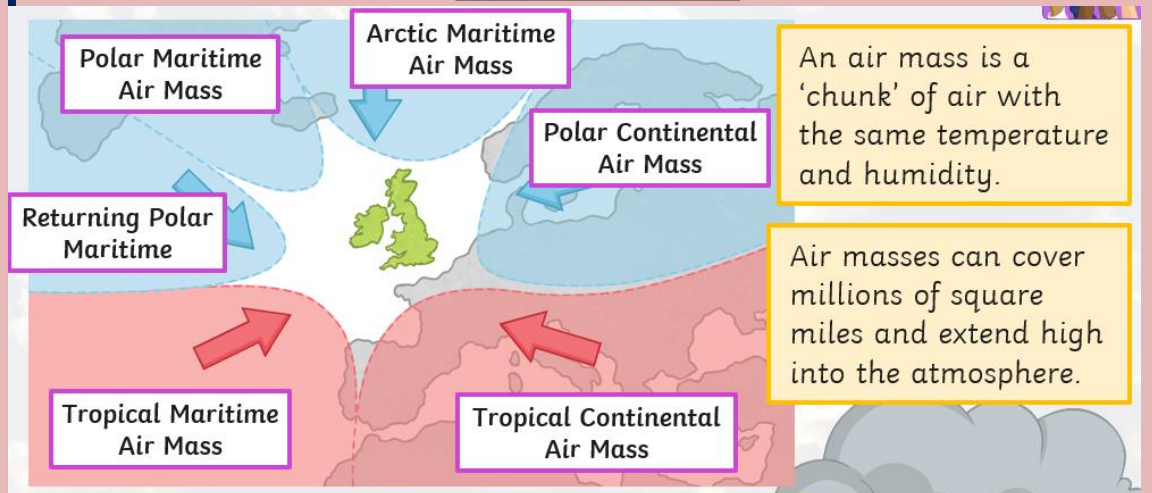
F. Fire risk!
Forest fires have broken out in many countries in Europe due to the very dry conditions.

G. Heatwave devastates Europe's crops and livestock!
The heatwave has destroyed crops and killed pigs, chickens and cows across Europe.

K. Heatwave shuts down nuclear power stations!
The heatwave has forced some nuclear power plants in Germany and Spain to close down as they can't be kept cool enough.

L. 15,000 die in France!
15,000 people have died in France, and thousands more across Europe because of the heatwave. Most deaths are thought to be caused by heatstroke and dehydration in the elderly.

UK Air Masses



An air mass is a 'chunk' of air with the same temperature and humidity.

Air masses can cover millions of square miles and extend high into the atmosphere.

Polar and **arctic** air masses bring **cold** temperatures.

Tropical air masses bring **warm** temperatures.

Maritime air masses form over **oceans**, so bring **moist** air.

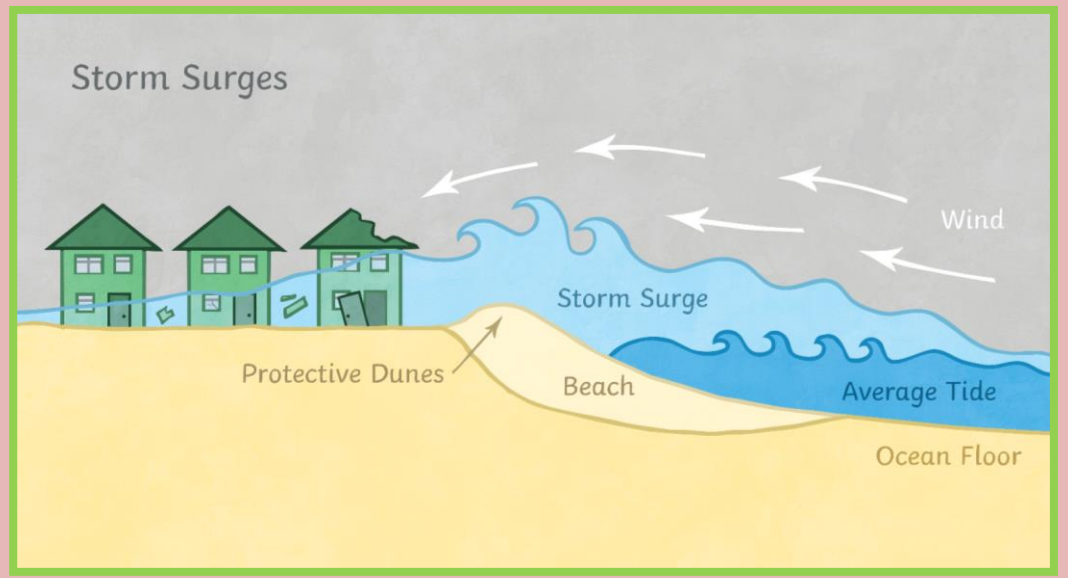
Continental air masses form over **land**, so bring **dry** air.

Storms and Storm Surges

Heavy rain and wind can cause flooding if rivers overflow their banks and flood the surrounding land. Land can also become saturated with rainfall and cause flooding. Strong winds can also bring down trees and power lines.

Storms can also cause a storm surge. This is when strong winds push the sea towards the coast as well as creating high waves. The low pressure also allows the sea level to rise slightly. The storm waves can damage and overtop sea defences, causing flooding.

There was a large storm surge on 5th December 2013. It was the worst storm surge for 60 years! The sea level was nearly six metres higher than usual in some coastal areas. Around 18,000 people were evacuated from their homes.



BVT: The Origins of Islam - The Life of Muhammad

Muhammad was the founder of the religion of Islam and is considered by Muslims to be a messenger and prophet of God. Muslims believe he was the last of the Islamic prophets, which included Noah, Abraham, Moses and Jesus.

Born in 570 in the Arabian city of Mecca, he was orphaned at an early age and brought up by his uncle, Abu Talib.

Muhammad worked as a merchant / trader, and was married by age 25. He spoke up for people in his community.

He was not happy with his life in Mecca but could not understand why. He realized that, in Mecca, no one cared about the poor and the needy. People believed in evil spirits and magic and worshipped many different idols, rather than Allah who he believed in.

Muhammad wondered if there was anything that would show these people how to live better lives. He decided to leave Mecca and spend time in a cave outside the city, thinking about these things. According to Islamic beliefs it was here, that he received his first message from God.

The Night of Power

- One day, Muhammad had a strange feeling that he was no longer alone. "Do not be afraid," said a voice. Muhammad rubbed his eyes and stared – it was the **Angel Jibril.**
- Jibril showed Muhammad some words. 'Read!' the angel commanded. But Muhammad had never gone to school. He had never learned to read or write. The angel repeated his command 3 times, before squeezing Muhammad, so hard that he thought that he would faint.
- The angel released Muhammad and he began to read out the beautiful words. **Muhammad immediately knew that these words came from God.** He listened carefully and was able to remember everything the angel said.
- Over 23 years Muhammad recited these words from Allah /God (his **revelations**). They ere written down.
- These were written down to create the **Qur'an**, the Holy Scripture for Muslims.

The picture above is of **Cave Hira** – the cave in which Muhammed received his first revelation.

Cave Hira is a popular pilgrimage site for Muslims to visit.

Key Terms	Definitions
Mecca	City in Saudi Arabia where Muhammad lived
Medina	First city in Saudi Arabia Muhammad converted to Islam
Islam	Name of the religion Muhammad founded; Muslims are part of this religion
Cave Hira	Where Muhammad had his Night of Power
Revelations	When God reveals himself to someone – words or visions
Angel Jibril	Angel sent by God or Allah; Also known as Gabriel
Prophet	A chosen man by God to teach others about God

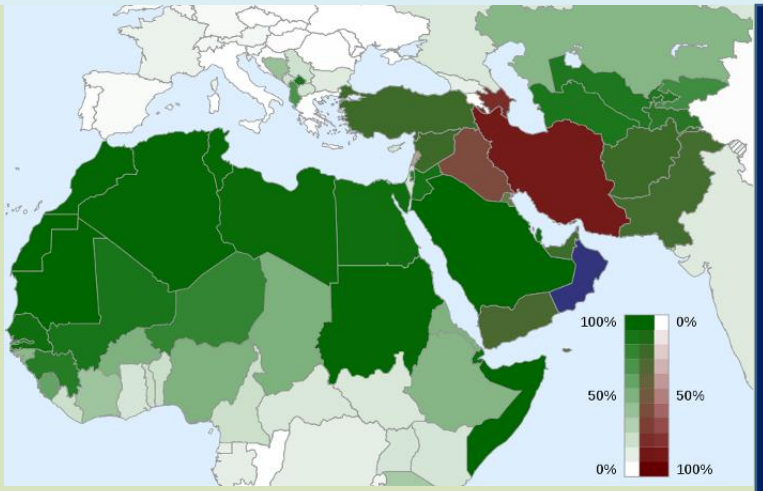
The story of how Islam began: Scan below:

There are no images or paintings of Muhammed – to create one is deemed disrespectful in Islam.

If you search Prophet Muhammed you find his name in Arabic, but no pictures. This is very different to Christianity, which has many paintings of Christ.

Muhammed spreads the word of Allah

- Muhammad did not win many followers to begin with, and some tribes around Mecca did not like his message, so he and his followers were treated harshly. At one point the ruling tribes even put a price on his head! And his life was threatened.
- To escape from this danger, Muhammad and his followers in Mecca went to **Medina** in the year 622. This event is Muhammad's migration or escape, which is called the **Hijra.**
- Muhammad was welcomed in Medina and became the first city that Muhammad converted to Islam. However his conversion of Mecca to Islam was much harder and he had to fight 3 battles.
- Muhammad managed to unit the tribes and gain a following of 10,000 followers who helped him conquer and establish Islam.
- In 632, Muhammad fell ill and died. By the time of his death, he had united the tribes of Arabia into a single group who all followed the religion of Islam, and most people who lived on the Arabian Peninsula were Muslims.
- To Muslims, Muhammad is so holy and important, that the phrase *'Peace Be Upon Him'* is always said when his names is mentioned.



Green is the % of Sunni Muslims
Red is the % Of Shi'a Muslims

Sunni and Shi'a Muslims.

- Like in other faiths, there are different groups of Muslims.
- This came about after the **death of Muhammad**. Some Muslims believed that Muhammad's cousin Ali should have been the next leader of Islam; they formed a group called Shi'a Muslims.
- However, other Muslims believed that the next ruler should be elected, which fitted with Arab tradition where they lived. These Muslims formed a group called the Sunni Muslims. 90% of Muslims in the world are Sunni Muslims.
- Both Muslims have very similar beliefs and follow the teaching of Muhammad and are dedicated to Allah; however there are small differences to their beliefs and practices, just like within Christianity.

Books associated with Muhammad: The Qur'an, the Hadith, the Sunnah

- The Qur'an was dictated by Angel Jibril (from Allah) to Muhammad over 21 years.
- The Qur'an was written over 23 years (2 years after his death too).
- It was dictated by Muhammad and scribed by followers and the next leader of Islam, called the Caliph, after Muhammad's death.
- It has authority to Muslims as it is the words of Allah and has never been translated or changed throughout history. *"Falsehood shall never come to it" (Qur'an)*
- The Hadith is a book of Muhammad's teachings and life. The Sunnah is the book of Muhammad's practices. Both were written after Muhammad's death by his followers.

Key Term	Definitions
Medina	First city in Saudi Arabia Muhammad converted to Islam
Hijra	Journey when Muhammad fled Mecca and went to Medina
Qur'an	Holy scripture / book for Muslims
Hadith	Book of Muhammad's teachings and life
Sunni	Main Muslim group. Sunni Muslims make up most of African Muslims and parts of the Middle East
Shi'a Muslims	Smaller Muslim group; found dominant in countries such as Iran and Iraq

Nature (Qualities) of Allah

Monotheism - Muslims believe in one god, Allah - they are **monotheists**.

Muslims follow important ideas to show their beliefs about Allah – for Sunni Muslims this is the **6 Articles of Faith** (see below)

Tawhid - the belief in the **oneness** and unity of Allah as expressed in the first of the five **Pillars of Islam**, the **Shahadah**. Belief in this oneness or unity of Allah is essential.
Angels – messengers of Allah. They deliver messages from Allah to prophets. The Angel Jibril is most important as it was **Jibril** that revealed Allah's beliefs to Muhammad.
Predestination – this is the idea that **Allah is all knowing and seeing** in Muslims lives. Muslims believe that nothing is random and Allah has to some extent control over what will happen to Muslims

- Allah is **Tawhid**
- **Predestination**
- Holy Texts, including the Qur'an
- **6 Articles of Faith**
- All ah is just and fair (**Adalat**) e.g. Day of Judgement
- Prophets will teach about Allah
- Angels

"We will show you the truth of what you did" Qur'an

Afterlife

Akhirah – the belief in everlasting life after death. Muslims believe that this life is merely preparation for the eternal life or **Akhirah**. Every act of good and bad that a Muslim does is recorded by Allah, so they must act in a way that benefits them in Akhirah.

Hell is a place of fire, pain, misery and torture.

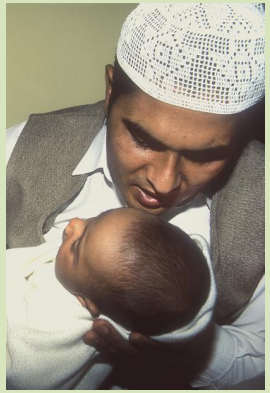
Heaven or paradise is a place with no suffering where there is no pain and your desires are fulfilled. You can go to paradise by your actions and gaining forgiveness for your sins.

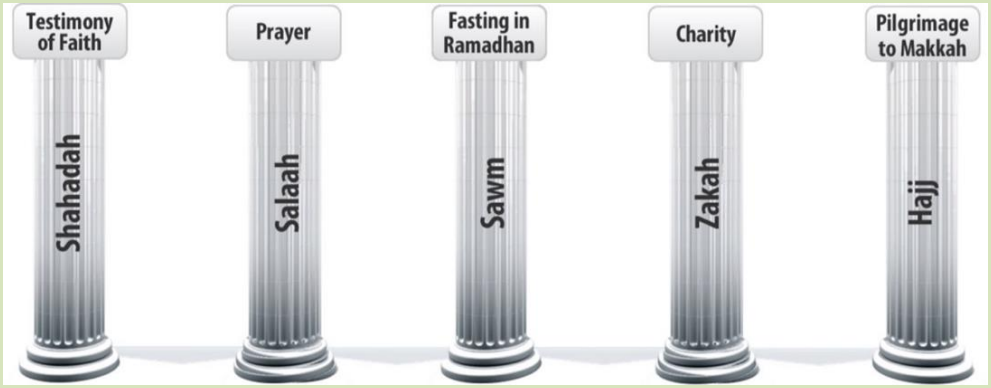
Year 8 BVT

Introduction to Islam: 5 Pillars

Shahadah

This is the first pillar which means Declaration of the Islamic (Muslim) faith. Muslims repeat the words of the Shahadah to show their **faith and commitment** to Allah.
They say:
"There is no God but Allah, Muhammad is the messenger of Allah".
The Shahadah is therefore spoken at very important times: it is spoken in prayer, spoken to new born babies and to Muslims just before they die.





"Prostrate and draw near to Allah" Qur'an
"The place of prayer in religion, is like the place of the head in the body" Muhammad

Key vocabulary
Islam
Allah
Muhammad
Shahadah
Salah
Wudu
Mosque
Rak'ah
Ummah
Sawm
Zakah
Ramadan
Eid

Salah

Muslims pray 5 times a day. This is to remind them of Allah and keep them focused on good in their lives. Muslims pray at a mosque. They face Mecca and use a prayer mat.

Muslims are called to mosque, using he Call to Prayer – called the **Adhan** – this uses the words of the Shahadah.

Before prayer Muslims wash, this is called **Wudu**. This makes sure they are clean physically and spiritually before going into God's house.

Muslims have a set prayer (a bit like the Lords Prayer). This consists not only of words by also actions. This is called **Rak'ah** (see the picture below) and focuses on **praising Allah**.

Muslims pray side by side to show they are as one, showing a sense of **Ummah** (Community).

