



The Trafalgar School at Downton

# Knowledge Organiser

Year 7: Terms 3 and 4

2022/2023



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Name.....House.....

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## 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?**

New GCSE specifications mean that students have 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.





## WHAT WE EXPECT FROM YOU

BE ON **TIME** ●

BE **EQUIPPED** ●

*PEN, PENCIL, RULER, KNOWLEDGE ORGANISER & EXERCISE BOOK (AS A MINIMUM)*

LISTEN TO STAFF AND **ALWAYS**  
COOPERATE ●

DO NOT INTERRUPT **LEARNING** TIME ●

COMPLETE **ALL WORK** SET  
*BEST WORK, FIRST TIME* ●

SHOW **RESPECT** ●

WEAR UNIFORM **PROPERLY** AND  
WITH **PRIDE** ●

MOBILE DEVICES/SMART  
WATCHES TO BE IN **YONDR** CASE ●

## Being Trafalgar

At the end of your time at the school your knowledge organisers will provide you with lots of help and support when you 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!

## Learning the knowledge in the organiser

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.

The best method to use when you are working on memorising things from your Knowledge Organiser is to self-quiz, using the Trafalgar Revision Method, below:

Really read and understand	Read the information 3 or more times and ask for help in understanding
Reduce the knowledge	Rewrite the information, making revision cards or mind maps
Remember	Reread and test that you can remember
Repeat	Repeat the process above until you can recall the information quickly and accurately. Only at this point have you acquired the knowledge!

## How do I remember? Activating your memory

Students often say “I can’t remember” and the reason for this is that the information they are trying to remember and learn is not yet in their **long term memory**.

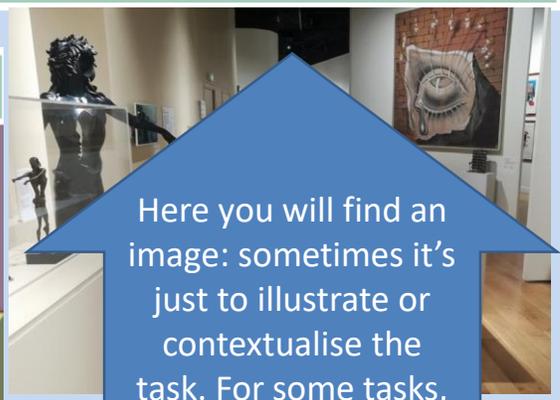
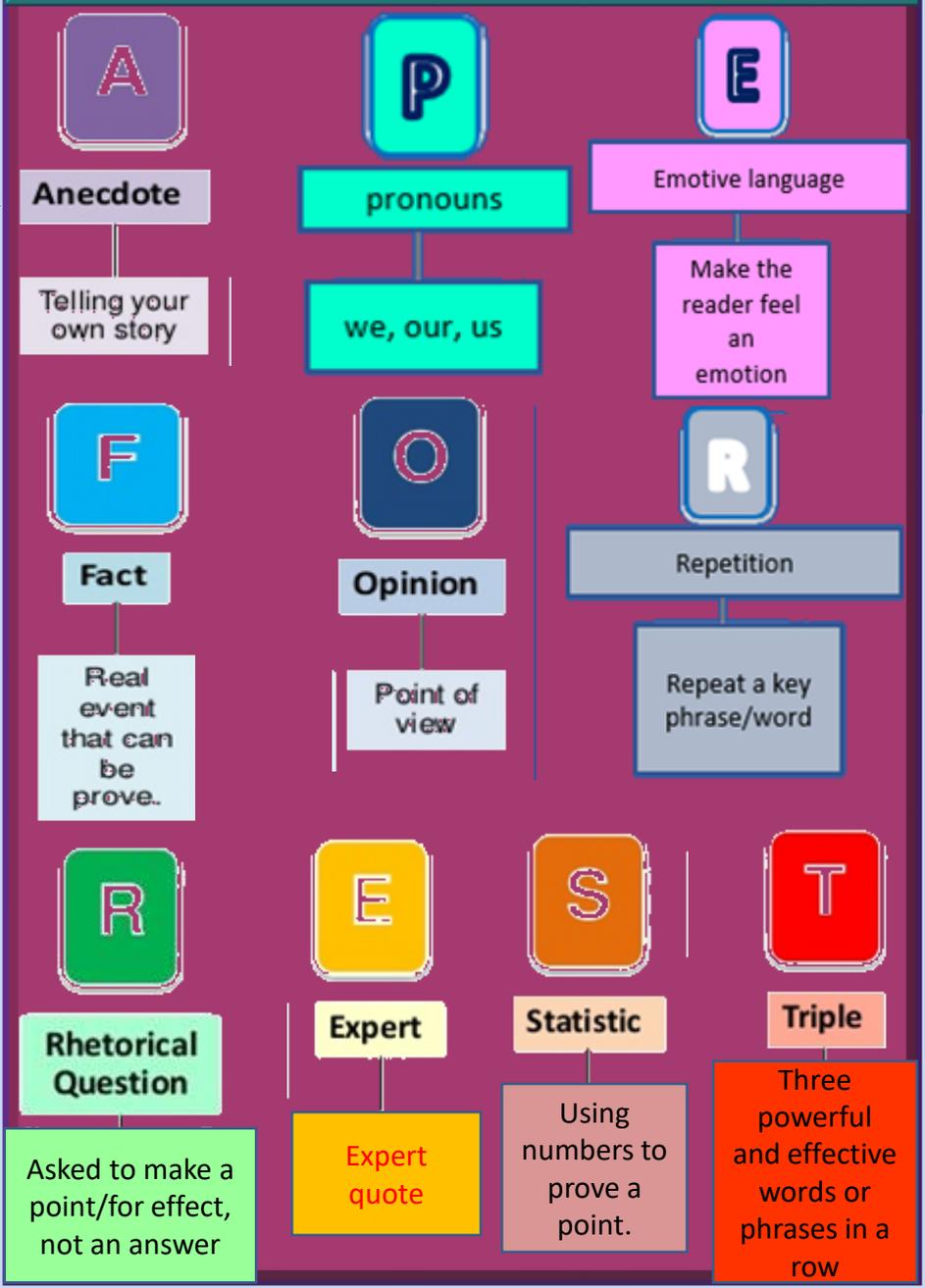
Your long term memory gets activated by repetition over a number of days. And so repeat the following process to embed knowledge in your long term memory.

<b>Look</b>	Read the information 3 or more times 
<b>Cover</b>	Now cover what you have just read up
<b>Write</b>	Now try and write down the information you have just read 
<b>Check</b>	Did you write down the information correctly? If you made mistakes, correct them with a different colour pen and repeat daily until you “just know it”.





When writing non-fiction in Year 7, you should practise using the APE FOR REST rhetorical methods:



Here you will find an image: sometimes it's just to illustrate or contextualise the task. For some tasks, the image will be part of the writing challenge.

**Don't forget to plan writing!**  
**Technical Accuracy**

Here you will find prompts so you don't forget important things like planning, punctuating accurately, etc.

- Use paragraphs.
- Spell accurately.

Methods to include:  
**sensory description:**  
olfactory (smell) and auditory (sound)

You should include these methods. They are colour-coded to match the pages of your FWC Knowledge Organiser. If you click on each one on the slide, it's hyperlinked to another slide to help you learn about that method, with examples.

Here is the form, genre, purpose of the writing. It might be hyperlinked to a model to help you.

**Write a short story based on a visit to a haunted house!**

Here you will find the task details. Read them carefully as it will provide more information about what you are writing (form, purpose) when you have your Week A FWC lesson.

Each Week B, you will have an FWC PPT loaded onto Classcharts. Your homework is to make notes, learn from, and prepare for the task and methods included, ready to write it in your Week A FWC writing lesson.

- alliteration:
- anecdote:
- antithesis:
- chiasmus:
- emotive language:
- experts:
- extended metaphor:
- foreshadowing:
- imperative verbs:
- metaphor:
- modal verb:
- pathetic fallacy:
- sensory description:
- simile:
- statistics:
- superlative:
- onomatopoeia:
- personification:
- repetition:

You'll never put a better bit of butter on your knife



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.



That's one small step for man, but a giant leap for mankind.

'Let us never negotiate out of fear, but let us never fear to negotiate.'

Think about the poor, defenceless animals that suffer due to our rubbish!



'Group chat can often be a source of upset,' warned psychologist Dr Linda Pappadopolis.

*The Road Not Taken*, by Robert Frost, is one of the most famous examples of extended metaphor; in the poem, he compares life's journey to a forest path.

The witches in *Macbeth* are used to foreshadow that Macbeth is not innocent: 'Fair is foul and foul is fair', a line he echoes in his first appearance when he says 'so foul and fair a day I have not seen'.



Chill out! Do as I say! Don't eat the daisies! Please be quiet! Be quiet!



'The sun in the west was a drop of burning gold that slid near and nearer the sill of the world.'

You must be home by midnight. You could be tired if you're any later. E.g. mustn't, can, might, shouldn't, may, will etc.

In *Macbeth*, the night the King is murdered 'has been unruly ... in th' air, strange screams of death .... Some say the Earth was feverous and did shake.'



Wind swirled around the beach house, whistling loudly. He felt the snowflakes melting on his skin, their liquid trickling down his neck, cold, wet, seeping into his clothes.



Without warning, Lionel gave one of his tight little sneezes: it sounded like a bullet fired through a silencer.

You only have a 20% chance of surviving a 60mph crash if you don't wear a seatbelt!

This is the worst day of my life but at least we're in the finest café in London.

The dog knocked over the vase with a crash!



Dancing on the water, the sun shone endlessly.

'As my grandfather went, arm over arm, his heart making sour little shudders against his ribs, he kept listening for a sound, the sound of the tiger, the sound of anything but his own feet and lungs.'



### 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 '

4 plural noun not ending s

the **children's** idea  
add 's

Or...  
**Moses's** idea  
add 's

### Using Apostrophes (Showing Joint Ownership)

#### The Rules

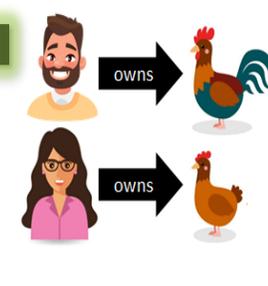
**Joint possession?**  
Make the last word in the series possessive.

**Individual possession?**  
Make all parts possessive.

#### Examples



Janet and John's chickens



Janet's and John's chickens



**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 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 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,

**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.

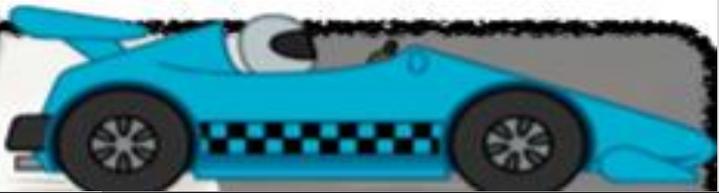
**Use a past participle - 'ed' start:**

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.

# 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 ...

# PUNCTUATION PIT STOP



# Writing the text for a leaflet

Stay Safe and Sound Online

clear/apt/original title

subtitles

## Manage your online reputation

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 social 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.

Writing Forms

bullet points

## Remember:

- 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;

# Text for a Speech '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.'

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

Thank you.

# 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 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!

## Sample Check

Today, before he even steps out on to the Centre Court for his Wimbledon semi-final, the 27-year-old, 2009 Wimbledon champion has already been subject to several of these. He does a urine test every time he pops to the lavatory. The osmolarity 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 today, it will only be thanks to the bloke who inspects his wee.

## Daily Diet

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

# Writing in the Essay Form

clear title

## Zoos Should be Banned

effective introduction

In America, approximately 175 million people visit a zoo each year. That's half of America's population. Clearly this suggests that zoos remain popular places for people to visit for entertainment and to learn about wild animals. However, although some people are of the opinion that zoos can provide a source of educational entertainment and a sanctuary for endangered animals, I believe that the cruelty that wild animals suffer outweighs this benefit, and that they should be shut down!

effectively/fluently linked paragraphs to sequence a range of ideas

On the surface, zoos are a huge tourist attraction because they allow families to spend a day out in the sun, looking at animals, and eating overpriced junk food. But what most people don't know is that zoos are far more sinister than selling small bottles of water for £5.00. Statistics show that in all zoos, fifteen percent of animals die every year due to living in captivity. Obviously then, zoos must be an unsuitable environment for wild animals and should, therefore, be abolished. How can zoos justify their existence by claiming animals in captivity provide people with the experience of observing wildlife they wouldn't otherwise experience, when it costs at a cost to their life?

a range of ideas (no room to reproduce the other two paragraphs here)

In conclusion, a zoos only purpose is to make as much money as possible by showing thousands of people per day to gawk at animals and spend far too much money on souvenirs and junk food. Zoos do not protect or help to repopulate animals, nor do they educate people on the specifics of these animals, and therefore should be abolished.

convincing conclusion

## Writing a formal letter



writer's address

35 Hibiscus Crescent  
Andover  
Hants  
SP10 3WE

reader's address

221B Bakers Street  
London  
NW1 6XE

date

20<sup>th</sup> 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, ... that students won't spend all morning choosing what to wear or beg parents for clothes that will impress. There is another side to this case: uniforms breed uniformity. We are a culturally diverse nation and we 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)

## 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.

## 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 and a patina of blue 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, striking the upholstery of the rotting seat as it passed.

spatial discourse markers

sensory description

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

## 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.

### Climax (problem at its worst)

- Use exciting/dynamic verbs;
  - Quicken pace;
- Show characters feelings through action;
- Attempts to solve problem fail/intensify problem.
- Vary sentence length: short for action, longer for description.

Fail to Plan  
Plan to Fail!

### Rising Action (build up/conflict)

- Build on character, setting and plot;
- Introduce a problem/conflict/dilemma;
- Build tension/excitement using interesting adjectives, metaphors, similes etc.

### Falling Action (fix problem)

- Character/s solving conflict/dilemma/ problem.

### Exposition (introduction)

- Use a story hook to grab attention e.g. atmosphere, sudden event etc.;
- Use descriptive vocabulary to set the scene and describe the main character;

### Resolution/Dénouement (ending)

- Link back to the start.
- What has the character learned?
- Is there an exciting twist?
- Is there a cliff-hanger ending?

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

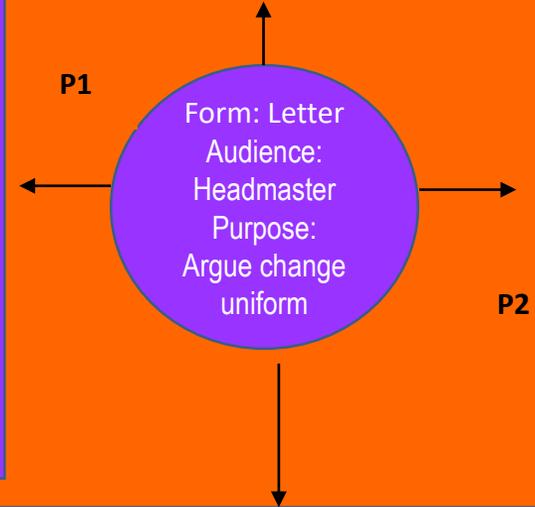
Conclusion:  
To conclude,  
repeat RQ,  
Yes.  
  
Yours  
Sincerely

Intro: My address right hand side, +  
date, school address left,  
Dear Mr Curtis  
  
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:** all look same  
so no  
prejudice/bullying over  
clothes,  
**Argument:** no  
individualism, learning  
who we are  
**Reasons to:** 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?

**Counter:** old-  
fashioned tradition,  
so easier to continue  
**Argument:** other  
traditions - burnt  
witches, slept on  
straw, walked  
barefoot – now  
discontinued so ...  
**Reasons to:**  
anecdote, use  
experts

**Counter:** cost cheaper as not designer or from shops  
making huge profit  
**Argument:** 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,  
**Reasons to:** 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**

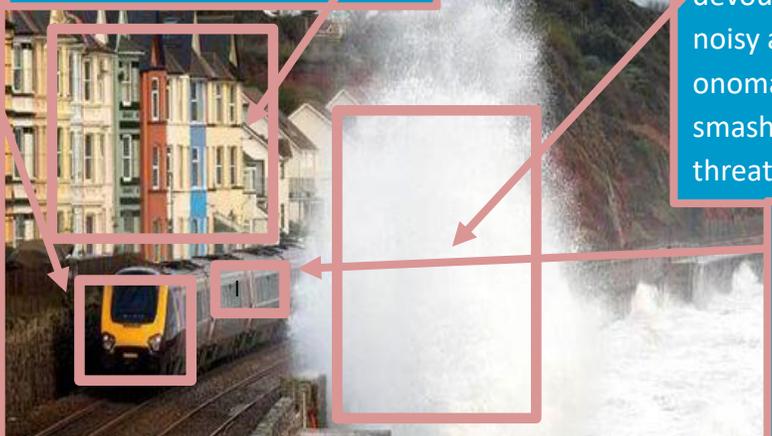
Personify train - a victim moving along railway line, past houses, towards destination - metaphor: caterpillar train sways and pitches precariously along the track to its daily destination. Snatching bites, the sea salt nips at its metal skin as it passes, gnawing at it, killing it. Rattles. Will it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

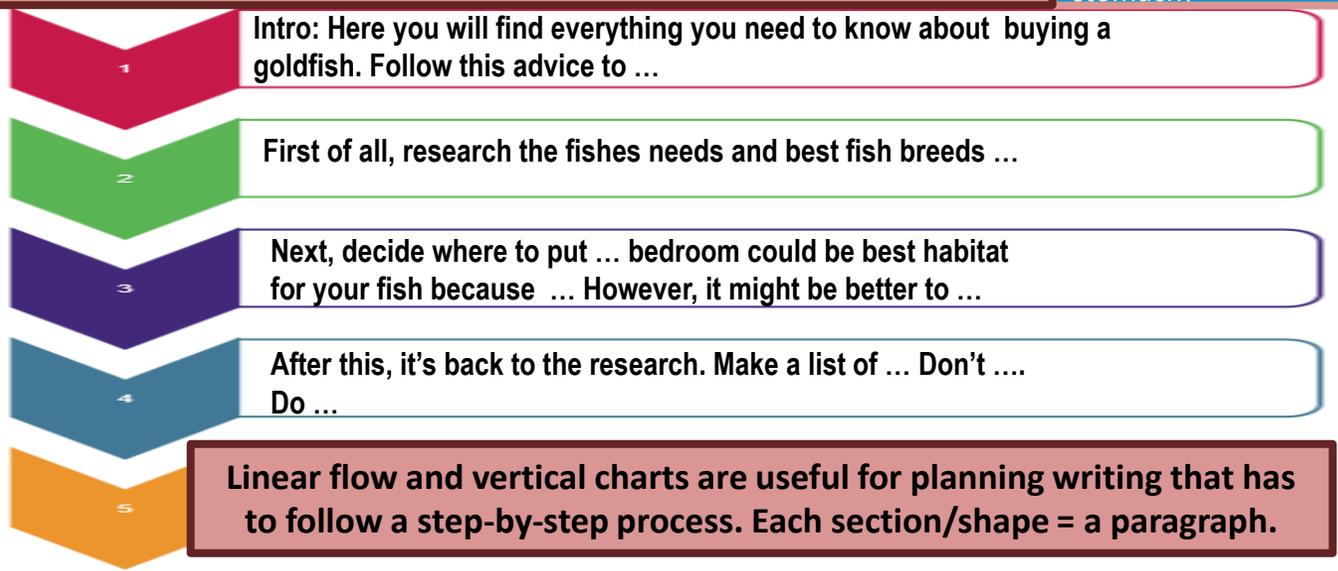


**Plan describing pictures by boxing/framing parts of the image to help you to focus description on specific areas, zooming in on minute detail, and out again to another area. Each boxed area = a paragraph.**

**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!**



# Public Speaking Unit – Knowledge Organiser

## Possible Speech Topics

- Physical Education should be required of all students throughout secondary school.
- Schools should block YouTube.
- Single-sex schools are better for students.
- All people should be vegetarians.
- It is never appropriate for the government to restrict freedom of speech.
- Human cloning should be banned.
- Poetry should be removed from the curriculum.
- All citizens who do not vote should pay a fine.
- The death penalty should be re-introduced.
- The voting age should be lowered.
- Video games are too violent.
- History (or other subject \_\_\_\_\_) is an important subject in school.
- The UK should not give foreign aid to other countries.
- People should be fined for not recycling.
- Parents should be allowed to choose their baby's gender.
- Animal testing should be banned.
- Drone attacks against specific targets are a necessary part of modern warfare.
- School uniform is unnecessary.

When thinking about your own topics, consider the following...

- Is there a charity which is close to your own heart?
- Is there a sport you love which more people should be aware of, or should it be in the Olympics?
- Is there a disease which has affected you or your family you would like to raise awareness of?
- Has something the government has done angered you?
- Is there a change you would like to bring about?

## Success Criteria for Your Speech

### Delivering your speech...

- ✓ Confidence.
- ✓ Clear and articulate.
- ✓ Uses persuasive techniques to affect the audience.
- ✓ Body language / gestures used.
- ✓ Makes eye contact with the audience (you!)
- ✓ Puts across a detailed and well-planned speech.

### Writing & Planning your speech...

- When it is delivered, it should last for between one and two minutes.
- It should contain many techniques from A FOREST.
- It should be structured properly and put across several different arguments.
- It should be written up neatly, so you are able to read it to the class clearly.

## Structuring Your Speech

1. Say what your issue is and set out your argument.
2. Give two or three persuasive reasons why your argument is correct.
3. Give one reason why people might disagree with you, but ensure you then explain why this isn't correct.
4. Give a final persuasive reason why your argument is correct.
5. Thank your audience for listening and remind them what they should be thinking and feeling.

When writing a speech, be persuasive; use A FOREST to help with this...

A

**ALLITERATION** (WORDS BEGINNING WITH THE SAME SOUND) **EFFECT:** EMPHASISES/FOCUSES ATTENTION ON POINT

*"A really rich and rewarding opportunity"*

**ANECDOTE** A SHORT PERSONAL STORY/MEMORY **EFFECT:** ADDS AUTHENTICITY/RELATABILITY. CAN BE EVOCATIVE

*"I'll always remember year 7, because that was the year I was horrendously bullied. I know what it feels like to..."*

F

**FACTS** (SOMETHING WE KNOW OR HAVE PROVEN TO BE TRUE) **EFFECT:** ADDS PLAUSIBILITY TO AN ARGUMENT

*"We know/it has been proven/research has shown that... English is the best subject."*

O

**OPINION** (ADVICE/PERSONAL VIEW) **EFFECT:** ADDS PERSONAL/RELATABLE EVIDENCE/INVESTMENT

*"I strongly believe that we need to..."*

R

**RHETORICAL QUESTIONS** (QUESTION ASKED FOR EFFECT). **EFFECT:** ENGAGE, PROVOKES THOUGHT

*"How many more elephants have to die before we start enforcing harsher punishments on the ivory trade?"*

**REPETITION** (REPEATING INFORMATION) **EFFECT:** EMPHASIS & CLARITY

*"It is everybody's responsibility to keep our school clean, and everybody can do more."*

*"Research has found that 65% of girls..." "If 65% of girls are more likely too..."*

E

**EMOTIVE LANGUAGE** (ENGAGES AUDIENCES/READER'S EMOTIONS) **EFFECT:** HELPS CREATE SUPPORT/OPPOSITION

*"An innocent bystander was brutally attacked by a violent thug by Tesco's last Tuesday."*

**EXAGGERATION/HYPERBOLE** (STATEMENTS/CLAIMS NOT TO BE TAKEN SERIOUSLY) **EFFECT:** DRAMATIC, HEIGHTENS EMOTIONS, MORE INTENSE

*"I died from laughing when I learnt that..." "This week I had six tonnes of homework to do – it's too much!"*

S

**STATISTICS** (PERCENTAGES, FRACTIONS) **EFFECT:** ADDS PLAUSIBILITY AND GARNERS SUPPORT FOR ARGUMENT.

*"74% of people agree..."*

T

**THREE (RULE OF)** (LISTING IN GROUPS OF THREE) **EFFECT:** MEMORABLE, CONCISE, EMPHASIS

*"Fast, convenient and secure."*

**TONE** (THE ATTITUDE OF A PIECE OF WRITING) **EFFECT:** DRAWS IN THE AUDIENCE

*Sincere, ironic, sarcastic, sentimental, enthusiastic, apathetic, bossy, instructive, assertive, outraged...*

# Public Speaking Unit – Knowledge Organiser

## Structuring Your Speech

1. Say what your issue is and set out your argument.
2. Give two or three persuasive reasons why your argument is correct.
3. Give one reason why people might disagree with you, but ensure you then explain why this isn't correct.
4. Give a final persuasive reason why your argument is correct.
5. Thank your audience for listening and remind them what they should be thinking and feeling.

### Say what your issue is and set out your argument.

*I am here today to talk to you about why every person in our society should be a vegetarian. I know that not everyone will want to be a vegetarian, but I hope to explain why it would be better for society if we were.*

### Give two or three persuasive reasons why your argument is correct.

*According to the U.N., it is estimated that the meat, egg, and dairy industries account for an astonishing 65 percent of worldwide nitrous-oxide emissions. Nitrous Oxide is a greenhouse gas for more potent than Carbon Dioxide. Surely nobody here is a climate change denier? Surely we all want to ensure we leave behind a world safe for our children and their children after them?*

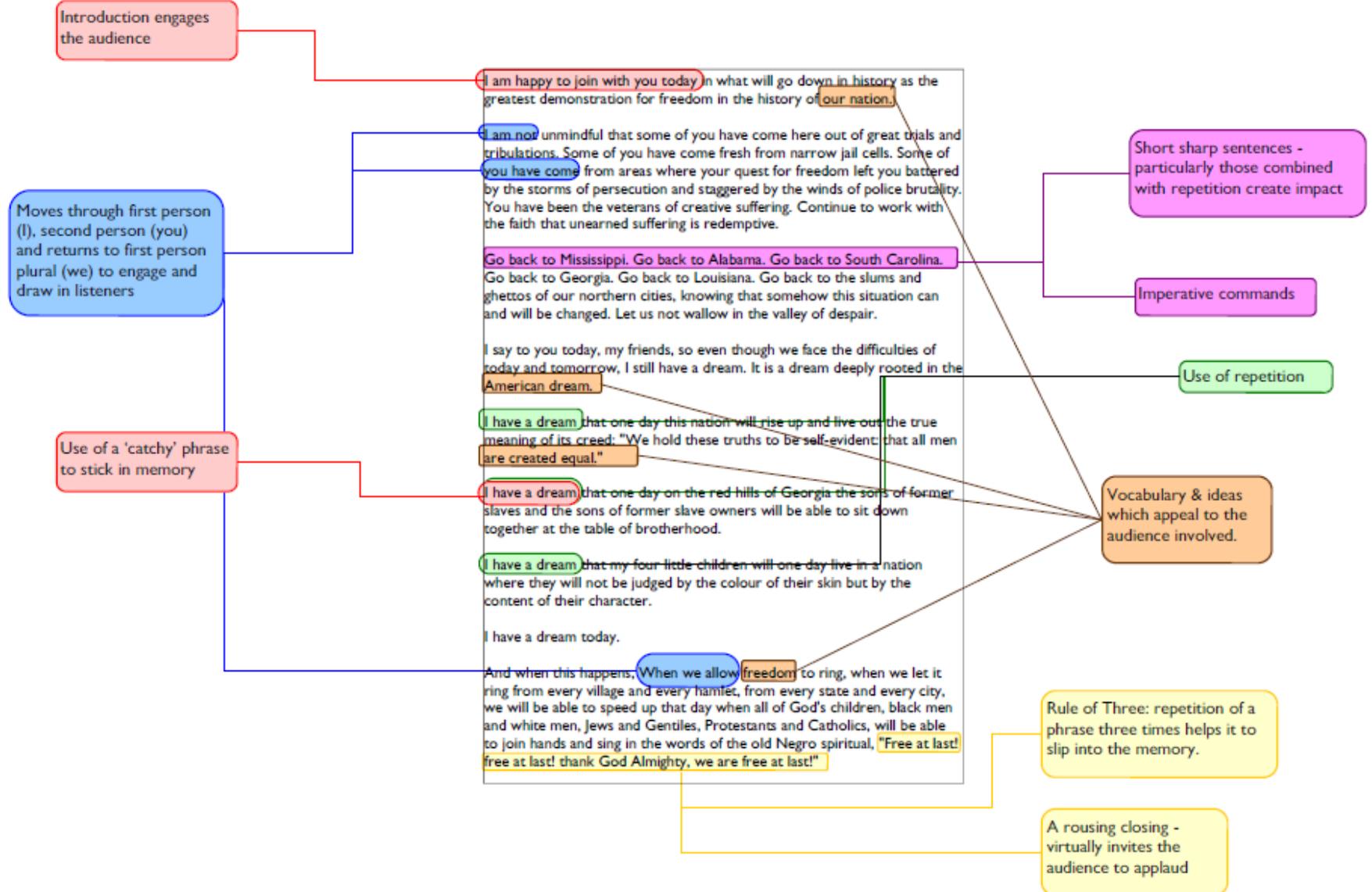
### Give one reason why people might disagree with you, but ensure you then explain why this isn't correct.

