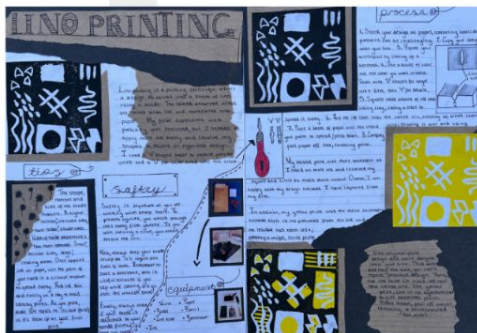
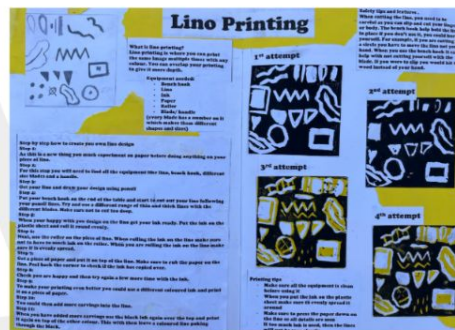


# Knowledge Organiser

YEAR

9



Art work by Amelia Booton,  
Jessica Harris, Keziah  
Hatfield, Mia Lees, Olivia  
Edge and Thomas Beddard



THE ENGAGED MIND STAYS SHARP.  
BE ENGAGED IN THE HERE AND NOW.

# Contents Page

|                       |       |
|-----------------------|-------|
| Knowledge Organisers  | 3     |
| How We Learn          | 4-6   |
| Literacy Proofreading | 7     |
| Talking Points        | 8     |
| English               | 9-10  |
| Maths                 | 11-12 |
| Science               | 13-15 |
| French                | 16-17 |
| History               | 18-19 |
| Geography             | 21-22 |
| Computing             | 22-23 |
| Art/ Design           | 24-26 |
| Drama                 | 28    |
| Philosophy            | 28    |
| Music                 | 29    |
| PE                    | 30-33 |



## Equipment

all students must have...



Mobile phones are not to be used in lessons without staff permission  
No photos or videos to be taken without permission  
No school related images or videos to be uploaded on to social media

Black or blue pen  
Pencils  
Ruler - 30cm  
Protractor  
Compass  
Rubber  
Pencil Sharpener  
Purple pen  
Scientific calculator  
Coloured crayons  
Student Organiser  
Knowledge Organiser  
Locker Key

# Knowledge Organisers at Redmoor Academy

## WHY?

### **Why do we have knowledge organisers?**

Your knowledge organisers help you to be successful in many ways. Firstly, they make the key elements of each topic clear, showing you what you need to have an excellent understanding of in order to be successful. If you know these elements, your teacher will help you to understand them.

## WHAT?

### **What are my teachers' expectations of me?**

In Year 7 and 8 your teachers will give you homework. You will be spending 20 minutes a week learning information from your knowledge organiser for each subject, with Sparx used for Maths and Literacy. In Year 9 this will increase to 30-40 minutes. Teachers will test you regularly to make sure that you are completing the homework and remembering your knowledge.

## HOW?

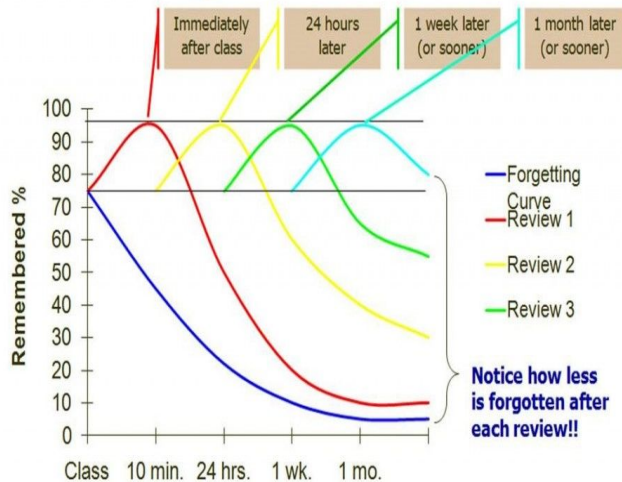
### **How will my teachers use them?**

Core subjects will set homework once a week (others less often). This will help you to learn the most important knowledge for each topic. Teachers will also test you regularly to see how well you have remembered it. Research tells us that this practising is a really good way of helping you make sure that the knowledge stays in your memory. Over time, you will build on this knowledge to make sure that you know everything you need to for your subject. Sometimes you may have high stakes quizzes, where teachers will set a certain score that you have to reach to be successful.

### **How will they help me to be successful later on?**

When it comes to GCSEs, you have lots of information to remember. Your knowledge organisers will gradually build up this knowledge over 5 years to help support you in Year 11. This means that when you revise you will just be recalling knowledge that you have already stored. Also, all of this practice with lots of different revision techniques now will help you when it comes to your final exams.

# How we learn at Redmoor



## Why reviewing your learning is so important

As soon as we are told a new piece of information, most of that information is 'lost' and forgotten. Hermann Ebbinghaus found that repeating information helps us remember more of it. This means we need to be reviewing and going over what we learn in order for us to remember and be able to use the information after a period of time has passed.

This resource summarises some proven strategies that you can use to review your knowledge.

Common methods of revision that are the **least effective**:

- Highlighting key points
- Re-reading
- Summarising texts



## Retrieval practice

Testing what you know is a powerful tool in revision; the effort to remember something really strengthens your memory. Apps such as Memrise and Quizlet allow you to use or create your own quizzes based on topics. Create them, test yourself or get someone to test you. It works!

Learn more about retrieval practice here: [Link to the Learning Scientists](#)

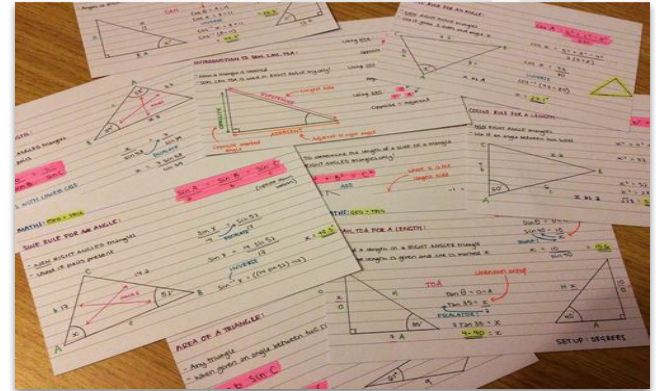
# How we learn at Redmoor

## Flash Cards

You can use these simply to create questions on one side and answers on the other. You might colour-code the cards for specific topics, and even include keywords and timelines.

Once you have created your flashcards you need to think about how you will use them effectively. There is a link below to a video helping you understand the Leitner system of using flashcards:

[YouTube: The Leitner Method](#)



## Dual Coding



**Dual coding** is the process of combining verbal materials with visual materials.

You simply take information that you are trying to learn and draw visuals to go with it.