On Friday night there is a special worship and sermon, lead by an Imam (Priest)

Rak'ah

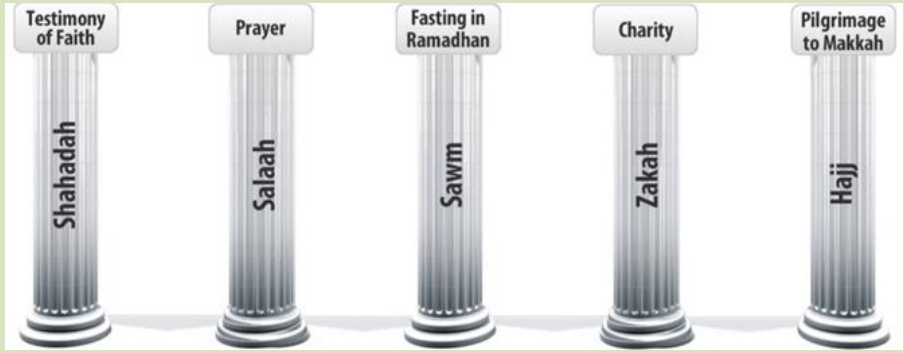
Wudu

Sawm – means fasting

- Happens in the Islamic month of **Ramadan**
- Give up food and all drink between sunrise and sun set. This takes a lot of determination and dedication.
- Reasons: to not take for granted, think about others who are less fortunate. R**eflection** of their lives and also to **focus spiritually on Allah**. Develops determination, strength and resilience.
- Shows devotion and faith to Allah.
- Muslims also give up luxuries like TV / electronic devices and reframe from poor behaviour such as swearing.
- Muslims **visit mosque** to pray daily during Ramadan.
- They will have a big **family** meal every evening, so it bring them together.
- At the end of Ramadan there is a big Festival called **Eid.**
- Money is also given to charity at this time (**Zakah** – see next page)

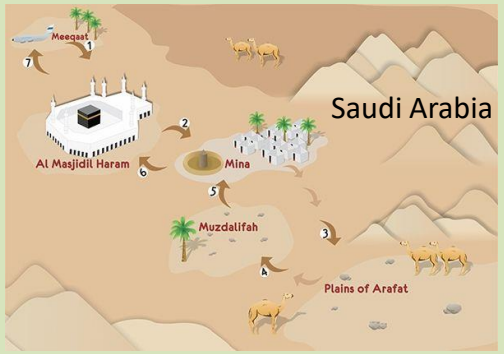
Year 8 – BVT

Introduction to Islam: 5 Pillars



Key vocabulary

Islam
Allah
Muhammad
Zakah
Hajj
Jamarat Pillars
Pilgrimage
Ka'aba
Zam Zam well
Ummah
Madina
Mecca
Mount Arafat



Zakah

Zakah is the duty of giving to charity for Muslims. This is **compulsory** and Zakah is usually paid at the end of the fasting month of **Ramadan**. Zakah is **2.5%** of a Muslim family's income. This is paid usually to the mosque and used for the Muslim community. The mosques in England use the money for the poor and needy. There are often Muslim charities that collect Zakah and put it towards worthy causes.
The Muslim family only pay Zakah if after they have paid for essentials like rent and food, they have enough spare money; so poorer Muslims do not have to pay.
It is important for Muslims to give to others as it shows Allah they are **sharing** their wealth with the less fortunate. It is believed that a Muslim is granted his **wealth from Allah** and being generous will earn a Muslim a place in **Heaven**.

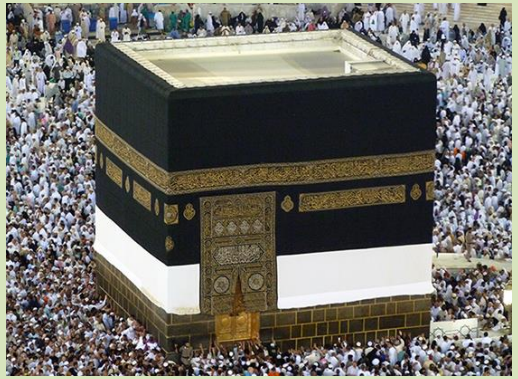
"Be steadfast in prayer and giving"
Qur'an

Hajj means pilgrimage

Hajj is an important duty for a Muslim to fulfill at least once in their lifetime. Muslims all go on pilgrimage to **Mecca** in Saudi Arabia. There is a special month for Hajj (though this can change each year). They all follow a **set route** (see above).

Muslims go on Hajj for a few reasons;

- it shows their **dedication** to Allah
- For **forgiveness** of sins and going to **Heaven**.
- Walk the of prophets and see the history of where their religion started
- To unite and meet other Muslims showing **ummah** (community).



The ka'aba

Mount Arafat

Ihram: White robes worn by all men on Hajj – shows equality in all.
Ka'aba: Black sacred box. Muslims walk around this 7 times, re-enacting when Muhammad smashed the idols.
Zamzam Well: Sacred well which Muslims often drink from
Mount Arafat: Mountain Muslims climb and say prayers – Allah will grant forgiveness here. This is the place where Muhammad gave his last sermon.
Jamarat Pillars: Muslims throw pebbles at these to reject and warn off evil and temptation.

What's your school like? French Term 5

#Term Learning: Comparing school life in France / French-speaking country and the UK

Key Terminology	Definition
Comparative	Making a comparison between two things: rugby is **better than** hockey; chocolate is **nicer than** toffee; he's **more clever** than his brother
Superlative	Stating which is the best from a range of ideas: I think maths is **the best**; he's **the fastest** runner; she's **the most beautiful** woman
Sequencers	Words which say when something happens: **first of all, later, next, finally** …
Adverb	An adverb is used to modify a verb, an adjective, another adverb or even a whole clause. Sometimes, adverbs can describe manner, time or place. He plays football **well**; I'm **very** happy for you
Preposition	Says where something is in relation to something else: my school is **opposite** the chemist; the car is **under** the bridge

plus…que
(more…than)

moins…que
(less…than)

Comparatives:
Southampton est **plus petit que** Londres
Un éléphant est **plus grand qu'**une souris
Une fusée est **plus vite qu'**une voiture

Downton est **moins joli** que Redlynch
Donald est **moins intelligent** que Joe
Les éléphants sont **moins gentils** que les ânes

Can you work out what these mean?

Superlatives:
Tokyo est **la plus grande** ville
La fusée est la **plus vite**
L’ éléphant est **le plus grand** animal

Donald est le politicien **le moins intelligent**
Le sport est la matière **la moins difficile**
Cette maison est **la moins chère**

Sequencing words in French – play the game and see how many you can learn. Can you put them into a logical order? Which one would you start with? Which one would you end with?

Use this link to help you learn and pronounce the words for school subjects.

In many other countries, the 24h clock is used for telling the time. It's used in schools too.

J'ai les maths **à neuf heures quinze** = I have maths at 09:15
J'ai les sciences **à dix heures trente** = I have science at 10:30
Je rentre a la maison **à seize heures** = I go home at 16:00

- **00:00 - Minuit** (Midnight)
- **01:00 - Une heure**
- **02:00 - Deux heures**
- **03:00 - Trois heures**
- **04:00 - Quatre heures**
- **05:00 - Cinq heures**
- **06:00 - Six heures**
- **07:00 - Sept heures**
- **08:00 - Huit heures**
- **09:00 - Neuf heures**
- **10:00 - Dix heures**
- **11:00 - Onze heures**
- **12:00 - Midi** (Noon)
- **13:00 - Treize heures**
- **14:00 - Quatorze heures**
- **15:00 - Quinze heures**
- **16:00 - Seize heures**
- **17:00 - Dix-sept heures**
- **18:00 - Dix-huit heures**
- **19:00 - Dix-neuf heures**
- **20:00 - Vingt heures**
- **21:00 - Vingt et une heures**
- **22:00 - Vingt-deux heures**
- **23:00 - Vingt-trois heures**

What's Guadeloupe like? French Term 6

#Term Learning: Learning about another French – speaking country

Key Terminology	Definition
Francophone	The places / countries in the world where French is spoken as a main language.
Immediate past	Stating what you have **just been doing**
Present continuous	Stating what you are doing **at the moment**
Immediate future	Stating what you are **about to do**
Infinitive verb	The form of the verb using 'to'; so, **'to go, to swim, to eat, to sunbathe, to play'** are all examples of the **infinitive** form of the verb.
Infinitive phrase	Uses an infinitive plus a noun, adjective or adverb.

venir de + infinitive verb = *to come from doing something, to have JUST done something*

être en train de + infinitive verb = *to be busy / in the middle of doing something*

être sur le point de + infinitive verb = *to be about to do something*

je viens
tu viens
il / elle vient

nous venons
vous venez
ils /elles viennent

je suis
tu es
il / elle est

nous sommes
vous êtes
ils /elles sont

GUADELOUPE

Je viens de manger = *I've **just** eaten*
Il vient de regarder = *He's **just** watched*
Nous venons de nager = *we've **just** swam*

Je suis en train de manger = *I'm **busy** eating*
Il est en train de regarder = *He's **busy** watching*
Nous sommes en train de nager = *We're **busy** swimming*

Je suis sur le point de manger = *I'm **about** to eat*
Il est sur le point de regarder = *He's **about** to watch*
Nous sommes sur le point de nager = *We're **about** to swim*

What's your school like? Spanish Term 5

#Term Learning: Comparing school life in Spain / Spanish – speaking country and the UK

Key Terminology	Definition
Comparative	Making a comparison between two things: rugby is **better than** hockey; chocolate is **nicer than** toffee; he's **more clever** than his brother
Superlative	Stating which is the best from a range of ideas: I think maths is **the best**; he's **the fastest** runner; she's **the most beautiful** woman
Sequencers	Words which say when something happens: **first of all, later, next, finally** …
Adverb	An adverb is used to modify a verb, an adjective, another adverb or even a whole clause. Sometimes, adverbs can describe manner, time or place. He plays football **well**; I'm **very** happy for you
Preposition	Says where something is in relation to something else: my school is **opposite** the chemist; the car is **under** the bridge

COMPARATIVOS

Superioridad

Más ____ que

La profesora Marta Gómez tiene *más* años *que* la profesora Claudia Pérez

Igualdad

Tan ____ como

Tanto _____ como

El profesor Martínez es *tan* simpático *como* la profesora Gutiérrez

María tiene *tanto* talento *como* Picasso

Inferioridad

Menos ____ que

El profesor López es *menos* viejo *que* el profesor Gómez

Comparatives:

Southampton es **más pequeño que** Londres

Un elefante est **más grande que** un ratón

Un cohete est **más rapido que** un coche

Downton es **menos bonito** que Redlynch

Donald es **menos intelligente** que Joe

Los elefantes son **menos simpáticos** que los burros

Can you work out what these mean?

Este anillo es **el más bonito**.

This ring is the most beautiful.

Este es **el menos bonito**.

This one is the least beautiful.

Check out this video:

Can you work out what these mean?
Can you make up some of your own sentences?

Superlatives:

Tokyo es la **más grande** ciudad
El cohete es el **más rapido**
El elefante es el **más grande** animal

Donald es el político **menos inteligente**
El deporte es la asignatura **menos difícil**
Esta casa es la **menos cara**

Sequencing words in Spanish – play the game and see how many you can learn. Can you put them into a logical order? Which one would you start with? Which one would you end with?

Practise your pronunciation of the school subjects

In many other countries, the 24h clock is used for telling the time. It's used in schools too.

- 00:00 - Medianoche
- 01:00 - La una
- 02:00 - Las dos
- 03:00 - Las tres
- 04:00 - Las cuatro
- 05:00 - Las cinco
- 06:00 - Las seis
- 07:00 - Las siete
- 08:00 - Las ocho
- 09:00 - Las nueve
- 10:00 - Las diez
- 11:00 - Las once
- 12:00 - Mediodía
- 13:00 - La una (or Trece horas in 24-hou
- 14:00 - Las dos (or Catorce horas)
- 15:00 - Las tres (or Quince horas)
- 16:00 - Las cuatro (or Dieciséis horas)
- 17:00 - Las cinco (or Diecisiete horas)
- 18:00 - Las seis (or Dieciocho horas)
- 19:00 - Las siete (or Diecinueve horas)
- 20:00 - Las ocho (or Veinte horas)
- 21:00 - Las nueve (or Veintiuna horas)
- 22:00 - Las diez (or Veintidós horas)
- 23:00 - Las once (or Veintitrés horas)

Tengo las matemáticas **a las nueve y cuarto** = I have maths at 09:15
Tengo las cienciasa **a las diez y media** = I have science at 10:30
Vuelvo a mi casa **a las dieciséis** = I go home at 16:00

What's Cuba like? Spanish Term 6

#Term Learning: Learning about another Spanish – speaking country

Key Terminology	Definition
Hispanophone	The places / countries in the world where Spanish is spoken as a main language.
Immediate past	Stating what you have **just been doing**
Present continuous	Stating what you are doing **at the moment**
Immediate future	Stating what you are **about to do**
Infinitive verb	The form of the verb using 'to'; so, **'to go, to swim, to eat, to sunbathe, to play'** are all examples of the **infinitive** form of the verb.
Infinitive phrase	Uses an infinitive plus a noun, adjective or adverb.
Present participle	A form of the verb ending in **–ing** in English. Ends in **–ando** or **–iendo** in Spanish.

acabar de + infinitive verb = *to come from doing something, to have JUST done something*

acabo
acabas
acaba

acabamos
acabáis
acaban

Acabo de comer= *I've **just** eaten*
Acaba de ver= *He's **just** watched*
Acabamos de nadir = *we've **just** swam*

estar + present participle = *to be busy / in the middle of doing something*

estoy
estás
está
estamos
estáis
están

+

jugando
nadando
escuchando
disfrutando
comiendo
bebiendo
…

Estoy comiendo = *I'm **busy** eating*
Está escuchando = *He's **busy** listening*
Estamos nadando = *We're **busy** swimming*

estar a punto de + infinitive verb = *to be about to do something*

jugar
nadar
escuchar
disfrutar
comer
beber
…

Estoy a punto de comer= *I'm **about** to eat*
Está a punto de escuchar= *He's **about** to listen*
Estamos a punto de nadar= *We're **about** to swim*

CUBA

The Fundamentals of Art

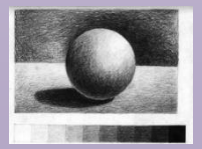
ESSENTIAL EQUIPMENT:
- PENCIL PACK (2B, 4B, 6B ETC)
- ERASER
- SHARPENER
- SKETCHBOOK

OPTIONAL EQUIPMENT:
- DRAWING PENS
- WATERCOLOUR SET
- WATERCOLOUR PENCILS
- PAINTBRUSHES

THE FORMAL ELEMENTS:

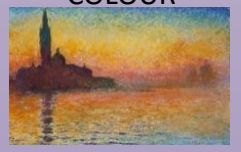
LINE

TONE



SHAPE/FORM

COLOUR



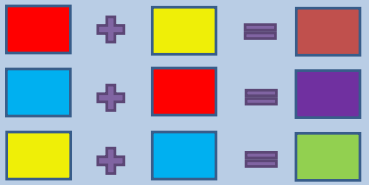
TEXTURE

PATTERN

SENTENCE STARTERS

I can vary tone by…
- layering mark making
- using a range of pencils
- varying the pressure of my marks
- using an eraser to add highlights

My work is successful because…
I could develop my work further by…
My design was inspired by the work of…



ATTITUDE
Be positive and try your best!

RESPECT
Respect others, work and the room

THINK
Understand and demonstrate.

IMAGIINE
Be creative, use you imagination!

SPOTLESS
Tidy up after yourself.

TARGET
Follow directions.