*Of course some people would argue that vegetarianism is a personal choice and we should not be forced to change our lifestyle. But I would remind these people that smoking in public places was once a personal choice. Fox hunting was once a personal choice. In fact, slavery was once a personal choice – would we ever suggest that these changes have made society a worse place?!*

### Thank your audience for listening and remind them what they should be thinking and feeling.

*Thank you for taking the time to listen to me today, I am adamant that for intelligent people like yourselves, the conclusion is obvious: vegetarianism can save our planet from destruction.*

# Persuasive speech techniques: Martin Luther King - I have a dream



## WHY DO WE STUDY SHAKESPEARE?

Shakespeare has had a huge influence over literature, the English language, and Western Culture so it is important to have an awareness and an understanding of his work. His writing is very skillful and covers a large number of genres (e.g. poems, plays, comedies, histories, and tragedies). In addition to this, his writing covers themes that are still relevant today such as jealousy, revenge, the pursuit of power, and many different kinds of love. In other words Shakespeare wrote about what it means to be human.

## FACT FILE

**Full name:** William Shakespeare

**Born:** 1564 (baptised 26<sup>th</sup> April), Stratford-Upon-Avon

**Died:** 23<sup>rd</sup> April 1616, Stratford-Upon-Avon

**Occupation:** Poet, actor, playwright, theatre owner

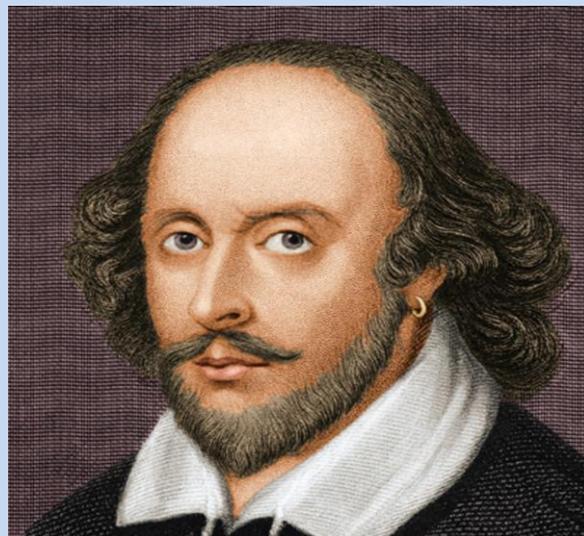
**Place of work:** London

**Wife:** Anne Hathaway (married 1582)

**Children:** Susanna (1583-1649), Judith (1585-1662), and Hamnet (1585-1596).

Sadly, we don't know much about Shakespeare's life. There is no record about where he was or what he was doing between 1585 and 1591 (these are referred to as 'the lost years') but by 1592 he was working in London and he is thought to have divided his time between there and Stratford-Upon-Avon. His wife and children did not move to London with him but stayed at the family home in Stratford-Upon-Avon.

Shakespeare became hugely successful during his lifetime – his plays were often performed for the monarch and they drew enormous crowds to his theatre, The Globe. He wrote at least 38 plays, 154 sonnets and 2 long narrative poems.



## TERMINOLOGY

**Act** – a play is divided into sections called Acts, based on the events of the plot.

**Scene** – Acts are divided into smaller sections called Scenes, based on which characters/settings are needed.

**Character** – the people who are represented in the play.

**Protagonist** – the central or main character in the play.

**Antagonist** – a character who opposes the protagonist and places obstacles in his/her way.

**Soliloquy** – a character thinks aloud or talks to himself, usually they are alone on stage but if other characters are present they cannot hear what is said.

**Monologue** – a long speech by one character which can be heard by other characters on stage.

**Aside** – a character makes a brief remark aloud which is unheard by other characters in the scene, this shows the audience that character's thoughts.

**Stage directions** – instructions by the writer about the setting or performance of the play, usually written in italics.

**Foreshadowing** – when the writer gives the audience a hint of what is to come later in the play.

## Shakespeare's Theatre

Just like us, people living in Shakespeare's time wanted to be entertained. Remember that electricity had not yet been discovered so there were no T.V.s, computers or cinemas; live entertainment was the only option.

Popular Elizabethan entertainments included bear baiting and bull baiting where trained dogs were set upon a tethered bear or bull. Another common blood sport was cockerel fighting which involved two cockerels fighting each other in a special enclosure called a cockpit. Elizabethans loved to bet on the outcomes of these bloodthirsty activities.

Watching plays and performances at the theatre was another very popular pastime. From the 1570's the first purpose built theatres appeared in London. These were largely open air to make the most of the daylight. They were also huge holding 2,500 -3000 people.

Shakespeare's theatre company the Lord Chamberlain's Men built their own theatre, the Globe Theatre, in 1599, south of the river Thames in a district called Bankside. You can visit a recreation of this theatre in Bankside today. The Globe was shaped like a giant ring doughnut with covered seating around the sides for the well off and a large open air section in the centre where the poorer members of the audience stood (they were nicknamed the groundlings).

The theatre would have been very noisy and rowdy so plays needed to capture and hold the audience's attention. The stage jutted out into the audience and it was not uncommon for the actors to have to deal with heckling and things being thrown at them.

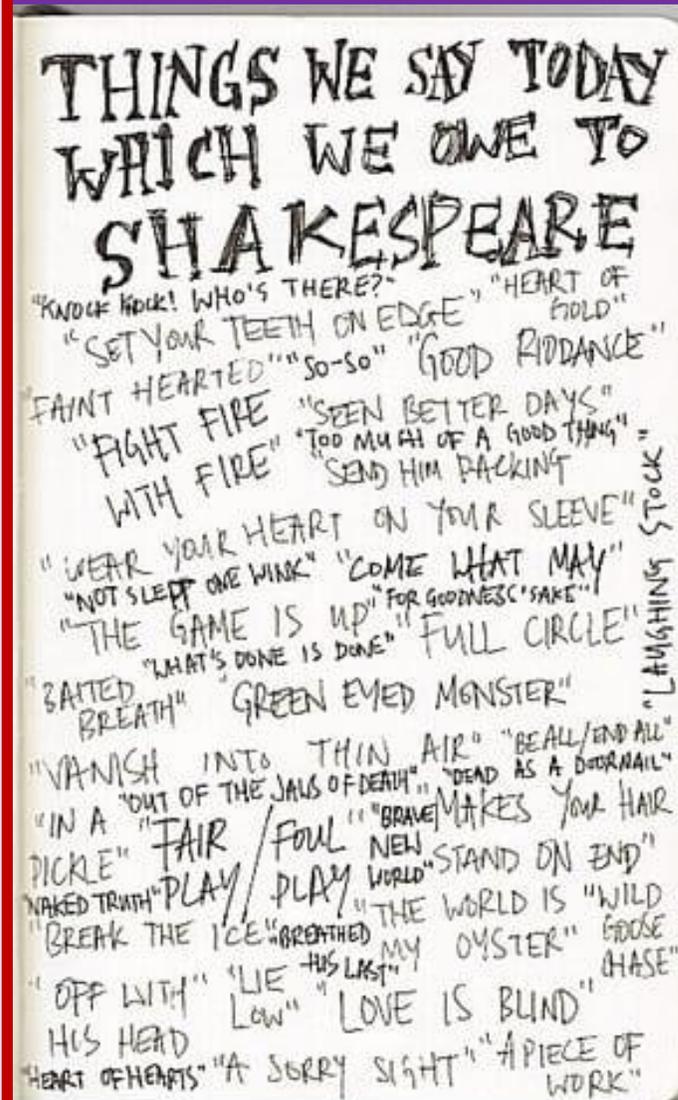
In the winter plays were sometimes performed at smaller, indoor venues which were more expensive and exclusive. Blackfriars theatre was often used by Shakespeare's company.

In addition to the public performances, Shakespeare's plays were also performed for both Queen Elizabeth I and James I at their palaces. Royal patronage was very important and it is further evidence of how popular Shakespeare's work was at the time.

## Shakespeare's Language

Shakespeare invented or introduced 1,700 words to the English language – here are just a few of them: alligator, bedroom, critic, downstairs, eyeball, fashionable, gossip, hurry, lonely, nervy, zany.

He also invented many common phrases...



Shakespeare's plays are often divided into the following categories:

### The Comedies

The comedies have common elements: they involve lovers and they almost always have a happy ending. Examples include: Twelfth Night, As You Like It, Much Ado About Nothing, The Merchant of Venice, and A Midsummer Night's Dream.

### The Tragedies

All the tragedies have a hero (or protagonist) that must overcome external and internal obstacles. Often, the protagonist has a 'tragic flaw' that leads to his ultimate destruction. A good example is Macbeth, whose evil ambition for the throne overtakes him and causes his downfall. Other examples include: Romeo and Juliet, King Lear, Hamlet, and Othello.

### The Histories

The history plays are based on real historical figures. Shakespeare received most of his information and plot ideas from one book, Holinshed's Chronicles of England, Scotland, and Ireland. The central theme of the history plays is the gain and loss of power, and, in particular, the theme of divine right. Shakespeare spends a lot of time discussing what makes a good, wise, and successful ruler in his history plays.

Examples include: Henry VI Parts 1, 2, and 3, Henry IV, Parts 1 and 2, Henry V and Richard III

### The Romances

Sometimes Shakespeare's late comedies are grouped together as romances. These are Pericles, Cymbeline, The Winter's Tale, and The Tempest. These plays, at times, seem more like tragedies than comedies, but they have the standard 'happy ending'.

## Historical context

Shakespeare lived in interesting times – it was the end of what is known as the **Renaissance** period (which means rebirth) when European interest in art, science and exploration was revived.

**Religion** was also a hot topic throughout his life because tensions between Protestants and Catholics continued.

When Shakespeare was born **Queen Elizabeth I** was already on the throne and she remained in charge until her death in 1603. During this time **Sir Francis Drake** became the first explorer to circumnavigate the globe (sail all the way round the world), England defeated the **Spanish Armada**, the **potato** was introduced to Britain, and there were several outbreaks of the **plague**.

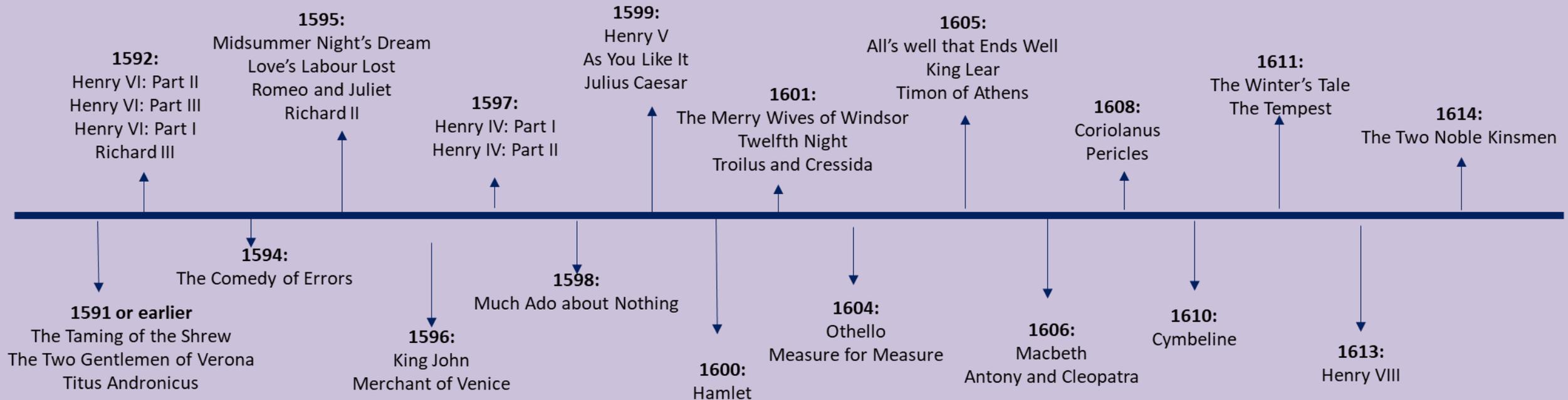
When **James I** became King he was already **King of Scotland** and he ordered the creation of the **Union Jack flag**. Early in James' reign **Guy Fawkes** and others were involved in the attempted assassination of the King through the **Gunpowder Plot**.

Interestingly, belief in the **supernatural** was common throughout Shakespeare's lifetime. People absolutely believed in ghosts, fairies, witches and potions.

Shakespeare's writing shows the influence of all these events and beliefs. Many of his plays would have seemed quite topical when they were written.



Timeline showing when Shakespeare's plays are thought to have been written



**Act and Scene** – Clarifies where in the play this part of the script is from.

**Scene location** – Gives the reader the place the scene is set.

**ACT I SCENE I** *A desert place.*

*[Thunder and lightning. Enter three Witches]*

First Witch      When shall we three meet again  
                         In thunder, lightning, or in rain?

Second Witch    When the hurlyburly's done,  
                         When the battle's lost and won.

Third Witch      That will be ere the set of sun.      5

First Witch      Where the place?

Second Witch    Upon the heath.

Third Witch      There to meet with Macbeth.

First Witch      I come, graymalkin!

Second Witch    Paddock calls.      10

Third Witch      Anon!

ALL                Fair is foul, and foul is fair:  
                         Hover through the fog and filthy air.

**Stage directions** – There are a range of stage directions (see page 9). The most common at the start of a scene are which characters should enter.

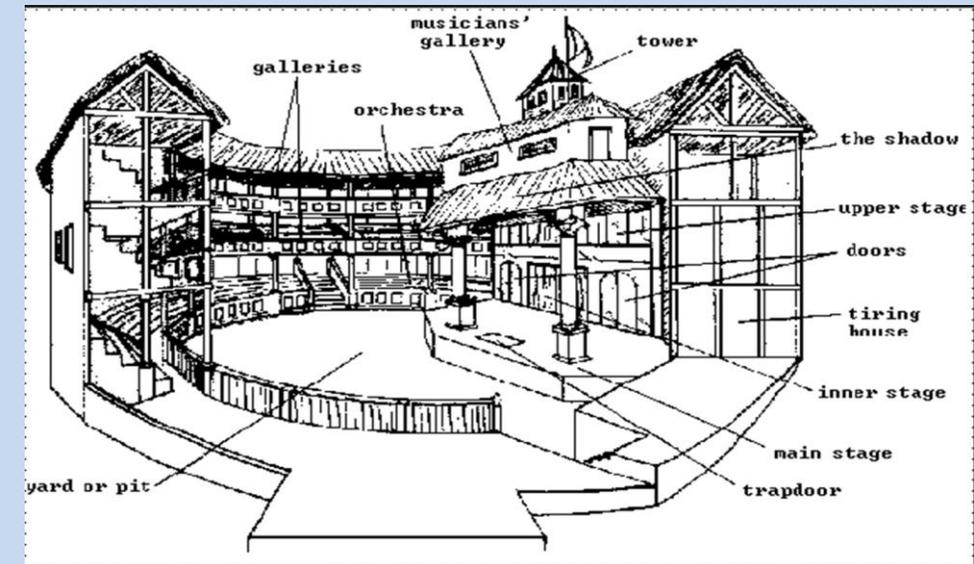
**Lines of the play** – The key part we analyse in a play. The words the actors speak on stage, sometimes with stage directions to the actor to instruct them exactly **how** to say the line.

**Line number** – Every line is given a line number to aid the actor/director/reader. So this line would be 1.1.10 – act 1, scene 1, line 10.

**Character** – This indicates who speaks each line, with ALL indicating all characters.



## SHAKESPEARE'S THEATRE...THE GLOBE



**WHAT DOES A PLAY SCRIPT LOOK LIKE? HOW IS IT DIFFERENT TO TEXTS WE ARE USED TO?**

## 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	1/10	1/100	1/1000
M	HTh	TTh	Th	H	T	U	1/10	1/100	1/1000
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
- Maths Bot

### Written Multiplication - Integers

- Consider place value and add a 0 on the second line
- Include your carries

Work out  $82 \times 59$

Column Method

$$\begin{array}{r} 82 \\ \times 59 \\ \hline 738 \\ 4100 \\ \hline 838 \end{array}$$

9x82= 738  
50x92= 4100  
59x82= 838

Thought bubbles:  
 - Set out problem  
 - Multiply & consider place value  
 - Add

Sparx Maths M187

### Multiplying and Dividing Negatives

When multiplying or dividing two numbers, if the signs are the same the answer is positive  
 If the signs are different, then the answer is negative

$+ \times + = +$ $- \times - = +$ $+ \times - = -$ $- \times + = -$	Examples: 1) $-7 \times 5 = -35$ 2) $-3 \times -7 = 21$ 3) $24 \div -8 = -3$ 4) $-30 \div -5 = 6$	$+ \div + = +$ $- \div - = +$ $+ \div - = -$ $- \div + = -$
--	---	--

Sparx Maths M288

Division into an integer  
 $2931 \div 3 = 977$

$$\begin{array}{r} 0977 \\ 3 \overline{) 2931} \end{array}$$

Division into an integer with remainder  
 $1985 \div 4 = 496.25$

1) Continue  $\div$  into decimals  
 2) Remainder as fraction  
 e.g. "1 out of 4" is left over

$$\begin{array}{r} 0496.25 \\ 4 \overline{) 1985.00} \end{array}$$

Division into a decimal  
 $27.6 \div 6 = 4.6$

$$\begin{array}{r} 04.6 \\ 6 \overline{) 27.6} \end{array}$$

Division into a decimal with "remainder"  
 $57.2 \div 8 = 7.15$

$$\begin{array}{r} 07.15 \\ 8 \overline{) 57.20} \end{array}$$

Sparx Maths M354

### Written Multiplication - Decimals

- Multiply both decimals by a power of 10 to change them to integers
- Divide by the same power of 10 to obtain your final answer

Work out  $3.68 \times 2.9$

$\times 100$   $\times 10$   
 Work out  $368 \times 29$

Column Method

$$\begin{array}{r} 368 \\ \times 29 \\ \hline 3312 \\ 7360 \\ \hline 10672 \end{array}$$

9x368= 3312  
20x368= 7360  
If  $368 \times 29 = 10672$   
Then  $3.68 \times 2.9 = 10.672$

Thought bubbles:  
 - So this answer will be  $\times 100 \times 10 \Rightarrow \times 1000$  bigger than needed  
 - ...so this can be  $\div 1000$  to get the new answer

Sparx Maths M803

### Long Division

$2829 \div 23 = 123$

$$\begin{array}{r} 123 \\ 23 \overline{) 2829} \\ \underline{- 23} \phantom{00} \\ 52 \phantom{0} \\ \underline{- 46} \phantom{0} \\ 69 \\ \underline{- 69} \\ 0 \end{array}$$

Thought bubbles:  
 - Show the subtraction problem that finds the "carry"  
 - Rather than squeeze the "carry" under the bus-stop, bring down the next digit to the carry. The number you need to divide into now can be clearly seen.

### Dividing by a decimal

- Change the number you are dividing by into an integer by multiplying by a power of 10.
- Multiply the dividend by the same power of 10.
- There is no need to alter your answer at the end.

Example: Calculate  $6.4 \div 0.08$

Step 1: Multiply both numbers by 100

Step 2: Calculate the answer

$$6.4 \div 0.08 = 640 \div 8 = 80$$

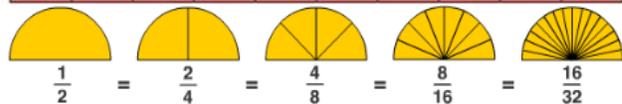
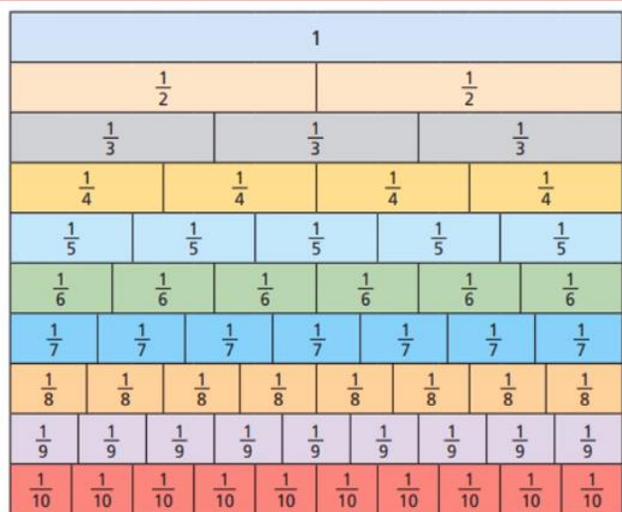
Sparx Maths M263

- B** • Do brackets first
- I** • Then indices or square roots
- D M** • Then division and multiplication, reading from left to right
- A S** • Then add and subtract, reading from left to right

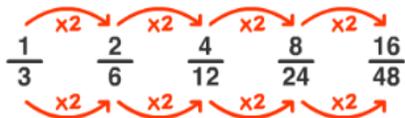
$3 - 5 + 2 = 0$  (not -4)  
 Add and subtract have the same precedence, so you read from left to right.

Sparx Maths M521

## Equivalent Fractions



You can make equivalent fractions by multiplying or dividing the numerator and denominator by the same number.



Sparx Maths  
M410

### Keywords:

Numerator	Multiple
Denominator	Convert
Whole	Mixed Number
Equivalent	Improper
Simplify	Lowest Common Multiple
Common Factor	Reciprocal
	Original

## Year 7 Maths Term 3 - Fractions



$\frac{3}{8}$

← **Numerator** - how many equal parts are needed

← **Denominator** - how many equal parts are there in the whole

### What do I need to be able to do?

- To determine and generate equivalent fractions
- To write fractions in their simplest form
- To convert between improper fractions and mixed numbers
- To add and subtract fractions
- To multiply and divide fractions
- To find a fraction of an amount
- To find a whole given a fractional amount

## Simplifying Fractions

Simplifying a fraction means finding an equivalent fraction where the numbers are reduced as much as possible.

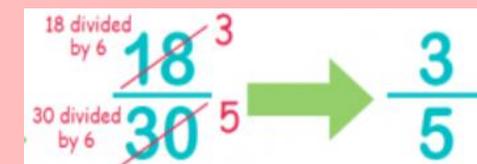
To simplify a fraction, we divide the numerator and denominator by the same number, a common factor.

You could do this in multiple steps:



SparxMaths  
M671

Or divide through straight away by the highest common factor:



## Mixed Numbers and Improper Fractions

Convert  $2\frac{4}{9}$  to an improper fraction



1 whole =  $\frac{9}{9}$



2 wholes =  $\frac{18}{9}$



So  $2\frac{4}{9} = \frac{22}{9}$

Sparx Maths M601

Or: Multiply the whole number by the denominator and add on the numerator.  
 $2 \times 9 + 4 = 22$

An **improper fraction** is a 'top heavy' fraction where the numerator is bigger than the denominator

Convert  $\frac{31}{9}$  to a mixed number



1 whole =  $\frac{9}{9}$



2 wholes =  $\frac{18}{9}$



3 wholes =  $\frac{27}{9}$



So,  $\frac{31}{9} = 3\frac{4}{9}$

Or: Ask yourself how many times the denominator fits into the numerator, with what remainder?  $31 \div 9 = 3$  with 4 remaining.

## Adding and Subtracting Fractions

To add or subtract fractions you need to have common denominator.

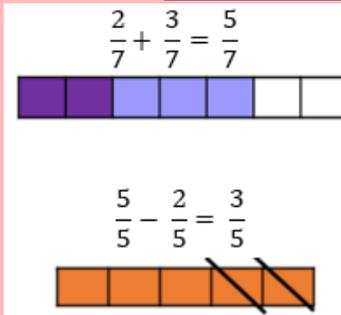
You can only add or subtract the numerators when the denominators are the same.

$$\frac{7}{15} - \frac{2}{5} = \frac{7}{15} - \frac{6}{15} = \frac{1}{15}$$

(Note:  $\frac{2}{5}$  is multiplied by 3 to get  $\frac{6}{15}$ )

$$\frac{1}{4} + \frac{3}{10} = \frac{5}{20} + \frac{6}{20}$$

(Note:  $\frac{1}{4}$  is multiplied by 5 to get  $\frac{5}{20}$ , and  $\frac{3}{10}$  is multiplied by 2 to get  $\frac{6}{20}$ )



When the denominators are different, find the lowest common multiple of the two numbers and re-write the fraction using this as the denominator. What ever you do to the denominator, you do to the numerator, to ensure the fractions are equivalent to the original.

## Multiplying Fractions

To multiply fractions, you simply multiply the numerators, multiply the denominators and simplify if needed.

$$\frac{1}{4} \times \frac{2}{3} = \frac{1 \times 2}{4 \times 3} = \frac{2}{12} = \text{reduces to } \frac{1}{6}$$

$$1\frac{3}{4} \times 2\frac{1}{2} = ?$$

$1 \times 4 + 3 = 7$   
 $2 \times 2 + 1 = 5$

$$\frac{7}{4} \times \frac{5}{2} = \frac{35}{8} = 4\frac{3}{8}$$

SparxMaths M157, M197

## Dividing Fractions

Instead of dividing by a fraction, we multiply by the reciprocal. The product of a number and reciprocal is 1. So to get the reciprocal of a number, we divide 1 by the number. It is like 'flipping' the numerator and denominator.