You can learn more about dual coding here:

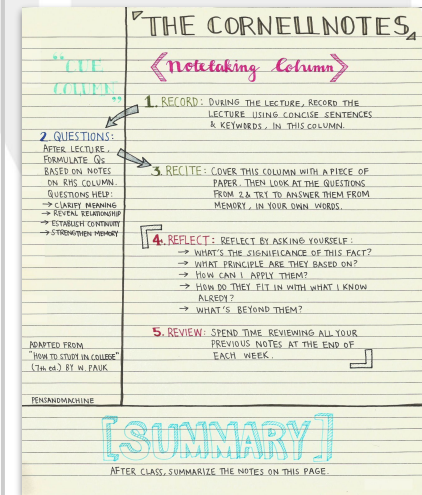
[Link To The Learning Scientists](#)

Try to come up with different ways to represent the information. For example, you could draw a timeline, a cartoon strip or a diagram of parts that work together.

## Cornell Notes

This method can be used in your revision books as a great method to get you to 'think' about your revision. You simply split your page into 3 sections as shown on the diagram below:

- Note Taking
- Key words / concepts
- Summary

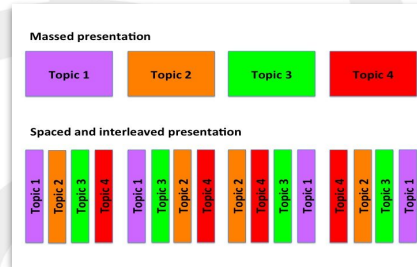


# How we learn at Redmoor

## Spacing and Interleaving

You shouldn't revise all of your topics in one go - this is called cramming. Instead, you should revise 'chunks' of a topic for small amounts of time, spending around 15-30 minutes on each. You should then move onto another 'chunk' from a different topic.

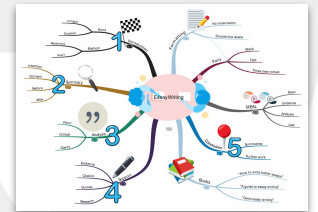
Eg. topic 1 is 'cells', topic 2 is the 'digestive system'. This will improve your memory!



## Mind Maps

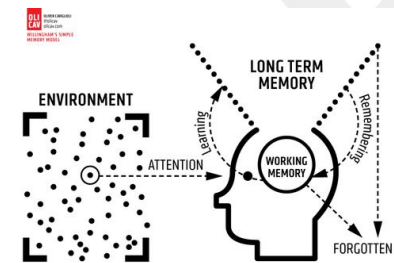
**Mind mapping** is simply a diagram used to visually represent or outline information. It is a powerful graphic technique you can use to translate what's in your **mind** into a visual picture.

Mind maps help with memorisation of key knowledge as they help to organise information and allow you to begin to make links and connections to different pieces of information. The use of visual images helps your brain to memorise the information with simple words next to them - and this links to dual coding!



## Useful links:

- The learning scientists: <https://www.learningscientists.org/>
- Memrise: <https://www.memrise.com/>
- Quizlet: <https://quizlet.com/en-gb>
- Seneca: <https://www.senecalearning.com/>



# Literacy

## Proofreading Guidance

When we write, we know what we're trying to say, so our brains might skip out words or punctuation. It is important that we proofread to avoid making silly mistakes.

### Full Stops & Commas

- A full stop gives a strong pause. It goes at the end of a whole sentence.

*e.g. Jake had four brothers. He got on best with Dan who shared his sense of humour.*

- A comma gives a short pause and is used to separate items in a list *e.g. Bring some milk, eggs, butter and flour.*

After introductory words *e.g. However,*

Between the different parts of a sentence: *Gran, who had been a champion boxer in the sixties, stepped forward.*

### Paragraphs

- Change in time, *e.g. Later that day, an important letter arrived.* - Change in place, *e.g. Back at home things were just as bad. / Chile, however, has a population of...*

- Change of subject, *e.g. As well as mountain biking, I also enjoy swimming...*

- Each time a different person speaks:

"Hey, that's my phone!"

"No it isn't - I had it for my birthday."

### Spelling Homophones

Words that sound the same but are spelt differently.

**there, their, they're**

*They're silly to have left their coats over there where there is wet grass.*

**your, you're**

*You're such a good friend to lend me your phone.*

**to, two, too**

*Two of my friends are coming to Alton Towers too.*

### Grammar Errors

*I have played tennis.* ✓ *I of played tennis.* ✗

*I should have / should've played tennis.* ✓

*I should of played tennis.* ✗

*I/she/he were late.* ✗ *I/she/he was late.* ✓

*They were late.* ✓ *They was late.* ✗

*You were late.* ✓ *You was late.* ✗

*I ran quick, passing the ball brilliant. I played amazing.* ✗

*I ran quickly, passing the ball brilliantly. I played amazingly.* ✓

### Apostrophes

- Use an apostrophe to show possession *e.g. John's football is flat.*

- Also use an apostrophe for omissions (the apostrophe shows where a letter or letters are missing) *e.g. I didn't do it. It wasn't me!*

### Capital Letters

- At the start of every sentence

- For days, months and celebrations, *e.g. Wednesday, April, Easter*

- For proper nouns (names of people and places) *e.g. James, London, Rutland Water*

- For Titles (except the small words) *e.g. The Hunger Games, Match of the Day*

- For abbreviations *e.g. BBC, RSPCA*

### Correct Tense

Are you using the correct tense? Do not switch from one to another. - For days, months and celebrations,

- **Past:** *e.g. I ran to the shops.*

- **Present:** *e.g. I am running to the shops*

- **Future:** *e.g. I am going to run to the shops.*

### Literacy Marking Code:

|       |                            |
|-------|----------------------------|
| sp    | Spelling mistake           |
| ^     | Missing word/letter        |
| O     | Capital letter/Punctuation |
| ~~~~~ | Unclear/poorly worded      |
| //    | New paragraph              |
| th    | Use a thesaurus            |
| w     | Wrong word                 |

# Talking Points

## To add an new idea to what someone else has been saying:

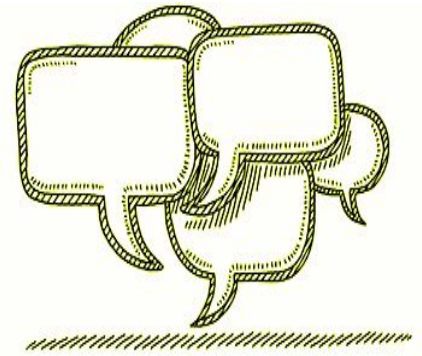
- I would like to add to this...
- I would have to agree with you because...
- Another example of this could be...
- Adding on to this, in my opinion...
- We might also consider...
- As well as this, it is important to think about...
- In addition...

## To build on what someone else has been saying:

- This could be developed by considering...
- This links to...because...
- Furthermore, it could be argued that...
- To elaborate further...
- Building onto this...
- Leading from this...
- Taking this one step forward...
- On top of this...

## To challenge someone's ideas and offer the opposite viewpoint:

- I would challenge this idea because...
- On one hand I agree with... However I think...
- On the other hand this idea could be challenged because...
- From another perspective you might argue that...
- Although I can see why \_\_\_ thinks... I disagree because...
- Whereas \_\_\_ seems to think... instead I think...



## Banned words:

- ★ You know
- ★ Like
- ★ Isn't it
- ★ Basically
- ★ Sort of
- ★ Kind of
- ★ Sommit
- ★ Innit
- ★ Dunno
- ★ Gonna
- ★ So...
- ★ Okay....