MARK MAKING AND ARCHITCETURE
PERSPECTIVE
TWO POINT PERSPECTIVE
ONE POINT PERSPECTIVE
PARALLEL
HORIZONTAL
VANISHING POINT
DISTANCE
SPACE
DIRECTION
MOVEMENT
LINEAR
OVERLA[[ING
LAYERING

COLOUR
BRIGHT
BOLD
VIBRANT
PRIMARY
SECONDARY
TERTIARY
RADIANT
VIVID
DULL
CONTRASTING
COMPLIMENTARY
HARMONIOUS
MONOCHROME
NATUARL
SATURATED
PASTEL
COOL
WARM

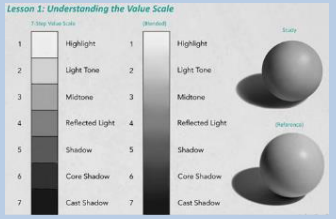
LINE
FLUENT
CONTINUOUS
CONTROLLED
LOOSE
POWERFUL
STRONG
ANGULAR
FLOWING
LIGHT
DELICATE
SIMPLE
THICK
THIN
BROKEN
OVERLAPPING
LAYERED
MARK MAKING

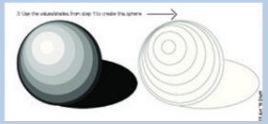
SHAPE/FORM/SPACE
CLOSED
OPEN
DISTORTED
FLAT
ORGANIC
POSITIVE
NEGATIVE
FOREGROUND
BACKGROUND
COMPOSITION
ELONGATED
LARGE
SMALL
2D
3D
TWISTED
JAGGED

PATTERN AND TEXTURE
REPEATED
UNIFORM
GEOMETRIC
RANDOM
SYMMETRICAL
SOFT
IRREGULAR
UNEVEN
ROUGH
BROKEN
GRID
FLAT
WOVEN
ORGANIC
SMOOTH
ABSTRACTED

TONE
BRIGHT
DARK
FADED
SMOOTH
HARSH
CONTRASTING
INTENSE
SOMBRE
STRONG
POWERFUL
LIGHT
MEDIUM
DARK
LAYERED
DEPTH
DEVELOPED
SOFT

TAKING ABOUT ART:
- What are you looking at?
- How was it made?
- Who made it?
- How will it inspire your work?
- Do you like it/dislike it? Why?





HUMAN FORM AND ABSTRACTION

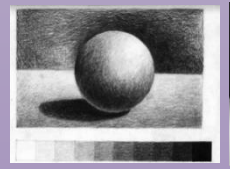
TERM 5 and 6

KEY FORMAL ELEMENTS LINKED TO ABSTRACTION AND HUMAN FORM

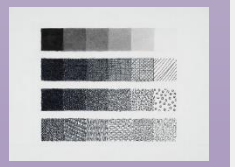
A **LINE** is the path left by a moving point, eg. A pencil or a brush dipped in paint. A **LINE** can take many forms, eg. Horizontal, diagonal or curved.
A **LINE** can be used to show contours, movements, feelings and expressions.

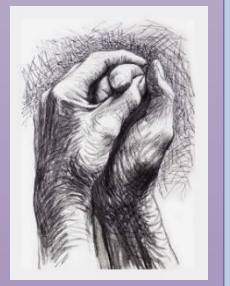
A **SHAPE** is an area enclosed by a **LINE**. It could be just an outline or it could be shaded in.
FORM is a three dimensional shape such as a sphere, cube or a cone.

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



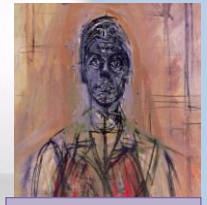
TONE means the lightness or darkness of something. This could be a shade or how dark or light a colour appears.





HENRI MATISSE

AUGUSTA SAVAGE



ALBERTO GIACOMETTI

Artists you could research…

ELISABETH FRINK

Traditionally, when studying the human form, the length of eight heads makes up the human body, from the top of the head to the feet.

Abstraction definition:
Abstraction is art work that does not attempt to be realistic or representational. Instead it aims to explore the use of form, shape, colour, line, tone and sometimes mark making to create an unrealistic piece.

Figures and movement
When drawing figures in movement you don't have to worry about making your drawings exact and accurate.
Try to remember that eight heads go into a body but the movement of line is the most important factor.
Experiment with drawing figures quickly without detail. This in itself is a form of abstraction.

HENRY MOORE

HUMAN FORM AND ABSTRACTION

TERM 5 and 6

PABLO PICASSO
THE OLD GUITARIST, 1903

These two artworks are not related in anyway, were made during different eras and use different materials.

However, when they are placed next to each other there are similarities.

Keywords to describe these similarities might be…

Figure
Human
Line
Overlapping
Layers
Sad
Lost
Musical

PERLE FINE, STUDY FOR KOMPOITION, 1945

Methods of abstraction…

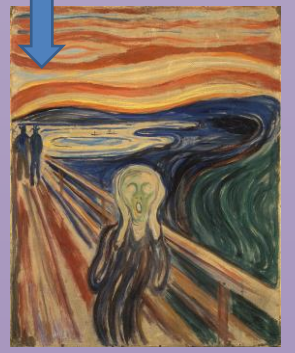
Colour

Shape and form

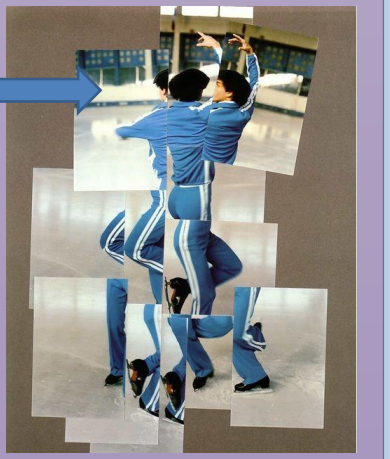
Texture

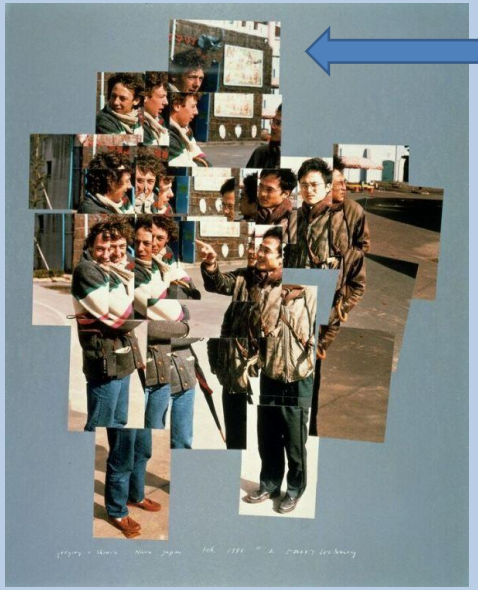
Detail (or lack of!)

Line



Space





DAVID HOCKNEY

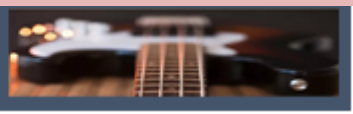
- Hockney is a British artist.
- He creates colourful paintings and photomontages (Joiners).
- He abstracts his work through composition and colour.

HENRI MATISSE

- Matisse was a French painter and paper cut artist.
- He pioneered the paper cut technique.
- He abstracted his subjects through simplification and colour.

ALL ABOUT THE BASS

Exploring Bass Clef Reading and Notation and Bass Line Musical Patterns



Module Learning Objectives

Bass Clef Reading and Notation forms the foundation of this unit which explores a range of commonly used Bass Line Patterns within a variety of different types, styles, and genres of music from different times and places.

#Understand how the Bass Clef is used as a form of musical notation.

#Identify musical instruments and voices which use the Bass Clef.

#Know and understand the construction of commonly used Bass Line Patterns, using these when performing and creating music.

#Understand the importance of a Bass Line in terms of texture and harmony within a song or piece of music.

Here is a mammoth Tuba ensemble playing Nimrod by Edward Elgar. All the musicians are professionals from Symphony Orchestras the world over. It is Awesome in headphones.

I love a good funky bass line and I really adore fretless bass guitars (they have no metal lines marking the frets on the fingerboard).This Bass player Remco is just out standing!

Language for Learning/Music Theory

BASS RIFFS – used in Rock, Rap, Hip Hop and Pop songs, bass riffs are short, repeated, and catchy bass line.

WALKING BASS – used in Jazz, Blues, Rhythm and Blues, and Rock'n'roll.

ALBERTI BASS – a way of playing the notes of a chord in order repeated several times.

BROKEN CHORD – a way of playing the notes of a chord separately in a varied order.

ARPEGGIO – playing the notes of a chord ascending or descending.

BASS PEDAL (POINT/NOTE) – a note of long duration held in the bass par.t

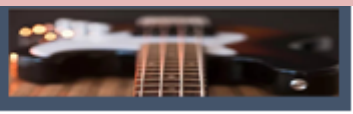
BASS CLEF – A symbol found at the beginning of a stave to show low-pitched notes.

STAVE/STAFF – The five lines where musical notes are written.

Mr Charlton's dream basses. A side valve Besson Sovereign EEb Tuba and a Wal five string fretless bass guitar

ALL ABOUT THE BASS

Exploring Bass Clef Reading and Notation and Bass Line Musical Patterns



A. Bass Clef & Bass Clef Notation

STAFF is the name given to the five lines where musical notes are written.

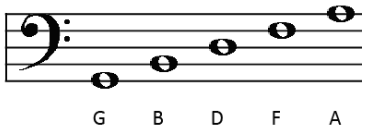
The position of notes on the stave or staff shows their **PITCH** (how high or low a note is).

The **BASS CLEF** is a symbol used to show low-pitched notes on the stave and is *usually* used for the left hand on a piano or keyboard to play the **BASS LINE** and also used by low pitched instruments (*see B.)*

The stave or staff is made up of 5 **LINES** and 4 **SPACES**.

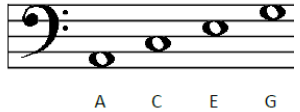
Notes on the **LINES** of the **BASS CLEF**: **G, B, D, F, A**

Green **B**uses **D**rive **F**ast **A**lways

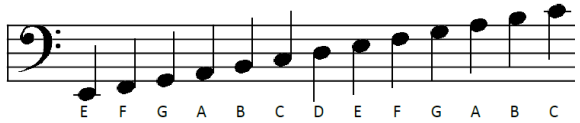


Notes in the **SPACES** of the **BASS CLEF: A, C, E, G**

All **C**ows **E**at **G**rass



Bass Clef **STAFF NOTATION**:



B. Musical Instruments that use the Bass Clef

Left Hand of a **Piano/ Keyboard**

Left Hand & Pedals of an **Organ**

Bassoon

Cello

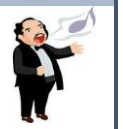
Double Bass

Trombone

Tuba

Timpani

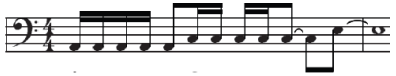
Bass Guitar



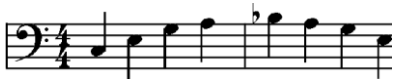
Bass (deepest male singing voice)

C. Bass Line Patterns

BASS RIFFS – Short, repeated, 'catchy' and memorable Bass Line Patterns used in Rock, Rap, Hip Hop, R'n'B, and Pop songs often performed on Bass Guitar. Bass Riffs 'fit' with the notes in the chord, but also use other '**EXTRA**' notes (**PASSING NOTES**) to make them more memorable.



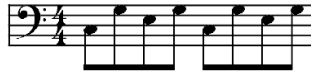
WALKING BASS – used in Jazz, Blues, Rhythm and Blues, and Rock'n'roll, and featuring **a note on every beat**. Using the **ROOT, THIRD** and **FIFTH** of the chord, and '**EXTRA**' notes (called **PASSING NOTES**) to create a smooth bass line often moving mainly by step **(CONJUNCT)**.



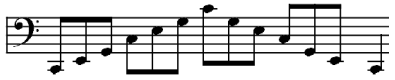
ALBERTI BASS – a type of **ACCOMPANIMENT PATTERN** in the **BASS LINE** using the **ROOT, THIRD** and **FIFTH** notes of a **CHORD** played in a **specific order**:

ROOT	FIFTH	THIRD	FIFTH
Lowest	*Highest*	*Middle*	*Highest*

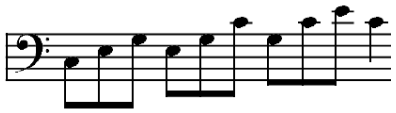
The pattern repeats, but notes change as chord changes and a melody is added 'on top' of the Alberti Bass. Used by Classical composers such as Mozart, especially in solo piano music, as well as modern composers.



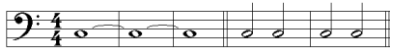
ARPEGGIO: Playing the notes of a chord separately and **in order** *root, third fifth, root, third, fifth etc*, can be ascending (going up) or descending (going down).



BROKEN CHORD – Playing the notes of a chord separately but **not necessarily in strict order** *(e.g., like an Alberti Bass)*, often creating a repeated musical pattern, can be ascending (going up) or descending (going down).



(BASS) PEDAL (POINT/NOTE) – either **SUSTAINED** notes of **LONG DURATION**, or **REPEATED LONG NOTES**, often in **BASS LINE PART**, using the **ROOT** (a **TONIC PEDAL**) or the **FIFTH** (a **DOMINANT PEDAL**). Changing chords, harmonies, and a melody line "fit over the top" of a **PEDAL** note.



SAHARAN SOUNDS

Module Learning Objectives

This unit explores the main rhythmic musical features and devices used in African music, particularly the African drumming tradition of West Africa.

#To recognise, perform and create African music with an understanding of musical conventions and processes

#To explore different rhythmic processes used in African music – cyclic rhythms, polyrhythms, syncopation and call and response and apply these to own composition and performance activities

#To learn about different African musical instruments and make connections between these sounds and timbres available within the classroom

#Listen to a range of different African music, identifying characteristic musical features

The Djembe is the most popular African drum. This video which is an advert from a Ghana drum company is a great insight as to how a Djembe drum is made.

African drumming is enjoyed by everyone. Here is a great street performance from Lithuania!

Djembe!

Language for Learning/Music Theory

BASS SOUND – a sound produced by striking an African drum in the middle producing a “hollow” sound

SLAP SOUND – a sound produced by striking an African drum near the rim with a “cupped” hand

TONE SOUND – a sound produced by striking an African drum between the middle and the edge.

CALL AND RESPONSE – one person plays (or sings) a musical phrase which is then responded like a musical conversation.

CYCLIC RHYTHM – a rhythm which is repeated over and over again (looped).

IMPROVISATION – a piece or section of music which made up on the spot.

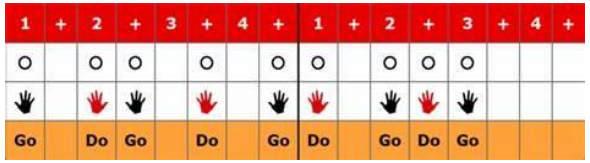
MASTER DRUMMER – often the leader of an African tribe and someone who performs the “calls.

POLYRHYTHM – the use of several rhythms performed simultaneously, often overlapping to create a thick, “polyrhythmic” texture.

RHYTHM – a series of notes of different lengths that create a pattern

SYNCOPATION – a way of changing a rhythm by making some notes sound a bit early, often so that they cross over the main beat of the music.

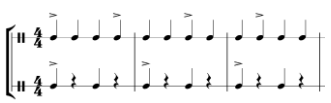
A Drumming Graphic Score

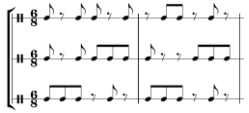


SAHARAN SOUNDS

Characteristic Rhythms and Metres, Traditional Rhythm Patterns & Repetition and Ostinato

REPETITION and **CYCLIC RHYTHMS** used to organise music. A repeated rhythm pattern (**OSTINATO** or **TIMELINE**) is used as a basis for **IMPROVISATION** to "hold the piece together". Use of **SYNCOPATION, POLYRHYTHMS** (shown below right)**, CYCLIC RHYTHMS** and **CROSS-RHYTHMS** (shown below left). **MASTER DRUMMER** can give musical 'cues' to performers to change rhythms during a performance and can also choose to **ACCENT** different beats within a **RHYTHM CYCLE**.





Pitch & Melody and Harmony & Tonality

Most African melodies are based on a "limited number of pitches" - four, five, six or seven note **SCALES** and are normally short and simple, often expanded by **REPETITION** and **IMPROVISATION**. The pitch in African drumming is largely determined by the tuning of the drums. African singers often create vocal harmony by singing in thirds, fourths or fifths. **UNISON** and **PARALLEL OCTAVE** harmony is also common. The basic form of African Vocal Music is **CHORAL SINGING** known as **CALL AND RESPONSE** where one singer (**SOLOIST**) or small group of singers sings a line and the whole group (**CHORUS**) makes a reply (often a fixed **REFRAIN**) – like a "musical conversation" – in alternation with the "lead singer". The soloist often **IMPROVISES**. African singers often "shout words" (**VOCABLES**) and male and female singers enjoy using their highest **VOCAL REGISTER** known as **FALSETTO**. African singing can be accompanied by instruments but can also be unaccompanied (**A CAPPELLA**).