To divide fractions:

- 1) Keep the first fraction the same.
- 2) Take the reciprocal of the second fraction.
- 3) Change the division sign to a multiplication sign and proceed to multiply the fractions.



$$\frac{2}{5} \div \frac{2}{3} = \frac{2}{5} \times \frac{3}{2} = \frac{2 \times 3}{5 \times 2} = \frac{6}{10} = \frac{3}{5}$$

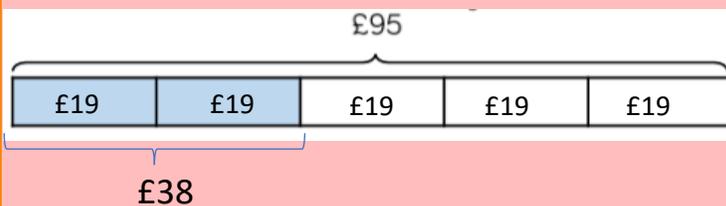
take the reciprocal  
of the divisor

$$\frac{4}{7} \div 2 = \frac{4}{7} \times \frac{1}{2} = \frac{4 \times 1}{7 \times 2} = \frac{4}{14} = \frac{2}{7}$$

SparxMaths M110, M265

## Fraction of an Amount

To work out  $\frac{2}{5}$  of £95, you could use a bar model to help:



Or, without a diagram:

$$\frac{1}{5} \text{ of } \pounds 95 = \pounds 95 \div 5 = \pounds 19$$

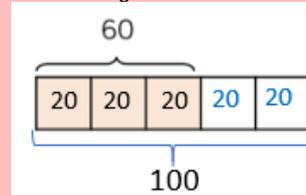
$$\text{So } \frac{2}{5} \text{ of } \pounds 95 = 2 \times \pounds 19 = \pounds 38$$

SparxMaths M695, M476

## Finding a whole

If  $\frac{3}{5}$  of a number is 60, what is the number?

Well, if  $\frac{3}{5}$  is 60, then  $\frac{1}{5}$  is  $60 \div 3 = 20$



SparxMaths U881

So the  $\frac{5}{5}$  (a whole, which is the original number) must be  $5 \times 20 = 100$

## KS3 Biology: Bioenergetics

Green plants and algae do not eat food to get their energy, instead they make their own glucose (food) by a process called photosynthesis  
Photosynthesis takes place inside chloroplasts, found within certain plant cells.

Photosynthesis needs light energy

carbon dioxide + water → glucose + oxygen



Carbon dioxide enters through the **stomata** on the underside of the leaf. These are like pores in our skin.

Water is absorbed by the **root hair cells** and is transported to the leaf by the **xylem vessels** (like veins)

Oxygen is released through the stomata on the underside of the leaf; glucose is transported around the plant in the **phloem vessels** (also like veins)

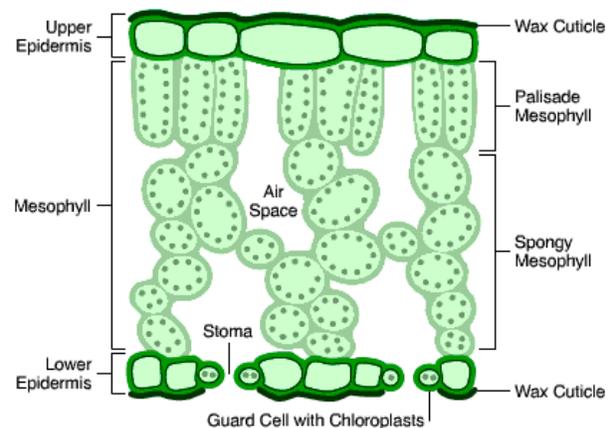
### Leaf Function and Structure

Absorb sunlight

Where photosynthesis takes place

To store glucose as starch

To absorb carbon dioxide into the plant and let oxygen out.



### How are leaves adapted for photosynthesis?

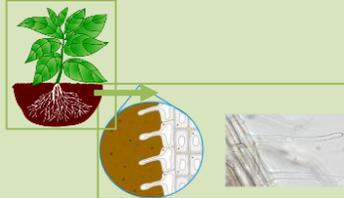
- They are **green** because they contain lots of chlorophyll to absorb sunlight.
- They have a **large surface area** to maximise the amount of sunlight they can absorb.
- They are **thin**, allowing easy diffusion of gases into and out of the leaf.
- They have **veins** (xylem and phloem) to allow the transport of water, mineral ions and glucose.

### Root Function and Structure

Absorb water

Absorb minerals

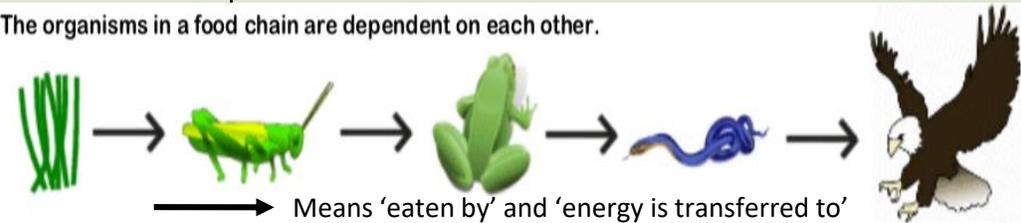
Anchorage (hold the plant to the ground)



- The roots are covered with millions of tiny **root hair cells**.
- These have a **very large surface area**, allowing the roots to absorb large amounts of water and minerals.

Keyword	Definition
Chlorophyll	Green pigment in chloroplasts of plant cells. It enables photosynthesis to take place
Chloroplasts	Organelle found in plant cells, the site of photosynthesis
Lower Epidermis	Contains stomata to regulate the loss of water vapour (transpiration)
Photosynthesis	Process carried out where plants make their own glucose
Stomata	Hole on the leaf that are surrounded by a pair of guard cells that control the opening/closing of the hole

The organisms in a food chain are dependent on each other.



**Producer** – makes own glucose

**Carnivore** – eats meat

**Herbivore** – eats plants

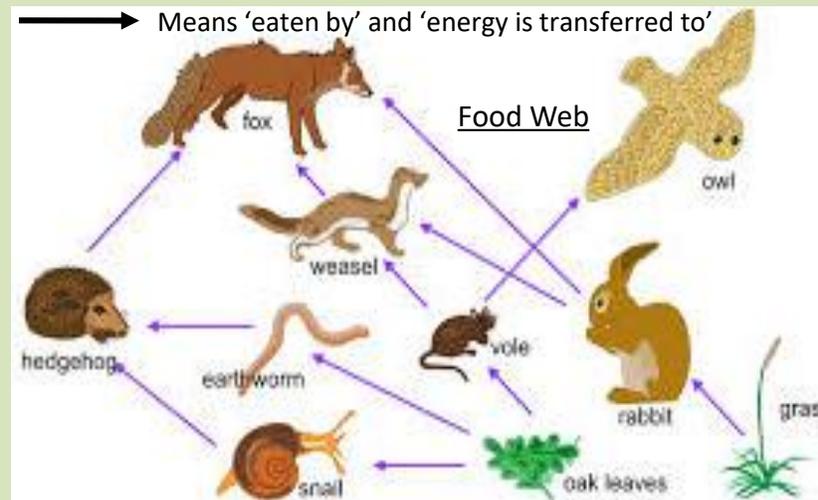
**Omnivore** – eats plants and meat

**Primary consumer** – eats the plants

**Secondary consumer** – eats primary

**Tertiary consumer** – eats secondary

**Apex predator** – nothing eats it



Changes in the number of one organism in an area can affect the other organisms.

The number of plants in an area can be affected by the amount of rain, sunlight, minerals and space available to grow.

The number of animals can be affected by the availability of food habitats, mates, water and disease.

**Bioaccumulation** can occur if organisms low in the food chain get poisoned and when they get eaten that poison is taken into the next organism. The poison can build up through the organisms in the chain.

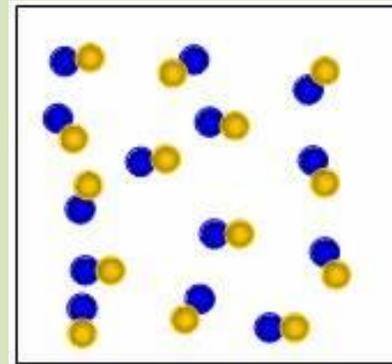
## KS3 Chemistry: Pure and Impure Substances

Term	Definition
Chromatography	Method used to separate the substances in a mixture based on how the components interact.
Compound	Substance made of atoms of at least two different elements chemically joined together.
Diffusion	The passive movement of particles from an area of high concentration to an area of low concentration.
Distillation	A way of separating out a liquid from a mixture. You heat the mixture until the bit you want evaporates, then cool the vapour to turn it back into a liquid.
Evaporation	A liquid changes into a gas, also a way of separating a solid from a liquid.
Filtering	Method used to separate an insoluble solid from a liquid.
Insoluble	Substance does not dissolve in a solvent
Mixture	Substance made from two or more elements or compounds that are not chemically bonded together.
Soluble	Substance that does dissolve in a solvent.
Solute	A substance dissolved in a solvent to make a solution.
Solution	A mixture made up of one substance dissolved in another.
Solvent	A liquid in which another substance can be dissolved.

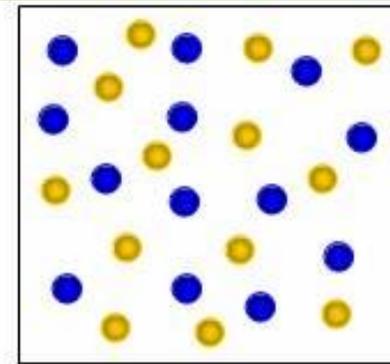
### Mixtures and pure substances

A pure substance contains only one type of element or one type of compound. e.g. pure water is made of H<sub>2</sub>O molecules only and cannot be separated into H and O atoms without a chemical reaction.

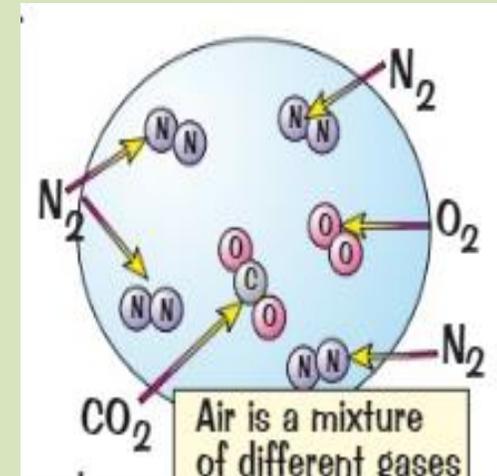
A mixture contains two or more different substances, these substances are not chemically combined. This allows mixtures to be separated using physical methods. Seawater and air are good examples of mixtures.



Pure Substance



Mixture

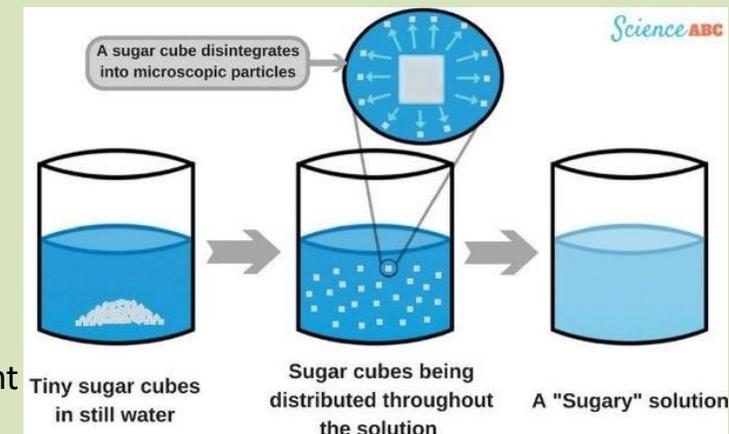


### Dissolving

Dissolving is one way to make a mixture. For example, when salt is stirred into water, the salt dissolves in the water to make salt solution.

In a solution: the substance that dissolves is called the solute and the substance that the solute dissolves in is called the solvent

In salt solution, salt is the solute and water is the solvent. The particles of solute and solvent are completely mixed together.



Mixtures can be separated using physical methods:

1. Filtration
2. Evaporation
3. Chromatography
4. Distillation

How to make crystals from rock salt

- 1) Grinding
- 2) Dissolving
- 3) Filtrating
- 4) Evaporating

Grind up the rock salt with a pestle and mortar.



Dissolve in beaker and stir.



Filter through filter paper in a funnel.



Evaporate in an evaporating dish.



You get really big crystals by boiling off half the water then leaving the dish in a warm place to evaporate slowly.

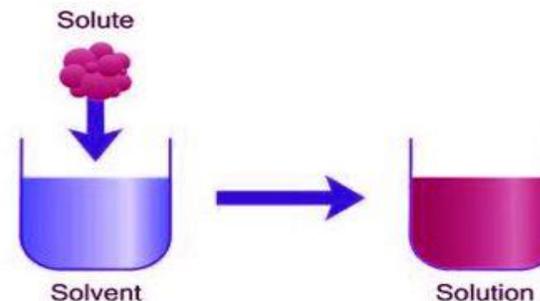
# Changes of State



Solubility increases with temperature:

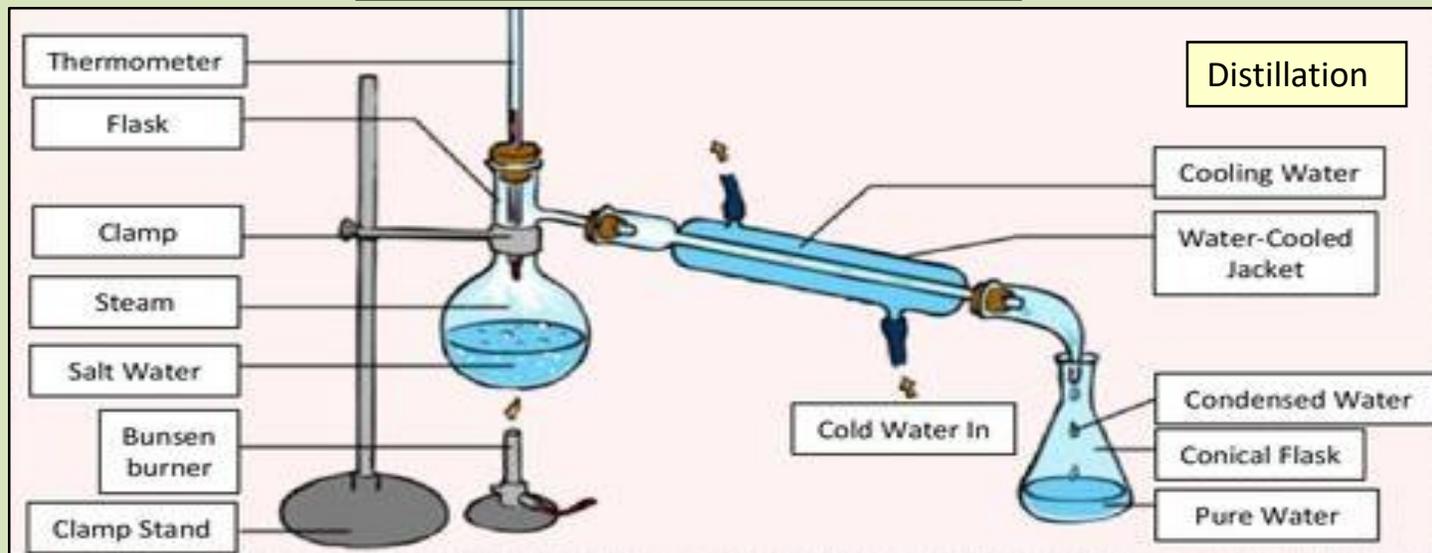
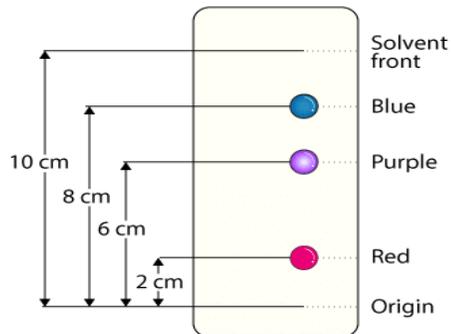
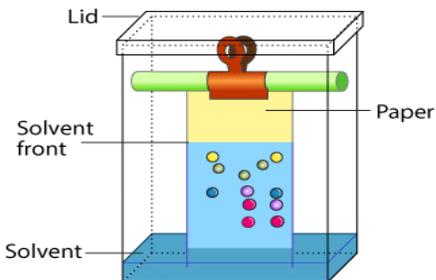
- At higher temperatures more solute will dissolve in the solvent because particles move faster.
- Some solutes will not dissolve in certain solvents
- When a solid is dissolved in a solvent a solution is made

## Solubility



Chromatography is used to separate mixtures and to help identify substances

If two coloured dots move the same distance up the chromatogram (paper) they contain the same chemical.



# KS3 Physics: Current electricity and magnetism

Key word	Definition
Potential difference (voltage)	a measure of the energy given to the charge carriers in a circuit
Current	The movement of electrical charges (such as electrons moving through a wire)
Resistance	The opposition in an electrical component (such as a fuse or wire to the movement of electrical charge through it)
magnet	A metal that attracts iron, cobalt and nickel
Electromagnet	a metal core made into a magnet by the passage of electric current through a coil surrounding it
Solenoid	cylindrical coil of wire acting as a magnet when carrying electric current
Static electricity	an imbalance of electric charges within or on the surface of a material. The charge remains until it is able to move away by means of an electric current

## Introduction to circuits

### Circuit Symbols

Symbol	Name
	Bulb
	Cell
	Battery
	Wire
	Motor
	Switch
	Buzzer
	Voltmeter
	Ammeter

When looking at and drawing circuits we use symbols to represent common components that are used.

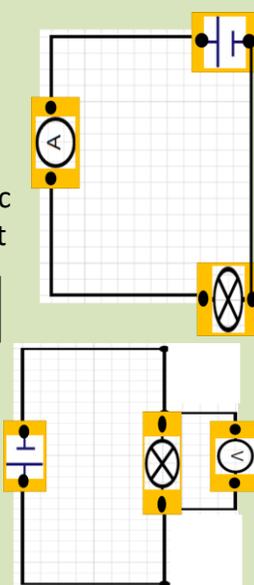
When talking about circuits we refer to three main factors. Current, potential difference (voltage) and resistance

### Electric Current Amps

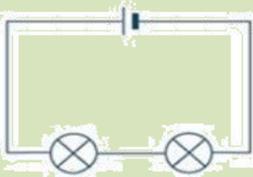
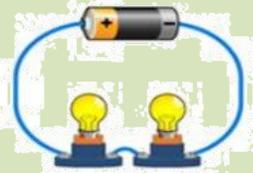
Is measured with a ammeter which can be used in series around the circuit. And is a measure of the amount of electric charge flowing through the circuit

### Potential Difference Volts

Is measured with a voltmeter . Potential difference is how much energy each charge has gained or lost across a component the voltmeter must be used in parallel to the circuit



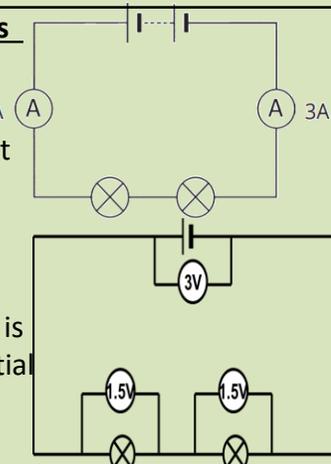
## Series circuits



In a series circuit, the components are connected end to end in a loop as shown in the diagram. If one bulb breaks, none of the bulbs will be lit as the circuit is no longer complete.

### Electric Current in series circuits

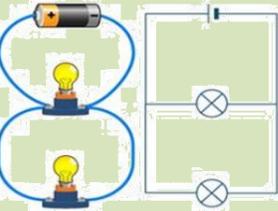
The current is the same everywhere in a series circuit. It doesn't matter where you put the ammeter, it will always show the same reading.



### Potential difference in series circuits

In a series circuit, the voltage supplied by the battery is shared by the components. So, the sum of the potential difference across the components equals the battery voltage.

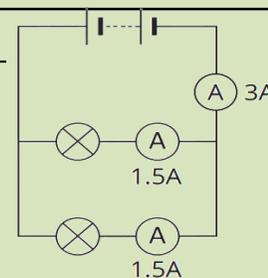
## Parallel circuits



In a parallel circuit, the components are connected on separate branches. This gives the current several different paths to flow down. If one bulb stops working, the other bulbs will remain lit as the circuit is still complete

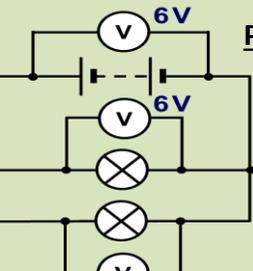
### Electric Current in parallel circuits

In a parallel circuit, the current divides at the point where the circuit branches and then recombines to complete the circuit.



### Potential difference in parallel circuits

In a parallel circuit, the potential difference across each bulb is the same as the potential difference across the battery. This means that all the bulbs have the same brightness, and they are brighter than the same number of bulbs in a series circuit.

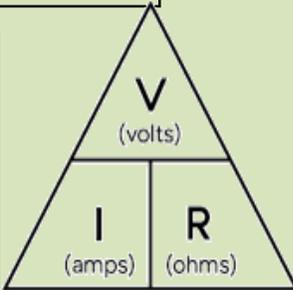


## Resistance

Resistance is a measure of how hard it is for charges (electrons) to move in an electrical circuit.

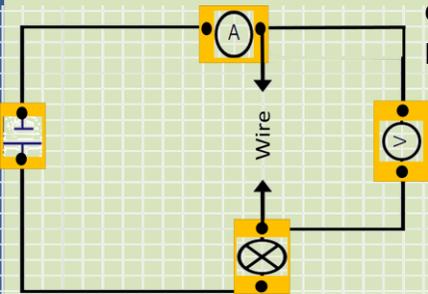
Resistance is measured in ohms ( $\Omega$ ).

If there is high resistance there will be low current and low resistance will have a high Current.



You can use an ohmmeter to measure resistance **but** it can be calculated from the current and potential difference

You can test the resistance of different materials with this test circuit



Factors that can affect the resistance through a wire include:

**Conductor**



low resistance

include:

- Temperature
- Thickness of wire
- Length of wire
- Material of wire

**Insulator**



High resistance

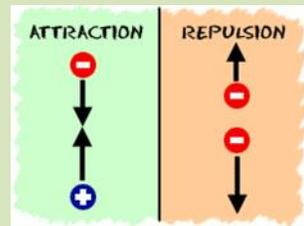
As the width of the wire increases, resistance decreases. This is because there is more space for the electrons to flow.

As the length of the wire increases, resistance increases because the electrons collide with more metal ions as they flow through the wire.

## Static Electricity

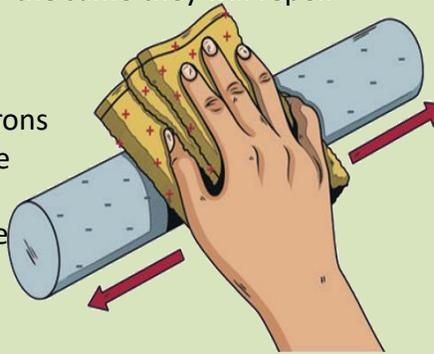
Static charge can build up when two insulating materials are rubbed together. Friction between the materials causes electrons to be transferred from one material to the other.

Electrons are negatively charged, so objects that lose electrons become positively charged overall, while objects that gain electrons become negatively charged overall.



If objects with different charges are near each other they will attract and if they are the same they will repel.

When a polythene strip is rubbed with a cloth, electrons move from the cloth to the strip. The strip becomes negatively charged and the cloth becomes positively charged.



When you rub a balloon against your hair, electrons are transferred from your hair to the balloon. The balloon and your hair have opposite charges so your hair is attracted to the balloon, making it stand on end.

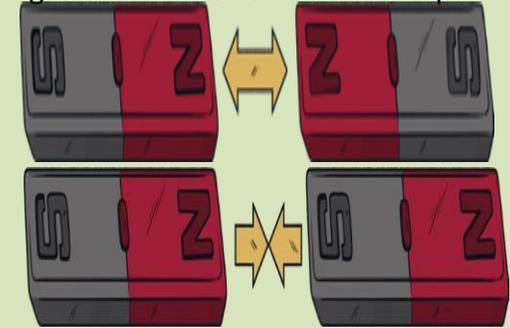


There are many uses for electromagnets such as scrap metal sorters, speakers and electric bells. An example of how a bell uses an electromagnet is when the electromagnet is turned on it attracts the springy metal arm towards the bell. Here it hits the bell and makes a sound. This movement breaks the circuit and turns off the electromagnet. The arm moves away from the bell as it is not being attracted by the electromagnet. This cycle then repeats itself

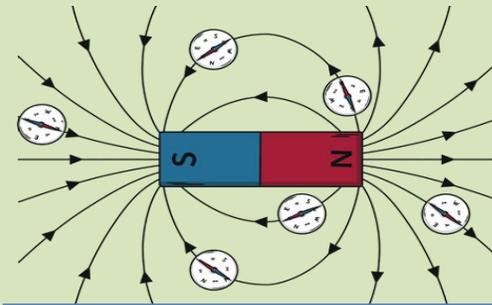
## Magnetism

Magnetism is a non-contact force. That attracts or repels the 3 magnetic metals, these metals are Iron (Fe), cobalt (Co) and nickel (Ni). Steel is also magnetic because it contains iron. Magnets have a north and a south pole.

Like poles repel. This means that the two poles push each other away.



Opposite poles attract. This means that the magnets pull the poles towards each other



All magnets exert a magnetic field- this is the area where the magnet has an influence on currents and other magnets. It can be shown by placing compasses around the magnet and plotting where it points

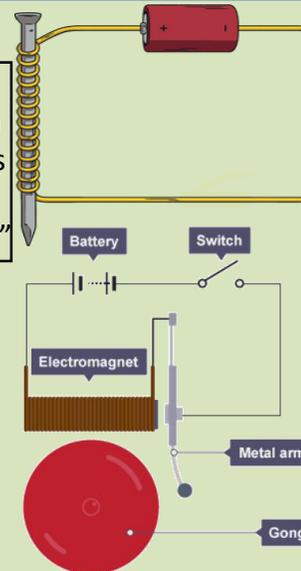
## Electromagnets

We can pass an electrical current through a wire, this creates a weak magnetic field. If we combine this with a metal core then we have a stronger field- we call this combination an electromagnet. They are useful because they have the ability to be turned "on and off"

Electromagnets can be made even stronger by:

- adding more coils
- increasing the current or voltage
- winding the coils closer together

Uses of electromagnets



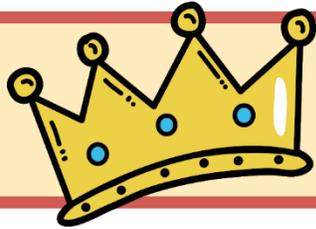
# History – Term 3



## Power of the Kings

Medieval monarchs faced many challenges to their position, sometimes from other countries, their own family, or the Church.

They had to adopt various tactics of dealing with the difficult circumstances, some monarchs were better at this than others!