Add, Build, Challenge

# English Department: The Giver

| Conventions of Dystopian Literature    |                                                                                                           |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Characteristics of Protagonist         | Often feels trapped and is struggling to escape.                                                          |
|                                        | Questions the existing social and political systems.                                                      |
|                                        | Believes or feels that something is terribly wrong with the society in which he or she lives.             |
|                                        | Helps the audience recognizes the negative aspects of the dystopian world through his or her perspective. |
| Characteristics of a Dystopian Society | Propaganda is used to control the citizens of society.                                                    |
|                                        | Information, independent thought, and freedom are restricted.                                             |
|                                        | Citizens are perceived to be under constant surveillance.                                                 |
|                                        | Citizens have a fear of the outside world.                                                                |
|                                        | The society is an illusion of a perfect utopian world.                                                    |

| Why The Giver was banned in the USA |                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Violence                            | This is slightly ironic as the book doesn't explicitly include any violence and was written for children yet due to its content surrounding infanticide and euthanasia many deemed this book as dark and inappropriate for children.                                                                                                                                      |
| Sexual References                   | In the story Jonas shares a dream in which he experiences a sexual awakening. Mum confirms that this is normal and offers him a pill which will stop his 'stirrings'. Many older readers believed this topic to be inappropriate for their children and asked for the book to be banned from schools and libraries.                                                       |
| Suicide                             | In the book there are many implicit references to death through the 'murder' of the young and elderly. Additionally to this, the Giver shares a story about Rosemary taking her life amongst other smaller references of people not returning to their dwellings. Again, this topic was deemed inappropriate for children and given as a reason to further ban The Giver. |

| Key Themes    |                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Memory        | Lois Lowry decided to write The Giver after visiting her aging father - she realised that without memory, there is no pain. In the community, not only does the removal of memory eradicate pain, it also prevents them from wanting relationships avoiding suffering and loss. Jonas realises with no memories, no true happiness can be achieved.                              |
| Individualism | The first time difference is celebrated is during the Ceremony of Twelve where each child's attributes help establish their job/ purpose in the Community. Jonas throughout the story is attempting to carve out his identity by exploring his emotions and beliefs and therefore leads him to fight for what he believes is right.                                              |
| Control       | Jonas' community are able to rule by infantilizing people, requiring total obedience and preventing people from thinking for themselves. The community live according to a set of rules (instead of laws), which mean that people do not question their actions, they simply follow instructions without reflecting on whether it is right or wrong, lacking morals and emotion. |

| Literary Techniques |                                                                                     |
|---------------------|-------------------------------------------------------------------------------------|
| Symbolism           | When an idea or object represents a wider concept.                                  |
| Foreshadowing       | This is used to give hints or indications about what is to come later in the story. |
| Metaphor            | Comparing something to something else.                                              |
| Imagery             | Use of descriptive language to help the reader visualise the scene.                 |
| Irony               | Reality vs expectation - a form of juxtaposition.                                   |
| Allusion            | When something is referred to implicitly.                                           |
| Personification     | Giving an object a human quality.                                                   |
| Flashback           | A time lapse to past events.                                                        |

| Vocabulary Boost |                                           |
|------------------|-------------------------------------------|
| Word             | Definition                                |
| Utopia           | A perfect, pristine society.              |
| Dystopia         | A broken down society.                    |
| Adherence        | Faithful attachment.                      |
| Admonition       | Counsel, advise, caution.                 |
| Apprehensive     | Uneasy or fearful about something.        |
| Chastise         | To discipline.                            |
| Dejected         | Disheartened.                             |
| Immobilize       | To fix in place.                          |
| Interdependence  | Mutually dependent on two or more people. |
| Languid          | Slow.                                     |
| Permeate         | To pass into or through every part of.    |

## **BIG QUESTION:** What's the point of punctuation?

|                  |                                                                                                                                    |
|------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Apostrophe       | Can be used to show ownership or indicate a missing letter.                                                                        |
| Colon            | Used to indicate the start of a list                                                                                               |
| Semi-colon       | Used to separate clauses within a sentence. They cause the reader to pause for longer than a comma but not as long as a full stop. |
| Question mark    | Used at the end of a sentence, when asking a question.                                                                             |
| Exclamation mark | Used at the end of an exclamatory sentence to show strong emotion.                                                                 |

## **BIG QUESTION:** How are words powerful?

|                  |                                                                                                                                                                                  |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Adjective        | An adjective describes a noun. E.g <i>'the tall building.'</i>                                                                                                                   |
| Alliteration     | Alliteration occurs when you use the same letter at the start of words that are next to, or near, each other. E.g <i>'Daniel doesn't like dentists.'</i>                         |
| Emotive Language | Words that make the reader feel an emotional response such as anger, sadness, joy or sympathy. E.g <i>'the innocent boy broke his leg when the nasty bully pushed him over.'</i> |
| Metaphor         | A metaphor is when you describe someone or something as if it were something else, without using the words 'like' or 'as'. E.g <i>'you are my sunshine.'</i>                     |
| Personification  | Personification occurs when you give human characteristics to something that isn't human. E.g <i>'the sun smiled at us.'</i>                                                     |
| Onomatopoeia     | A word that sounds like the thing it describes. E.g <i>'Bang'</i> or <i>'buzz'</i> .                                                                                             |
| Simile           | A simile is a comparison of two things by using the words 'like' or 'as'. E.g <i>'she was as sweet as a honeybee.'</i>                                                           |

## **BIG QUESTION:** How can sentences be manipulated to create effects?

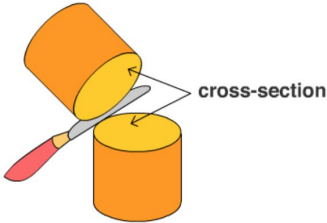
|            |                                                                                                                                                                                                                 |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Simple     | A simple sentence contains just one clause (with a subject and one verb). Simple sentences are effective when used sparingly as they are straightforward and direct.                                            |
| Compound   | A compound sentence is formed when you join two main clauses that make sense on their own with a connective. In a compound sentence the clauses are often linked by connectives such as 'and', 'but', 'so' etc. |
| Complex    | A complex sentence contains one main clause and one or more subordinate clause that relies on the main clause to make sense.                                                                                    |
| Paragraphs | Paragraphs are just a group of sentences sharing the same idea. They structure your writing to make it easier for readers to follow. Always start a new paragraph when you change the focus of your writing.    |

## **BIG QUESTION:** Why does structure matter?

|                    |                                                                                                                                                                                                       |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cyclical structure | Your writing ends by making a link back to the beginning.                                                                                                                                             |
| Sentence lengths   | Shorter sentences can alter the pace of your writing. Complex sentences can alter the rhythm. For single, sudden ideas you want to draw attention to, use a single sentence or single word paragraph. |
| In medias res      | Starting the writing in the middle of the action.                                                                                                                                                     |
| Flashback          | A part of a story that goes back to events in the past.                                                                                                                                               |
| Foreshadowing      | Hinting at something that will happen later in the story.                                                                                                                                             |
| Shift in focus     | Changing what you're focusing on, e.g. shifting from describing a setting to writing about the character.                                                                                             |
| Cliffhanger        | A technique where the writer leaves the reader not knowing what will happen next.                                                                                                                     |