Ornamentation

The **MASTER DRUMMER** can elaborate and decorate his solo drum part with **ACCENTS** and playing in a technically demanding style to "show off" to the rest of the drum ensemble and audience.

Texture

In West Africa, drum ensembles have 3-5 players each with a distinctive method of striking their drum and playing interlocking rhythms. This creates a **THICK** and complex **POLYPHONIC** texture.

Dynamics

Since African Drumming is often performed outside and at social gatherings and celebrations, the dynamics are generally **LOUD (FORTE – *f*)** or **VERY LOUD (FORTISSIMO – *ff*)**, but like changes in tempo, can be indicated by the **MASTER DRUMMER**.

Tempo

FAST – designed for dancing and social gatherings – tempo will match the dance steps. The **MASTER DRUMMER** can both establish the tempo as well as speed up **(ACCELERANDO)** or slow down **(DECELERANDO)** or even set a new tempo with musical 'cues'.

Ensemble

A **MASTER DRUMMER** often leads giving signals to the rest of the group to change rhythms or sections of the piece and can also control the **TEMPO**. He often **IMPROVISES** highly complicated rhythms and can indicate the ending of a piece of music as well as playing the "**CALL**" to **CALL AND RESPNOSE SECTION**S which are 'responded' by the drum ensemble.

Form & Structure and Phrasing

The structure of a piece of African drumming depends on the **MASTER DRUMMER** and has no fixed or determined length, entirely dependent on the rhythms used.

Origins and Cultural Context of the Traditional Music

African Drumming is 'traditional' and handed down via the **ORAL TRADITION** (not written down). Not performed 'at a concert', rather everyone joins in by dancing or playing an instrument, singing or clapping. Combines other art forms and heard at special occasions and celebrations. Many Africans believe that music serves as a link to the spirit world.

Musical Characteristics of Folk Music

Traditional drums such as the **DJEMBE**, **TALKING DRUM** and **DUNDUN** remain popular in African music today, often combined with a number of percussion instruments, stringed instruments and woodwind instruments. **RHYTHM** remains a key feature of African drumming.

Impact of Modern Technology on Traditional Music

African music has been a major influence on the development of popular music contributing rhythms, structures, melodic features and the use of improvisation to such styles as blues, gospel and jazz, brought over to America by slaves. High quality recordings of traditional African music are now possible with advanced recording techniques

Artists, Bands & Performers of African Drumming

Bolokada Conde

Ladysmith Black Mambazo

TALKING DRUM

DUNDUN

Other percussion instruments such as clappers, maracas, scrapers, gongs and xylophones (called **BALAFONS**) produce their sound by vibration and are known as **IDIOPHONES**.

Instrumentation – Typical Instruments, Timbres and Sonorities

Stringed instruments (**CHORDOPHONES**) such as bows, lyres, zithers, harps and the **KORA** are popular as well as some woodwind instruments (**AEROPHONES**) such as whistles, flutes, reed pipes, trumpets and horns.

Social Class and Status

Drama - Year 8 – Term 5 and 6

Two more aspects of Internal character to consider:

Working class, middle class, underclass, upper middle class

Study Focus

This scheme of work will encourage you to look at people and characters from two new and important angles; how powerful and influential they are and, the background they come from. We talk about a character's power and influence as their **status.** All the different aspects of a character's background are referred to as the character's, **social class.**

Status & **social class** have been key themes for many playwrights. They are key parts of an actor's study and training at drama schools and university. They are important concepts in the GCSE drama curriculum. This scheme of work will give you an excellent introduction to **Status** & **social class** and a sure basis for your understanding and ability to apply and communicate these aspects of a character in performance. You will use a range of tasks and draw on a range of previously learned skills and knowledge to develop your understanding of these important ideas and your ability to demonstrate your understanding through several key scenes and exercises.

Things that you will learn in this topic

- What we mean in drama by the term, 'A character's ***status'.***
- What we mean by the term, 'a character's ***social class***'.
- What the difference is between a character's status and their social class
- How to use; voice, body, space & time to communicate a character's status & social class.
- How to use your knowledge of status and social class to create depth and detail in the characters and plays that you write and devise.
- Who was Stanislavski and how his ideas can make your scenarios, characters and acting believable, true to life and convincing.
- How to adapt a given scenario into play format.

Some exercises, tasks & home works you may do in this topic.

The 4th Year Are Animals- Richard Tulloch- you will analyse, interpret, act out and evaluate a scene from this play. You will need to learn lines.

'The Head's office'- you will devise, write, act and evaluate a scenario where a student is questioned about a situation where they were unwittingly dragged into a crime by another student. You will explore all the ways that the characters play '***High' & 'Low' status.***

Tiggy & The Mechanic- This is a scenario designed for you to begin to really understand the difference between a character's status and their social class. You will interpret their Given Circumstances, develop the characters, work out their objectives devise the scene, rehearse the scene practising using your chosen objective. You will explore the language used by people from different social classes- any particular words, phrases and the ways that they are spoken. You will write up the scene in depth and detail.

"…And you know, there is no such thing as society…"

Margaret Thatcher in interview with Women's Own magazine 1987

Some people think that Social class is very important and some people think that it doesn't matter much at all. Some people think that it doesn't exist at all.. That it is not even a thing. In a sense this is definitely true- social class is an idea. It is a way of putting people into boxes. We are fond of putting people into boxes. I wonder if you can think of reasons why we like to do this? Some people think that we can change our social class, others think that our social class stays the same no matter how our situation in life changes. Our status definitely does change through our lives, even day to day, even from one moment to another.

An idea of, **'working class'** men 1800's

Maybe ideas of class change over time

An idea of a 'middle class family 1990's

Key skills and Things to Remember

New ideas to add to your list of **Internal Character** and use in your drama from now on

The Ingredients of a Play- (IOP)

Characters- the people in the play

Plot- The storyline- Your characters in this topic are all part of a family.

Setting- Where & when the scene is set. Your play story and play will change settings because the characters are going on a journey. Different scenes will have different settings.

Speech – The words that the characters say.

Theme – What the play is about- its meaning- its message

Genre – The style of the play. You are writing in the comic genre in this topic.

Classic Play Structure- ***A play has a beginning, a middle & an end-*** **Arisotle circa 500 BC.**

TOP TIP: Remember that the beginning scenes of a play need to show the audience what the characters are like, where & when the scene is set. Some of the scenes that you work on will need to 'break' some of the rules of classic play structure- a problem in your story may not be solved, for example.

Character's Status – this is how powerful a character is. It is not really about how powerful a character is ***physically***- it is more about how powerful they are ***mentally*** and ***spiritually-*** we some times say, how strong they are psychologically. We talk about characters playing* high status and low status. High status characters have the most power and influence. They tend to get what they want and other people seem to do what they want and give them want they want. They are often the most popular and other people want to be around them and to be seen to be around them. They can give orders although the highest status characters don't have to order, or even ask- somehow everyone knows what they want and give it without them needing to ask. Our status can change over time and situation.

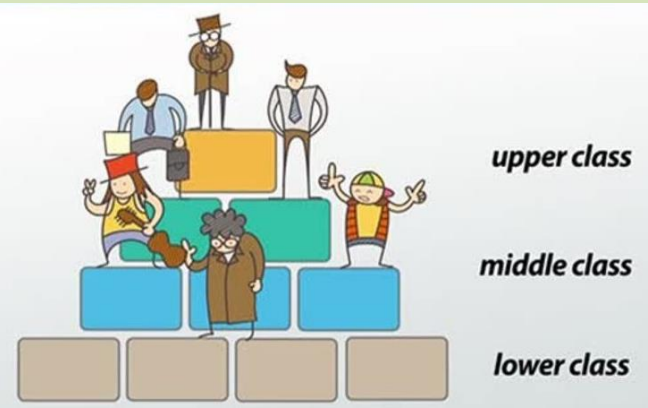
A character's social class- this is quite complicated and people disagree on things. Social class includes things like; where a character lives, how large or small their house is, which street- which part of town their house is in, how much money they have, how much money they earn, how much money their parents have and earn, which school they go to, which school their parents went to. We use terms like ***working class, middle class, upper class, aristocracy, royalty.*** There might also be an ***under- class. A character's class*** includes things such as their job; traditionally jobs that require working with the hands; plumber, labourer, seamstress, cook builder etc. are considered, **working class jobs**. Things like, bank manager, company director, doctor, solicitor- jobs that rely less on physical and more on mental work are traditionally thought of as **middle class jobs**. Aristocratic people and Royalty have titles like; Lord or Earl or Duchess or Her Majesty. These people are often land owners.

A character's social class is sometimes shown in their voice, accent, attitude and behaviour. It might also be shown in their tastes, views, values, likes & dislikes.

Internal & External character – You will need to use your knowledge that we think of ***Internal character*** as all of those things 'inside' a character like their; personality, feelings, thoughts. You will add your new understanding of a character's **status, social class & motivation** to this list. You will need to learn that as well as vocal things like, accent, tone of voice and physical things like; facial expression & gesture, ***External character*** includes the way you use space and time.

Internal Character

Personality
Thoughts
Feelings
beliefs
Mood
Status
Class



From, ***The 4th Year Are Animals*** **Richard Tulloch Act Now ISBN 0-521-34934-6**

(Outside the office – Alan encounters Kelly in the Playground.)
Alan: Excuse me – can you tell me where the office is?
Kelly: You a new teacher?
Alan: That's right.
Kelly: What you teaching?
Alan: English I think.
Kelly: Hasn't Mrs Harrison told ya?
Alan: Is that the Head?
Kelly: You want to see her?
Alan: Yes, that's why I asked…
Kelly: You go down the end of this corridor, then there's these double doors that's the gym and then you turn down to your left and that's her office.
Alan: Thanks. ***(He starts to go)***
Kelly: What's your name?
Alan: Alan… Mr Howman. What's yours?
Kelly: You been at a school yet?
Alan: Pardon?
Kelly: You been at a school yet?
Alan: Have I been teaching at a school you mean?
Kelly: Yeah.
Alan: Well yes- I've done some teaching practice while I was at college.
Kelly: This is your first job as a teacher though.
Alan: Paid job, yes.
Kelly: Oh- I hope we get you.
Alan: You never know your luck. ***(Kelly Exits.)***

Things to consider in this scene

- What sort of back ground do you think Kelly is from… what **social class** is she from? What do you base your opinion on?
- What sort of back ground do you think Alan is from… what **social class** is he from? What do you base your opinion on?
- Which character should have the higher **status**? Which character does have the higher **status**? What are some reasons for this?
- How would you, as an actor, 'play' Kelly to show her **status** and **personality-** how would you use your **voice, physicality** and **stage space** ?
- How would you change your voice and body to show Alan Howman's s**ocial class, personality** and **status**?
- Before British schools went over to the American system, Y 10 was called the 4th Year. Why is the play called, '***The 4th Year are Animals***'?

Constantine Stanislavski 1863 -1938

Sometimes known as, 'the father of modern drama', Stanislavski was a Russian teacher, theatre director, theoretician and practitioner. His ideas are taught extensively in drama schools and University drama departments. His techniques and methods are used by all modern stage, television and cinema actors to greater or lesser degrees. Stanislavski dedicated his life to finding ways to help actors act more naturally, truthfully and creatively. Some of these ideas are contained in his, ***Psycho – technique*** (short for psychological technique). In this scheme of work you will learn about and use, two of them; ***Given circumstances*** & ***Objectives.***

Character's **Given Circumstances-** this is everything about the character's situation that is relevant to the situation. It includes the character's age, mood, financial situation, relationship situation, everything that has just happened and is going on in their life- because that is what they ***bring*** to the situation.

Character's ***objective –*** This is what the character wants in and from the situation, for example, Alan Howman in The 4th Year Are Animals, wants to find the office and Carol wants work out what he is like and mess him around a bit. In, Tiggy & The Mechanic, Tiggy wants her car keys, The mechanic wants her to understand that the car is not safe and he will not give her the keys under any circumstances..

You will practise these and learn more of them in Year 9 .

Stanislavski is one of the key Practitioners that you would study in GCSE drama.

Constantine Stanislavski 1868 - 1936

Ways of 'Playing' low status

- Thin, weak tone of voice.
- Often high pitch.
- Often quiet, unvoiced.
- Stammer, nervous stutter
- Fast nervous, gabbled or slow unsure and uncertain
- Closed up body language- 'holding onto themselves'
- Fidgeting, fiddling, fumbling.
- Playing with fingers.
- Touching face, hair.
- Biting nails, biting lip.
- Taking up as little space as possible
- Small personal space.
- Can only go somewhere when they have permission
- Have no control of when things happen- things happen to them.

Ways of Playing' high status

- Strong, assured tone of voice.
- Often a low pitched voice
- Loud volume where necessary.
- Often speaking slowly in a calm measured tempo-rhythm.
- Open, strong and relaxed body language
- Strong straight posture
- Stillness
- Minimal movement
- Takes as much time as they like- high status people, 'own' the time. They control how quickly or how slowly things happen. They can speed up or slow down as they wish. They determine what happens and when.
- Uses as much space as they like- high status people can go where they want, when they want. They control the space. They have a large personal space- sometimes they have an aura about them. They can invade other people's personal space and they can respect it too, as the very highest status people do.

Communicating your character's status

An actor communicates the character's status just like they do any other aspect of their ***Internal character***, by using their ***External Character*** – their **voice** e.g. **Tone, body** e.g. **facial expression, time** and **space.**

Extra Practitioner: Keith Johnstone – *Improvisation.*

This is a wonderful little book whose exercises are used a lot in drama schools and by drama teachers. There is a whole, excellent chapter on, status.

Remember that actors communicate everything about their character by the way they use their voice, body, stage space and time. Remember this when rehearsing ***The 4th Year…*** and devising, ***Tiggy & the Mechanic***.

Tiggy & The Mechanic - a story about social class & status for you to adapt for the stage

This story and work is to help you see the diference between **class** & **status.**

Context - background

Tiggy is from a *'good family'*. The kind that has the Chief of the Metropolitan Police around for supper or, a law lord, University Professor, or a leading bishop. Never pop stars - nothing vulgar or, 'new money'.

Upon graduating from **Oxford**, Tiggy's father bought her a delightful bijou place on ***Flood Street, London SW15TE.*** Her father said that it be an investment and cheaper than renting in the long run. The price was not disclosed, but the property average in Flood Street in 1997, was 2.3 million. She needed somewhere in London whilst she was doing her master's at University College London **(UCL)** or The London School of Economics **(LSE)** – I forget which. I forget what her Master's was in now, too. Anyway, she needed somewhere in London and got one.

For completing her Master's with, 'flying colours', her father had a Mercedes car designed and built for her. Everything was to her taste and ergonomically designed for her body and driving style. The car was a 'one -off', unrepeatable, a beauty. It would appear in many fashionable magazines. Tiggy would drive it to the ***'98 Debutantes' ball*** at the **City Hall Edinburgh.** Anyone who was anyone would be there and Tiggy daydreamed about pulling up at the steps of the City Hall in the late summer, bright, evening sunshine.

As the car was a, one- off, there was a simple but very important thing that she needed to check for the first week or two but she had forgotten. It meant that as she was driving home on the Friday evening, the car cut out and smoothly and softly and safely came to a standstill on The King's Road, just before the turning into Flood Street.

At the junction of Flood Street and the King's Road, there is a small garage. Not a chain. It had been there for years and years. In fact the Mechanic's grandfather had opened it way back when Chelsea was an ordinary part of London, a bit rough even, in places. The Mechanic was working late to get a car finished for a customer, as he often did. He was always busy. Anyone in the know brought their cars to him as he was, ***'as honest as the day is long'*** and the kind of man that must have been, '***born with a spanner in his hand***.' If he couldn't fix it, then it couldn't be fixed, was a local saying.