Monarchs gained **legitimacy** because they **inherited** their power from a previous monarch



Female monarchs were seen as weak because they could not lead an army into battle



Monarchs could gain power and **legitimacy** by showing their military strength by winning battles



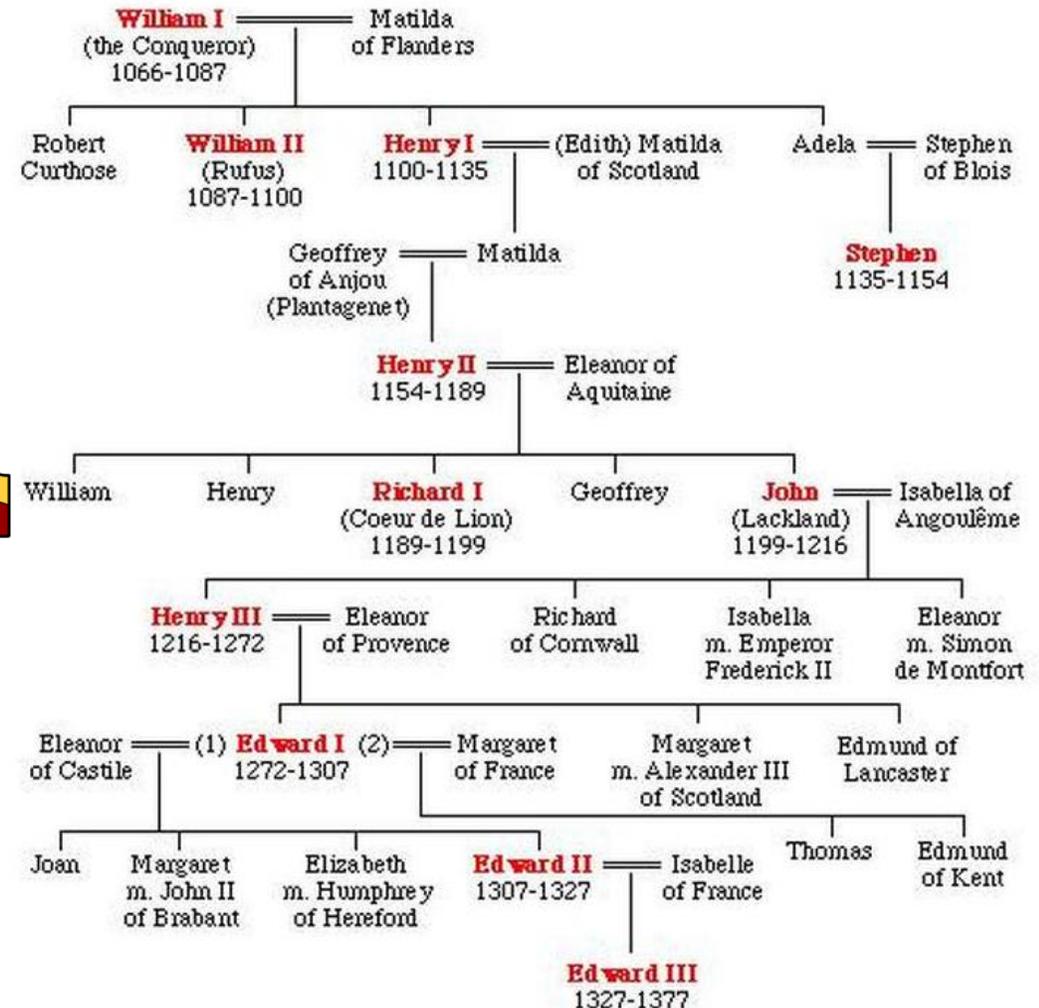
Monarchs needed the support of powerful people, such as the **barons** or the **Pope**



Monarchs needed to be popular. Unpopular monarchs could be rejected or face **rebellion**



## Medieval Kings



# Henry II & Thomas Becket



Overview of the problems between the Monarch and the Church:

<https://tinyurl.com/HenryandBecket>



In the Middle Ages, it was unclear whether the King had more power than the Church. This was demonstrated in the story of Thomas Becket:



In 1162, Henry II named his friend Thomas Becket as **Archbishop** of Canterbury.

Henry wanted Becket to force priests to use the **King's Courts**, instead of getting away with light punishments in the **church courts**. He also wanted Becket to help him control the bishops.



When Becket refused to do this, the two men fell out. In a rage, Henry shouted "Will no one rid me of this troublesome priest?". A group of knights overheard him and murdered Becket.



Henry was horrified when he heard of Becket's death and ordered **monks** to whip him to show he was sorry.

## Key words and names:

<b>Religious</b>	Things to do with what people believe and who and how they worship
<b>Monarchy</b>	A form of government with the monarch (a king or queen) at the head
<b>Baron</b>	An important nobleman, who was given lands directly by the King to rule on his behalf. Barons are referred to as 'Lord' and had a very high status.
<b>Henry II</b>	King of England in 1154-1189. Great-grandson of William the Conqueror. He argued with his Archbishop, Becket, over control of the English Church
<b>Becket</b>	Appointed the Archbishop of Canterbury by King Henry II. He was later killed by four knights in Canterbury Cathedral after quarrelling with Henry.
<b>Law Court</b>	Where a judge decides if someone is guilty of breaking the law after hearing evidence. Church courts were controlled by priests, not the king.
<b>Archbishop</b>	A bishop of the highest rank in the English Church, in charge of churches and other bishops in a certain area. They had a very high status.
<b>Monk</b>	Member of a religious community of men, living in a monastery, who took special vows showing their dedication to God (e.g. poverty, obedience)
<b>Edward Grim</b>	The man who witnessed the death of Thomas Becket in Canterbury Cathedral in 1170, and later published a book about Becket.
<b>Knight</b>	A man who served his Lord (often a Baron), by fighting as a soldier mounted on a horse, wearing armour. Knights are referred to as 'Sir'.
<b>Pilgrimage</b>	A journey to a holy place, to show faith in God. After he died, many went to Canterbury to pay their respects to Saint Thomas Becket.
<b>Crusade(s)</b>	'Holy Wars' fought between Christians and Muslims over the Holy Land (especially Jerusalem), located in modern-day Israel and Palestine
<b>Sin</b>	A deliberate action that goes against God. Sins range from 'big' acts like murder to 'smaller' acts like envy. The Pope said that if people went on Crusade, all sins would be forgiven. This was called an indulgence.

## The Power of the Church

### Heaven and Hell

People in the Middle Ages believed that heaven and hell were real places.

After death, they believed, angels would decide if you would spend eternity in heaven or hell.

Heaven was the kingdom of Jesus. It was reserved for those who had lived a good life.

Hell was the kingdom of the Devil. Sinners were sent here. Living in hell meant an eternity of pain and suffering.

### Getting into Heaven

There were several ways to increase your chances of going to heaven and avoiding hell:



Becoming a nun or a monk and spending life in a nunnery or monastery. Nuns and monks dedicated their lives to God, praying eight times a day and serving their community. The rich often gave money to support monasteries.



Earning an indulgence. These were certificates that forgave sins. They could be bought or earned by charity work.



Going on crusade. Christians and Muslims fought over the holy city of Jerusalem. The Pope promised to forgive the sins of crusaders.

### Church Hierarchy



**The Pope**  
God's representative on earth. Lived in Rome. Could excommunicate kings.



**Archbishop of Canterbury**  
The Pope's representative in England and the most powerful member of the Church.



**Bishop**  
The leader of the church in a local area. There were 17 bishops in the Medieval Church, each based at a cathedral.



**Priest**  
Each town and village had a priest to run church services.

# King John and the Magna Carta

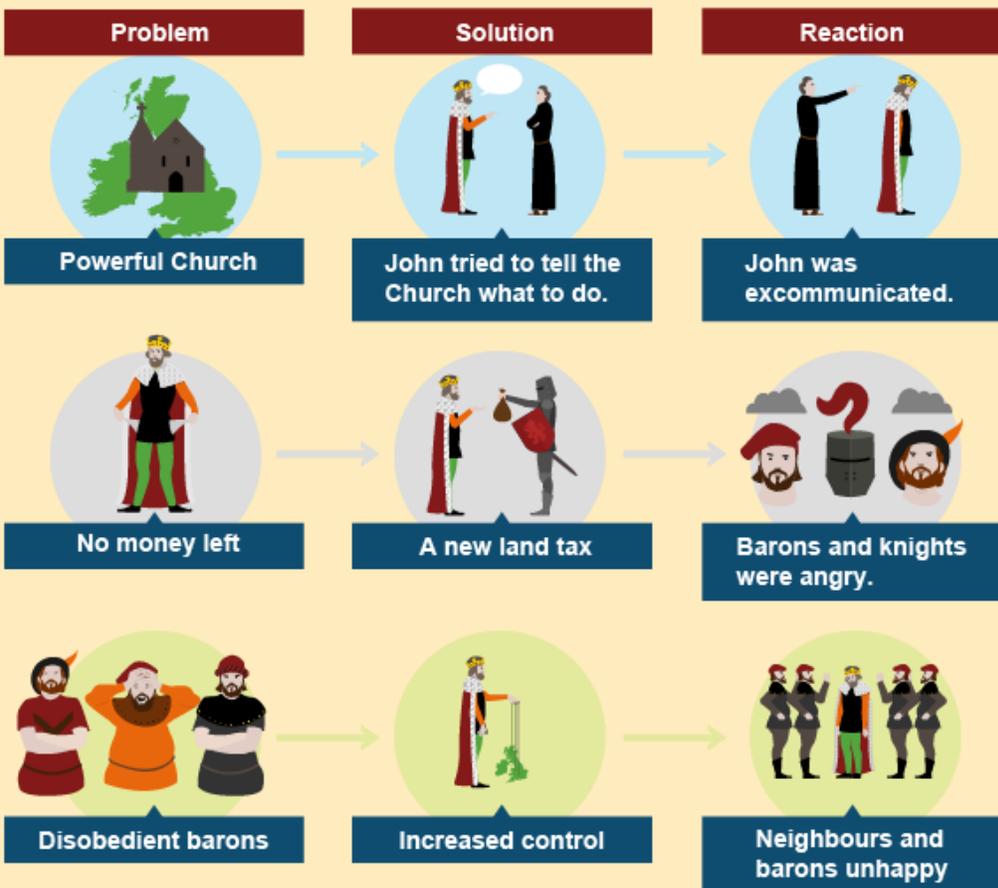


Overview King John and the Magna Carta

<https://tinyurl.com/KingJohnMagnaCarta>



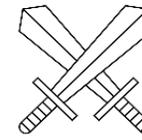
## Background to King John's Problems



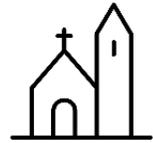
## Why was John unpopular?



John was forced to introduce a new land **tax** to repay money that his brother, Richard I, had borrowed to pay for the **Crusades**.



The French invaded English **territory** in Normandy. John tried to win it back but lost the Battle of Bouvines in 1214. He was nicknamed 'Softsword'



John tried to force the Church to accept his choice for **Archbishop**. In response, the Pope **excommunicated** John and stopped church services in England.

## Baron's Revolt 1215

In May 1215, 40 English **barons** rebelled against King John.

With support from the French and Scottish, they formed an army and captured London.

John met the rebels at Runnymede, near London and agreed to **Magna Carta**.

## Magna Carta

**Magna Carta** - or 'Great Charter' - was a document signed by King John limiting the power of kings. It was the first time that a set of rules had been written for the king.

The most important parts:



Gave all free men the right to **trial by jury**



Limited the amount of **tax** the barons had to pay



Limited the power of the King over the Church



# History – Term 4



## Medieval Lives

### Society, Status and Life in the Medieval Village

Most people were peasants, who had very few rights and who lived in villages called 'manors'. Life for an average peasant was hard and work was back-breaking.

The Feudal System is the name for a power structure where people held land in return for promising loyalty and services such as working or fighting for their lord.

Village life was not all misery. Holy days meant a day off work. Peasant fun was rough, including wrestling, shin-kicking and cock-fighting. The ball was almost unnecessary to a medieval ball game, which was basically a fight with the next village.

Noblemen had a high status, often living in castles with a great hall and servants.

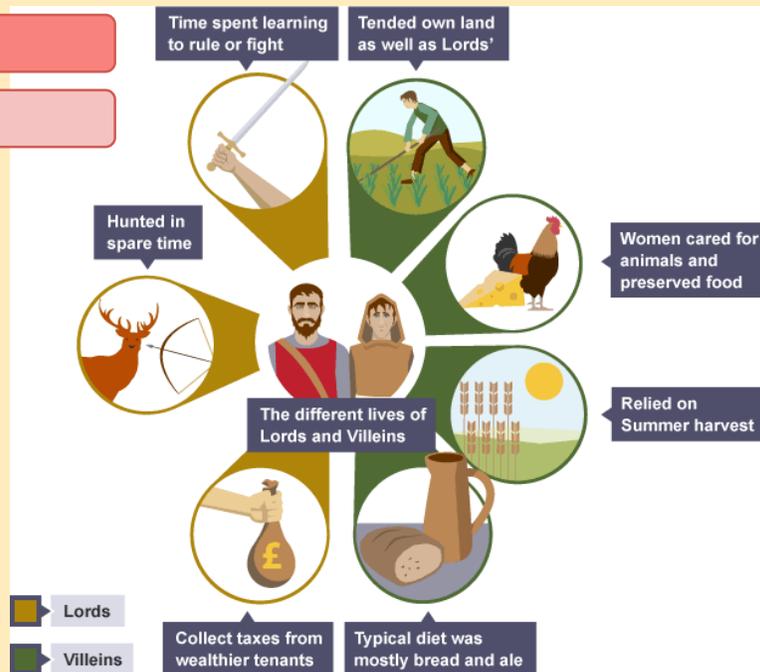


### Key Vocabulary

<b>Economic</b>	Things to do with money, finances, jobs, trade and wealth. There were many economic causes, for example, of the Peasants Revolt.
<b>Political</b>	Things to do with leaders (monarchy and Parliament), laws, government and rulers. The Peasants Revolt, for example, was a political protest.
<b>Social</b>	Things to do with 'normal people' and how they lived (e.g. home life, community). The Black Death, for example, had huge social consequences
<b>Tax</b>	Where people pay money to the government or to the church. It is compulsory (people have to do it), so it isn't popular amongst the poor
<b>Status</b>	The position you hold in society. In Medieval times, people had a fixed status (low, medium or high); they were part of a social hierarchy.
<b>Freeman</b>	These people paid rent to the lord to farm their land, but they weren't 'owned' by the Lord, and could come and go as they pleased.
<b>Villein</b>	They were Medieval peasants who were 'tied' to the Lord's land. They had to farm their own land and the land of the Lord, and they had to get the Lord's permission to do things like get married or leave the village.
<b>Black Death</b>	A plague (fast spreading disease). It is said that between a quarter and a third of the population died, wiping out c. 40% of the English population in 1348-1350. It was carried by fleas who lived on rats.
<b>Buboes</b>	Painful swellings that appeared on a victim's armpits and groin if they were infected by the Black Death. Often led to a painful death.
<b>Bubonic &amp; Pneumonic</b>	The two different types of plague. Bubonic plague, which was carried by rats and caused buboes, was the most common form. Pneumonic plague was an advanced stage of Bubonic plague that spread to the lungs.
<b>Statute of Labourers</b>	This Statute (law), passed after the Black Death, said labourers could not earn more than 2 pence per day. It was bitterly resented by the peasants.
<b>Flogging</b>	To be beaten with a stick or whip as a punishment. Some people flogged themselves in the Middle Ages to show God they were sorry for their sins.

## Overview Medieval Towns:

<https://tinyurl.com/townandvillages>



## Living in a medieval town:

- A medieval town would seek a charter giving it the right to become a borough. The rich merchants would then be allowed to choose a mayor and hold a market.
- Houses were made of a wooden frame, with the gaps filled with woven strips of wood, known as 'wattle', and covered, or 'daubed', with clay and horse-dung. Most roofs were thatch.
- Medieval shops were workshops, open to the street for customers, with the craftsman's house above. Because few people could read, shops signs were a huge model showing the craftsman's trade. People of the same trade often worked in the same street.
- The streets of a medieval town were narrow and busy. They were noisy, with the town crier, church bells, and traders calling out their wares. There were many fast food sellers, selling such things as hot sheep's feet and beef-ribs.
- Criminals were put in the stocks or the pillory. These were wooden boards with holes for feet, hands or head. Medieval punishments were cruel, and crimes such as theft were punished by hanging.
- Holy Days would be marked by colourful processions, as the different guilds competed to make the best display.
- If a serf ran away from his village to a town and remained free for a year and a day, he could become a 'freeman' of the town.

## Living in a medieval village:

- Life for the peasants was hard.
- Work followed the seasons – ploughing in autumn, sowing in spring, harvesting in summer. Work began at dawn, preparing the animals, and it finished at dusk, cleaning them down and putting them back into the stalls.
- A peasant's hut was made of wattle and daub, with a thatch roof but no windows.
- Inside their homes there was space for animals to be kept. Animals lived with the family. A fire would be built in the middle of the house, meaning the air would be smoky. There would be a lack of furniture too, maybe some stools, cooking pots and somewhere to keep the bedding. Peasants would sleep on the floor.
- Peasant food was mainly vegetables, plus anything that could be gathered – nuts, berries, nettles. The usual drink was weak, home-brewed beer. Honey provided a sweetener. If bread was eaten, it would not have been white bread, but black rye bread.

# The Black Death



# The Black Death

The plague spread very quickly in the warm winter of 1348-9.

Some methods which people at the time thought would cure the plague or stop them catching it included: flogging and praying to ask God for forgiveness; isolation (keeping away from the sick); cleaning the streets; holding sweet herbs to the nose.

The nursery rhyme 'ring-a-roses' is a reference to the Black Death.

After the plague, prices of food and other goods fell. The shortage of labourers meant that wages went up. Some villages were abandoned. In other villages, survivors were able to buy or rent all the spare land. So some peasants became much richer.

<b>Black Death</b>	The name given to the plague because of the black spots which caused death
<b>Buboes</b>	Large swellings under the arm and the groin, which were filled with black pus and exploded
<b>Miasma</b>	'Bad air' which was blamed for spreading the disease
<b>Bubonic</b>	The Black Death caught by flea bites to humans
<b>Rats</b>	The fleas on the rats caused the Black Death. People at the time did not know they caused the disease
<b>Pneumonic</b>	The Black death spread human to human by breathing
<b>Mass Grave</b>	A grave where large numbers of bodies are laid to rest
<b>Herbal Remedy</b>	Medicine made from plants with natural cures
<b>Anti-Semitism</b>	Anti-Jewish actions - Jews were blamed for causing the Black Death by poisoning water supplies
<b>Flagellant</b>	People who whipped themselves to show God they were sorry so he would cure their disease
<b>Leeching</b>	The use of leeches for drawing blood from patients
<b>Plague Doctor</b>	A doctor that wore protective clothing who would diagnose the Black Death
<b>Epidemic</b>	A widespread outbreak of a disease
<b>Sins</b>	Wrongdoings which people believed God punished you for by giving you the plague such as gambling or drinking alcohol



Overview of the Black Death:

<https://tinyurl.com/BlackDeathPlague>



## Some of the cures they tried included:

- Rubbing onions, herbs or a chopped up snake (if available) on the boils or cutting up a pigeon and rubbing it over an infected body.
- Drinking vinegar, eating crushed minerals, arsenic, mercury or even ten-year-old treacle!
- Sitting close to a fire or in a sewer to drive out the fever, or fumigating the house with herbs to purify the air.
- People who believed God was punishing you for your sin, 'flagellants', went on processions whipping themselves.
- In the 1361 - 1364 outbreak, doctors learned how to help the patient recover by bursting the .
- Doctors often tested urine for colour and health. Some even tasted it to test.



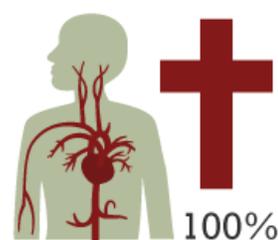
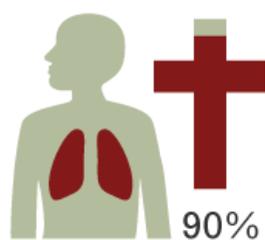
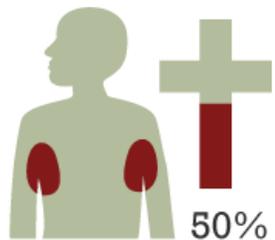
Estimated death toll for the British Isles and Ireland **3.2 million**



Bubonic Plague

Pneumonic Plague

Septicaemic Plague



Key



## Consequences of the Black Death Deaths

Estimates differ, but most historians believe that the Black Death killed half the population of Europe. In some places, eg the village of West Thicklely in County Durham, it killed everybody. The death-rate was especially bad in monasteries, where the monks stayed together and cared for each other. Some historians (Benedictow 2004) suggest that the wealthier classes were less affected due to their wealth enabling them to flee from outbreaks.

## Effects

The precise effects are difficult to assess given the huge loss of life and subsequent inconsistent records. In some places there was even no-one left to bury the dead let alone record the effects. However, historians have suggested the Black Death had significant consequences:

**Psychological:** the Black Death had a huge influence on the way people thought about life. Some lived wild, immoral lives, others fell into deep despair, whilst many chose to accept their fate. Many people were angry and bitter, and blamed the Church – some historians think this helped the growth of the new 'Lollard' religion in the 15th century. It could also be argued that the Black Death had brought down rich and poor alike. Having faced and survived the plague, people at the bottom of society were more prepared to question their position in society.

**Social:** poor people began to hate their poverty and their 'betters' – some historians think this helped to destroy the feudal system.

**Economic:** there was a great shortage of workers, and when Parliament passed laws to stop wages rising, poor people became very angry – some historians think this helped to cause the Peasants' Revolt of 1381.

**Day 1** Painful swellings called buboes appeared in the victim's armpits and groin. These were usually about the size of an egg, but could sometimes be as big as an apple.

**Day 2** The victim vomited and developed a fever.

**Day 3** Bleeding under the skin caused dark blotches all over the body.

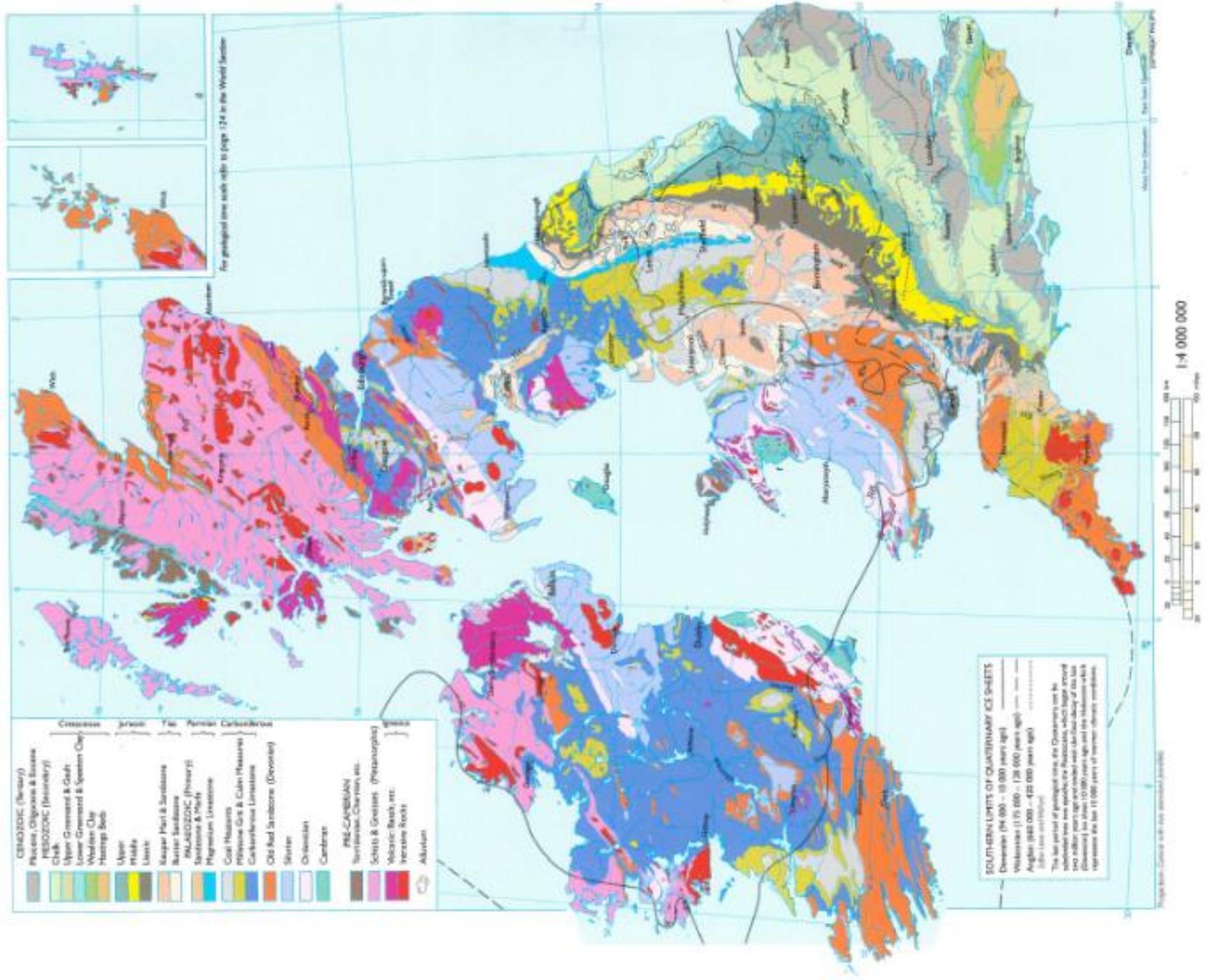
**Day 4** The disease attacked the nervous system. This caused the victim to suffer spasms. The victim was in terrible pain.

**Day 5** Sometimes the buboes burst and a foul-smelling black liquid oozed from the open boils. When this happened the victim usually lived. However, in most cases the victim suffered a painful death.