# MATHS – Mastery Curriculum

| Sparx Code | TOPIC                                                    | In Class | Pre-test | Post test |
|------------|----------------------------------------------------------|----------|----------|-----------|
| M242       | Changing the subjects of formulae with one step          |          |          |           |
| M983       | Changing the subjects of formulae with two or more steps |          |          |           |
| M595       | Identifying parts of circles                             |          |          |           |
| M169       | Finding the circumference of circles                     |          |          |           |
| M231       | Finding the area of circles                              |          |          |           |
| M319       | Combining angle facts                                    |          |          |           |
| M606       | Angles on parallel lines                                 |          |          |           |
| M767       | Properties of 3D shapes                                  |          |          |           |
| M765       | Finding the volume of cubes and cuboids                  |          |          |           |
| M722       | Finding the volume of prisms                             |          |          |           |
| M465       | Converting units of volume                               |          |          |           |
| M677       | Using Pythagoras' theorem in 2D                          |          |          |           |
| M480       | Applying Pythagoras' theorem in 2D                       |          |          |           |



Volume = Area of cross-section × length

Four 3D shapes are shown in a row: a triangular prism, a pentagonal prism, a hexagonal prism, and a rectangular prism. The triangular prism has a blue arrow labeled 'length' pointing along its top edge. The pentagonal prism has a blue arrow labeled 'length' pointing along its bottom edge. The hexagonal prism has a blue arrow labeled 'length' pointing along its bottom edge. The rectangular prism has a blue arrow labeled 'length or height' pointing along its right vertical edge.

| Sparx Code | TOPIC                                              | In Class | Pre-test | Post test |
|------------|----------------------------------------------------|----------|----------|-----------|
| M328       | Calculating the range                              |          |          |           |
| M934       | Calculating the median                             |          |          |           |
| M841       | Finding the mode                                   |          |          |           |
| M940       | Calculating the mean                               |          |          |           |
| U854       | Finding averages from diagrams                     |          |          |           |
| M127       | Finding averages from frequency tables             |          |          |           |
| U312       | Interpreting frequency tables with grouped data    |          |          |           |
| U877       | Finding averages from grouped data                 |          |          |           |
| M135       | Calculating with roots and powers                  |          |          |           |
| U299       | Estimating roots and powers                        |          |          |           |
| M533       | Percentage change with a calculator                |          |          |           |
| M476       | Percentage change without a calculator             |          |          |           |
| M528       | Finding original values in percentage calculations |          |          |           |
| U533       | Simple interest calculations                       |          |          |           |
| U330       | Using standard form with positive indices          |          |          |           |
| U534       | Using standard form with negative indices          |          |          |           |

Percentage Change=  $\frac{\text{amount of change}}{\text{original amount}} \times 100$

# MATHS – Stretch Curriculum

| Sparx Code | TOPIC                                                                   | In Class | Pre-test | Post test |
|------------|-------------------------------------------------------------------------|----------|----------|-----------|
| U166       | Expected results from repeated experiments                              |          |          |           |
| U580       | Calculating experimental probabilities                                  |          |          |           |
| U280       | Frequency trees                                                         |          |          |           |
| U556       | Changing the subjects of formulae                                       |          |          |           |
| U228       | Factorising to solve quadratic equations of the form $x^2 + bx + c = 0$ |          |          |           |
| U963       | Factorising the difference of two squares                               |          |          |           |
| U178       | Factorising quadratic equations of the form $x^2 + bx + c$              |          |          |           |
| M960       | Expanding double brackets                                               |          |          |           |
| U337       | Constructing and solving inequalities                                   |          |          |           |
| U145       | Solving double inequalities                                             |          |          |           |
| U738       | Solving inequalities with the unknown on both sides                     |          |          |           |

Inequalities

>

↑

Greater Than

<

↑

Less Than

≥

↑

Greater Than or Equal To

≤

↑

Less Than or Equal To

| Symbol | Number Line Symbol |
|--------|--------------------|
| >      |                    |
| <      |                    |
| ≥      |                    |
| ≤      |                    |

greater than

less than

greater than or equal to

less than or equal to

Experimental probability

6 appears 65 times.

$P(\text{roll a 6}) = \frac{65}{100}$

Roll a die 100 times.

| Sparx Code | TOPIC                                                           | In Class | Pre-test | Post test |
|------------|-----------------------------------------------------------------|----------|----------|-----------|
| U671       | Percentage change with a calculator (Review)                    |          |          |           |
| U286       | Finding original values in percentage calculations              |          |          |           |
| U278       | Finding the percentage an amount has been changed by            |          |          |           |
| U264       | Multiplying and dividing numbers in standard form               |          |          |           |
| U290       | Adding and subtracting numbers in standard form                 |          |          |           |
| U161       | Standard form with a calculator                                 |          |          |           |
| U773       | Percentage change without a calculator (Review)                 |          |          |           |
| U533       | Simple interest calculations                                    |          |          |           |
| U349       | Finding percentages of amounts with a calculator (Review)       |          |          |           |
| U554       | Finding percentages of amounts without a calculator (Review)    |          |          |           |
| U916       | Finding fractions of amounts with a calculator (Review)         |          |          |           |
| U881       | Finding fractions of amounts without a calculator (Review)      |          |          |           |
| U594       | Ordering fractions, decimals and percentages (Review)           |          |          |           |
| U888       | Converting between fractions, decimals and percentages (Review) |          |          |           |

Expanding Double Brackets

$(2x + 3)(5x - 8)$

|       |         |         |
|-------|---------|---------|
|       | $2x$    | $+ 3$   |
| $5x$  | $10x^2$ | $+ 15x$ |
| $- 8$ | $- 16x$ | $- 24$  |

Grid Method

$10x^2 + 15x - 16x - 24$

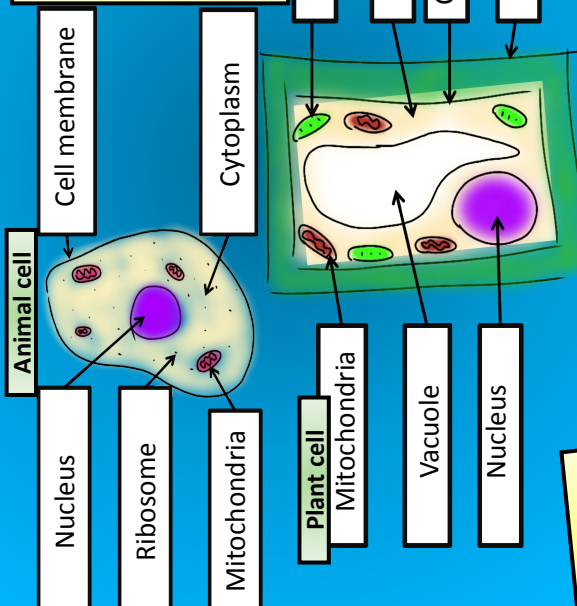
Simplified:

$10x^2 - x - 24$

12

# Cell Biology

## Animal and Plant Cells



The **Ribosomes** have been exaggerated in the animal cell – these are too small to see with a light microscope and do not have a label in the plant cell below

### Transport

**Diffusion** is the net movement of particles from an area of **high concentration** to an area of **low concentration**

**Osmosis** is the net movement of water from an area of **high water potential** to an area of **low water potential** across a **partially permeable membrane**

**Active Transport** is the net movement of particles from an area of **low concentration** to an area of **high concentration** across a **partially permeable membrane**. This process requires **energy**.