Tiggy ran into the Garage not even minding going through the thick polyurethane drapes that separated outside the garage from inside the garage and maybe kept some heat in during the winter. They did keep the heat out in summer for which the Mechanic was always appreciative and may have partly explained some of his late finishes in June, July and August.

She almost bumped into him as her eyes failed to adjust from the keen sunshine to the cool gloom of the garage. "Whoa, can I help you miss?" the Mechanic smiled generously and warmly. "it's my car, it's just stopped and won't go" Tiggy blurted. "And it's on a double Red... it's outside." Don't worry Miss I'll get it pulled in right this minute" the Mechanic assured her. She pursued him as he walked to the pick-up, " I need it by tomorrow... by 12.. I have to be at a party in Edinburgh". "I will do my best, Miss..." Tiggy didn't listen to the rest as she turned with a hundred, 'thank yous, you're a life saver' and other platitudes.

The Mechanic did do his best. He was even a little late to his granddaughter's birthday as he stayed, phoning around to find a replacement part. However, because the car was unique in many ways, there was nowhere in the UK that had the part; a small, vital and unassuming sensor that monitored things that Tiggy thought most worthy of other people's attention.

Tiggy walked down from Harrods with two identical dresses apart from the colour which she couldn't decide on and instead decided to decide once she arrived at the Ball. The dresses were, of course, reassuringly expensive enough to ensure that no one else could afford them.

Devise & act from this point

The next morning – Saturday, 11am. It's a sunny morning on The King's Road

Tiggy stooped as she pushed through the heavy polyurethane drapes. She grimaced as she noticed the acrid, metallic smell and mini pools of oil that she'd missed in her panic yesterday. She walked gingerly towards the 'office' where she'd encountered him yesterday. "Hello" ....." Hello!" she repeated, loudly. "just one minute miss.." the Mechanic answered as he slowly and methodically emerged from beneath a vehicle which Tiggy noted wasn't her own. "I've come to collect my car" she announced with her standard smile for these situations. " I am so sorry, Miss. I have not been able to mend your car" "Pardon ? " she interjected. Tiggy had been shielded from any bad news for the totality of her 22 years. "It needs a new part and I can only get in from Mercedes HQ in Stuttgart. It's a sensor. They made it especially for your car, I'm told. They will press you another on Monday without del" "But I need it now.. I have to go to Edinburgh. A party. I have to-" "You're going to have to take the train Miss, or maybe I could loan you one of these" Tiggy didn't glance to look at, *"one- of - these'* ... C.O 2020

Rules

Athletics

Confidence

Fitness Levels

Rules of Performance for each discipline:

- What are the rules for correct technique in jumping and throwing events?
- Should we consider the rules for Health and Safety?

Middle distance: 800m, 1500m

Maintaining a good position:

Running technique:

- Upright body position
- Head still and looking straight ahead
- Relaxed head, neck, arms and shoulders
- Gently swinging arms forwards and backwards and slightly across the body
- Easy stride length
- Landing foot placed just ahead of the body
- Pushing off the ground to straighten the leg fully on each stride
- Fairly low know lift to conserve energy on each stride

Race tactics:

Should you consider to sprint at these points at the race:

- Sprint start
- Start of the 2nd Lap
- Back straight
- Final Bend

Implementation of the Academic Standards to the PE Environment:

- Arrive promptly and change within the allocated time.
- Always have the correct PE kit.
- Fully engaged throughout the lesson, striving to improve performance of skills and techniques at every opportunity.
- Motivated and contributes 100% effort.
- Can work independently to complete a warm-up, drills and competitive situations.
- Perseveres and doesn't give up, demonstrates resilience when practicing and applying skills to different situations/ game scenarios.

High Jump

Approach:

- Fast, curved approach, body leans inwards

Take Off:

- Take off foot placed slightly ahead of the body
- Take off foot landing with the heel leading and the foot virtually parallel to the bar
- Take off leg slightly bent at the knee before take off
- Upward drive directly off the jumping foot
- Take off about an arms distance away from the bar and about a quarter of the crossbar's length in from the nearest upright

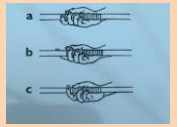
Scissor Kick Technique:

- Swing the leg nearest to the bar upwards and back towards where you have run from
- Turn your body in the air so you are jumping backwards over the bar
- Push your hips upwards to clear the bar
- Straighten legs quickly as soon as hips have cleared the bar

Landing:

- Land on your back and shoulders

Javelin



Grip:

- Choose you grip; A, B or C

Preparation:

- Javelin is taken back a full arms length with the tip being inline with your nose

Release:

- Pull the Javelin arm through very fast above your shoulder
- Rotation will start from the knee and move through the hip and trunk until the Javelin is released

Cricket

Rules

Confidence

Fitness Levels

Bowling Technique Checklist:

The Bound
- Ball held at chin
- Arms thrown up
- Body leans backwards

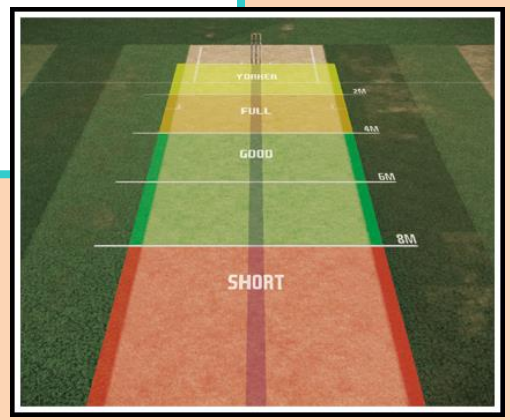
The Coil
- Front arm pulled back
- Make a figure of six with bowling arm
- Back foot lands parallel to the crease

The Release
- Release ball at 1 o'clock
- Arm brushes ear
- Look over your shoulder

Follow Through

Line and Length…

When bowling we need to ensure we are pitching the ball at the correct line and length.



Implementation of the Academic Standards to the PE Environment:
- Arrive promptly and change within the allocated time.
- Always have the correct PE kit.
- Fully engaged throughout the lesson, striving to improve performance of skills and techniques at every opportunity.
- Motivated and contributes 100% effort.
- Can work independently to complete a warm-up, drills and competitive situations.
- Perseveres and doesn't give up, demonstrates resilience when practicing and applying skills to different situations/ game scenarios.

Watch the following clip on the 11 different types of dismissal (ways of getting out) in cricket: https://www.youtube.com/watch?v=K3qVwuPXHX4

<u>One handed pick up and throw</u>

When fielding close to the wicket you need to be on your toes to prevent quick singles being taken by the batsmen.

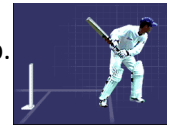
Step One
- Approach the ball quickly in short strides, bending the knees as you meet the ball.

Step Two
- Pick-up the ball with your throwing hand on the outside of the corresponding foot (i.e.: outside the right foot if you throw right-handed).

Step Three
- As you are about to take the next step the throwing hand swings back, still keeping the head down.

Step Four
- Release the ball early towards the target, with the palm of the hand following through on a direct path for as long as possible.

Straight/forward drive



Usually played to a full length delivery on or outside off stump.

Step One
- Lean in with the front shoulder.
- The front foot and a bent front knee form the base for the shot.

Step Two
- Head should be in front of the bent knee
- The bat swung forward and makes contact with the ball under the head.

Step Three
- The bat is swung with a straight path,
- Relax your wrists and follow through the shot

Rules

Rounders

Confidence

Fitness Levels

Scoring

- A rounder is scored by the batting team when a player hits the ball and runs around all 4 posts.
- A half rounder is scored if the batter hits the ball and runs to the second post.
- A half rounder can also be scored if the batter does not hit the ball but runs around all four posts.
- A half rounder can also be awarded by the official for two consecutive no balls and obstruction by a member of the fielding team.

Bowling Rules

- The ball must ass the batter between their head and knee.
- If the bowler bowls two 'no balls' in a row to the same batter, half a rounder is awarded to the batting team.
- The bowler must not step out the front of the box when bowling.
- Bowling must be a smooth action, and the ball must not bounce before reaching the batter

The Bowler is Boss

- The bowler stands in the square when bowling.
- When the bowler has the ball in the square, batters must not run on from the port they are waiting on or running towards.

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Varying the speed of bowling

Varying the speed of your bowling is a tactic used to make it difficult for the opposition to know what to expect.

Fast Bowling

The faster the ball travels the less time there is for the batter to adjust his/her stance, and to time his/her swing to hit the ball.

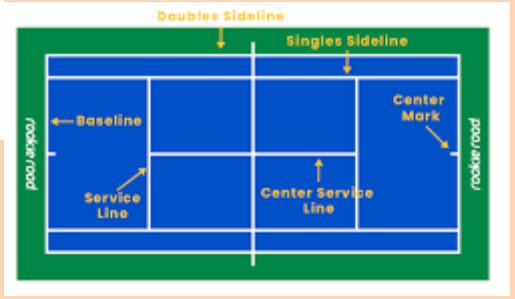
Spin Bowling

A spin bowl can make the batter hit the ball upwards, therefore making it easier for the fielding team to catch the ball and get the batter out. A bowler can learn to spin the ball, gripping the ball between the thumb and the first two fingers and twisting them on release.

The Donkey Drop Bowling Technique

- Stand facing the batter, one or two paces back from the front lime of the bowling box.
- Hold the ball in your strongest arm
- Swing your arm from the back to the front (like a pendulum) with an underarm action.
- Step forwards as you swing your arm forwards.
- Release the ball a little higher than waist height.
- Flick your wrist upwards to send the ball looping up rather than straight out.
- Transfer your weight from your back leg to your front leg, keeping slightly lower to the ground than in a straight arm bowl.

Rules



Tennis

Fitness Levels

Confidence

Serve
- You need to be able to hit the ball hard but also with great accuracy.
- The more points you can take on your serve with service winners and aces, the harder you will be to beat.

Step one:
- Don't rush – spend time setting yourself up
- Line your feet up with where you want the ball to go
- Point your racket forwards to the target, using your other hand to balance

Step Two
- Balance, timing and Rhythm are key to success.
- Turn your body sideways, transferring weight onto your back foot
- Throw the ball up above your head and in front of you.

Step Three
- Racket arm should be behind you in a throwing position.
- As you perform the throwing action, transfer weight onto your front leg

Step Four
- At the top of the throw, contact the ball.
- The higher the contact, the more power you can generate.
- Follow through across your body and look to recover to the ready positon as quickly as possible.





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Drop Shot
- As players hit with more power and more top spin the drop shot has become increasingly effective as a surprise variation.
- Use this when you have forced your opponent back behind the baseline with a series of deep and powerful shots.
- Then surprise them with a shot that just goes over the net with some backspin to kill the bounce.

Step One
- Ideally the ball that is coming to you should not be too low and will also have a little bit of pace on it .
- Disguise is vital. You want your opponent to be on their heels expecting a deep powerful shot from you.
- To do this you need to move up to the ball and prepare as if you were going to hit a topspin drive.
- You need to set up with a big back swing and shape to hit a topspin shot.

Step Two
- Then at the last second change the shot.
- Shorten your back swing right down and move your racquet head to the ball with a slightly open racquet face.
- Soften your grip on the racquet and as you hit the shot try to feel your racquet face cushion down the back and underneath the ball.
- This will take the pace off the shot and will also generate some backspin killing the bounce.

Step Three
- Often though they just manage to scrape it back.
- Because of this you need to follow your drop shot in to the net a little.

YR8 Textiles Knowledge Organiser

Textiles are highly adaptable and can be constructed to maximise different properties including a very high strength and weight ratio, which means less materials can eb used to make strong and robust products.
Textiles are available in many different forms including rolls, yarns, and fibres. Some textiles can be very cheaply produced and some are extremely expensive, especially when using rare fibres and labour intensive techniques.

The categories of textile are:

- Natural Fibres
- Synthetic Fibres

- Woven Textiles
- Non-woven Textiles
- Knitted Textiles

Natural Fabrics		
Plant-based natural fibres	**Characteristics**	**Uses**
Cotton 	Soft and strong, absorbent, cool to wear and easily washable. Cotton fabrics can be given a brushed finish to increase their properties.	Most clothing, especially shirts, underwear and denim can be made from cotton. Also used for towels and bedsheets.
Animal-based natural fibres	**Characteristics**	**Uses**
Wool 	From fine and soft to thick and coarse, it is warm and naturally crease resistant. Can shrink. Often blended to add functionality.	Jumpers, coats, suits and accessories worn for warmth. Specialist wools are very soft and expensive. Felt products and carpets.
Silk 	Very soft and fine finish, gentle on skin, can feel cool in summer yet warm in winter, drapes well, absorbent, strong when dry (weaker when wet), tricky to wash, can crease easily and is usually expensive.	Luxury clothing including nightwear and underwear, soft furnishings, bed sheets, silk paintings and wall hangings.

Synthetic Fibres		
	Characteristics	**Uses**
Polyester 	Tough, strong, hard wearing, very versatile, holds colour well, non-absorbent so quick drying, machine washes well. Often blended with other fibres. Easily coloured.	Clothing, fleece garments, bedsheets, carpets, wadding, rope, threads, backpacks, umbrellas and sportswear.
Polyamide (Nylon) 	Good strength, hard wearing, non- absorbent, machine washes well, easily and frequently blended.	Clothing, ropes and webbings, parachutes and sports material. Used as a tough thread on garments.
Elastane (LYCRA)	Added to fabric to enhance working properties, particularly to add stretch. Allows freedom of movement, quick drying, holds colour well, machine washable.	Sportswear, exercise clothing, swimsuits, hosiery, general clothing, surgical and muscular supports.

Blended and Mixed Fibres		
Poly- Cotton	More durable than pure cotton but not as breathable. Can be produced more cheaply than cotton alone. Many blends are available; 65% cotton 35% polyester to 50/50 are common.	General clothing, sheets and bedding. Can be used as an alternative to most cotton products.

Where In The World Does Cotton Grow?

Cotton is a plant. It grows in warm climates – especially……..

WESTERN ASIA –
Turkey
Uzbekistan

USA especially –
Texas
Arizona
New Mexico
Georgia
Alabama
California

CHINA

BRAZIL

AFRICA especially –
Mali
Benin
Burkina Faso
Uganda

SOUTHERN ASIA –
India
Pakistan

The Cotton Plant - *Gossypium hirsutum*

Cotton is grown in large fields.

Cotton is the most recognised and widely used natural fibre used in the world today.

Cotton, used in its pure form or blended with other fibres, makes much of the world's clothing and textile products.

The cotton is harvested either by machine or by hand.

The cotton bolls are collected and taken to a factory.

This machine – a Cotton Gin - separates the seeds from the cotton fibres.

The cleaned fibres are spun into a yarn.

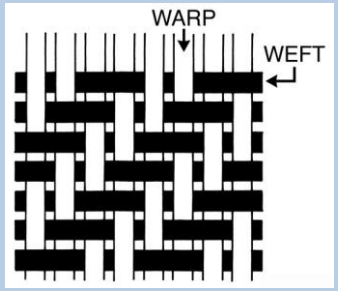
These yarns are woven or knitted into material.

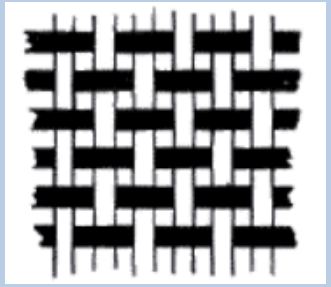
Woven Textiles

Weaving is the most common way to produce cloth from yarn. The cloth is made up of two sets of yarns which are threaded at 90 ° to each other. The warp threads are fixed in the loom and run the length of the fabric. The weft threads run across the width of the fabric from selvedge to selvedge.

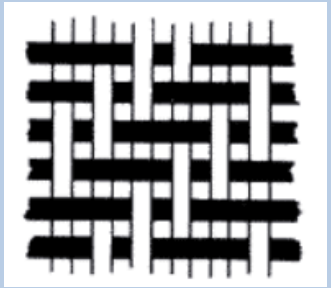
There are many different types of weave, the most common of which is plain weave.