## Symptoms

# Limestone Landscapes

## UK Geological Map



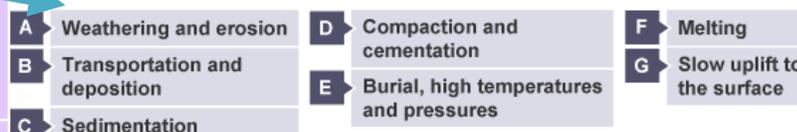
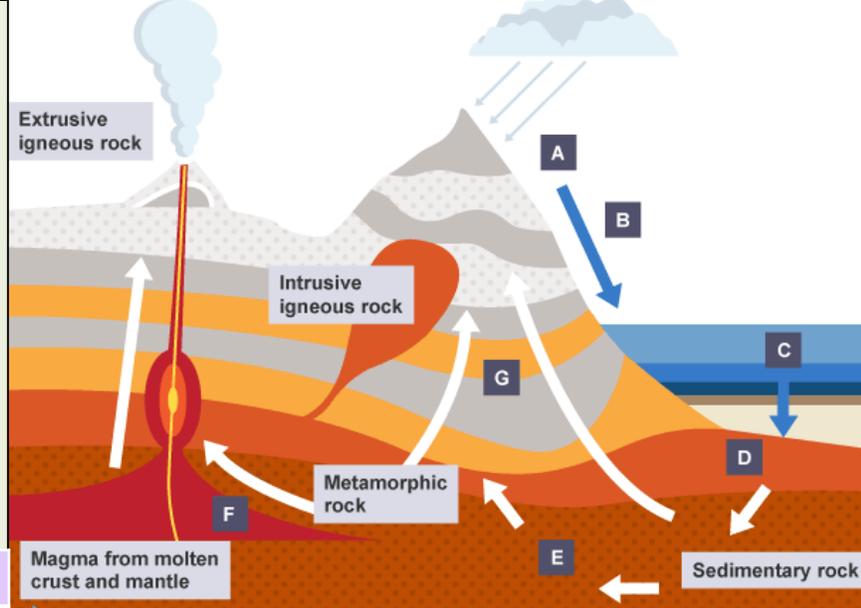
## The Rock Cycle

There are three main categories of rock:

- **igneous** (for example, basalt and granite)
- **sedimentary** (for example, limestone, sandstone and shale)
- **metamorphic** (for example, slate and marble)

## Continual change

The Earth's rocks do not stay the same forever. They are continually changing because of processes such as **weathering**, **erosion** and large earth movements. The rocks are gradually recycled over millions of years. For example, **sedimentary rocks** can be changed into **metamorphic rocks**. These can then be weathered, eroded or even pieces transported away. The pieces of rock could be deposited in a lake or sea, eventually forming new sedimentary rock. Many routes through the rock cycle are possible – look at the diagram (right):



### KEY WORDS:

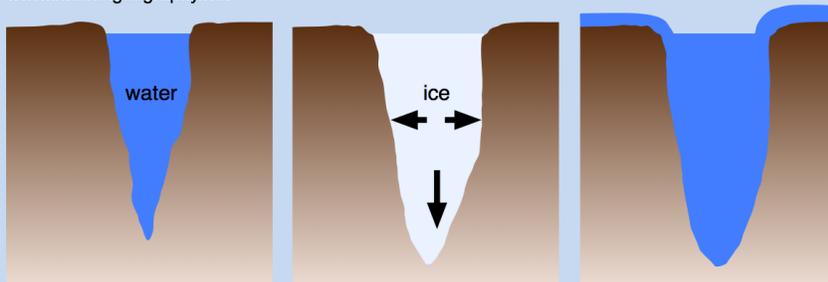
Extrusive igneous rock  
Intrusive igneous rock  
Sedimentary Rock

Metamorphic Rock  
Erosion  
Weathering

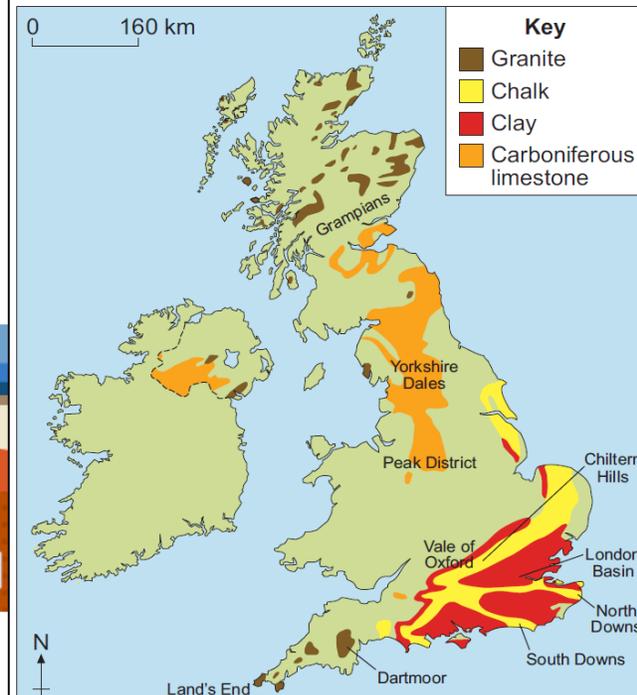
Magma  
Carbonation  
Deposition

## How does freeze-thaw weathering take place?

[www.internetgeography.net](http://www.internetgeography.net)



Water enters cracks in the rock. Temperatures fall at night, causing water to freeze. When water turns to ice it expands by ten percent. This puts pressure on the rock, prising the crack apart. The ice melts, water seeps deeper into the crack and freezes again. Over a period of time large blocks of rock can be shattered by repeated freeze-thaw weathering.



In the UK, we have all three categories of rock. While you don't need to know where all the rocks are found (very complicated!), knowing some key locations where chalk, clay, granite and limestone are found would be very useful!

**Chemical weathering** is the breakdown of rock through changing its chemical composition. When rainwater hits rock it **decomposes** it or eats it away. This is known as **carbonation**. This occurs when slightly acidic (**carbonic**) rain or sea water comes into contact with **sedimentary rock**, such as limestone or chalk, it causes it to dissolve. A chemical reaction occurs between the acidic water and the calcium carbonate and forms calcium bicarbonate. This is **soluble** and is carried away in solution. **Carbonation weathering** occurs in warm, wet conditions.

### Description

A	Weathering breaks down rocks on the surface of the Earth. There are three types of weathering (biological physical and chemical). Wind and water move the broken rock particles away. This is called erosion.
B	Rivers and streams transport rock particles to other places. Rock particles are deposited in lakes and seas.
C	Rock particles form layers
D	Compaction and cementation presses the layers and sticks the particles together. This creates sedimentary rock.
E	Rocks underground get heated and put under pressure, and are changed into metamorphic rock.
F	Rocks underground get heated and melt into magma. Magma is found deep inside the Earth, from a region called the mantle. Pressure can force magma out of the ground, creating a volcano. When the magma (lava) cools quickly, it turns into solid extrusive igneous rock., if it cools slowly it forms solid intrusive igneous rock.
G	Areas of rock can move slowly upwards, pushed up by pressure of the rocks forming underneath. This is called uplift.

## Limestone pavement

Is a flat expanse of exposed limestone formed by a combination of chemical weathering and erosion.

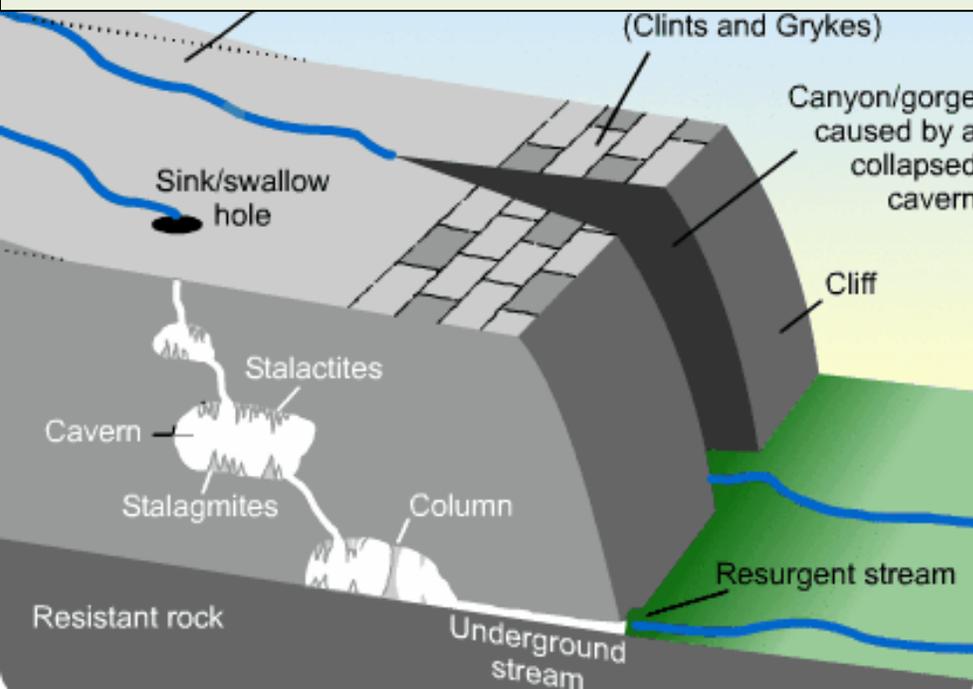
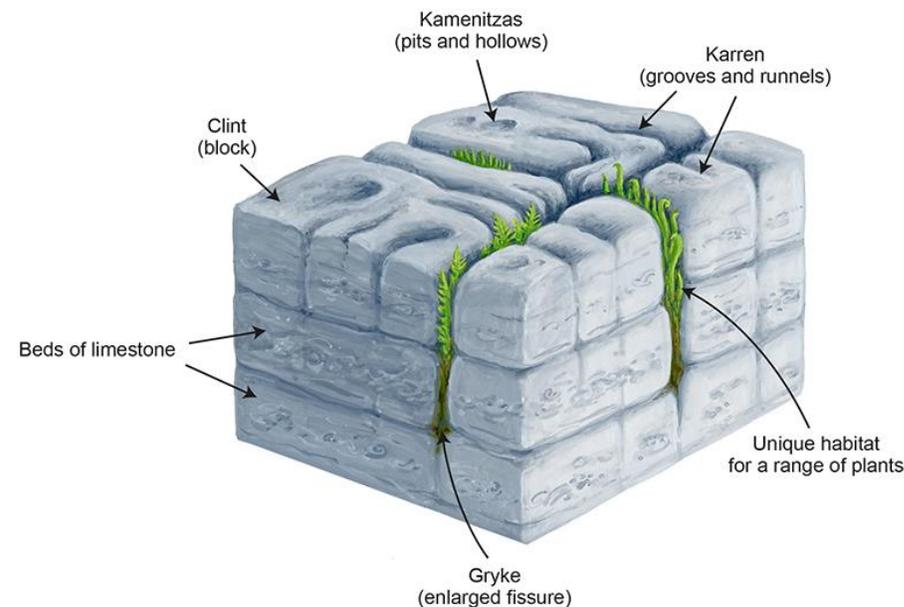
### Clints and Grykes

- **Clints** are the blocks of limestone that form the pavement. They are chemically weathered so that their surface is covered by a series of pits and hollows (called karren).
- **Grykes** are fissures separating the clints in a limestone pavement. They may be well over a metre in depth, and formed when the joints in the limestone were widened by chemical weathering.

### How do limestone pavements form?

During the last ice age, much of Britain was covered by ice sheets and glaciers. During this time the soil and weaker surface rocks were **scoured** away, leaving broad expanses of exposed limestone such as those at Malham, Yorkshire. With the retreat of the glaciers, a forest eventually established itself. Rain water that **percolated** through the soils and it became **acidic** and gradually **dissolved** the limestone surface. Under the soil, rain water picked out the joints in the limestone and gradually widened them by dissolving the rock. This created **deep fissures** called **grykes**. The blocks of limestone (the **clints**) were also attacked by the rain and small holes and **gulleys** formed on their surface, which are called **karrens**. The ice finally retreated about 12 000 years ago. The soil on the top of the limestone pavement was eroded, washed down into the **grykes** and removed altogether by the drainage system. This erosion has increased during the past few thousand years, first by forest clearance and later by agricultural pursuits. The exposed limestone pavements have been constantly **weathered chemically**, which further widens the **grykes** and deepens the **karren**.

### Limestone pavement features



### Limestone landscapes

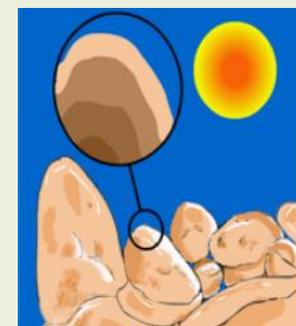
The Yorkshire Dales are located in the North west of England where the underlying ground is principally carboniferous limestone rock

Malham in the Yorkshire Dales is famous for it's limestone scenery.

One feature that is particularly prominent is the limestone pavement (shown below)



### Onion skin weathering



During the day the sun heats up the surface of the rock causing the rock to expand.



During the night the rock cools down and contracts.



As the rock expands and contracts over and over again, small pieces of surface rock begin to flake and fall off.

## Cave features

We can trace the words **stalactite** and **stalagmite** back to the Greek word "stalassein," which means "to drip." This is fitting because it describes how both are formed in nature.

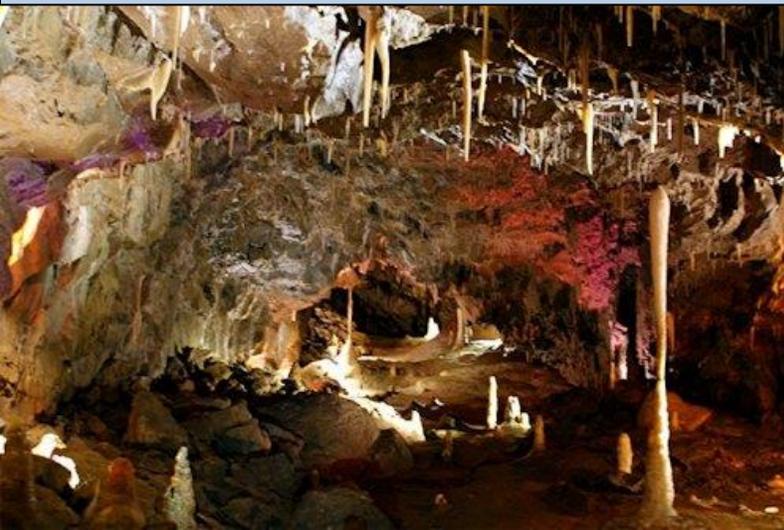
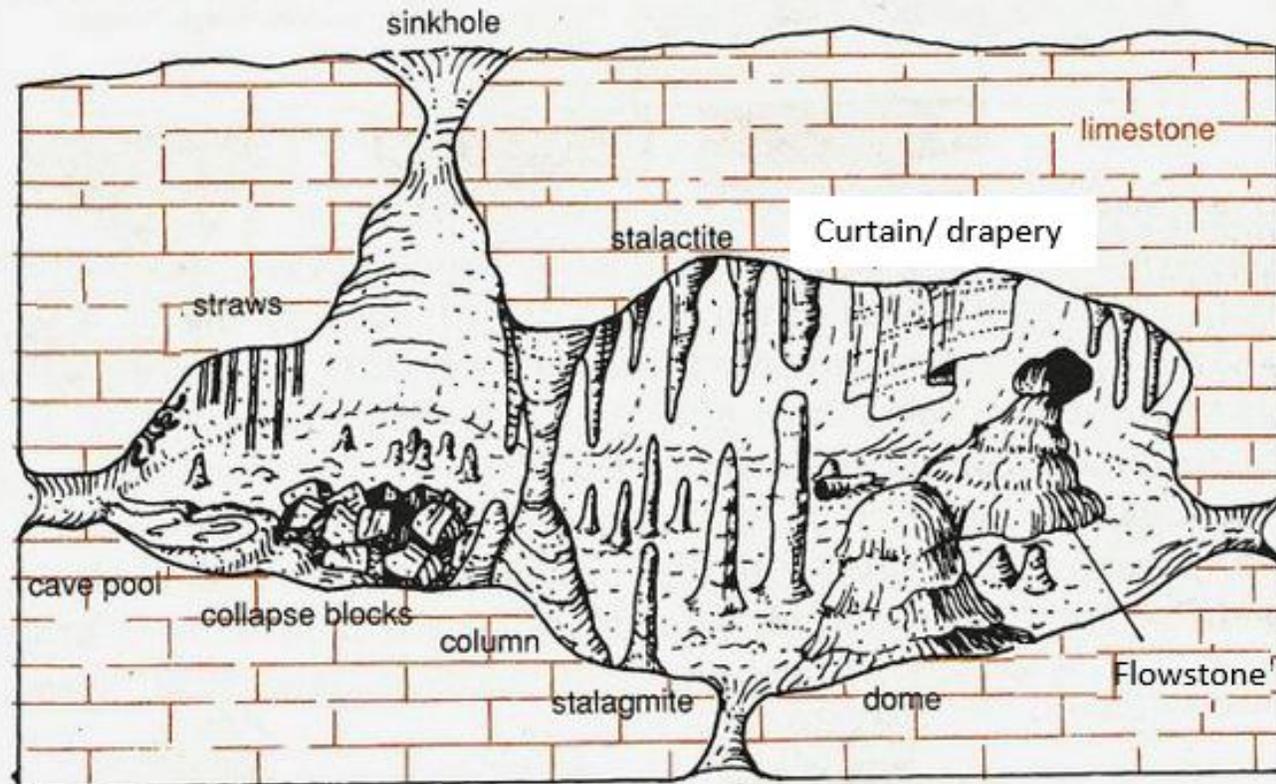
**Limestone caves**, where most stalactites and stalagmites are found, are mainly composed of calcite, a common mineral found in **sedimentary** rocks. When rainwater falls over a cave and trickles through rocks, it picks up **carbon dioxide** and minerals from **limestone**. If we add water, carbon dioxide and calcium carbonate together, we get this equation:



$\text{Ca}(\text{HCO}_3)_2$  is known as **calcium bicarbonate**, and the water carries the substance, basically dissolved **calcite**, through the cracks of the roof of a **cave**. Once water comes into contact with the air inside the cave, however, some of the calcium bicarbonate is transformed back into calcium carbonate, and calcite starts to form around the crack. As water continues to drip, the length and thickness of the calcite grows, and eventually a straw forms on the ceiling. If the end of the straw gets blocked up by calcite, the water then has to flow down the outside and the straw becomes a **stalactite**. It can take a very long time for most **stalactites** to form -- they usually grow anywhere at less than 1mm a year!

Of course, **stalagmites** don't just emerge from the ground. The water dripping from the end of a stalactite falls to the floor of a cave and deposits more calcite into a mound. Soon enough, a stalagmite will form in a cone like shape. This is why you usually find stalactites and stalagmites in pairs, and sometimes they'll even grow together to form one big **column**.

## Forms of dripstone.



Key term	Definition
Flowstones	are composed of sheet-like deposits of calcite or other carbonate minerals, formed where water flows down the walls or along the floors of a cave.
Stalactite	A long, thin icicle shaped piece of limestone hanging from the ceiling of a cavern.
Stalagmite	A short, stumpy piece of limestone growing up from the floor of a cavern.
Swallow holes	natural depression on the surface of a limestone landscape eroded by chemical weathering (also called a pot hole).
Caverns	A natural underground space carved out by chemical weathering and running water.
Calcium Carbonate	The main chemical composition of limestone

**Cheddar Gorge** is a limestone gorge in the Mendip Hills, near the village of Cheddar, Somerset, England. The gorge is the site of the Cheddar show caves, where Britain's oldest complete human skeleton, Cheddar Man, estimated to be 9,000 years old, was found in 1903. Older remains from 12,000–13,000 years ago have also been found. The caves, produced by the activity of an underground river, contain stalactites and stalagmites. The gorge is part of a Site of Special Scientific Interest. The maximum depth of the gorge is 137 m, with a near-vertical cliff-face to the south, and steep grassy slopes to the north. The gorge itself was formed by meltwater floods during the cold periglacial periods which have occurred over the last 1.2 million years. During the ice ages, permafrost blocked the caves with ice and frozen mud and made the limestone impermeable. When this melted during the summers, water was forced to flow on the surface, and carved out the gorge. During warmer periods, the water flowed underground through the permeable limestone, creating the caves and leaving the gorge dry, so that today much of the gorge has no river until the underground Cheddar Yeo river emerges in the lower part from Gough's Cave. The gorge is susceptible to flooding. In the Chew Stoke flood of 1968, the flow of water washed large boulders down the gorge, damaging the cafe and entrance to Gough's Cave and washing away cars.

Cheddar Gorge, including the caves and other attractions, has become a major tourist destination. In a 2005 poll of Radio Times readers, following its appearance on the television programme Seven Natural Wonders (2005), Cheddar Gorge was named as the second greatest natural wonder in Britain, surpassed only by Dan yr Ogof caves. The gorge and all of its combined attractions have in the past attracted about 500,000 visitors per year, but this number has fallen dramatically in the past two decades. Unfortunately, as a result of the COVID-19 crisis in 2020, the show caves, museum and associated attractions have been shut indefinitely, with the direct loss of 30 jobs and the indirect loss of many more in the town as a result of reduced visitor numbers. You can, however, still walk around the top of the Gorge.

The south side of the gorge is owned and administered by the Longleat Estate. The cliffs on the north side of the gorge are owned by The National Trust. Every year, both of the gorge's owners contribute funds towards the clearance of scrub, bush and trees from the area, to reduce the risk of rockfall caused by erosion, and to allow climbers access to the rock faces. Most of the commercial visitor activity in the gorge is on the Longleat-owned south side, including access to the two main commercial show caves and the visitor centre. Visitors to the show caves alone have decreased from 400,000 a year in the 1980s to 150,000 in 2013. As a result, the Longleat Estate had in recent years been looking into what new attractions could be developed in the area to rejuvenate the area. Proposals made formally, were opposed by the National Trust.

**Source 2 – an extract from ‘Managing Cheddar Gorge and the Mendips’ by Garrett Nagle**

“Nearly 500,000 people a year visit the caves at Cheddar Gorge, while nearby Bath is the second most popular city for tourists to visit in the UK. Visitors to the attractions created by Mendip Limestone brings about £25 million a year into the area. Many of the attractions in Cheddar Gorge are operated by the Cheddar Gorge and Caves company which includes 300 acres of land, 50 caves and the whole of the south side of the gorge.”



Source 1 – site map of the existing attractions in the gorge

**Source 3 – an extract from [www.cheddargorge.co.uk](http://www.cheddargorge.co.uk)**

“Longleat Estate is currently considering a range of potential regeneration projects at Cheddar Gorge, with the aim of creating a significant new visitor attraction for the area. Such a project would need to help support ongoing conservation work and make the Gorge more accessible to all visitors. It could also provide an educational resource and bring significant economic benefits to local businesses and employers.”

**Source 5 – a satellite image of Cheddar, the Gorge and some of the local quarries**



**Source 7 – an extract from a consultation paper looking at the future of Cheddar Gorge**

“A Gorge walk takes approximately 1.5 hours, 4 hours if combined with cave visit. We estimate around 10% of visitors climb Jacob’s Ladder with just 2% reaching the top. Numbers have declined and tend to be at certain times of day (usually 11am-4pm) resulting in shorter trading hours. New investments would be aimed at extending the options available and time visitors spend in the area. ...Currently local businesses are reluctant to extend their leases. If the new attraction increases visitors to the area they are likely to use/support local businesses as well.”

**Source 4 – an extract from ‘Tourism, Leisure and Recreation’ by Garrett Nagle**

“Cheddar Gorge in the Mendip Hills of Somerset is a tourist ‘honeypot’. It is an excellent example of rugged relief (terrain) about which there is a conflict of interest. Tourist related businesses want to bring more visitors into the area, whereas mining companies want to continue to quarry the limestone. Many residents and environmentalists want to preserve the unique landscape of gorges, caves ...and other spectacular limestone scenery, as well as unusual plants and birds.”

**Source 6 – a map of the area**



**Source 8 – A council document on quarrying in the area**

“At one time there were 40 large quarries open in the Mendip Hills. Of these, 16 are still active and about 6% of all limestone in the area has been quarried. The value of the 300 million tonnes taken out so far is about £1.4 billion at current prices. Sales every year are worth about £43 million. However, with only two quarries served by the railway, there are up to 3000 lorries snaking their way through narrow country lanes every day.”

## Eucharist

### Why is the Eucharist important?

The Eucharist is a special service taken by all Christians. It may vary between different denominations and be called slightly different names, but it is generally the same. In the service the preacher will give bread and wine to the congregation which represents Jesus' blood and body. It is a service to remember Jesus' sacrifice that he gave to man (**atonement**), dying for their sins. It shows Christians devotion and love for God and Jesus Christ.

### Why does the Eucharist come from?

The Eucharist comes from what happened at the Last Supper in Holy Week. When Jesus knew he would be have to die, he wanted his disciples and followers to remember his sacrifice so they can connect with God and have salvation (eternal life with God in heaven). At the last supper Jesus had said "Take, eat; this is My body which is broken for you; do this in remembrance of Me." In the same manner he also took the cup after supper, saying, "This cup is the new covenant in My blood. Do this, as often as you drink it, in remembrance of Me."

### What happens at the Eucharist?

Some Christians call the Eucharist Holy Mass or Holy Communion. At a Catholic Eucharist the bread and wine are blessed at the Altar and a Eucharist prayer is read. The wine is passed around in a chalice. While at a protestant Eucharist the wine or non-alcoholic alternative is passed in small cups, the story of the last supper is read.



# Christianity

## Key vocabulary

Eucharist  
Holy Communion  
Holy mass  
Atonement  
Salvation  
Pilgrimage

## Why do Christians go on pilgrimage?

- To follow the footsteps of Jesus e.g. to Jerusalem
- To visit a sacred place e.g. place of Jesus or a disciple / saint
- For healing – physical or spiritual
- To break from normal life and focus on God
- To reflect on their life
- To connect with God
- For forgiveness of sins
- To meet other Christians
- To connect with Christian communities around the world



The Shell emblem of the Santiago de Compostela pilgrimage



## Example of a Pilgrimage: Santiago de Compostela.

Santiago is the local Spanish name for Saint James. James was one of the 12 disciples of Jesus. According to legend, the remains of St James were carried by boat from Jerusalem to northern Spain where he was buried on what is now the city of Santiago de Compostela.

Today, thousands of Christian pilgrims travel a pilgrimage route to Santiago de Compostela. Most travel by foot, some by bicycle and a few travel, as some of their medieval forbears did, on horseback or by donkey. It takes 35 days to walk the 500 miles. Many of the pilgrims wear cockle-shell badges and this is the emblem of pilgrims to Santiago.

# Churches

## What are churches used for in the community?

- Regular Worship
- Special services - Christmas, Easter, baptism, Eucharist, Weddings, funerals
- Social activities e.g. scouts/guides, coffee mornings
- Help for different groups e.g. Mother and baby groups, meals for the elderly
- Charity and fund raising events
- Music concerts

# Christianity

## Key vocabulary

Altar  
Preacher  
Font  
Pulpit  
Lectern  
Stained glass window

## The Lectern (right):

- Usually a wooden stand which hold the bible
- The preacher reads the bible from here
- Sometimes this is of an eagle, which symbolises different things; one of which is the eagle flying and spreading the words of Jesus.



# Church features

## An Altar:

- The table at the front of the church.
- Holds the bread and wine for Eucharist



## The Pulpit:

- A wooden stand at the front to one side in the church
- Where the preacher stands to give his sermon
- The preacher can connect and speak to his congregation



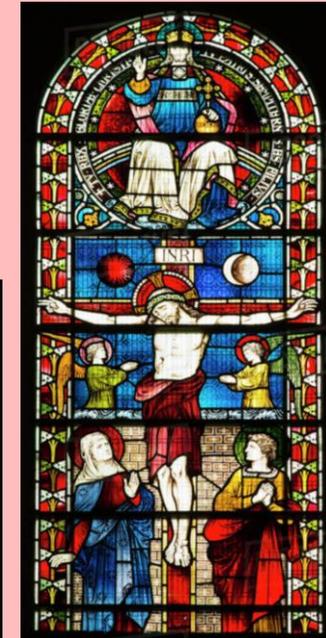
## The Font:

- The basin that is filled with Holy water used for baptism
- Usually by the door of the church – as when you are baptised you are welcomed into the Christian church community



## Stained Glass Windows:

- These were traditionally used to show stories and messages from the bible as not everyone could read.
- Now they are a way to decorate the church and still elaborate on stories from the bible



SCAN ME

# Christian Church around the world

The Christian church helps in different ways around the world. It helps fight against poverty, conflict, discrimination and persecution and supports Christians and non-Christians, inspired by the teachings of Jesus.

## Christian Teachings that inspire helping others

These are different quotes from Jesus, the bible or Jesus' parables

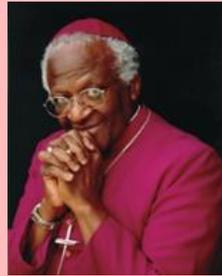
- "Love thy neighbour"
- "Let's not love with words but with actions"
- "Love your enemies and pray for those that persecute you"
- "For I was hungry and you gave me something to eat. I was thirsty and you gave me something to drink".
- The parable of the Widows Offering.
- The parable of the Good Samaritan.

## Helping against discrimination

### Archbishop Desmond Tutu

Archbishop Desmond Tutu helped towards rebuilding relationships that had been destroyed in **South Africa** from the **persecution** of black people.

During a period called **Apartheid** black people were treated very badly by white people in South Africa. Many blacks were discriminated against, stopping their rights such as voting, being allowed in education and jobs. White people were often violent towards them. This period of discrimination / Apartheid was ended by the campaigning of Nelson Mandela and **Tutu worked with Mandela** to end this treatment.