### Revision Idea!

Can you make a Venn diagram using all the similarities and differences for the 3 types of transport?

### Microscopy

Cells are so small you have to use a **microscope** to see them

You can calculate the actual length of a cell by dividing its size under the microscope by the magnification

**Resolving Power** ☐ The ability of a microscope to distinguish two objects as separate

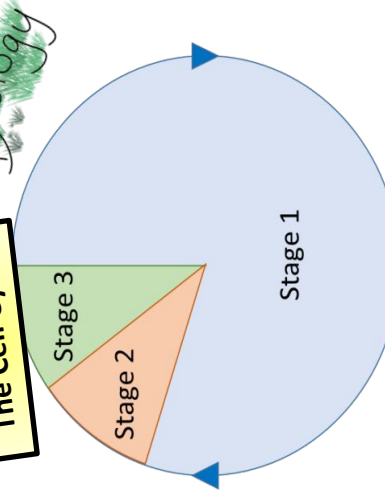
**I = Image size**  
**A = Actual size**  
**M = Magnification**

| Magnification prefixes | Symbol        | Value in meters | Standard form      |
|------------------------|---------------|-----------------|--------------------|
| Meter                  | m             | 1               |                    |
| Milli-meter            | mm            | 0.001           | $1 \times 10^{-3}$ |
| Micro-meter            | $\mu\text{m}$ | 0.000001        | $1 \times 10^{-6}$ |
| Nano-meter             | nm            | 0.000000001     | $1 \times 10^{-9}$ |

Conversion  $\rightarrow \times 1000$

Conversion  $\div 1000$

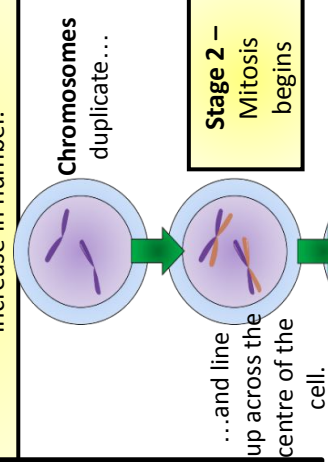
## The Cell Cycle



### Stage 1

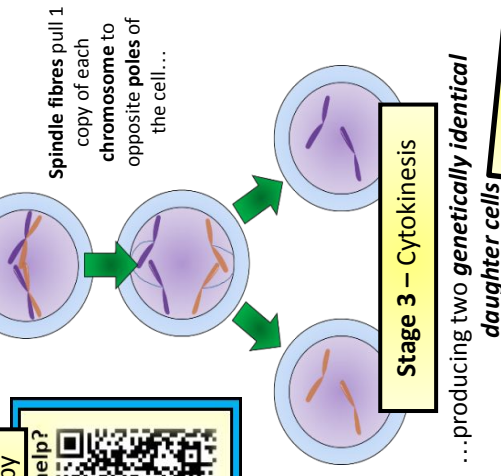
The cell increases in mass. Normal cellular functions are carried out. Towards the end of stage one the **chromosomes** duplicate ready for cell division.

Other cell **organelles** also increase in number.



### Stage 2 – Mitosis begins

### Stage 3 – Cytokinesis



## Keywords

|               |              |             |                  |               |               |
|---------------|--------------|-------------|------------------|---------------|---------------|
| Nucleus       | Mitochondria | Chloroplast | Active Transport | Cytokinesis   | Meristem Cell |
| Cell Membrane | Cell Wall    | Diffusion   | Mitosis          | Daughter Cell | Resolution    |
| Cytoplasm     | Vacuole      | Osmosis     | Spindle fibres   | Stem Cell     | Magnification |

# Topic: Atoms and the Periodic Table

## History of the Atom

### Billiard Ball



John Dalton



1803

All matter is made of atoms that have no charge

### Plum Pudding



J.J. Thomson



1904

Discovered the **electron** (-ve) concluded the rest of the atom is +ve

### Nuclear Model



Ernest Rutherford



1911

Small positive **nucleus** made of **protons (+ve)** Most of the atom is empty space

### Bohr Model



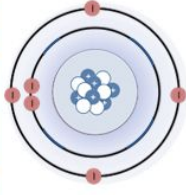
Niels Bohr



1913

**electrons** (-ve) orbit around the nucleus

### Bohr Model (revised)



James Chadwick



1932

Discovered the **neutron** (0 charge), located in the nucleus

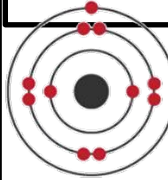
## Discovery of the Nucleus

Rutherford fired positively charged **alpha particles** at a thin sheet of gold foil.

Most **passed through** with little deflection, and **some deflected** at large angles.

This is only possible if **most** of the **atom** is **empty space**, with a **positive charge concentrated at the centre**

## Electron Configuration



This atom of Na has 11 electrons

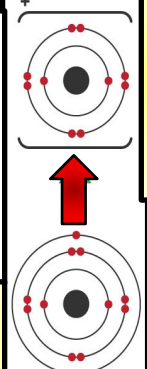
2 on the **first** shell  
8 on the **second** shell  
1 on the **third** shell

1<sup>st</sup> shell: 2e<sup>-</sup>  
2<sup>nd</sup> shell: 8e<sup>-</sup>  
3<sup>rd</sup> shell: 8e<sup>-</sup>

2,8,1

## Ions

Atoms become more stable when they have a full outer shell



Positive ion = Cation

## Keywords

| Atom    | Reactant             | Filtration      | Chromatography | Group        | Halogen               |
|---------|----------------------|-----------------|----------------|--------------|-----------------------|
| Element | Product              | Crystallisation | Ion            | Period       | Displacement Reaction |
| Mixture | Conservation of Mass | Distillation    | Isotope        | Alkali Metal | Properties            |

## Development of the Periodic Table



John Dalton arranged the elements by **atomic weight** in 1808.



John Newlands noticed that when the elements were arranged by atomic weight, every 8<sup>th</sup> element had **similar properties** and introduced the **law of octaves**.



Dmitri Mendeleev Arranged by **atomic weight** and created groups of elements with similar **properties**. He left **gaps** in the periodic table for elements that had not been discovered.

Mendeleev's work allows us to make predictions about how **elements in the periodic table** will react

## Displacement Reactions

Reacting a more reactive halogen with a salt of a less reactive halogen will result in a displacement reaction

EXAMPLES:



Metals will lose electrons

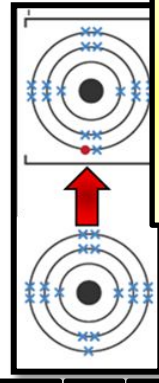
They become positively charged because they have lost a negative charge

Electronic Config of Na<sup>+</sup> ion: 2,8

Electronic Config of Cl<sup>-</sup> ion: 2,8,8

Non-Metals will gain electrons

They become negatively charged because they gain a negative charge

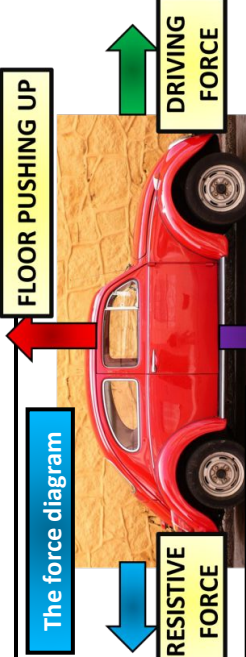


Negative ion = Anion

## Topic: Forces

### Introduction to Forces

For every action (force applied) there is an equal and opposite action (opposing force)



The force diagram

RESISTIVE FORCE

DRIVING FORCE

The driving force and resistive force are **balanced**, but this does not mean that the car is stationary!