Plain weave is a very simple but tight weave. The weft yarn goes alternatively under and over the warp yarns. It is the most basic pattern and hence tends to be the cheapest to produce. The finished fabric is identical on both sides.





Plain Weave



Twill Weave

Non-Woven Textiles

Non-Woven fabrics are made directly from fibres without being spun into yarns. The most commonly available non-woven fabrics are bonded fabrics made from a web of fibres held together with heat or adhesive. Common uses of non-woven fabrics include disposable products such as garments worn by surgeons and crime scene investigators, dishcloths and interfacings. Non-woven fabrics can be given special treatments such as flame resistance to make head rest covers on trains and aircrafts.

Felting

This is a mechanical process which has traditionally been done by hand, but is now mainly machine produced. It involves matting together wool or synthetic fibres using a combination of heat, pressure, moisture and movement to mesh fibres together in a random way. Felt can be formed into shapes when wet, but it does not have any elasticity and will drape well when dry. It is snot strong and can pull apart under tension, but will not fray like woven fabrics.

	Characteristics	Uses
Knitted fabric	Warm to wear, different knits have different properties such as stretch and shape retention. Weft knits ladder and unravel more easily than warp.	Jumpers, cardigans, sportswear and underwear fabrics, socks, tights and leggings craft items such as soft toys.

Knitted Textiles

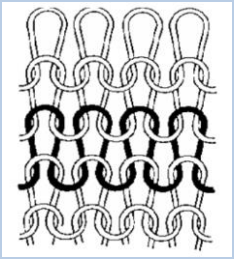
Knitting is a traditional technique of interlocking yarn loops together to produce a fabric and has been used well over 2000 years. There are two types of knitted fabric called weft knit and warp knit. With all knitted fabric, if a yarn breaks then it can come apart or ladder. Knitting can be done by hand or machine.

Weft Knitting

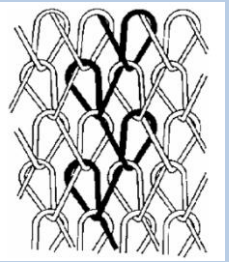
Weft knit fabrics are made by hand or by machine using a single yarn that forms interlocking loops across the width of the fabric. They tend to be quite stretchy due to the method of interlocking and therefore can lose their shape quite easily.

Warp Knitting

The loops in warp knit fabrics interlock vertically and are less prone to unravelling and laddering, which makes them easier to cut into sections and sew together for the construction of complex garments. They are less stretchy than weft knits and tend to hold their shape more effectively.



Weft Knit



Warp Knit

	Characteristics	Uses
Bonded fabric	Fabrics lack strength, they have no grain so can be cut in any direction and do not fray.	Disposable products such as protective clothing worn for hygiene purposes, tea bags, dish cloths and dusters.
Felted fabric	Can be formed with moisture and heat; once dry it has no elasticity or drape, and can pull apart easily. Wool varieties can be expensive.	Hats, handicraft, pads under furniture to prevent scratching, soundproofing and insulation.

Design Strategies

You can use design strategies to come up with initial design ideas without getting you on a bad one. Designing is a really complex process and there are several different ways of doingit:

Systems approach: This meansbreaking down the process into a numberof different strategies and doing each in turn.

User-Centred design: The wants and needs of theclientareprioritised-theirthoughtsare given a lot of attention at every stage of design andmanufacture

Iterativedesign:Centredaroundthedesign process of evaluationand improvementat each stage ofdesigning.

When you are designing a product it is easy to get stuck on a particular idea. This is called design fixation and it can stop you thinking creatively and coming up with innovative ideas.

Followingthe design strategy can helpyou avoid design fixation and encourage you to look at your design in a critical way to make improvements. Otherways to avoid are-

- Collaboration
- Honestfeedback
- Focusingon new solutions
- Using freshapproaches

Key Words

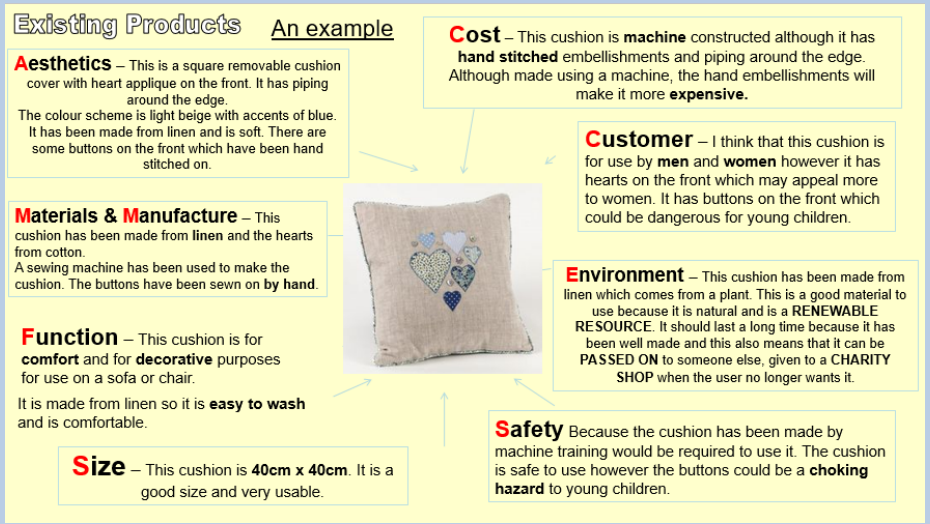
PRODUCT ANALYSIS: investigating the design of existing products.

FUNCTION: the task that the product is designed to do.

AESTHETICS: relating to the beauty of a product; how something looks.

Product Analysis: involves investigating **existing products**. It's not just about describing them, it's about understanding why they are designed in the way they are too! If you can identify the good features of the product you may be able to use these in your own design.

Aesthetics	Describe - Appearance? Use of Colour? Lettering? Images? Style? Decoration method?
Cost	Is the product value for money? Do you think it was expensive or cheap to make? How much would it sell for?
Customer	Who's the customer? Who is it aimed at and why? How well does it suit the customer. What makes it suitable for them?
Environment	Is the product environmentally friendly? Is it recyclable? Can it be re-used? Does it use organic cotton? Will it last a long time?
Safety	Is the product safe to use? Are there any sharp edges or loose parts? What regulations has it passed? What does the care/flammability label say?
Size	What size is it? What shape is it? Are the measurements equal?
Function	What is the product's job? What has it been designed to do? How well does the product do its job?
Materials	Is it made from suitable materials? What is the fabric content? What are the wash/ care instructions



ACCESS FM: is a way of remembering what you should investigate when analysing a product. Each letter stands for a different thing you should analyse.

A **SPECIFICATION** can come from analysing existing products. ACCESS FM can be used to check that you have covered all the different types of need in your specification.

Tie - Dye

A resist technique. The process of **tie-dye** typically consists of folding, twisting, pleating, or crumpling fabric or a garment and binding with string or rubber bands, followed by application of **dye/s.**

Natural Fabrics are best for tie-dye.
Pre washed **cotton** is more absorbent. New cotton fabric has a waxy finish applied to stop it creasing too much.

Chemical Fabric Dyes

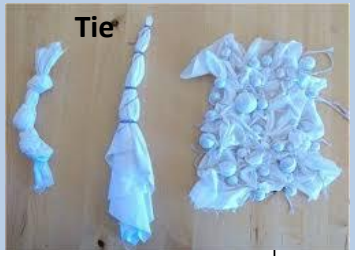

Elastic bands


Dye Bath/Vat

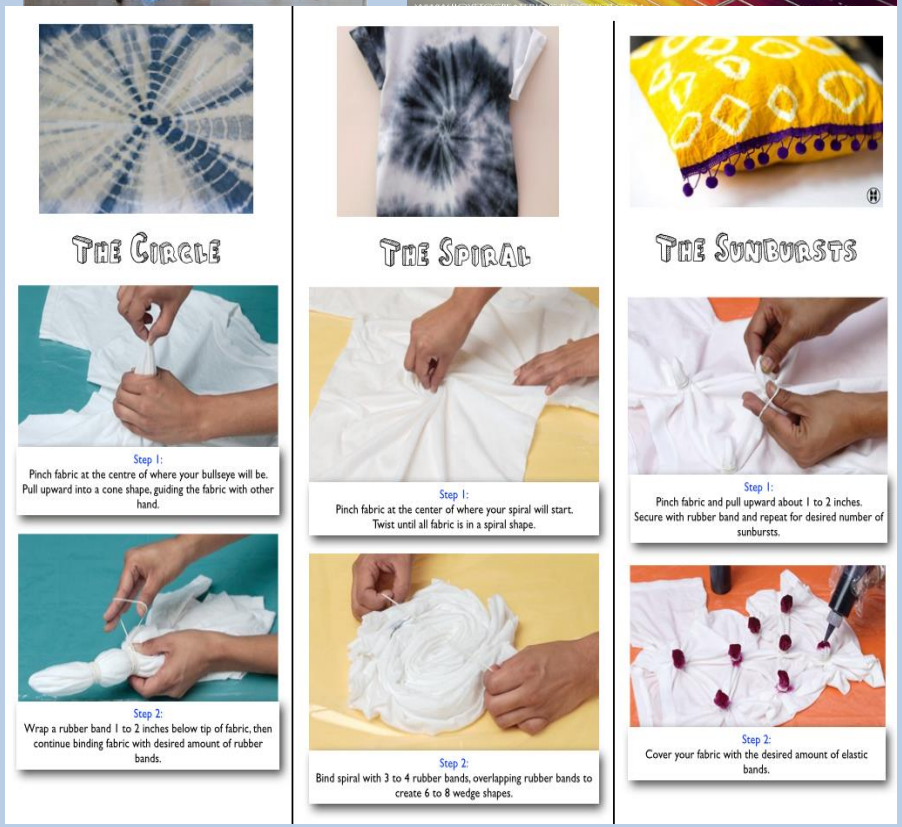

Apron


Goggles


Gloves



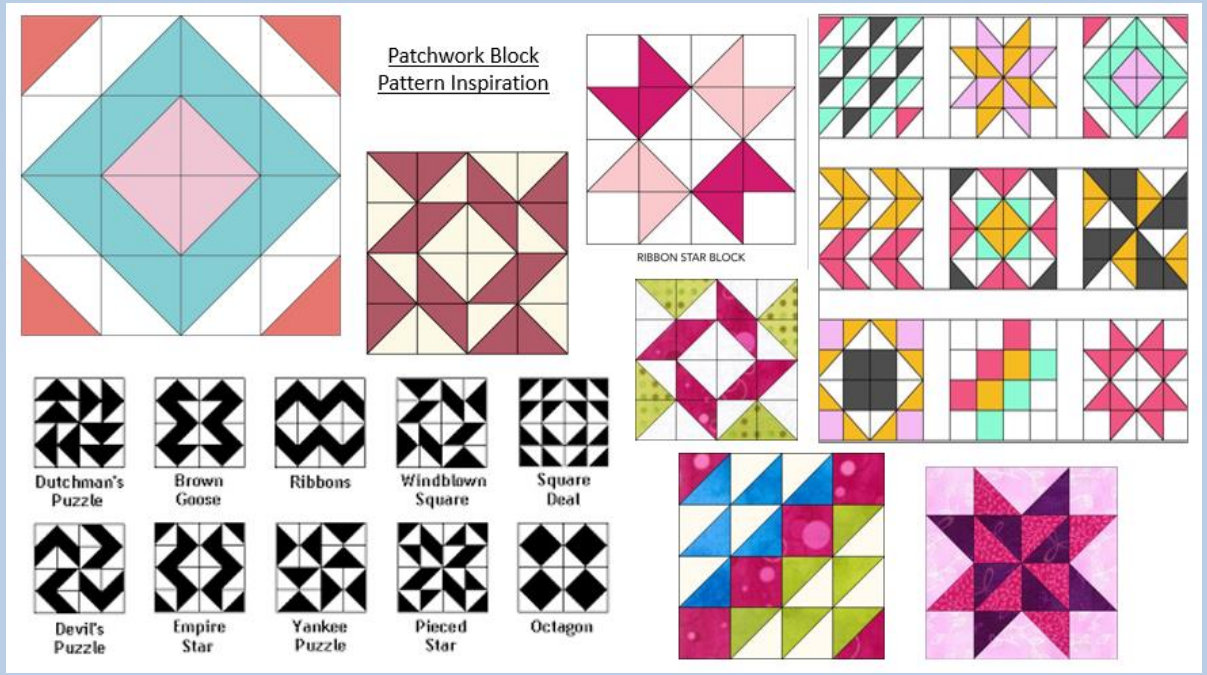
You must always follow the health and safety rules when using dyes.
An apron, goggles and gloves should be worn when working with dyes. In industry overalls would be worn as well. All equipment should be used correctly.



TIE-DYE PATTERNS AND TECHNIQUES

Patchwork

PATCHWORK is a form of needlework or craft that involves sewing together small pieces of fabric and stitching them together into a larger design.
Patchwork is traditionally 'pieced' by hand, but modern quilt makers often use a sewing machine instead. The size of the finished piece is determined by the maker



The tradition of the patchwork we know today was taken to America by the Pilgrims.

They took at least one piece of "bed furniture" i.e. blankets, with them. Times were hard, they had no money so, as things wore out, so they would be repaired and reused.

Patchwork is a great way to consider the **6 Rs** and **RECYCLE** materials and fabrics – a good form of **SUSTAINABILITY**.

Construction Key Words

RIGHT SIDE = the side of the **fabric** is the side that is meant to be seen. It usually looks nicer.

PRESS = Iron the fabric/seam. This must be done after every stitched seam.

CROSS PIN = placing pins in fabric horizontally to keep the two pieces together temporarily whilst stitching.

'10 LINE' = the 1cm distance from the machine needle to the line on the throat plate.

SEAM ALLOWANCE = the area between the fabric edge and the stitching line on two pieces of material being sewn together.

QC CHECKS = checking for quality and accuracy of your stitching and construction

Use tailors chalk to mark around your templates onto the fabric. Cut them out using fabric scissors.

Lay out your fabric pieces do that they follow your design.

Flip 'right side' of fabric pieces together and 'cross pin' in place along the edge you are going to stitch. Machine straight stitch "10" line. Remember to use the reverse stitch at the beginning and the end.

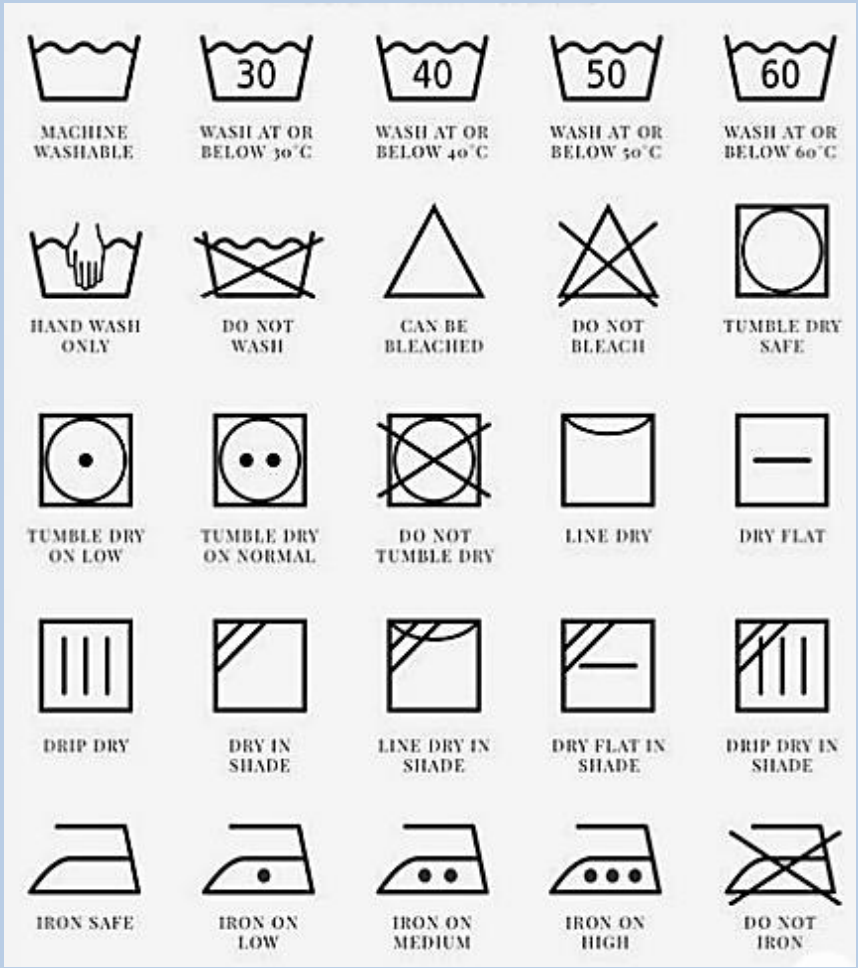
Iron the patchwork on the reverse. Do this every time you stitch a seam.