# Christianity

## Key vocabulary

Charity  
Peace  
Discrimination  
Persecution  
Apartheid



## Christian Charities

### Christian Aid

Christian Aid works by helping **poorer countries** and countries when they face **natural disasters** like floods or earthquakes.

1. Giving emergency aid which is immediate help that is needed after a disaster e.g. clean water and food
2. Setting up **projects** in poverty areas such as **clean water projects or health projects**.

Christian Aid gets money from our **government and companies but also individuals** too. There is a **Christian Week** where fund raising goes on and you may get an envelope through your door to give money to help.

### Tear Fund

Tear Fund, like Christian Aid, provides emergency help to areas suffering from **disasters** and also **long term projects too**.

- One example was a project to help set up **education** in Ethiopia to help children read and write and to provide them with a meal at school each day.

Tear Fund rely on fund raising by **churches rather than the government**. They rely on donations from **individuals** too.

## Working for peace

### The Vicar of Baghdad

Andrew White, nicknamed the Vicar of Baghdad as he works in the **Middle East** (where Baghdad is), created the "Foundation for Relief and Reconciliation in the Middle East". This provides support and help for people living in the Middle East. This area has seen wars over the years such as the Iraq war, wars in Palestine and Afghanistan. The Vicar of Baghdad's main aim is to work with the **different religious leaders to create peace** between them. He sees his role as being a mediator – someone that talks between 2 groups that are not getting on. This work is important because if he can work towards **encouraging peace**, the lives of ordinary people will improve.

## Origins of Judaism

Judaism was started about 4,000 years ago by a man called **Abraham**.

God spoke to Abraham and Abraham knew that there was only one true God. God told Abraham to go to his promised land; a place called Canaan (now Israel). God told him that he and his family would be blessed.

God said “**Leave your country.... I shall make you a great nation... I shall bless those that bless you**”.

- Anyone that followed Abraham and God would be blessed and protected. These were God's **chosen people**.
- God gave them his promised **Holy land**.
- In return they followed his commandments.
- This agreement is called the **covenant**.

God said that Abraham's faith to God would be tested 10 times. The first test was when he had to leave his home (above).

The final and greatest test was when God asked Abraham to **sacrifice** his son Isaac as an offering to him. Both Abraham and Isaac were willing for God, but just before Abraham was going to kill him, God intervened and stopped him. A ram was sacrificed and given to Abraham instead.

They had passed God's test. This showed Abraham's loyalty and dedication to God.



## BVT: Judaism

### Key vocabulary

Israelite  
Covenant  
Mount Sinai  
Plagues  
Pharaoh  
Commandment  
Holy Land  
Abraham  
Canaan



Abraham's sacrifice of Isaac



Moses parting the Red Sea

### Moses



1,000 years had passed since Abraham. Abraham's descendants were called the Israelites (this is what the Jewish people were called then) and they had spread to many countries.

In Egypt the Pharaoh saw the Israelites as a threat and made the Israelites his slaves. He ordered all Israelite slave baby boys to be killed.

The story of Moses is a teaching to show how one man was chosen by God to free his promised people.

#### ***This is how this happened:***

- God appeared to Moses in the flames of a fire in a burning bush and said “You shall tell the Pharaoh that I am the only God and shall lead the Israelite slaves out of Egypt to freedom”.
- Moses was scared but went to tell the Pharaoh that he should free the Israelite slaves, but the Pharaoh said no.
- Moses used the power of God to send **10 plagues** to the Egyptians: some of these include the plagues of frogs, locusts, darkness, killing cattle, flies.
- But it was the last plague that was the worst. The first born son of every Egyptian was to be killed.
- After this plague the pharaoh was so angry, but allowed Moses to lead the Israelites out of Egypt. But the Pharaoh's soldiers chased them. They came to the Red Sea, **Moses parted the sea** so the Israelites could be free.
- Moses and the Israelites spent 40 days together in the desert and on top of Mount Sinai and God gave Moses “...**the two tablets of the covenant law, the tablets of stone inscribed by the finger of God made a promise to God**”. This was the promises of the **10 commandments**.

## Worship

The Jewish place of worship is called a synagogue; this place contains a variety of symbols which represent and remind Jews of their religious history.

Synagogues contain:

- **An Ark** – which holds the scrolls of Jewish law called the **Torah**
- **Bimah** – a raised platform where readings from the Torah are given
- An **eternal candle** - which represents the light of God

The most famous Jewish prayer is known as the **Shema** – “Hear O Israel, the Lord our God, the Lord is one. You shall love the Lord your God with all your heart and with all your soul and with all your might”.

Jews may use these items to also worship:

- **Tefillin** are cubic black leather boxes with leather straps. Inside them are 4 prayers. They are worn in morning prayers.
- A **Tallit** is a shawl for prayer which is often worn too. This represents God wrapping around the person, protecting them.



Tallit



Tefillin

# Judaism - Religious Practices



## Key vocabulary

Synagogue  
Tefillin  
Ark  
Torah  
Bimah  
Shema  
Monotheist  
Omnipotent  
10 Commandments  
Mitzvot

## Ten Commandments

Exodus 20:2-17



**“Commandment 4: You shall remember the Sabbath and keep it Holy”**

The Jewish Sabbath is known as **Shabbat** which runs from sundown on Friday to sundown on Saturday. A traditional Jewish family will gather at the synagogue for worship on Friday night, and then eat together after the service. Special bread called **Challah** is eaten and candles are lit. This special time for Jews is about worship but also community – meeting together as a family.



## Beliefs

- Jews believe there is only one God. This makes them a Monotheistic religion.
- The Jewish God is the same God as the Christian and Muslim God.
- Jews believe God is **omnipotent** and **all loving** and because of this made the world for them.
- However, Jews believe that **Jesus was a prophet** (not the son of God like Christianity)
- Jews were given the **10 commandments** by God. These were told to Moses on Mount Sinai.
- These are the laws which they live by, as they are the Word of God. These laws need to be followed so that Jews can go to Heaven.
- These ‘laws’ are known as **Mitzvot**. There are 613 Mitzvot, of which 10 are the main commandments.

# Jewish Festivals

## Hannukah

### History:

- 2,200 Years ago the Jewish people lived in their Promised Land. However at this time the Greeks wanted to increase their empire.
- Greek King **Antiochus** invaded the Promised Land; banned the Jews worshipping their God and banned them reading their Holy Book the **Torah**. Many Jews were killed.
- The Greek army smashed up the religious temple in Jerusalem, including a sacred lamp in the temple and the oil needed to brunt the lamp.
- A family called the **Maccabees** stood up against the Greek army. They beat them and marched back to Jerusalem.
- A new lamp was found and lit, however they only had enough oil for one day. A miracle from God allowed the oil to last 8 days, giving the Jews light in their holy temple.



### Key vocabulary

Pesach  
Seder plate  
Hannukah  
Maccabees  
Menorah Candle  
Antiochus  
Menorah



## Pesach (Passover)

The main Jewish festival which takes place in April (but moves, like Easter). It celebrates **Moses freeing the Israelites**. The Jewish home is cleaned of any old food. Special foods are bought, prepared and eaten.

The leader of the house wears white linen robes to signify freedom. He reads the story of Moses freeing the Israelites before the special meal. The special meal contains certain foods. These foods are placed on the **Seder plate** and have special meaning. E.g. the bone represents God's mighty arm helping them. 10 drips of wine are split, one for each plague.



## Festival of Light

Hannukah is therefore named the Festival Light for the lamp burnt for 8 days.

Jews celebrate this festival by coming together as a family, with friends and sharing special food; one is called **sufganiyot** (like donuts) and play games using a **Dreidel**.

The candle that is lit every one of the 8 days in remembrance is called the **menorah**.



sufganiyot

Dreidel



Sedar Plate

# FRENCH YEAR 7: ALL ABOUT ME

Quelle est la date de ton anniversaire?

Mon anniversaire, c'est le... (*my birthday is the ...*)



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

de (*of*)

janvier (January)	février (February)	mars (March)
avril (April)	mai (May)	juin (June)
juillet (July)	août (August)	septembre (September)
octobre (October)	novembre (November)	décembre (December)

*Eg Mon anniversaire est le trois septembre (my birthday is the third of September)*



Comment es-tu? (*What are you like?*)

Je pense que / je crois que (*I think that*)

A mon avis (*In my opinion*)

Mes parents disent que (*my parents say that*)

Je suis (*I am*)

amusant/e, (*funny, fun*)

bavard/e (*talkative*)

sérieux / -euse (*serious*)

paresseux/ -euse (*lazy*)

généreux/ -euse (*generous*)

travailleur/ -euse (*hard-working*)



**NB** The following adjectives have the same spelling for both masculine and feminine.

timide (*shy*)

bête (*silly*)

sympa (*nice*)

**Don't forget to add a connective so that you can extend your answers!**

**Et = and**

**Mais = but**

# Asking questions

Comment? = *how / what ... like*

Examples:

Comment est le chien? = *What is the dog like?*

Comment vas-tu? = *How are you (going) ?*

Comment tu t'appelles? = *How do you call yourself / what's your name?*

Où? = *where?*

Examples:

Où habites-tu? = *Where do you live?*

Où est la gare? = *Where is the station?*

Quel/s, quelle/s? = *which?*

Examples:

Quel chien aimes-tu? = *Which dog do you like?*

Quelle voiture est la plus rapide? = *Which car is the fastest?*

Quelle est la date...? = *Which date is it / what's the date...?*

Quand? = *when?*

Examples:

Quand vas-tu en France? = *When are you going to France?*

Quand ouvert le magasin? = *When does the shop open?*



Combien? = *how much / many?*

Examples:

Combien de soeurs as-tu? = *How many sisters do you have?*

Où est la gare? = *Where is the station?*

Qui? = *who?*

Examples:

Qui est ton prof d'anglais? = *Who is your English teacher?*

Qui est-ce? = *Who is that?*

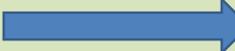
Pourquoi? = *why?*

Examples:

Pourquoi fait-il si froid? = *Why is it so cold?*

Pourquoi tu n'aimes pas les maths? = *Why don't you like maths?*



Game! 



## Que fais-tu dans ton temps libre? (What do you do in your free time?)

toujours (*always*)

normalement (*normally*)

une fois par semaine (*once a week*)

le weekend (*on the weekend*)

quand il fait beau / chaud (*when it is nice weather / hot*)

si / s'il pleut / neige (*if it rains/snows*)

### Je fais... (*I do...*)

de l'athlétisme (*athletics*)

du cyclisme (*cycling*)

du ski (*skiing*)

du patinage (*skating*)

de l'équitation (*horse riding*)

de la natation (*swimming*)

de la voile (*sailing*)

### Je joue ... (*I play*)

au badminton (*badminton*)

au rugby (*rugby*)

au basket (*basketball*)

au squash (*squash*)

au foot / football (*football*)

au volleyball (*volleyball*)

NB:

faire **de**

jouer **à**

**BUT**

jouer de + an  
instrument

je joue **au** foot et je

joue **du** piano



## Parle-moi de ta routine (*tell me about your daily routine*)

Le matin (*in the morning*)

Je me réveille (*I wake up*)

Je me lève (*I get up*)

Je me douche (*I shower*)

Je me brosse les dents (*I brush my teeth*)

Je m'habille (*I get dressed*)



Je prends mon petit déj(euner) (*I have breakfast*)

Je vais au collège (*I go to school*)

L'après-midi / le soir (*in the afternoon/ at night*)

Je rentre à la maison (*I come home*)

Je fais mes devoirs (*I do my homework*)

Je me couche (*I go to bed*)

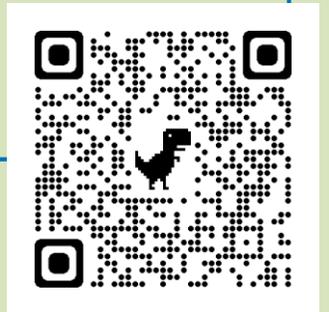
à ... (*at*)

une heure, deux heures, trois heures... (*at 1, 2, 3... o'clock*)

et quart (*quarter past*)

et demie (*half past*)

moins le quart (*quarter to*)



## Verbs – understanding conjugation.

If you find a verb in a dictionary, it will be in its **INFINITIVE** form. This means that, in English, it has the word **'to -'** in front.

faire = **to do**

jouer = **to play**

prendre = **to take**

s'appeler = **to be called**

se coucher = **to go to bed / put yourself to bed**

BUT, to use it properly in sentence, we need to **conjugate** the verb. That means, change its spelling to match **WHO** is doing the verb and **WHEN** they are doing it.

We conjugate verbs in French in a easy-to-remember way. Look at the examples below. Notice how the spelling of the verb changes. Can you see any patterns?

faire = **to do**

je fais = *I do*

tu fais = *you do*

elle / il / on fait = *s/he, one does*

nous faisons = *we do*

vous faites = *you (pl) do*

elles / ils font = *they do*

jouer = **to play**

je joue = *I play*

tu joues = *you play*

elle / il / on joue = *s/he, one plays*

nous jouons = *we do*

vous jouez = *you (pl) do*

elles / ils jouent = *they do*

Some verbs (they are called 'reflexive' verbs) have an extra word too. Don't worry – there aren't too many of them.

se coucher = **to go to bed / put yourself to bed**

je **me** couche = *I go to bed*

tu **te** couches = *you go to bed*

elle / il / on **se** couche = *s/he, one goes to bed*

nous **nous** couchons = *we go to bed*

vous **vous** couchez = *you (pl) go to bed*

elles / ils **se** couchent = *they go to bed*

A useful video here! →





## ¿Qué haces en tu tiempo libre? (What do you do in your free time?)

siempre (always)

normalmente (normally)

una vez a la semana (once a week)

dos veces a la semana (twice a week)

el fin de semana (on the weekend)

cuando hace buen tiempo/sol/calor/frío (*when it is nice weather/sunny/cold/hot*)

si llueve/nieva (*if it rains/snows*)

### Hago/ Practico ... (I do/ I practise...)

(el) atletismo (*athletics*)

(el) ciclismo (*cycling*)

(el) esquí (*skiing*)

(el) patinaje (*skating*)

(la) equitación (*horse riding*)

(la) natación (*swimming*)

(la) gimnasia (*gymnastics*)

(la) Vela (*sailing*)

### Juego ... (I play)

al badminton (*badminton*)

al rugby (*rugby*) al baloncesto (*basketball*)

al squash (*squash*)

al fútbol (*football*)

al voleibol (*volleyball*)



## Describe tu rutina diaria (*describe your daily routine*)

Por la mañana (in the morning)

me despierto (*I wake up*)

me levanto (*I get up*)

me ducho (*I shower*)

me lavo los dientes (*I brush my teeth*)

me visto (*I get dressed*)

desayuno (*I have breakfast*)

voy al colegio (*I go to school*)



Por la tarde/noche (*in the afternoon/ at night*)

vuelvo en casa (*I come home*)

hago mis deberes (*I do my homework*)

descanso (*I relax*)

me acuesto (*I go to bed*)

a la\* una (*at 1 o'clock*)

a las dos, tres, cuatro, cinco, seis, siete, ocho, nueve, diez, once, doce (*at 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 o'clock*)

y cuarto (*quarter past*)

y media (*half past*)

menos cuarto (*quarter to*)

# THE FORMAL ELEMENTS

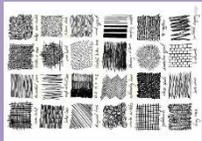
TERM 1, 2, 3 & 4

## LINE

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.

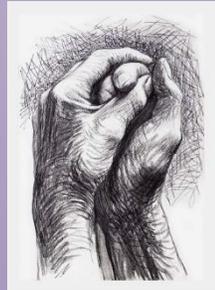
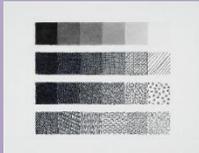
Horizontal, diagonal or curved.

A **LINE** can be used to show contours, movements, feelings and expressions.



## -tone

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

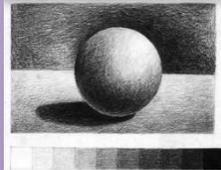


## SHAPE/Form

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

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

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



## 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...

## TEXTURE

**TEXTURE** is the surface quality of something, the way something feels or looks like it feels.

There are two types of texture: **ACTUAL TEXTURE** and **VISUAL TEXTURE**.

**ACTUAL TEXTURE**: really exists so you can feel it and touch it

**VISUAL TEXTURE**: created using different marks that represent actual **TEXTURE**



## COLOUR

There are 3 primary **COLOURS**: **RED**, **YELLOW**, **BLUE**

By mixing any 2 **PRIMARY COLOURS** together you create **SECONDARY COLOURS**; **ORANGE**, **GREEN**, **PURPLE**



## PATTERN

**PATTERN** is a design that is created by repeating **LINES, SHAPES, TONES or COLOURS**.

Patterns can be manmade or natural.



### Artists you could research:

- Pablo Picasso
- Sonia Delaunay
- Vincent Van Gogh
- Henry Moore
- Henri Matisse
- Angie Lewin
- Yayoi Kusama



# The Fundamentals of Art

# A R T I S T

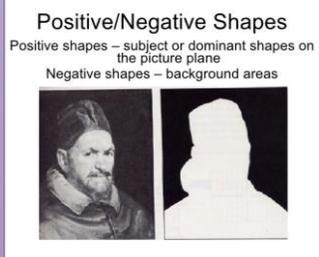
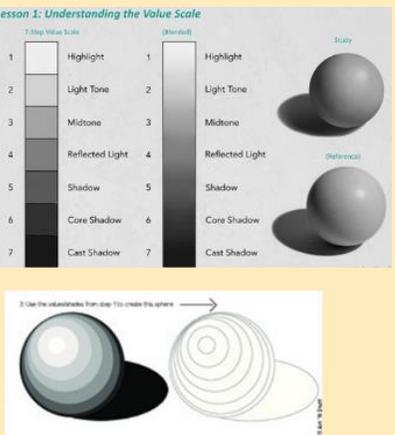
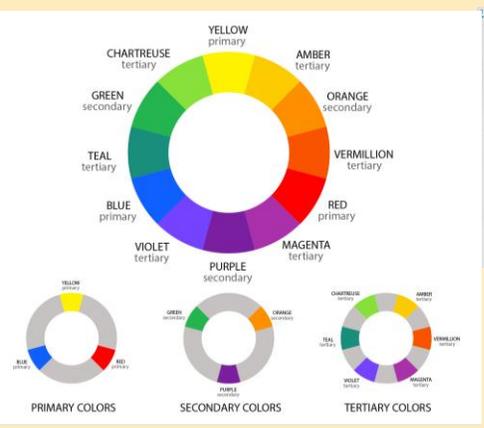
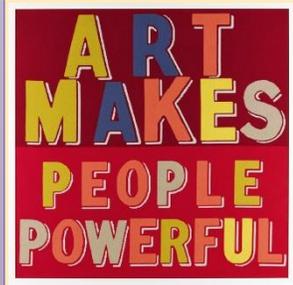
- ATTITUDE**  
Be positive and try your best!
- RESPECT**  
Respect others, work and the room
- THINK**  
Understand and demonstrate.
- IMAGINE**  
Be creative, use your imagination!
- SPOTLESS**  
Tidy up after yourself.
- TARGET**  
Follow directions.

## ESSENTIAL EQUIPMENT:

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

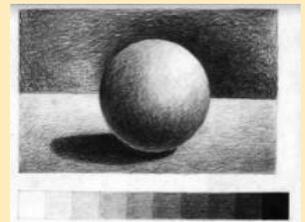
## OPTIONAL EQUIPMENT:

- DRAWING PENS
- WATERCOLOUR SET
- WATERCOLOUR PENCILS
- PAINTBRUSHES



## TALKING ABOUT ART:

- What are you looking at?
- How was it made?
- Who made it?
- How will it inspire your work?
- Do you like it or dislike it? Why?



## Techniques you will explore:

- Observational drawing
- Experimental drawing
- Mono-printing
- Poly-printing
- Extending the frame
- Painting
- Collage
- Colour theory
- Photography

- COLOUR**
- BRIGHT
  - BOLD
  - VIBRANT
  - PRIMARY
  - SECONDARY
  - TERTIARY
  - RADIANT
  - VIVID
  - DULL
  - CONTRASTING
  - COMPLIMENTARY
  - HARMONIOUS
  - MONOCHROME
  - NATURAL
  - 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

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



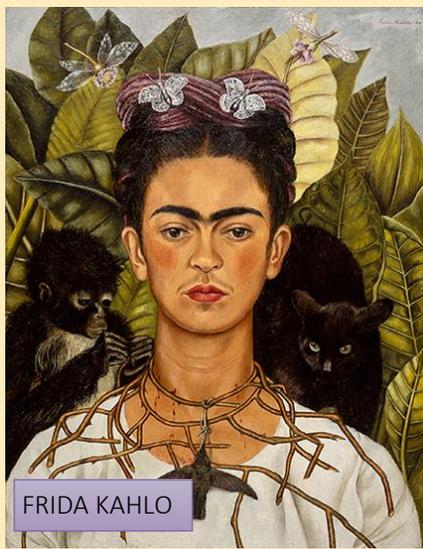
# The Formal Elements In Art



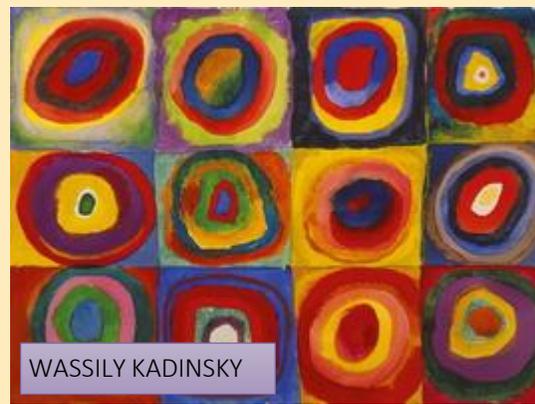
EDVARD MUNCH



HENRI MATISSE



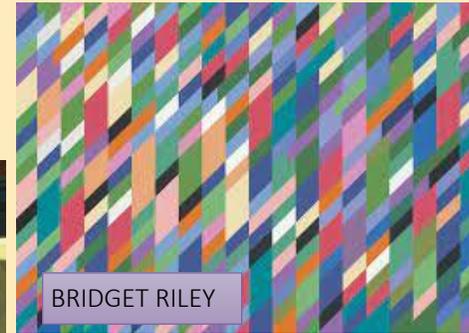
FRIDA KAHLO



WASSILY KADINSKY



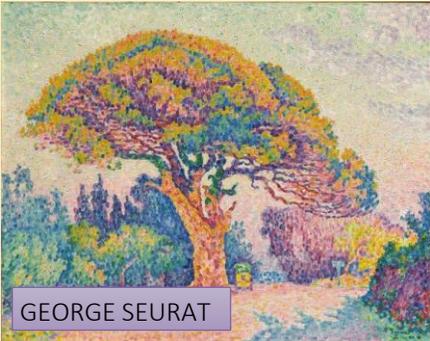
BANKSY



BRIDGET RILEY



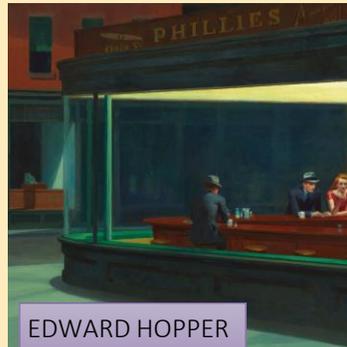
VINCENT VAN GOGH



GEORGE SEURAT



BETSEY SAAR



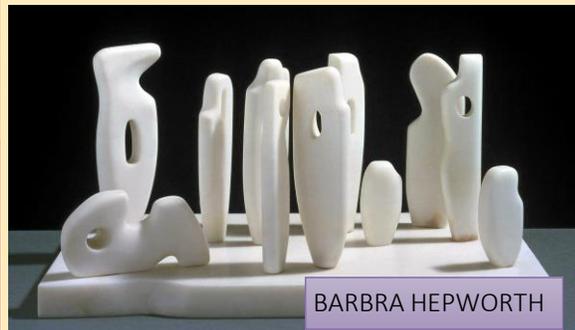
EDWARD HOPPER



ALBRECHT DURER



ANDY WARHOL



BARBRA HEPWORTH



RENEE MAGRITTE



DAVID HOCKNEY



MICHAEL CRAIG MARTIN



# Year 7 Music

## #Learning Objectives

Rhythm and Pulse (Tempo) are two of the most important Elements of Music. During this project we will investigate, compose and perform awesome global rhythmic masterpieces! Plus, we will:

- Understand how pulse is a fundamental element upon which music is built and performed.
- Develop a feeling for and an awareness of rhythmic styles in music from different times and places.
- Distinguish between pulse/tempo and rhythm.
- Develop and understanding of note values in terms of duration, bars and simple time signatures.



Drop Some Drums  
By  
[Love] Tattoo



### Listen for....

Gradual build up of textures (layers). Once playing, the instrument rhythms don't change. This is a great example of **OSTINATO!** Once all instruments are in (and there are a lot!) the texture begins to reduce again.

This music uses mostly untuned **PERCUSSION SAMBA** instruments along with plenty of music tech. to make a really exciting track! Check out the drop at 5.43!

**D** Dynamics  
(volume)

**R** Rhythm  
(order of Musical Events)

**P** Pitch  
(Highness or Lowness of a note)

**S** Structure  
(how the composition is built)

**M** Melody  
(the tune)

**I** Instrumentation  
(instruments used when composing)

**T** Tempo  
(the speed of the Music)

**H** Harmony  
(This supports the melody)

## Watch and Listen

### FOLI!

Foli" is the word used for rhythm by the Malinke tribe in West Africa. But Foli is not only found in Malinke music, but in all parts of their daily lives. Watch this film. It gives you a glimpse inside their culture of rhythm. As the Malinke man says, "Tous les choses, c'est du rythme." ("Everything is rhythm.")



Kodo - "O-Daiko"  
Japanese Taiko  
Drumming.



Listen for....

Use of untuned percussion. The most amazing use of **DYNAMICS** and **OSTINATO**. Co ordination between just 3 musicians. Taiko drumming is both physical and brilliantly theatrical! The use of silence is really effective in this piece!

## A. Key Words

**PULSE** – A regular **BEAT** that is felt throughout much music. Certain beats of the pulse can be emphasised to establish regular pulse patterns *e.g.*

**1 2 3 4, 1 2 3 4 = a 4-beat pulse**

**1 2 3, 1 2 3 = a 3-beat pulse (often called a WALTZ)**

**1 2, 1 2, 1 2 = a 2-beat pulse (often called a MARCH)**

**RHYTHM** – A series of sounds or notes of different lengths that create a pattern. A rhythm usually fits with a regular pulse. Everyday sentences can be used to create rhythms. The patterns made by words create rhythms and this rhythm has a 4-beat pulse:

Music is my favourite



**ACCENT** – Emphasising or stressing a particular note or notes. Accents affect the **ARTICULATION** and are shown with this symbol >

**DURATION** – The length of a sound – *long/short*

**TEMPO** – The speed of a sound or piece of music – *fast/slow*

**TEXTURE** – Layers of sound or how much sound is heard – *thick/thin*

**STRUCTURE** – The organisation of sound or how sounds are ordered

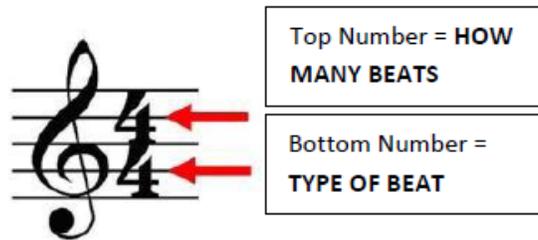
**SILENCE** – The absence of sound or no sound, shown in music by **RESTS**.