This car is moving at **CONSTANT SPEED**

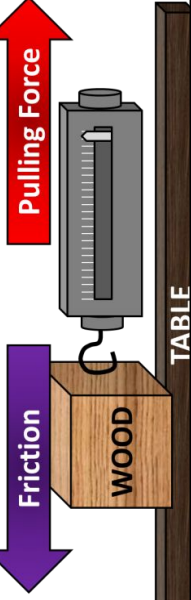
A stationary car would **not** have a **DRIVING FORCE**

Force is measured in **NEWTONS (N)**

How would the diagram be different if...

- The car was slowing down?
- The car was speeding up?

Investigating the effects of friction



The resistive force is determined using a **NEWTONMETER**

The larger the force required to move the block  
☐ The larger the **resistive force of friction**

Pressure

Pressure in **Gases**

Inside this balloon are gas particles. These particles move constantly and collide with the inside of the balloon. These collisions push the walls of the balloon outwards

More Collisions = More Pressure

Pressure in **Liquids**

Water molecules push on each other and on surfaces, this Liquid Pressure acts in all directions

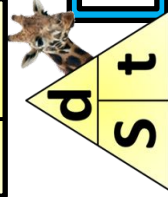
Pressure in **Solids**

Pressure is a measure of how much force is applied over an area  
 Pressure is measure in  $N/m^2$

Keywords

|                   |            |             |                     |              |                |
|-------------------|------------|-------------|---------------------|--------------|----------------|
| Contact Force     | Compress   | Lubrication | Average Speed       | Pressure     | Compressed     |
| Non-Contact Force | Stretch    | Drag Force  | Instantaneous Speed | Density      | Incompressible |
| Newtonmeter       | Newton (N) | Friction    | Equilibrium         | Acceleration | Linear         |

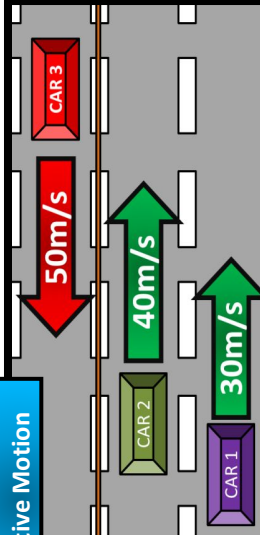
Speed



Calculating **Speed**  
 Speed = distance  $\div$  time

Can you rearrange the equation to make distance or time the subject?

Relative Motion



**Relative Motion:**

how different observers judge speed differently. An object's speed is relative to the observer's speed

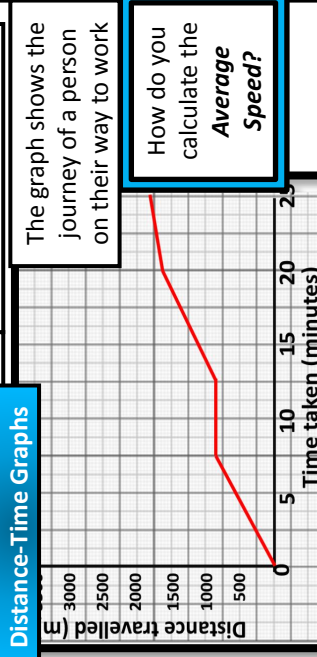
**Example 1:**

**Relative** to CAR1, CAR 2 is travelling forward at a speed of 10m/s

**Example 2:**

**Relative** to CAR2, CAR 3 is travelling backward at a speed of 90m/s

Distance-Time Graphs



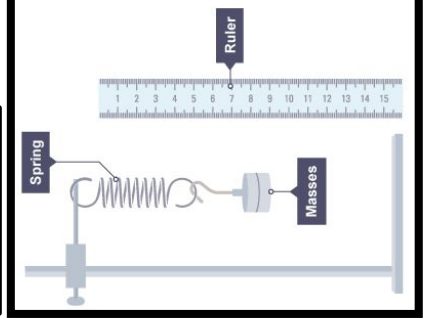
The graph shows the journey of a person on their way to work

How do you calculate the **Average Speed**?

Straight **DIAGONAL** lines: **constant speed**

Straight **HORIZONTAL** lines: **stationary**

**Hooke's Law**



Forces can compress or stretch objects

The stretching of the spring is called the **extension**

If you **double** the **force** on a spring, the **extension** will also **double**!

When too much force is applied the spring will not return to its original shape. This is called the **elastic limit**.

**Tu es allé(e)s où en vacances?** Where did you go on holiday?

**Tu as voyagé comment?** How did you travel?



# Unit 7a Les Vacances

| (1) Time Phrase                                                                                                                                                                                                                                                   | (2) Verb<br>(perfect<br>tense)                                                                                          | (3) Preposition + Place                                                                                                                                                                                                                                                                                                                                        | (4) Verb<br>(Perfect<br>Tense)                                                                                                    | (5)<br>Preposition +<br>Transport                                                                                                                                                                      |                    | (6) Adjectives                                                                                                                                                                                                              |                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>L'année dernière</b><br>(last year)<br><b>La semaine dernière</b><br>(Last week)<br><b>Le mois dernier</b><br>(last month)<br><b>Il y a trois ans</b><br>(three years ago)<br><b>L'été dernier</b><br>(last summer)<br><b>L'hiver dernier</b><br>(last winter) | <b>je suis allé (e)</b><br>(I went)<br><br><b>nous sommes allés</b><br>(we went)<br><br><b>on est allé</b><br>(we went) | <b>en France.</b> (to France)<br><b>en Angleterre.</b> (to England)<br><b>en Espagne.</b> (to Spain)<br><b>en Allemagne.</b><br>(to Germany)<br><b>en Écosse.</b> (to Scotland)<br><b>au Portugal.</b> (to Portugal)<br><b>au Canada.</b> (to Canada)<br><b>aux États-Unis.</b><br>(to the USA)<br><b>à Paris.</b> (to Paris)<br><b>à Londres.</b> (to London) | <b>J'ai voyagé</b><br>(I travelled)<br><br><b>Nous avons voyagé</b><br>(we travelled)<br><br><b>On a voyagé</b><br>(we travelled) | <b>en avion</b><br>(by plane)<br><b>en voiture</b><br>(by car)<br><b>en train</b><br>(by train)<br><b>en ferry</b><br>(by ferry)<br><b>en car</b><br>(by coach)<br><b>en Eurostar</b><br>(by Eurostar) | <b>et</b><br>(and) | <b>c'était</b><br>(it was)<br><b>ce n'était pas</b><br>(it wasn't)<br><b>le voyage était</b><br>(le journey was)<br><b>la traversée était</b><br>(the crossing was)<br><b>le voyage n'était pas</b><br>(the journey wasn't) | <b>facile</b><br>(easy)<br><b>difficile</b><br>(difficult)<br><b>rapide</b><br>(fast)<br><b>long</b><br>(long)<br><b>ennuyeux/euse</b><br>(boring)<br><b>amusant(e)</b><br>(fun)<br><b>intéressant(e)</b><br>(interesting) |