CARE INSTRUCTION LABELS

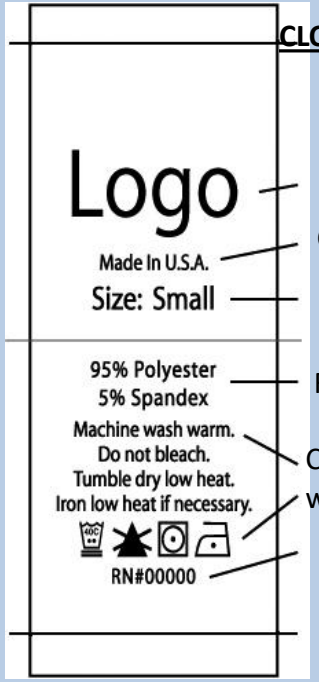
The world of care labels can be confusing. There are many **symbols**, all with slightly different meanings.

Reasons to have care labels:

- To make sure that the garments we buy stay in the condition we buy them and do not shrink or stretch.
- Symbols provide the same information to everyone without language barriers.
- Using symbols allows for smaller, more comfortable care labels.
- Smaller labels also cost less to produce which could translate into consumer savings.



CLOTHING LABELS



Designers need to be aware of the issues related to products that they design. The regulations detailed below need to be incorporated into their design specifications to ensure that the product created meets the demands of regulations and the end user.

GOV.UK

There are four areas of information that are required to be displayed by **LAW**:

- Garment care symbols
- Country of origin
- Fibre content
- Manufacturer (Registered Identification Number)

And on children's clothing/toys SAFETY e.g. flammability.

Key Act/Regulation	Which area of the textiles/fashion industry is it related to?
Children's Clothing (hoods/cords) Regulations 1976	Children's wear
Nightwear (safety) Regulations 1985 Nightwear (Amendment) Regulation 1987	Nightwear for adults and children
Furniture and Furnishings (Fire) (Safety) Regulations 1988 1989 1993	Any furniture, furnishings including chairs and cushions.
Toys (safety) Regulations 1995	All toys
Textile Products (indication of fibre content) Regulations 1986, 1988, 1998	All textile products, usually shown on the care label.
Footwear (indication of Composition) labelling Regulations 1995	All footwear needs to clearly show the key details of fibre content/fabric composition.

The Electric Iron. Think safe- Act safe – Be safe

Temperature Dial

This adjusts the TEMPERATURE.

Power Lead

Don't allow the cable to trail on the floor.

Temperature Indicator

It switches off when the iron reaches the set temperature.

If the plug and/or power lead are damaged in any way DO NOT USE it (any electric item).

Sole Plate

It is METAL. It gets HOT. DO NOT TOUCH.

Make sure that the iron is switched off and always placed securely on the board when not in use.

You need to know how to keep yourself and others safe in the Textiles Workshop.

As there might not be a super hero to rescue you!

This is the PLUG.

When you are finished with an iron TURN IT OFF at the mains.

Ensure the iron is placed on a secure surface, out of the way.

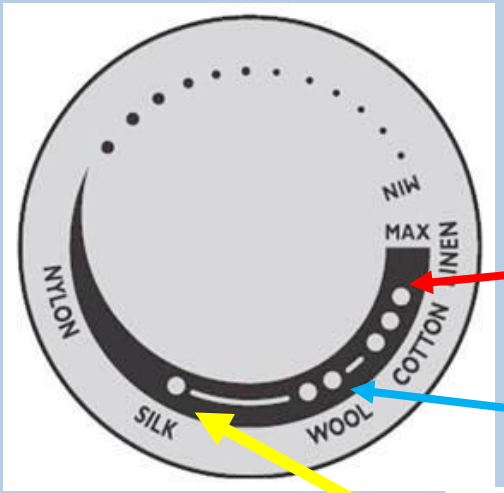
Most fabrics are prone to creasing. To work with fabrics you need them to be flat and as crease-free as possible. The best way to achieve this is to use an iron.

Ironing helps to remove creases. Irons are used for pressing too. Pressing is when you want a crease to stay in a fabric; on a collar for example or a pleat down the front of a pair of trousers.
In industry, ironing is done by hand using large steam irons.

Another use for irons is to apply the interfacing material Bondaweb which can be used for the decorative technique – Applique. Bondaweb requires heat to activate the adhesive within it.

What do the 'dots' mean?

The dots on the iron relate to the dots found on the iron symbol found on the care label. They show the temperature you should iron the garment on, so one dot = cool, two dots = medium, three dots = hot. The cross through the iron means – you guessed it – do not iron.



Do not iron

Iron on a HIGH heat

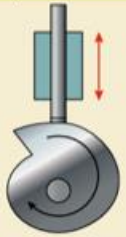
Iron on a medium heat

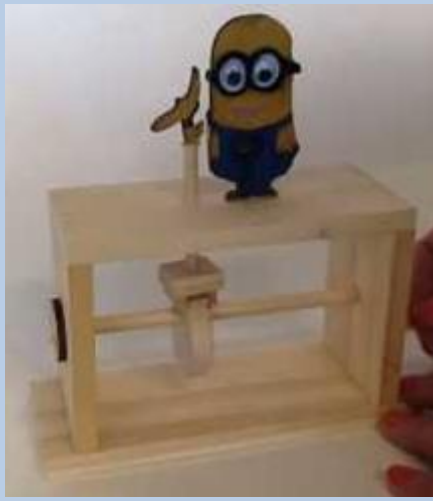
Iron on a LOW heat

Design and Technology

Linear Motion Motion in a straight line indefinitely.		**Reciprocal Motion** Back and forth motion.	
Rotation Motion Motion in a circle.		**Oscillating Motion** Oscillation is a back and forth motion about a pivot point	

Cams

	Pear-shaped	Eccentric/circular	Drop (Snail)
Effect of shape	• Motionless (dwells) for about half the cycle • During the second half it rises and falls	• Circular to give a smooth continuous movement as the follower rises or falls	• Gives a slow rise with a spiral cross-section and then a sudden fall
Example	• Opens and closes valves in a car engine	• In a fuel pump or in steam engines	• Used in hammers/ punches or machines needing a sudden drop
Cams			

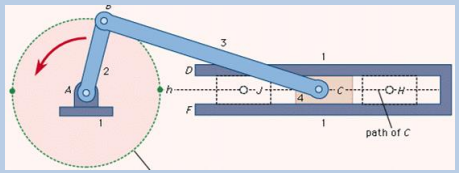


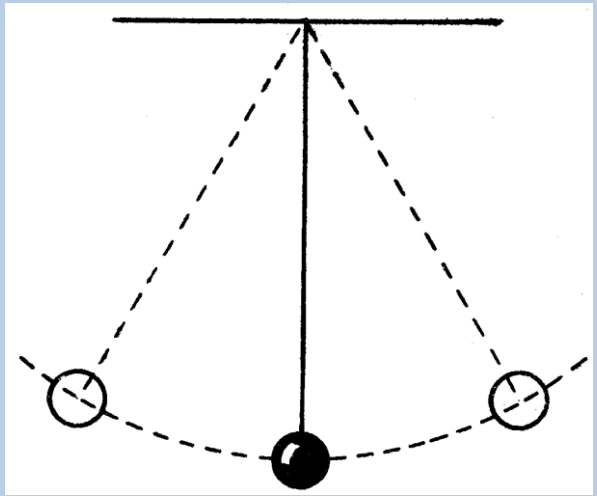
4 Types of movement
Rotary – Motion around a central point Example: a fan or a bike wheel

Oscillating - Motion that swings backwards and forwards in an arc from a central point Example: child on a swing or a pendulum

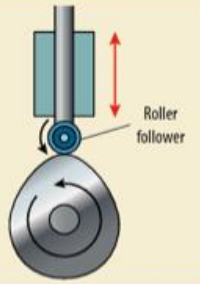
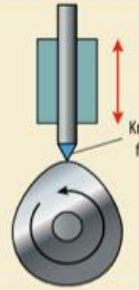
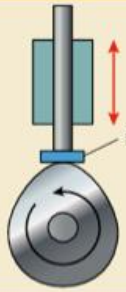
Linear - Moving in a straight line in one direction Example: train travelling along a track or a conveyor belt

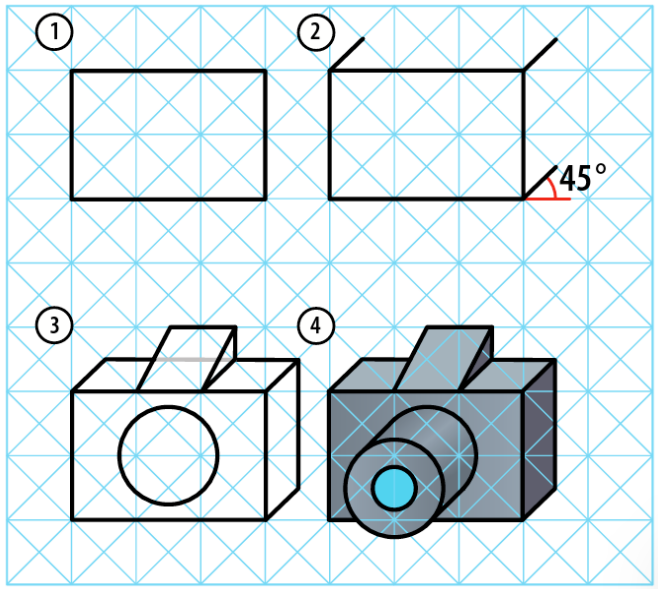
Reciprocating - Moving backwards and forwards in a straight line Example: sewing machine needle or car piston





Follower

Roller	Knife edge	Flat
		
• Used when higher speeds are required, such as in engines • Rolling motion reduces friction so it will wear better • Has separate parts in the roller mechanism and contends with forces pushing them to the side	• Used when accuracy is required, such as in an embroidery machine, as the cam's profile is followed closely • Suffers from a rapid rate of wear and contends with forces pushing them to the side	• Used when higher load bearing capabilities are required, such as in a steam engine • Has reduced forces pushing it, but suffers from increased friction • The larger surface area means it could rotate, but has larger load carrying abilities

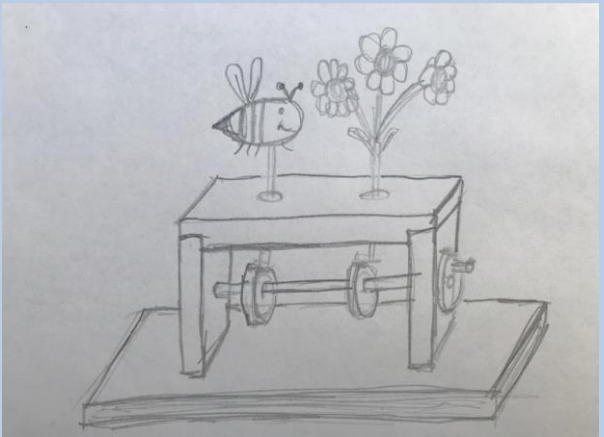


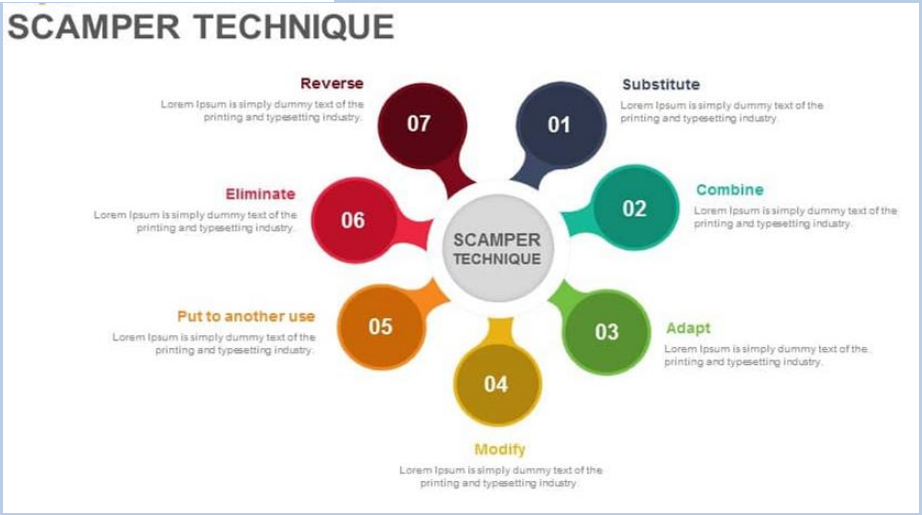
Oblique

Oblique projection is the simplest method of creating 3D designs based on 45-degree lines. For support, use oblique grid paper to guide your angles:

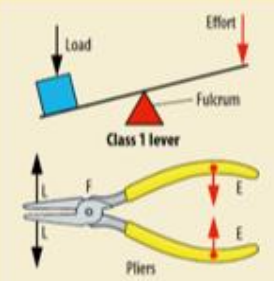
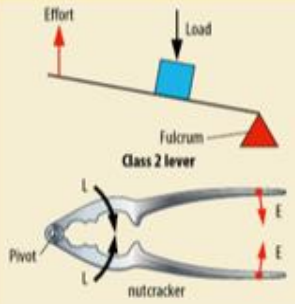
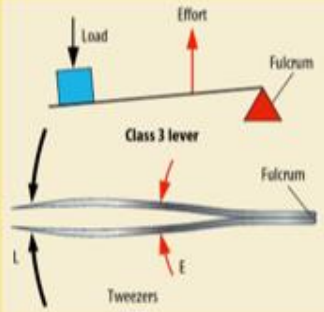
1. Draw the front view in 2D.
2. From each corner, draw construction lines projecting out at 45 degrees.
3. On the construction lines, measure half the true length.
4. Draw the back of the product to complete the product.

Specification Point to Include	Questions to Answer
Form	Why is the product shaped or styled as it is? What shape / style should it be?
Function	What does it do?
Client and user	How does it meet the needs? How is the product designed for the user?
Performance	How does it work? How does it do the job it was designed to do? How will it work? What other factors / issues does it need to take into consideration?
Materials and Components	What materials should it be made from? What properties / characteristics should the materials / components have? What materials/components / parts have they used and why
Scale of Production and Cost	What scale of production has been used? How does this affect the overall cost?
Sustainability	How has sustainability been taken into consideration?
Aesthetics	How is it made to be aesthetically pleasing?
Marketability	What makes this product different from anything else on the market?
Consideration of Innovation	What elements of the product are innovative or move the product forward compared to other versions available on the market?