**RHYTHM GRID NOTATION** – A way of writing down and recording rhythms using boxes



## B. Time Signatures

A **TIME SIGNATURE** tells us how many beats (and what type of beats) there are in each **BAR** of music and is made up of two numbers at the beginning of a piece of music.



2/4 = **TWO CROTCHET** beats per **BAR**



*e.g. a MARCH*

3/4 = **THREE CROTCHET** beats per **BAR**



*e.g. a WALTZ*

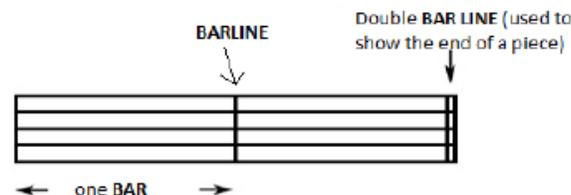
4/4 = **FOUR CROTCHET** beats per **BAR**



Bottom Numbers:

2 = Minim 4 = Crotchet 8 = Quaver

### BARS AND BARLINES



## C. Ostinatos, Cyclic and Polyrhythms

**RHYTHMIC OSTINATO** – a short repeated pattern made up of notes of different lengths but without a particular pitch.

**CYCLIC RHYTHM** – a rhythm which is repeated over and over again (in a cycle) many times.

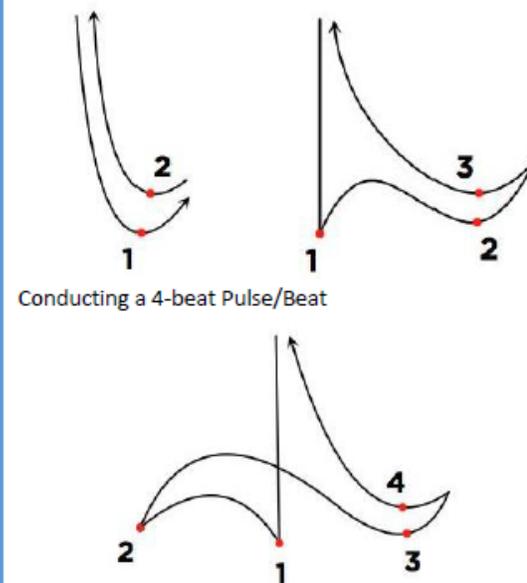
**POLYRHYTHM** - the use of several rhythms performed simultaneously, often overlapping to create a thick, **POLYRHYTHMIC TEXTURE**. A common polyrhythm often used in Latin-American and African Music is to play a 3-beat and 2-beat rhythm simultaneously as shown below. This is called a “3 against 2 Polyrhythm”

3 beat rhythm	X		X		X		X		X
2 beat rhythm	X			X			X		

## D. Conducting Pulses and Beats

Conducting a 2-beat Pulse/Beat (*e.g. a March*)

Conducting a 3-beat Pulse/Beat (*e.g. a Waltz*)



## E. Note Values - Note Names, Symbols and Duration

Note Name	Note Symbol	Note Value
Semibreve		4 beats
Minim		2 beats
Crotchet		1 beat
Quaver		½ of a beat
Pair of Quavers		2 x ½ beats = 1



# Year 7 Music

## #Learning Objectives

This project will help you to develop your knowledge and understanding about orchestral instruments and families/sections found in the orchestra and how composers use the different musical colours (timbre) of the instruments in their creative process.

- You will learn about the layout and structure of the symphony orchestra.
- You will develop an understanding of musical instruments and how they are played, the families/sections, construction, different sound production methods and characteristic timbres/sonorities.
- You will perform on orchestral instruments (if possible) or use orchestral tones/voices/sounds from keyboards as part of a 'class orchestra' with an awareness of the experience of 'performing together' as an ensemble and the roles of different instrumental parts and textural layers on the music as a whole.
- You will learn about the origins and uses of fanfares.



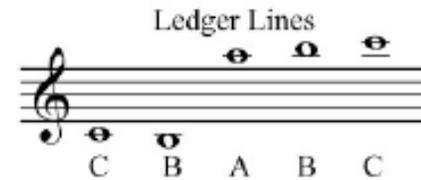
Listen to the 'Young Persons' Guide to the Orchestra' with the BBC Symphony Orchestra. Here you will find the orchestra broken right down to show you how it works!!



### NOTES IN THE TREBLE CLEF



For the notes on the lines think 'Every Green Bus Drives Fast'



Ledger lines are added once the notes go higher or lower than the stave

Orchestra Families					
Strings		Brass	Woodwind	Percussion	
Bowed (arco)	Plucked (pizzicato)			Tuned	Untuned
Violin	Harp	Trumpet	Piccolo	Piano	Bass Drum
Viola	Harpsichord	French Horn	Flute	Xylophone	Snare Drum
Cello		Trombone	Oboe	Glockenspiel	Cymbals
Double Bass		Tuba	Clarinet	Timpani	Triangle
			Bassoon		Gong

## A. Strings Section/Family

Made from wood and have strings. They are usually played with a **BOW (ARCO)** – not the Harp (*shown right*) but can also be **PLUCKED (PIZZICATO)**. The smaller the instrument, the **HIGHER PITCHED** it is. The bigger the instrument, the **LOWER PITCHED** it is. However, the Harp has many more strings so can play both high- and low-pitched notes.



Violin Viola Cello Double Bass

## B. Woodwind Section/Family

A selection of instruments divided into two subsections: **FLUTES** (create a sound by air passing over a small hole and include the Flute and Piccolo) and **REEDS** (use a piece of bamboo reed to create a vibration). The Saxophone (*shown above right*) is not traditionally used in an orchestra. However, some modern composers have included it.



Piccolo Flute Clarinet Oboe Bassoon

## C. Brass Section/Family

There are more brass instruments used in brass bands, but the orchestra normally has four. They are made of metal and the sound is made by blowing into the mouthpiece by buzzing the lips in a similar way to blowing a raspberry! The bigger the instrument, the lower the pitch. The smaller the instrument, the higher the pitch – the Trumpet is the highest.



Trombone Trumpet French Horn Tuba

## D. Percussion Section/Family

Includes a vast range of instruments which produce sound when *hit, struck, scraped or shaken*. These fall into two subsections: **TUNED PERCUSSION** (able to play different pitches) and **UNTUNED PERCUSSION** (*e.g. drums*)

### TUNED PERCUSSION



Piano Xylophone Glockenspiel Timpani

### UNTUNED PERCUSSION



Bass Drum Snare Drum Cymbals Woodblock Guiro Triangle Gong Tambourine Cabasa Maracas

## E. Key Words

**ORCHESTRA** – A large **ENSEMBLE** (group of musicians) divided into four **SECTIONS** or **FAMILIES** of musical instruments – **STRINGS, WOODWIND, BRASS** and **PERCUSSION** - led by a **CONDUCTOR** who stands at the front of the orchestra and directs it. They will indicate the main beats in the music using a **BATON** (a “stick” that they hold and beat time with). All musicians look at the conductor whilst playing as they are ultimately in control of the whole piece.

**SONORITY** (also called **TIMBRE**) – Describes the **unique sound or tone quality** of different instruments and the way we can identify orchestral instruments as being distinct from each other – “each instruments’ own unique sound”. Sonority can be described by many different words including – *velvety, screechy, throaty, rattling, mellow, chirpy, brassy, sharp, heavy, buzzing, crisp, metallic, wooden etc.*

**PITCH** - The **highness or lowness** of a sound, a musical instrument or musical note (high/low, getting higher/lower, step/leap).

**FANFARE** – A short, lively, loud piece of music, usually for **BRASS INSTRUMENTS** and sometimes **DRUMS** and other **PERCUSSION**. A Fanfare is usually warlike or victorious in character and can be used to mark the arrival of someone important, give a “signal” *e.g. in battles* or be used to signal the opening of something *e.g. a large sporting event or similar ceremony*. Fanfares often use only notes of the **HARMONIC SERIES** – a limited range of notes played by bugles and Valveless trumpets.

## F. Map/Plan of an Orchestra



# MIME, MOVEMENT & PHYSICAL THEATRE

Y7 terms 3 & 4

## The things you will learn

- In this scheme of work you will learn how to create an **illusion** of an object and the sense of where a scene is set using your voice and body so that you can communicate effectively with your audience without the need for extensive props or cumbersome set... It will give you great creative freedom.
- You will learn to think about mime in two parts; **internal mime technique** & **external mime technique**. This will allow you to analyse & evaluate mime work easily. It will also give you a clear structure and framework so that you can develop and refine your mime and all future acting techniques.
- Mime and physical theatre are two of the bedrocks of our theatre practice. They are an increasingly popular theatre style, with many international companies choosing this genre to work in.
- You will learn the techniques of clear and informed communication so that you can give and receive feedback that is effective.

## Study Focus

- The focus of our early study will be on developing your ability to mime effectively. You will work alone and in focused pairs to understand and master the physical and psychological skills needed to mime effectively and creatively.
- There will be a very high level of input from the teacher so that you have the necessary individual attention and coaching to identify the exact ways that you can develop your skills.
- Later on, when the class has a certain level of understanding, there will be more peer assessment opportunities, but this will only be when the level of understanding is sufficient. There will be opportunities for you to share your work with your family and for them to share their thoughts with me. In this way you will have a number of viewpoints and ideas on how to progress.
- In our later studies, you will work with others in small groups to develop your ability to communicate your ideas in the increasingly popular genre of physical theatre. We will use exercises from a variety of physical theatre companies including; Theatre de Complicite, Might & Main Productions and the KOSH

### MIME TECHNIQUES

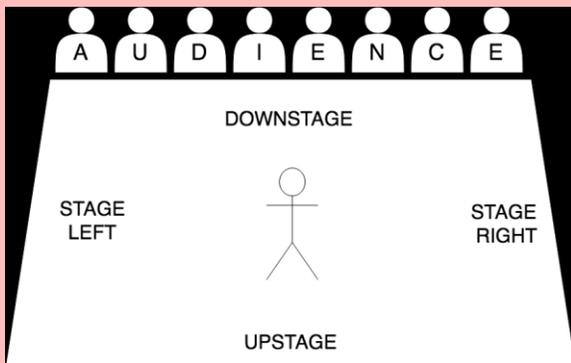
#### Internal (psychological) technique

- Using your **mind & emotions** to;
- **Imagine** the object
- **Picture** what it is like
- **See** where you are
- **Focus** on the image in your mind
- **Believe** in what you see
- **Concentrate** on making the object 'real' for you and therefore the audience.

#### External (physical) technique

- Using your **hands** and **body** to show;
  - The **shape**
  - The **size**
  - The **weight**
  - The **temperature**
  - The **feel and texture**
  - The **use of and function of**
  - The **value and fragility of**
- The **taste** and **smell** of the object.





## Key words and ideas - a glossary of terms

- **Mime**- the technique of making something appear to be there when it is not- an illusion.
- **Physical theatre** – a genre of theatre where there is less reliance on set, props, sound or lighting. the actor uses their voice and body to create the various settings, environments, moods and atmospheres. Physical theatre often makes use of dance, movement, mime, martial arts and song as well as the spoken word.
- **Sound scape**- using voice and body – sometimes objects and musical instruments- to create a sense of the environment and setting of the scene e.g. water dripping in a cave.
- **Vocal atmosphere**- this is the use of voice and sometimes instruments- to create the mood and atmosphere of a scene a bit like how music is used in a film. A vocal atmosphere is usually made 'live,' by actors on the stage.
- **Abstract** – in drama, we use this term to mean a scene or a piece of acting that portrays an idea- like, heaven or love or silliness, rather than something naturalistic like a person.
- **Up stage / downstage**- Some years ago the stages in theatres were raked (sloped) so that they were lower at the front, near the audience and higher towards the back. So, when an actor walked towards the audience they literally walked, **downstage** and as they walked away they walked, **upstage**. In this way the actors at the front did not completely block out by those actors at the back.
- **Stage left / right** – left and right on stage are always from the point of view of the actor looking out at the audience.
- **Levels** – The idea of thinking about the stage space as being divided into a high level e.g. standing, medium and low level eg lying on the floor.
- **Aesthetics** – The study of what is beautiful in art. In this scheme, we look for balance in the body and symmetry in use of stage space.



Knowledge



# Badminton



Fitness levels



Confidence

## Rules:

- A match consists of the best of three games of 21 points.
- The player winning a rally adds a point to its score.
- The player winning a game serves first in the next game.
- A point is scored when the shuttlecock lands inside the opponent's court or if a returned shuttlecock hits the net or lands outside of the court the player will lose the point.
- At the start of the rally, the server and receiver stand in diagonally opposite service courts.
- A legal serve must be hit diagonally over the net and across the court.
- A badminton serve must be hit underarm and below the server's waist height with the racket shaft pointing downwards, the shuttlecock is not allowed to bounce.
- After a point is won, the players will move to the opposite serving stations for the next point.
- A player is not able to touch the net with any part of their body or racket.

## **Stretch and Challenge Task:**

- How confident are you to umpire?
- How easily can you place the shuttle to the space on your opponents side?
- Can you use your serve to your advantage?
- What movements help you to cover the court?

## **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.



## **Skills & Techniques:**

### **Forehand Grip:**

- Shake hands with the racket
- V of hand down the side of the racket

### **Backhand Grip:**

- Thumb on the flat side of the grip

### **Ready Position:**

- Side on
- Racket up
- Non-racket up too for balance
- On your toes - ready to move

### **Serve**

- Hold the shuttle by the feathers
- Racket head below net height
- Drop in the swing of the racket
- Weight transfer for power
- Watch the shuttle as it hits the strings

(Forehand low serve/ Backhand low serve/ Forehand high serve)

### **Overhead clear**

- Focus on contact point with shuttle above your head
- Aim towards flight of shuttle with non-racket hand.
- Snap wrist on contact,
- High arc of shuttle
- Sideways on
- Weight Transfer – from back through to front – racket foot follows through forwards – helps to gain more power





Knowledge

**Scoring in Gymnastics:**

The scoring in gymnastics is based on how difficult your routine is and how well you execute/ perform it. Each routine should include 8-10 skills and last for a set duration of time.

Difficulty of Elements: The elements are the skills and techniques you perform, such as jumps, rolls and step patterns. The easier the skills (A) = 0.1pts to = 0.8pts (H) for the hardest skills you perform.

Evaluation of Execution: This is based on how well you perform the skills and the technical errors that may occur throughout a routine, for example falls, bent arms, additional steps, etc. Each performer starts on 10 and depending on the errors made points will be deducted.

Bonus points are awarded to linking skills and techniques together to produce more complex movements and executions.

**Skills/ Techniques:**

Balances, step patterns, jumps/ leaps, rolls, levels and shapes



# Gymnastics



Confidence

**Implementation of the Academic Standards to the PE Environment:**

- Arrive promptly and change within the allocated time.
- Always have the correct PE kit.
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- 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.

*What do we have to do throughout a routine to make it aesthetically pleasing?*

Fitness levels



**Skills & Techniques:**

**Exploring ways to travel:**

- One foot, two feet, sliding, jumping, rolling
  - Different levels
  - Different speeds

Basic techniques to consider:

**Jumping:**

- Power for height
- Landing – use of arms for control

**Forward roll:**

- Squat down, feet together
- Hands on the ground, head between hands
- Push hips over head
- Straight legs and pointed toes
- Reach forward and stand up

**Balance:**

Teaching Points:

- Control of the movement
- Body tension
- Extension – pointing the toes

**Headstand:**

- Hands flat on the floor
- Little-more than shoulder-width part, head above to make the top of a triangle
- Walk feet in, keeping knees off the ground
- Keep his high and tuck knees up
- Straighten one leg up at a time – maintain control.



## Knowledge

### Key Words:

- Communication  
Verbal, visual and written.

- Leadership  
The action of leading a group of people or an organisation.  
Can you communicate your ideas?  
Can you listen to those in your team?  
Can you manage those around you?

- Cooperation  
The action or process of working together for the same goal.

- Orienteering  
A competitive sport in which runners have to find their way across rough country with the aid of a map and compass.



# Outdoor and Adventurous Activities



## Confidence

### 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.



## How does Fitness contribute to your Wellbeing?

- Helps you cope with the physical side of life.
- Moderate exercise improves longevity – how long you will live.
- Lowers risk of psychological illness.
- Lowers risk of eating problems.
- Less likely to be off school with sickness.
- Gives you a lower resting heart rate.
- Lowers blood pressure.
- Can help weight control.
- Improves body composition.
- Gives you stronger bones.



# Design and Technology

**Timber** is wood that has come from tree trunks and has been dried and cut into planks. Timber has been used as a building material for thousands of years to make homes, furniture and tools. Timber is still used a lot as trees grow naturally, their wood is easy to work with and it is relatively strong and lightweight.

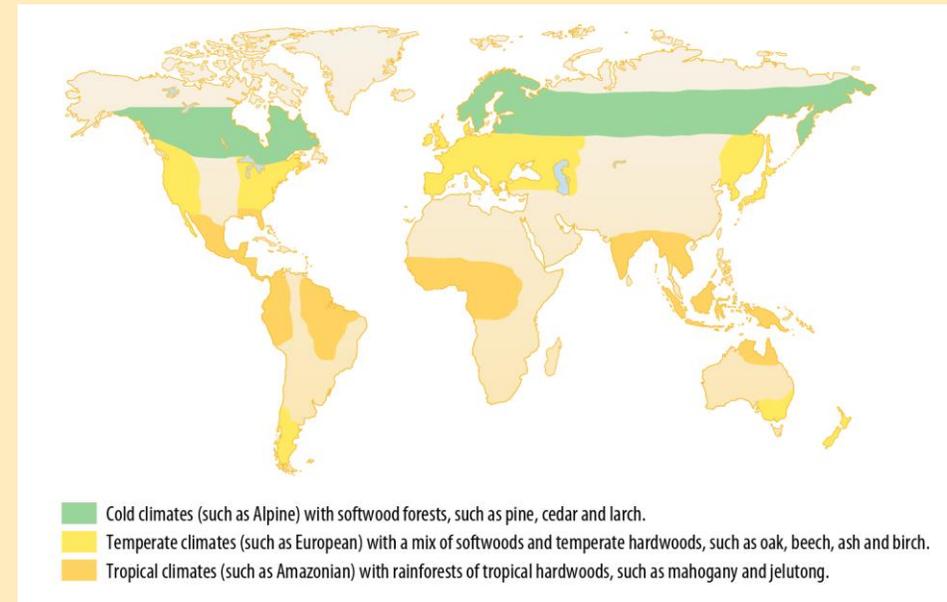


**Hardwood** comes from a broad leaved tree whose seeds are enclosed in a fruit. They grow quite slowly, often taking over 100 years to be big enough to be used for timber.

**Softwood** comes from a tree with needle like leaves, and seeds in a cone, they are coniferous. Most softwood trees are evergreen, meaning they have leaves all year. They grow quite quickly, and can be used for timber after about 30 years. This means they can be grown commercially, which is why softwood is a lot cheaper than hardwood.

Hardwoods	Advantages	Disadvantages	Common uses
Oak	Strong and durable Has an attractive grain when well finished	Expensive, becoming rarer Harder to work than other woods Corrodes iron and steel	Building houses and boats, high quality furniture, wine and whisky barrels
Mahogany	Has a very attractive finish Quite easy to work with	Expensive, environmental problems with sourcing from tropical forests, oil in the wood can cause skin or breathing problems	High quality furniture, jewellery boxes and window frames
Beech	A tough wood Does not crack or splinter easily Hard	Expensive, not very resistant to moisture Not suitable for exterior use	Toys, cooking implements, solid wood and laminated furniture
Ash	Strong, tough and flexible Finishes well	Low resistance to rot and insect attack	Handles for tools, sports equipment and ladders
Balsa	Very lightweight Easy to cut	Much too soft and weak for most products	Model making, surfboard cores, buoyancy aids
Jelutong	Even close grain Easy to cut and shape	Soft and not very strong Not good for structural use	Model making, moulds for casting or vacuum forming
Birch	Regular even grain Easy to work	Low resistance to rot and insect attack	Veneers to make plywood and surface cheaper materials that are used for furniture or doors

Softwoods	Advantages	Disadvantages	Common uses
Pine	Very durable, easy to work, quite cheap as it grows quickly enough to be forested, reasonably strong and lightweight	Can warp, crack and splinter more than some other woods	House construction for roof joists and floorboards Furniture doors and interior woodwork
Cedar	Natural oils make it resistant to water and fungal growth	More expensive than pine and not as strong	Outdoor furniture, fences, sheds and boats
Larch	Tough, durable and resistant to water It can be used outside untreated and weathers to a silvery grey	Costs more than other softwoods	Small boats, yachts, exterior cladding on buildings





MDF

Plywood



Chipboard



**Properties**

It is important to know the correct meaning of the words that describe a material's properties. Comparing materials helps to define each material's properties. For example, do not say oak is hard, because there are lots of harder materials. Say: oak is harder than pine.

**Hardness** is the ability of a material to withstand cutting and scratching. Timber is generally quite a soft material. It can easily be scratched and cut with metal tools, which are much harder than wood. Oak is quite hard for a wood. Balsa is very soft for a wood. This should not be confused with the classification of trees as hardwoods and softwoods.

**Toughness** is the ability of a material to withstand being hit. A tough material can be quite soft, and might bend or deform when hit, but not break. Timber is quite a tough material. If you hit it with a hammer it may dent, but not break.

**Durability** is the ability of a material to last a long time. Timber that has been dried out and is kept dry is durable. Oak beams in old buildings can be hundreds of years old. However, wood that is left wet can rot quite quickly and won't then be very durable. Some timbers contain natural oils that make them more durable outside. Timber can be treated with preservatives to make it more durable for outside use.

**Elasticity** is the ability to stretch and return to its original length or shape. Timber is not generally elastic, but some are more than others, yew is used to make archery bows for example.

**Tensile strength** is the ability to withstand pulling force, timbers tend to have a good tensile strength, often 3 or 4 times better than compressive strength.

**Compressive strength** is the ability to withstand a crushing force, the denser the timber the better its compressive strength.

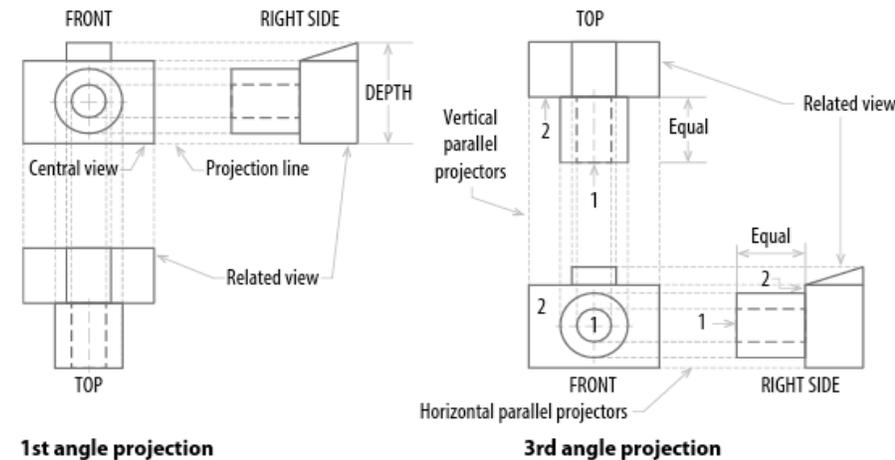
**Manufactured timbers** use natural timbers to make boards that have different properties to plain timber. Because of the size of a tree trunk timber is limited to fairly narrow planks. If you need large, thin sheets of wooden material you will need a manufactured board.

Boards	Advantages	Disadvantages	Common uses
Plywood	Flat and structurally sound, surface looks like real wood, resistant to warping, cracking and twisting	Quite expensive, edges can look rough, susceptible to water damage if using the wrong grade	Building and furniture panels that need some strength
MDF	Cheap (made from waste wood), smooth ungrained surface is good for painting or staining, easy to machine	Poor aesthetics, so needs coating, weak compared to real or plywood, tools blunt quickly due to glue content	Flat pack furniture, wall panels, display cabinets, storage units and kitchen units
Chipboard	Use waste materials so is cheap to produce	Poor structural strength, especially in damp conditions, surface is very rough so usually plastic coated	Desktops, kitchen worktops, cheap flat pack furniture

**Orthographic views**

Orthographic projection is used to show the detail and measurements of the product clearly from a range of angles so that a stranger could use the drawing to work out the shape and dimensions for manufacture. A furniture designer would be a perfect example of someone who may use orthographic projection.

To create an orthographic projection, you draw the front view, side view and plan view of your product in 2D. You can either draw them out by hand or generate the views using various CAD programs from your CAD model. You can use first angle projection or third angle projection – although the views may appear the same, the order that they are laid out differ.

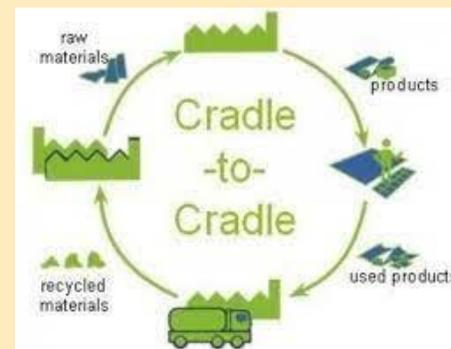
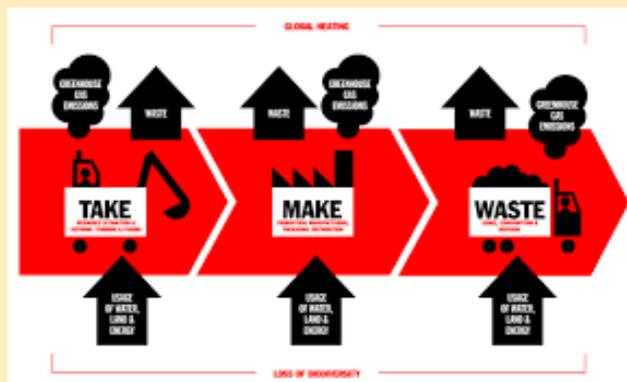


**1st angle projection**

**3rd angle projection**

**Figure 1.17.7** First and third angle projections for orthographic projection showing all sides of the product

Tools and equipment	
Try Square	
Steel rule	
Marking gauge	
Saws (tenon, hand, coping, scroll and jigsaw)	
Mallet	
Chisel	
Pillar drill	
Centre lathe	
Disc sander	



The environmental impact of manufacturing and using products

Life Cycle Assessment	
Raw materials	Where have your materials originated from? What is the environmental impacts of using them? Timber comes from trees, which are cut down.
Timber processing	How were your raw materials made into the actual material that you used? Trees are processed in a sawmill to turn them into timber, this has an impact on the environment
Manufacture	How did you shape/join/finish/ embellish your raw materials? Using tools, equipment and machinery all have an impact on the environment, some greater than others.
Distribution	If you were to make this product on a larger scale, how would you distribute it to the retailers? Shipping raw materials and products around the planet uses a great amount of energy.
Product in use	Having observed your user interacting with your product, what impact could it have? Is the product simple to use, does it require power?
Repair and maintenance	Is the product durable, does it require frequent servicing to keep it working? Will the product damage easily in normal use?
Disposal	Thinking ahead, what would happen to your product at the end of its life? Could it be easily disassembled and sorted for recycling? Have you include recycling symbols to make this process easier for your user? Are there any treatments that make disposal more difficult? Could the materials be upcycled?