**Tu es resté(e) où ?** Where did you stay?

**C'était comment?** What was it like?

| (7) Verb (Perfect Tense)                                                                                                                                                 | (8) Preposition + Accommodation                                                                                                                                                                                                                                                             | (9) Place                                                                                                                                                                                                                            | (10) Verb (imperfect tense)                                                                                                                                                                           | (11) Adjectives                                                                                                                                                                                                                  | (12) Weather & Time Phrases                                                                                                                                                                                                                                                                                                                                                                                      | (13) Activity (perfect tense)                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Je suis resté(e)</b><br>(I stayed)<br><br><b>Nous sommes restés</b><br>(we stayed)<br><br><b>J'ai logé</b><br>(I stayed)<br><br><b>Nous avons logé</b><br>(we stayed) | <b>dans un hôtel</b><br>(in a hotel)<br><b>dans un camping</b><br>(in a campsite)<br><b>dans un appartement</b><br>(in an apartment)<br><b>dans une caravane</b><br>(in a caravan)<br><b>chez des amis</b><br>(with some friends)<br><b>chez mes grandparents</b><br>(with my grandparents) | <b>au bord de la mer.</b><br>(by the sea)<br><b>à la campagne.</b><br>(in the country)<br><b>en centre ville.</b><br>(in the town)<br><b>à la montagne.</b><br>(in the mountains)<br><b>près de la plage.</b><br>(near to the beach) | <b>C'était</b><br>(it was)<br><br><b>Ce n'était pas</b><br>(it wasn't)<br><br><b>Le logement était</b><br>(the accommodation was)<br><br><b>Le logement n'était pas</b><br>(the accommodation wasn't) | <b>magnifique</b><br>(magnificent)<br><b>super</b><br>(super)<br><b>beau</b><br>(beautiful)<br><b>sale</b><br>(dirty)<br><b>moche</b><br>(ugly)<br><b>bien équipé</b><br>(well equipped)<br><b>bien situé</b><br>(well situated) | <b>Il faisait chaud donc...</b><br>(it was hot so...)<br><b>Il faisait mauvais donc...</b><br>(It was bad weather so...)<br><b>Il faisait du soleil donc...</b><br>(It was sunny so...)<br><b>Il pleuvait donc...</b><br>It rained so...<br><br><b>Après avoir mangé,</b><br>(after having eaten)<br><b>Après avoir fait ça,</b><br>(After having done that)<br><b>Avant de faire ça,</b><br>(before doing that) | <b>j'ai joué au foot</b><br>(I played football)<br><b>j'ai fait de la natation</b><br>(I did some swimming)<br><b>j'ai mangé une glace</b><br>(I ate an ice cream)<br><b>j'ai visité le musée</b><br>(I visited the museum)<br><b>j'ai rencontré des amis</b><br>(I met some friends)<br><b>je suis allé en ville</b><br>(I went to town)<br><b>j'ai fait du tourisme</b><br>(I did some sightseeing)<br><b>J'ai regardé un spectacle</b><br>(I saw a show) |

The verb **avoir** (to have) is an important irregular verb. You will need to use it a lot in this module!

|                       |                             |
|-----------------------|-----------------------------|
| <b>j'ai</b>           | I have                      |
| <b>tu as</b>          | you (singular) have         |
| <b>il/elle / on a</b> | he/she has / we have        |
| <b>nous avons</b>     | we have                     |
| <b>vous avez</b>      | you (plural or polite) have |
| <b>ils/elles ont</b>  | they have                   |

The verb **être** (to be) is another key irregular verb.

|                       |                            |
|-----------------------|----------------------------|
| <b>je suis</b>        | I am                       |
| <b>tu es</b>          | you are (singular)         |
| <b>il/elle/on est</b> | he/she is / we are         |
| <b>nous sommes</b>    | we are                     |
| <b>vous êtes</b>      | you are (plural or polite) |
| <b>ils/elles sont</b> | they are                   |

The perfect tense is a past tense. Use it to say what you did or have done.

To form the perfect tense of most verbs, you need:

- 1 part of the verb **avoir**
- 2 a past participle (**joué, mangé**, etc.).

To form the **past participle** of regular -er verbs, take the -er ending off the **infinitive** and replace it with **-é**.

**regarder** → **regardé**

|                              |                                |
|------------------------------|--------------------------------|
| <b>j'ai regardé</b>          | I watched                      |
| <b>tu as regardé</b>         | you (singular) watched         |
| <b>il/elle/on a regardé</b>  | he/she / we watched            |
| <b>nous avons regardé</b>    | we watched                     |
| <b>vous avez regardé</b>     | you (plural or polite) watched |
| <b>ils/elles ont regardé</b> | they watched                   |

Some verbs are irregular. You need to learn the **past participles** by heart!

|                              |   |                                 |
|------------------------------|---|---------------------------------|
| <b>boire</b> (to drink)      | → | <b>j'ai bu</b> (I drank)        |
| <b>voir</b> (to see)         | → | <b>j'ai vu</b> (I saw)          |
| <b>faire</b> (to do / make)* | → | <b>j'ai fait</b> (I did / made) |
| <b>prendre</b> (to take)     | → | <b>j'ai pris</b> (I took)       |

\***faire** can have other meanings. It often means 'to go', or 'to go on'.

Some verbs use **être** (not **avoir**) to form the perfect tense.

The **past participle** of these verbs must agree with the subject. Add an extra **-e** if the subject is **feminine** and **-s** if the subject is **plural**.

|                                         |                             |
|-----------------------------------------|-----------------------------|
| <b>aller</b>                            | to go                       |
| <b>je suis allé(e)</b>                  | I went                      |
| <b>tu es allé(e)</b>                    | you (singular) went         |
| <b>il est allé/elle est allée</b>       | he/she went                 |
| <b>on est allé(e)s</b>                  | we went                     |
| <b>nous sommes allé(e)s</b>             | we went                     |
| <b>vous êtes allé(e)(s)</b>             | you (plural or polite) went |
| <b>ils sont allés/elles sont allées</b> | they went                   |

Other verbs that take **être** in the perfect tense include **arriver** (to arrive), **partir** (to leave), **rester** (to stay) and **rentrer** (to return).

## Grammar: the perfect tense

Quelle est ta fête préférée? What's your favourite festival?