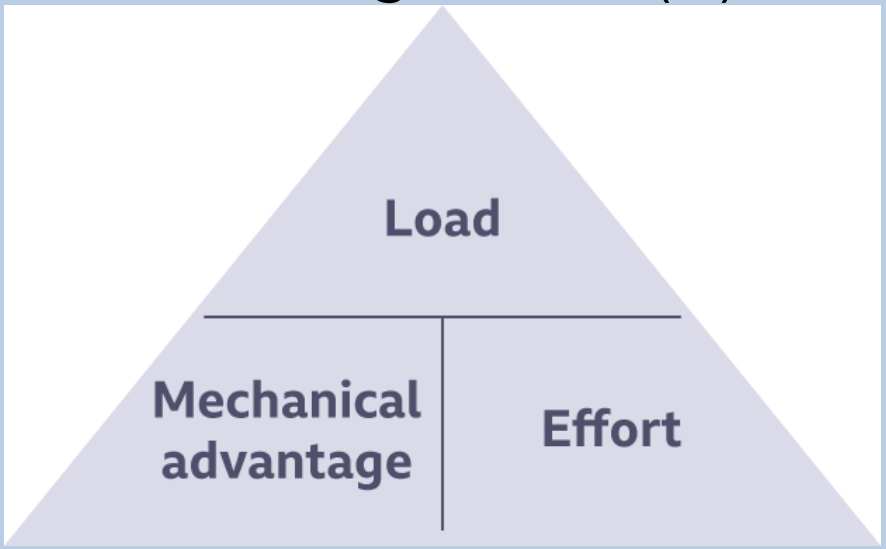


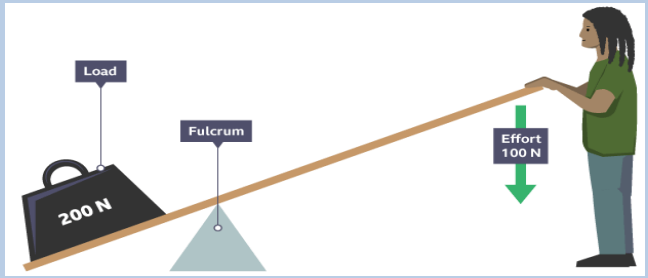
- **Jigs** - used to guide a drill or saw to cut in exactly the same place each time on every piece of timber - reduces marking out time thus increasing the efficiency of the manufacturing process
- **Fixtures** - holds the piece of timber in place whilst it is being worked on
- **Templates** - made out of paper, card, thin metal or wood, these are drawn around to mark out the same shape repetitively, with the aim of speeding up the marking-out process and decreasing the chance of an error occurring
- **Patterns** - a collection of templates that go together to make a part, or all, of a product

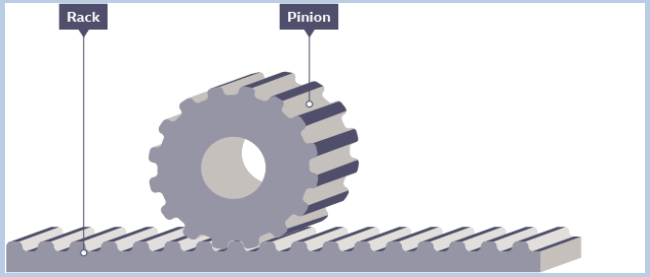
	Class 1	Class 2	Class 3
Reason for mechanical advantage	A large input movement can produce a small output movement but with greater force	A large input movement can produce a smaller output movement with greater force, but the fulcrum is at one end	Limited; the force applied by the user is greater than the output force
Example	Pliers or crowbar	Wheelbarrow or nutcracker	Tweezers or spade
			

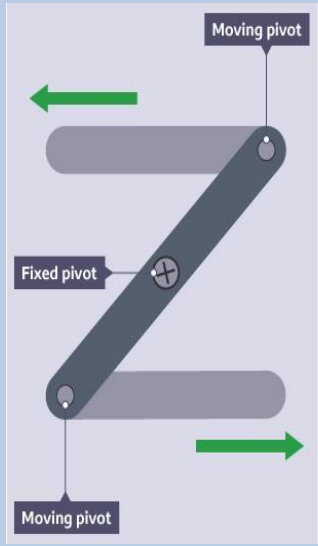
1	2	3
F	L	E

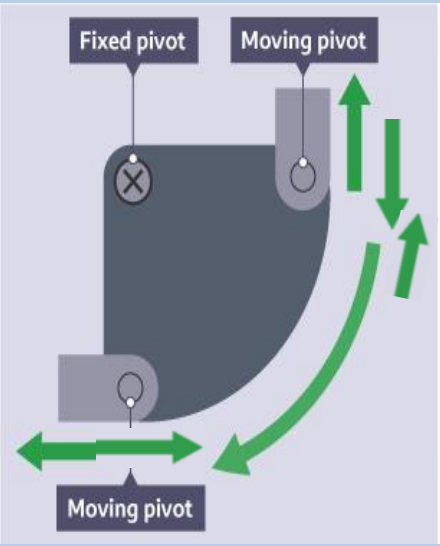
mechanical advantage = load (N) ÷ effort (N)

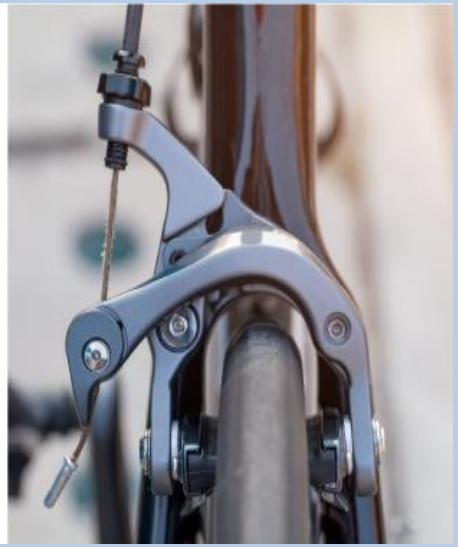






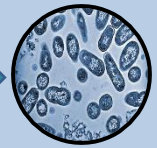






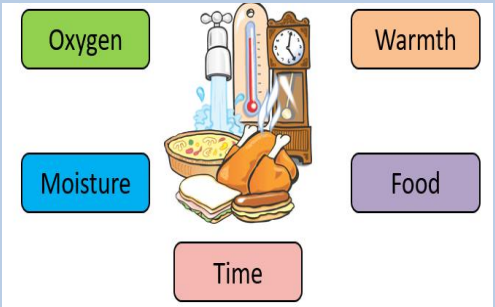
Knowledge Organiser – Year 8 Food

Bacteria are living organisms.



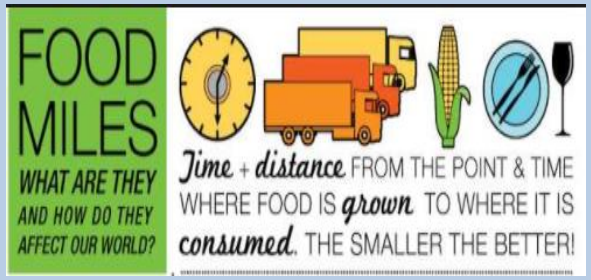
This means they need certain things to survive or like certain conditions to grow and multiply in, but what?

5 things bacteria NEED to grow



Food Standards

Some of the ethical issues surrounding food production and understanding where your food comes from.



Carbon Footprint

Carbon footprint means: The amount of carbon we as individuals produce as a result of actions we do – such as driving, shopping, using electricity etc.

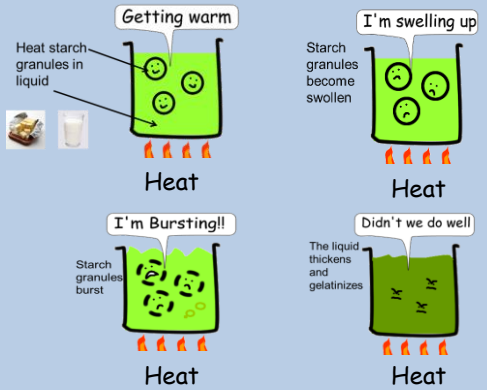
Carbon dioxide in large amounts contributes to global warming and has a negative effect on our planet.

Fair Trade

There are also rules and initiatives to help the *people* who are involved in food production to ensure they too are treated ethically.

Gelatinisation

The thickening of a liquid using starch.



When heated at 60°C, the starch granules begin to absorb the liquid and swell up.

At 80°C the particles will have absorbed about five times their volume of water until they burst open and release starch, thickening the liquid.

This process is Gelatinisation

Seasonality

We can help reduce our carbon footprint by eating foods **grown locally** and foods that are **in season** in our own country.

Hygiene

Personal

Hair up – Reduces the risk of bacteria transferring to food through hair dropping in

Aprons on – Protects you from spillages and reduces risk of bacteria transferring to food from everyday clothing

Washing hands - regularly using hot soapy water to reduce the bacteria on your hands

Blue plasters – Blue plasters should be used to cover cuts and grazes as they will be easily seen if they accidentally fall into food.

Food – Understanding the 4 C's Concept

Cooking – thorough cooking kills bacteria so ensure food is cooked to 75°c to make sure all bacteria are killed – check this by using a food probe.

Cleaning – effective cleaning removes harmful bacteria and stops them spreading so ensure all work tops, utensils and equipment are cleaned thoroughly with hot soapy water.

Cooling – effective chilling prevents harmful bacteria multiplying so ensure all food is stored at the correct temperatures, ensure cooked food is cooled within 90 minutes.

Cross contamination – Good hygiene practice prevents Cross contamination so when raw food comes into contact with ready to eat food. For example raw meat juices spilling onto salad.

Wider thinking / further reading: www.foodafactoflife.org.uk www.grainchain.com

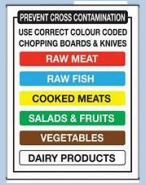
Knowledge Organiser – Year 8 Food

Key Processes

Kneading-
to work dough, to develop the gluten that is found in flour, this gives baked goods their structure and texture. When making dough, the flour and other dry ingredients are combined with the wet ingredients, usually warm water, along with yeast.

Handling Raw Meat -
Always wash hands with warm water and soap for 20 seconds before and after handling raw *meat*.

Don't cross-contaminate!
Keep *raw meat*, poultry, fish, and their juices away from other food. Wash cutting board, utensils, and countertops with hot, soapy water after use.



Reducing – heating up a sauce based product to evaporate the water and making the sauce thicker in consistency.

Cooking Skills

Chop
Fold
Roll
Knead
Shape
Simmer
Boil
Bake
Fry

Multicultural Foods

Fajitas - Mexico

Macaroni Cheese & Pizza - Italy

Sweet & Sour - China

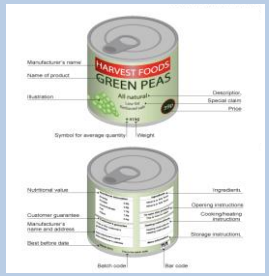
Essential Nutrients

1. Protein
2. Fat
3. Carbohydrate
4. Vitamins
5. Minerals

PLUS Water and Fibre (neither are nutrients but are required for a healthy diet).

Farm to Fork Process

Food Labelling



The Government ensures that food manufacturers must include certain information to protect the consumer.

Sources of Food

Ingredients can be grown, gathered, caught, reared or made / manufactured.

This aspect of food is known as **FOOD PROVENANCE**

Why do we need to know this?

How food is produced has an impact on it's quality, its nutritional properties, the environment, as well as its cost.

The general rule is **'the closer to its original form, the better the food is for us'.**

Packaging

TYPE OF PACKAGING	EXAMPLE USES	ADVANTAGES	DISADVANTAGES
Glass	Jam, pasta sauces,	Strong, see product through, sense of quality leakproof	Heavy, breaks easily
Aluminium Foil	Takeaway meals, pies,	Can hold heat, can be heated, can be shaped, rigid, leakproof, portion control	Cheap, not very strong
Cardboard & oven proof paperboard.	Ready meals, sandwiches, dry cerealss	Can be printed onto, greaseproof, lightweight, can be recycled, leakproof	Does keep fresh
Paper	Sugar, flour,	Cheap, lightweight, can be printed onto	Not water resistant or leakproof,
Cling film	Meat onto of plastic trays	Easy to shape, cheap	Not strong
Plastics	Milk bottles, yoghurt pots, margarine tubs,	Can be moulded into shapes, can be see through, cheap, can be recycled, can be see through	Not always easy to recycle, hygienic
Polystyrene	Takeway meals, hot drinks	Keeps food hot	Can't be printed onto, difficult to recycle
Tin cans	Baked beans, meat sauces, fruit, vegetables	Strong, leakproof, portion control, product sealed so extends shelf life	Heavy, cannot be printed onto

Y8 GRAPHICS

Graphic design is a craft where professionals create visual content to communicate messages

TYPOGRAPHY

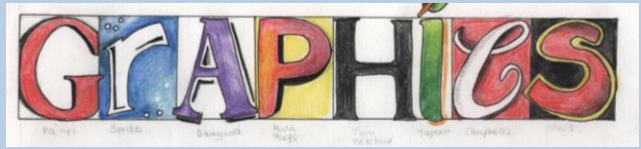
Typography is the art of arranging letters and text in a visual, creative, clear and legible manner. Typography is the art of font, using appearance and structure to convey a message whilst still being visually engaging and interesting.

The 'golden rule' of typography is that it should link well to your brand. This can include elements such as; design of letters, shape of letters, subject matter or imagery used next to or with letters.

FORMAL ELEMENTS

GRAPHIC DESIGN

- GAMES
- POSTERS & BILLBOARDS
- WEBSITES
- VIDEO & ANIMATION
- BOOKS & PUBLICATIONS
- FLYERS & BROCHURES
- CD'S
- BOOKS & PUBLICATIONS



What does a graphic designer do?

Graphic Designers create visual concepts to communicate information. They create everything from posters and billboards to packaging, logos and marketing materials. Graphic Designers use elements such as shapes, colours, typography, images and more to convey ideas to an audience.

KEY TERMS	DEFINITION
Graphic Design	The art or skill of combining text and pictures in advertisements, magazines, or books.
Design Process	An approach for breaking down a large project into manageable chunks.
Target Audience	A particular group at which a product is aimed towards.
Design Brief	Outlines the specifics of a design project which can include the design project overview, timelines, target audience information, and budget.
Research	A collection of new knowledge and/or the use of existing knowledge in a new and creative way so as to generate new concepts and understandings.
Colour Theory	The collection of rules and guidelines which designers use to communicate with users through appealing colour schemes in visual interfaces.
Typography	The art or practice of setting and arranging type.
Mood board	An arrangement of images, materials, pieces of text, etc. intended to present a particular style or concept.
Evaluation	Is a process that critically examines a design.
Modelling	Making a model allows designers to visualise and test how a product looks and performs in 3D and is a great way of checking a product's viability .

Y8 GRAPHICS

Graphic design is a craft where professionals create visual content to communicate messages

MOOD BOARDS

Mood boards are used to inspire us creatively. Mood boards comparing colour combinations are a fantastic way to gain a visual understanding of colours which compliment each other.

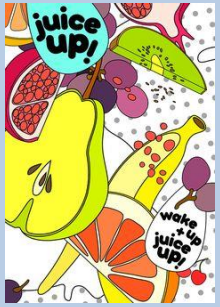
Elements of a successful mood board:

- Colour swatches/blocks which explore colour themes
- Inspirational imagery
- Your own text, photos to support ideas
- Your own sketches to support ideas
- A theme as a starting point

WATERCOLOUR

- Start with the lightest colour first, add a wash of the colour.
- Layer in darker colours and tones over the top.
- Control the amount of water on your brush – too much and it will run.
- Let sections dry before you add detail, this will keep them clear.

PACKAGING DESIGN INSPIRATION

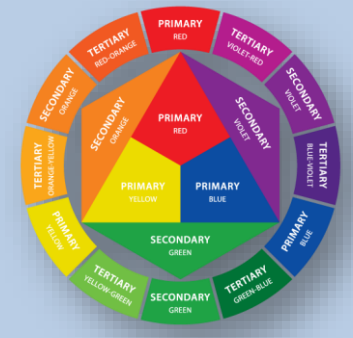


What is the difference between labelling and annotating?

Labelling is when you show what something is for example a logo. Annotation is when you explain why the logo looks like it does and reasons for your design choices.

INITIAL DESIGN IDEAS

An opportunity to explore possible solutions that meet the design brief that has been set and the specification. Initial drawings do not need to be perfect and can be quick 'concept' sketches. Annotation should be added to explain your ideas in detail and depth.



COLOUR THEORY

Colours can convey a message that give us an idea of how the product or company wants to be perceived. They can entice a certain type of customer and can make us think of different things.

Complimentary colours are colours which are opposite to each other on the colour wheel. Examples of complementary colour combinations are: Red and green; yellow and purple; orange and blue; green and magenta. Complementary colour combos tend to be bold, which is why sports teams often use this formula for their colours.

Graphic Designers:

Sarah Dennis
Georgina Luck
Jennifer Hines
Alice Pattullo
Mike Steffanini
May Van Milligan

DESIGNER ANALYSIS PROMPTS

- I have been looking at the work of ……..
- I would describe their style as ……..
- The colours used are …….
- I would describe the lines used as …….
- I could use this artist to influence my own work by ……..