**Year 7 Design Technology Knowledge Organiser – Graphic Design: Chocolate Bar Design**



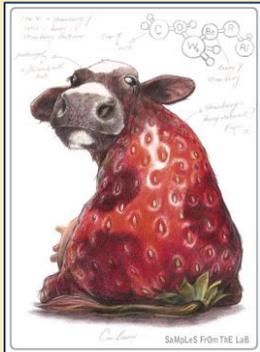
Graphic design is a craft where professionals create visual content to communicate messages.

**What does a graphic designer basically 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.

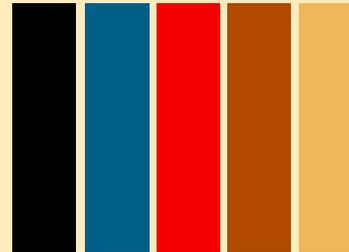
**Graphic Designers:**

- Alex Trochut
- David Carson
- Marta Veludo
- Jon Burgerman
- Rob Foote
- Milton Glaser
- Alan Fletcher



# GRAPHIC DESIGN

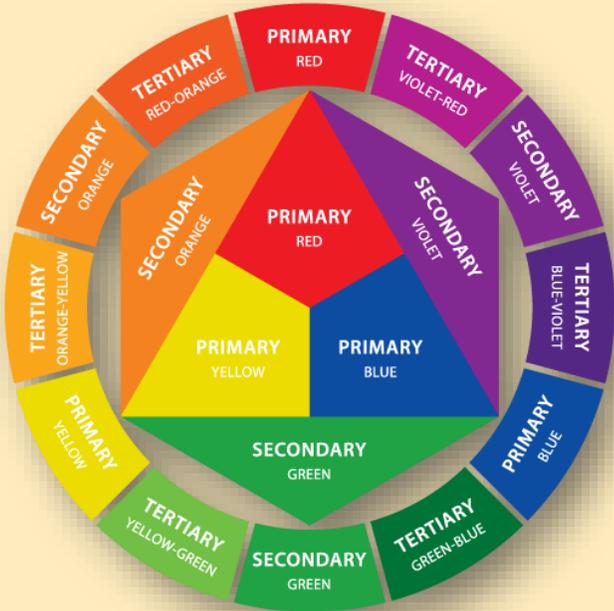
- GAMES
- POSTERS & BILLBOARDS
- WEBSITES
- VIDEO & ANIMATION
- BOOKS & PUBLICATIONS
- FLYERS & BROCHURES
- CD'S
- BOOKS & PUBLICATIONS



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.

## 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.



**Colour 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.

## EXISTING PRODUCT ANALYSIS

Product analysis means studying how well a product does its job. It is a form of primary research and involves looking at existing products, working out how they were made and seeing what features might be useful to any possible new design.

- What colours have been chosen and why?
- Have they included any imagery on their packaging e.g. A Lion on a 'Lion Bar'? Why have they used images?
- Does the design include a slogan?
- How does the logo reflect the chocolate? E.g. The 'l' on a Twirl Chocolate bar spins.



What should be included on your chocolate wrapper/box design...

- Brand
- Logo
- Slogan?
- **Ingredients**
- **Allergy**
- **Use by date**
- **Bar Code**

(Legal requirements highlighted in **Green**)

**CATERPILLAR**

OPTIMISM, CLARITY, WARMTH



FRIENDLY, CHEERFUL, CONFIDENCE



EXCITEMENT, YOUTHFUL, BOLD

CREATIVE, IMAGINATIVE, WISE, EXPENSIVE, ROYAL

facebook

TRUST, DEPENDABLE, STRENGTH



JOHN DEERE

PEACEFUL, GROWTH, HEALTH, NATURE, ENVIRONMENT



BALANCE, NEUTRAL, CALM

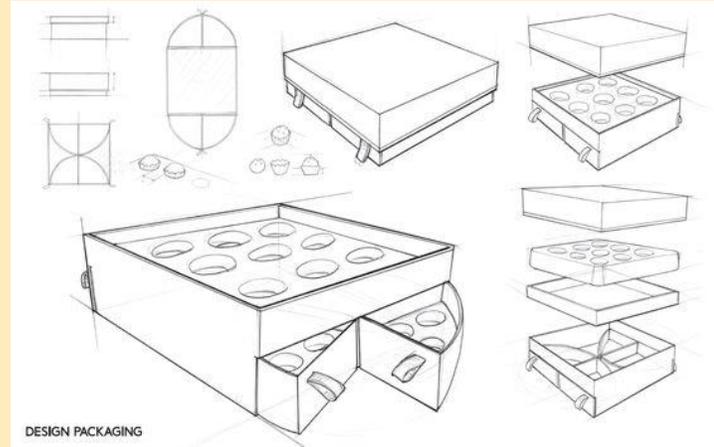
## TYPOGRAPHY

- The art or practice of setting and arranging type.
- The selection of typefaces and arrangement of type in a composition.
- The style of font/typeface can also express a message about the product or company and in some cases the style of writing has become the logo itself.

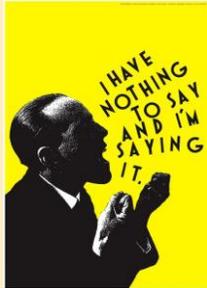


## INITIAL DESIGN IDEAS

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.



DESIGN PACKAGING



‘Design is not a thing you do it is a way of life’.

Alan Fletcher

## 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.

## BAR CODES

A barcode is a method of representing data in a visual, machine-readable form.



Make your Bar Codes eye catching and relevant to your design ideas.



## FINAL DESIGN IDEA

Your final design idea should be presented using a variation of design mediums – this should include 2Dimensional and 3Dimensional drawings, a final model and a CAD (Computer Aided Design) drawing created using Autodesk TinkerCAD.



AUTODESK®  
TINKERCAD®

# Knowledge Organiser – Year 7 Food

## Macro & Micro Nutrients



Carbs

Protein

Fats

### What are Nutrients?

Nutrients are the building blocks that make up food and have specific and important roles to play in the body. Some nutrients provide energy while others are essential for growth and maintenance of the body.

Macro Nutrient	Role in the body	Food Example
Carbohydrate	The main source of energy for the body.	Bread, rice, pasta, potatoes
Protein	Provides the body with growth and repair.	Meat, poultry, beans, eggs, lentils, tofu, fish
Fat	Provides the body with insulation and a small amount protects vital organs. Provides essential fatty acids for the body.	Butter, oil, cheese, cream, nuts, oily fish, crisps

Vitamin	Role in the body	Food examples
<b>A</b>	Helps to keep the eyes healthy and strengthen the immune system.	Dark green leafy vegetables, carrots, liver
<b>B</b>	Helps to release the energy from the food we eat.	Bread, milk, cereals, fish, meat
<b>C</b>	Help with skin healing and healthy skin. Help with the absorption of Iron.	Fresh fruit, broccoli, tomatoes
<b>D</b>	Important for absorbing calcium and help with healthy bone structure.	Oily fish, eggs, butter, Sunshine

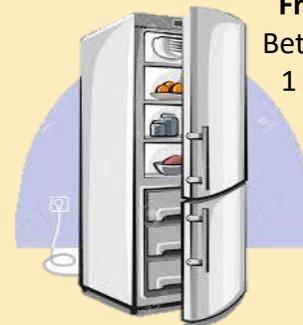
**Vitamins - Help to keep our immune system up and help our body to stay healthy – they important for body maintenance.**

Mineral	Role in the body	Food Examples
<b>Calcium</b>	Important for strong teeth and bones. It also helps with blood clotting.	Milk, yoghurt, soya, dark green leafy vegetables
<b>Iron</b>	Needed for red blood cells which help to transport oxygen around the body.	Nuts, whole grains, dark green leafy vegetables, meat, liver

**Minerals- Help to keep our immune system up and help our body to stay healthy. Vitamins and minerals are Micronutrients.**



## Key Temperatures



Freezer

Below -18°C

**Fridge**  
Between  
1 - 5°C



Cooking

Food should be cooked above  
75°C

**Danger Zone**  
Bacteria multiply  
quickest  
between  
5 - 63°C



## Knife Skills

**Bridge Hold** – Hand creates a bridge holding the food in between. The knife slices through the middle of the bridge. Used for cutting food in half.

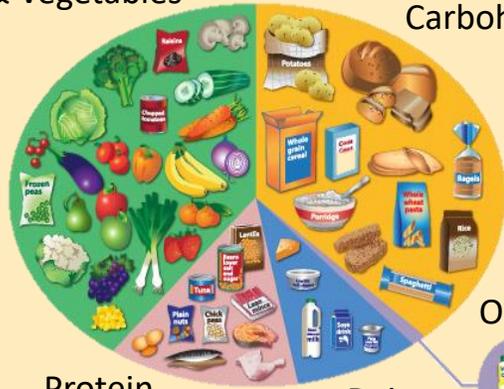


**Claw Grip** – Fingers tucked under holding food. Knife comes down from flat knuckles to slice food. Used for slicing.

## Eatwell Guide

Fruit & Vegetables

Carbohydrates



Oils & Spreads

Protein

Dairy

## The Cooker

Control panel

Hob

Top oven/grill

Main oven



## 8 Tips for healthy eating

- 1) Base your meals on starchy foods
- 2) Eat lots of fruit and veg
- 3) Eat more fish
- 4) Cut down on saturated fat and sugar
- 5) Eat less salt
- 6) Get active and be a healthy weight
- 7) Drink plenty of water
- 8) Don't skip breakfast

## Weighing and Measuring

For good results in most recipes, **accurate** weighing and measuring is essential. When you are baking with flour, sugar and liquids, you must measure accurately or your cooking will be spoiled. If you weigh out too much sugar or too little raising agent, your cakes would not rise or you could spoil the taste and/or texture. Food can be weighed in **Grams (g)** and there are **1000g** in a **Kilogram (kg)**. Liquid is measured in **Millilitres (ml)** or **litres**.



## Equipment

Weighing scales, knife, chopping board, measuring spoons, saucepan, wooden spoon, tablespoon, teaspoon, dessert spoon, mixing bowl, grater, pan-stand, baking tray, cooling rack, peeler, pastry brush, spatula.



## 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.



# Follow the Safety Rules in the Textiles Technology workroom to stay safe!

1. **FOLLOW** instructions.
2. Put all bags and coats under the table.
3. Keep chairs tucked in.
4. Do **NOT** run in the Textiles workroom – **WALK!**
5. Use all equipment correctly and appropriately.
6. Put all equipment away in the correct place after you have used it.
7. Always make sure that you have been shown how to use equipment before using it.
8. Tie long hair back.
9. Carry scissors closed and by the blades.
10. A sewing machine is used by one person – don't try to use a sewing machine with someone else.
11. **NEVER** distract anyone who is using a sewing machine.
12. Turn sewing machines off when you have finished using them.
13. No food and drink in the Textiles workroom.



## Key Terms

**Safety:** taking care not to hurt or injure yourself or others.

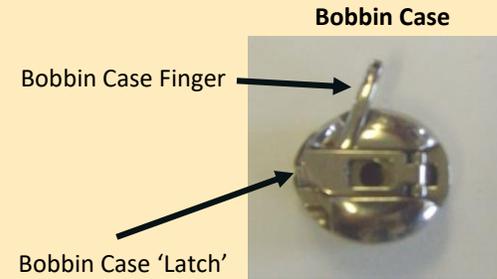
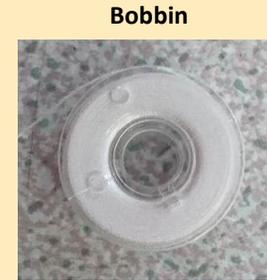
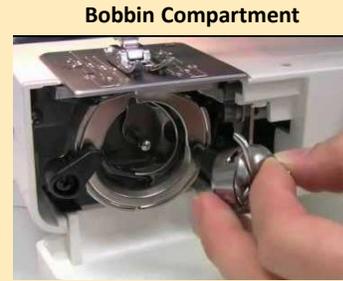
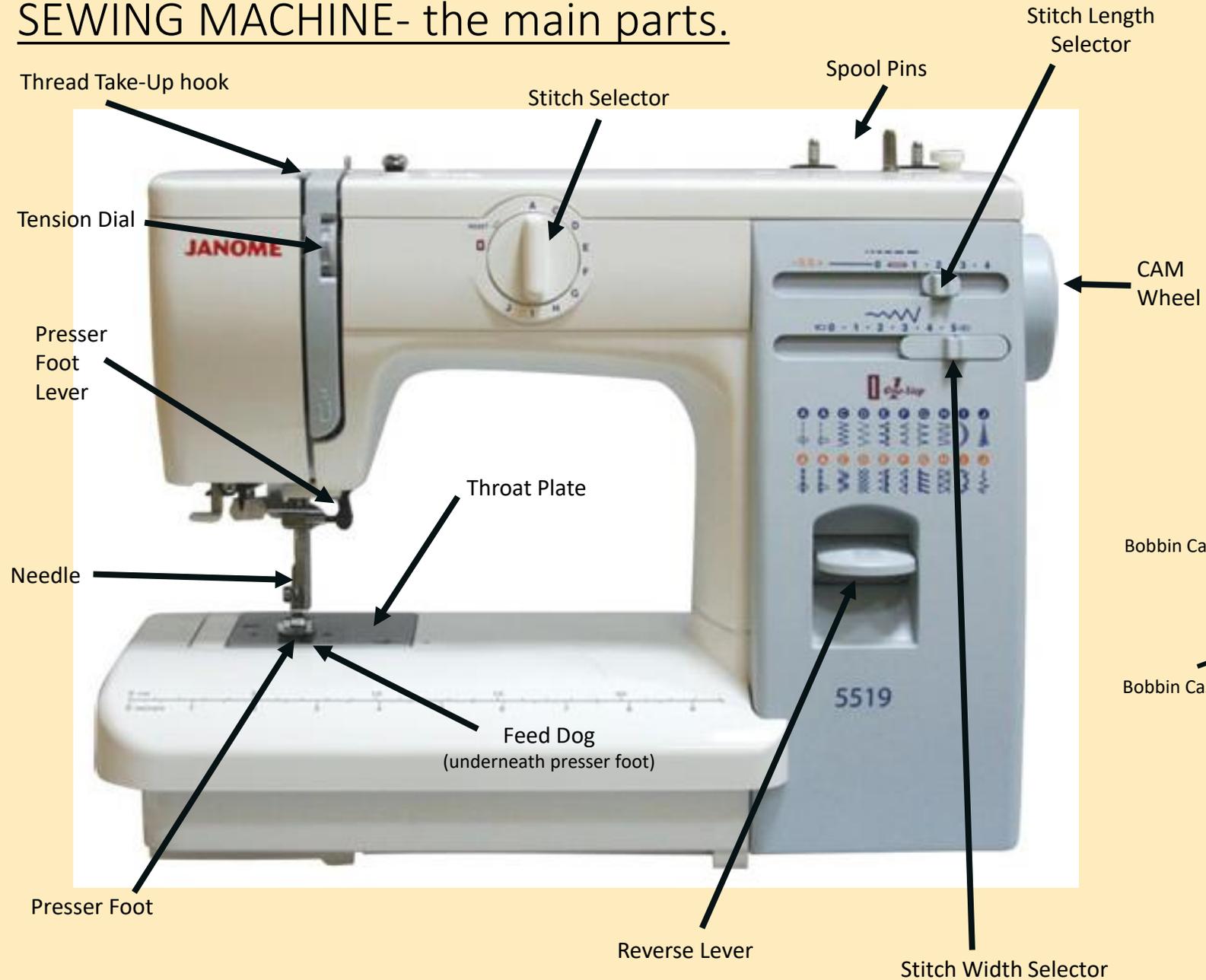
**Hazard:** any feature of a situation which may cause harm or injury.

**Risk:** the chance of a hazard causing harm or injury.

**Risk Assessment:** calculating how big a risk is by thinking about whether the harm or damage is likely to happen.

**Risk Control:** action taken to ensure that the harm or damage is less likely to happen.

# SEWING MACHINE- the main parts.



<p><b>Hand sewing Needle</b></p>		<p>Hand sewing needles are used with thread for sewing by hand. They have a point at one end - this is very <b>sharp</b> - and a hole at the other which is called an 'eye'; this is where the thread goes. Needles are <b>sharp</b> so you need to be careful when using them so you don't prick yourself!</p>
<p><b>Pins</b></p>		<p>They are also known as <b>Dressmaker Pins</b>. They are used for holding fabrics together <b>temporarily</b> while sewing. They are also used for holding pattern templates onto fabric while you cut out. Pins are <b>sharp</b> so you need to be careful when using them so you don't prick yourself!</p>
<p><b>Pin Magnet</b></p>		<p>This might also be known as a <b>Magnetic Pincushion</b>. This keeps the pins in one place. Pins should be put onto a pin magnet and not left on the table or near the sewing machine as they will get damaged.</p>
<p><b>Fabric Scissors</b></p>		<p>Sometimes called <b>Fabric Shears</b>. We use these for cutting fabric. <b>Only fabric</b>. They cut fabric accurately and they allow you to cut for longer periods of time without getting hand fatigue. Notice that the blades are longer and they have one large for 3 -4 fingers and a small hole just for your thumb.</p>
<p><b>Embroidery Scissors</b></p>		<p>We use these for cutting threads. They have short blades and can cut right to the tip. We use them by the sewing machine but they are also useful for cutting detail in fabric such as button holes. Not for use with paper!</p>
<p><b>Pinking Shears</b></p>		<p>These scissors feature a characteristic zig-zag edge. We use them to create a ravel-resistant edge on fabric; this means it will help prevent the fabric from <b>fraying</b>. These scissors can also be used to give a decorative edge on craft projects.</p>
<p><b>Paper Scissors</b></p>		<p>We use these for cutting paper. <b>Only paper and cardboard</b>. Notice that the two holes are small and the blades are short.</p>

<p><b>Tape Measure</b></p>		<p>It is <b>long</b> and <b>flexible</b> and made from durable plastic or fabric. Most tape measures are marked with centimetres on one side and inches on the other. We use it to measure obviously but because it is long and flexible you can take body and other measurements easily.</p>
<p><b>Quick Unpick</b></p>		<p>Also known as a <b>Seam Ripper</b> and this really handy tool removes unwanted stitches quick and easily. It has a <b>sharp point</b> and <b>cutting blade</b> so be careful when using it.</p> <p><b>NEVER</b> be afraid to make a mistake.</p>
<p><b>Aqua Pen</b></p>		<p>This is another tool used for marking fabric. It is also known as a <b>Water Erasable Pen</b>. It's useful if you want to mark fine lines or trace a design or transfer complex pattern markings onto fabric. This pen makes bright blue marks which are easily removed with <b>water</b>.</p>
<p><b>Tailors Chalk</b></p>		<p>This is used for <b>marking fabric</b> so you know where to cut out or alter a garment. It is often found in the shape of a triangle - the edge can mark fabric with precision. Tailor's chalk is easily removed.</p>
<p><b>Machining Thread</b></p>		<p>These are fine <b>yarns</b> of <b>cotton, nylon</b> or <b>polyester</b> and are used for <b>sewing by hand</b> or <b>by machine</b>. Threads come in different sized spools and in lots of colours to match the fabric you are sewing together.</p>
<p><b>Embroidery Thread</b></p>		<p>Comes with 6 threads intertwined that can be 'split' to reduce the thickness. Used to create <b>decorative stitches</b> on products.</p>

Y7 Textiles Key Words	
<b>Stitch</b>	Thread passes through fabric to keep it together.
<b>Seam</b>	Where two pieces of fabric join together by stitching.
<b>Seam allowance</b>	The area between the edge of your fabric and the line of stitching being used to join two or more pieces of material together.

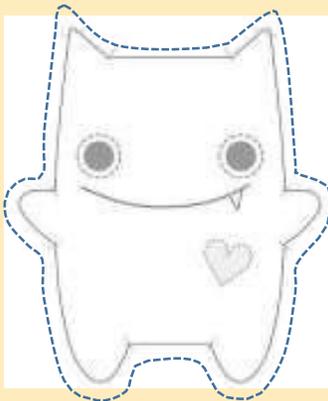
A **seam allowance** is the space between a stitching line and the edge of the fabric.

Sewing a seam right against the edge of two pieces of fabric can lead to fraying and may not hold in place. It is important to include a seam allowance that makes sure that the seam will be sturdy and not come away from the raw edge of the fabric.

Add **seam allowance** all the way around your design.

Seam allowances are also useful when making garments or products that may need to be altered, such as clothing.

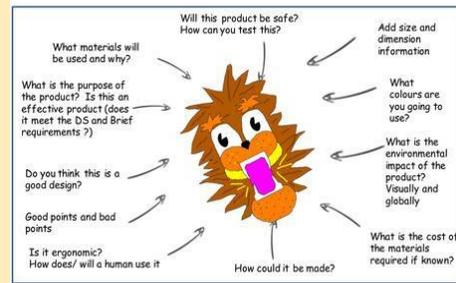
**Seam Allowance**



## Designing

Communicating your ideas with others.

Carefully sketching out your ideas and neatly shading in your ideas to ensure your ideas are clear.



## Annotation

Adding short explanations to your design ideas to help explain your designs further.

## Hand stitches



**Straight stitch**



**Blanket stitch**



**Back stitch**



**Cross stitch**

## The Design Process

<b>Design Brief</b>	A statement outlining what is to be designed and made.
<b>Research</b>	Sourcing information and inspiration to help with design work.
<b>Specification</b>	A list of design criteria.
<b>Design Ideas</b>	A range of potential solutions to the problem.
<b>Development</b>	Further improving an idea.
<b>Final Design Idea</b>	A presentation drawing of chosen idea.
<b>Manufacture</b>	Making the final outcome.
<b>Evaluation</b>	Reviewing strengths and weaknesses of final product and design work.

## Appliquè

Applying one layer of shaped fabric to another. This can be done either by hand or by a sewing machine.



## 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 doing it:

**Systems approach:** This means breaking down the process into a number of different strategies and doing each in turn.

**User-Centred design:** The wants and needs of the client are prioritised - their thoughts are given a lot of attention at every stage of design and manufacture

**Iterative design:** Centred around the design process of evaluation and improvement at each stage of designing.

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.

Following the design strategy can help you avoid design fixation and encourage you to look at your design in a critical way to make improvements. Other ways to avoid are-

- Collaboration
- Honest feedback
- Focusing on new solutions
- Using fresh approaches

## 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.

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

**Existing Products** An example



**Aesthetics** - This is a square removable cushion cover with heart applique on the front. It has piping around the edge. The colour scheme is light beige with accents of blue. It has been made from linen and is soft. There are some buttons on the front which have been hand stitched on.

**Cost** - This cushion is machine constructed although it has hand stitched embellishments and piping around the edge. Although made using a machine, the hand embellishments will make it more expensive.

**Customer** - I think that this cushion is for use by men and women however it has hearts on the front which may appeal more to women. It has buttons on the front which could be dangerous for young children.

**Materials & Manufacture** - This cushion has been made from linen and the hearts from cotton. A sewing machine has been used to make the cushion. The buttons have been sewn on by hand.

**Environment** - This cushion has been made from linen which comes from a plant. This is a good material to use because it is natural and is a RENEWABLE RESOURCE. It should last a long time because it has been well made and this also means that it can be PASSED ON to someone else, given to a CHARITY SHOP when the user no longer wants it.

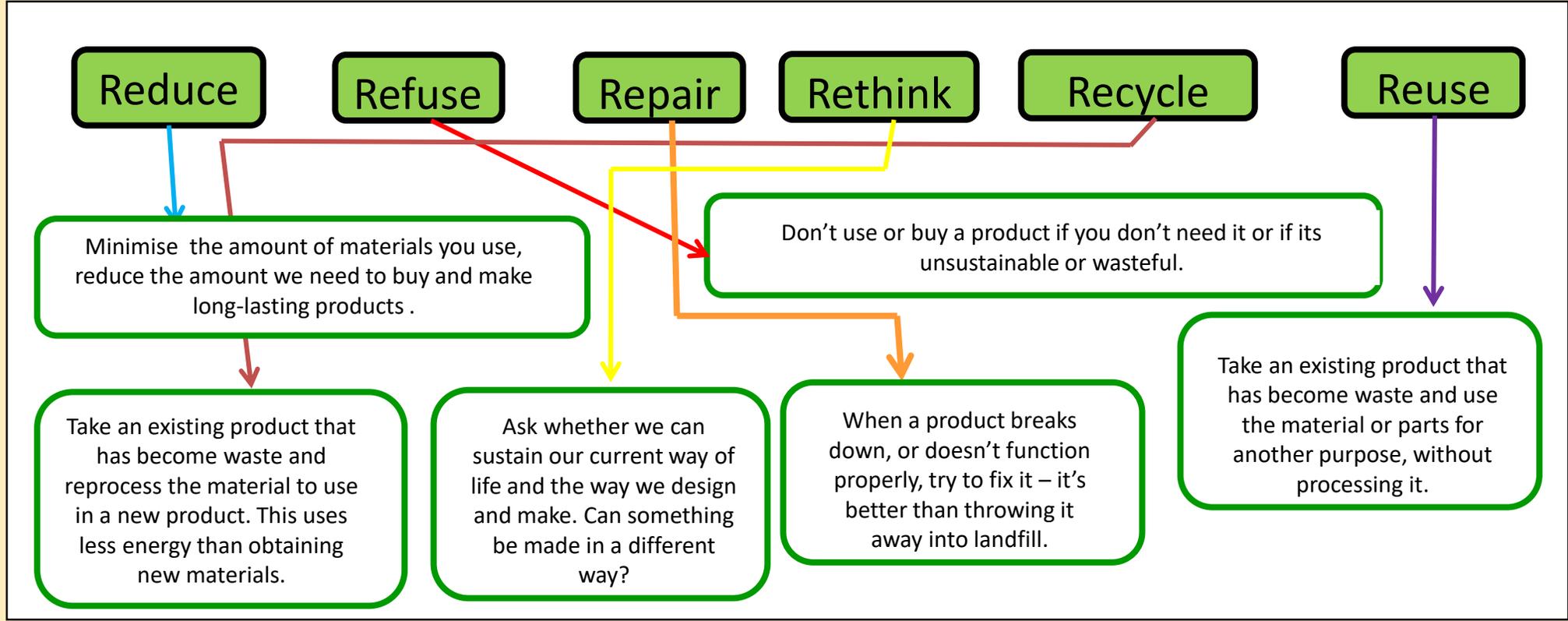
**Safety** - Because the cushion has been made by machine training would be required to use it. The cushion is safe to use however the buttons could be a choking hazard to young children.

**Size** - This cushion is 40cm x 40cm. It is a good size and very usable.

**Function** - This cushion is for comfort and for decorative purposes for use on a sofa or chair. It is made from linen so it is easy to wash and is comfortable.

**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.



This symbol is called the **MOBIUS LOOP** or 'recycling symbol' and indicates that a product **can be recycled**, but not necessarily that it **has** been itself produced from **recycled** materials.

The **6 RS OF SUSTAINABILITY** are used to remind us of how we can improve the impact textile products have on society.

**FAST FASHION** - inexpensive clothing produced rapidly by mass-market retailers in response to the latest trends.

The **6R's** are a way of helping you think about the reducing the impact of a new product on the **ENVIRONMENT** and **PEOPLE**.

Unwanted textile items will end up in **LANDFILL** – a place where unwanted materials are sent, which are then buried underground.