Quelle fête est-ce que tu n'aimes pas? What festival don't you like?

| Opinion (14)                                                                                                                                                                           | Noun (Festival) (15)                                                                                                                                                                                                                                                                                                   | Connective                                                     | Quality Vocab                                                               | Opinion (Verb)                                                                                                    | Reason (infinitive) (16)                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>J'adore</b> I love<br><b>J'aime</b> I like<br><b>J'aime beaucoup</b><br>I really like<br><b>Je préfère</b> I prefer                                                                 | <b>l'Aïd</b> Eid<br><b>Halloween</b><br>Halloween<br><b>Noël</b> Christmas<br><b>Pâques</b> Easter<br><b>la Saint-Valentin</b><br>Valentine's Day<br><b>la Toussaint</b><br>All Saints' Day<br><b>le 14 juillet</b><br>Bastille Day<br><b>le Nouvel An</b><br>New Year's Day<br><b>mon anniversaire</b><br>my birthday | <b>parce que</b><br>because<br><br><b>parce qu'</b><br>because | <b>moi, perso,</b><br>me, personally,                                       | <b>j'adore</b> I love<br><b>j'aime</b> I like<br><b>je déteste</b> I hate<br><b>je n'aime pas</b><br>I don't like | <b>choisir des cadeaux.</b><br>choosing presents.<br><b>danser et chanter</b><br>dancing and singing.<br><b>faire une soirée pyjama.</b><br>having a sleepover.<br><b>manger des œufs en chocolat.</b><br>eating chocolate eggs.<br><b>rendre visite à ma mère.</b><br>visiting my mother.<br><b>rendre visite à mes cousins.</b><br>visiting my cousins. |
| <b>Je déteste</b> I hate<br><b>Je n'aime pas</b><br>I don't like<br><b>Je n'aime pas du tout</b><br>I really don't like<br><b>Je n'aime pas tellement</b><br>I don't particularly like |                                                                                                                                                                                                                                                                                                                        |                                                                | <b>à mon avis,</b><br>in my opinion,<br><b>je pense que</b><br>I think that | <b>c'est</b> it is<br><br><b>c'est</b> it is<br><b>c'est trop</b> it is too                                       | <b>amusant.</b> fun.<br><b>génial.</b> great.<br><b>marrant.</b> funny.<br><br><b>bête.</b> silly.<br><b>commercial.</b> commercialised.<br><b>ennuyeux.</b> boring.<br><b>militaire.</b> militaristic.                                                                                                                                                   |

# Yr 9 History: Weimar Germany



## End of WW1 & Weimar Key Events:

- 1919** - The new German constitution signed in the city of Weimar
- 1919** - The Treaty of Versailles caused many problems for Germany. The German people disliked the politicians for signing it and it caused political problems and economic problems.
- 1923** - Invasion of Ruhr by France & Belgium caused by German failure to pay reparations.
- 1923** - Hyperinflation in Germany.
- 1924-1929** - 'Golden Years' of recovery under Stresemann (Foreign Minister)..
- 1929** - Wall Street Crash.
- 1929 onwards** The Great Depression.

## End of WW1 & Weimar - Key Terms:

**Treaty of Versailles** - This decided how Germany was going to be treated after WW1.

**Weimar Republic** - The establishment of the new democratic government following WW1 in Germany.

**Communism** - Political and economic ideology that is a way of creating an equal society, e.g. individual people do not own land or factories. Instead, the government or the whole community owns these things.

**Social Democrats** - Political party that achieved majority of votes in first elections, supported by mostly working class.

**Fascism** - an extreme right wing political Ideology, fascists emphasise nationality.

**Social democracy** - Is the idea that the state needs to provide security and equality of opportunity for its people.

**Constitution** - The basic principles (rules) according to which a country is governed.

**'Passive resistance'** - Refusing to work or co-operate with the foreign troops and in return the government continued to pay workers' wages.

**Hyperinflation** - Extremely high inflation, where the value of money plummets and becomes almost worthless.

**Wall Street Crash** - The collapse of the American Stock Market it preceded The Great Depression.

**The Great Depression** - Slump in the global economy in the late 1920s and early 1930s which led to high unemployment.



## Nazi Germany and Holocaust Key Events:

**1933 January** - Hitler becomes Chancellor.

**1933 March** - Enabling Act - law passed in 1933 that gave Hitler complete power

**1933 July** - Nazis become the only legal political party in Germany.

**1933** - Boycott of Jewish businesses and Jews banned from government jobs.

**1934 August** - Hitler combines the post of Chancellor and President and becomes Führer.

**1935** - Nuremberg Laws: Citizenship / Ban on Jews marrying 'Germans' / Segregation for Jews in public places.

**1936** - Membership of the Hitler Youth made compulsory.

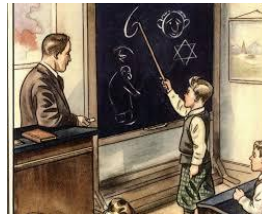
**1938** - Kristallnacht - Night of Broken Glass - organised attack on Jewish businesses and synagogues.

**1938** - Jewish children were not allowed to attend German schools.

**1939** - The euthanasia campaign began. Designated Jewish ghettos established.



## Yr 9 History: Nazi Germany and Persecution



## Nazi Germany & The Holocaust: Key Terms & People:

**Hitler** - Supreme leader of the Nazi Party

**Goebbels** - Head of Propaganda

**Heydrich** - In charge of removing Jews in Eastern Europe.

**Himmler** - Head of the SS.

**NSDAP** - National Socialist German Workers' Party. Name of the Nazi Party.

**Third Reich** - A term referring to the Nazi state and regime from 1933-1945.

**Gestapo** - Secret police under the direct control of Himmler.

**The SS** - originally Hitler's bodyguards, became main security organisation

**Lebensraum** - The idea of increasing German 'living space' in order to survive.

**Aryan race** - A racial group Hitler and the Nazi Party believed were superior to others.

**Führerprinzip** - 'Leader principle', ultimate authority rested with Hitler

**Hitler Youth** - Youth organisation of the Nazi party in Germany.

**Indoctrination** - Influencing to change ideas a.k.a 'brainwashing'.

**Propaganda** - Giving out information, true, false or partially true to make people think or behave in a certain way.

**Censorship** - Controlling what is produced and suppressing anything considered to be against the state

**SA** - Private army of the Nazi Party headed by **Ernst Röhm**.

**Youth** - The Nazis placed much emphasis on controlling the young as only then could they secure a 'thousand year Reich'. Youth organisations and education indoctrinated the German youth.

**Kinder, Küche, Kirche** - Children, Kitchen, Church. This summed up the Nazi ideal of womanhood.

**Nuremberg Laws** - Jews were stripped of their citizenship rights and marriage between Jews and Non-Jewish German people was forbidden.

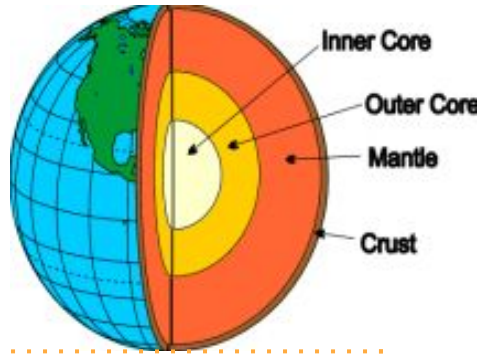
**Jewish person** - A member of the people and cultural community whose traditional religion is Judaism

**Persecution** - Hostility and ill-treatment, especially because of race or political or religious beliefs.

**Einsatzgruppen** - Special Killing squads of SS soldiers **Ghetto** - Where Jews were forced to live in slum areas of towns.

**Concentration Camps** - A place where political and persecuted minorities are held.

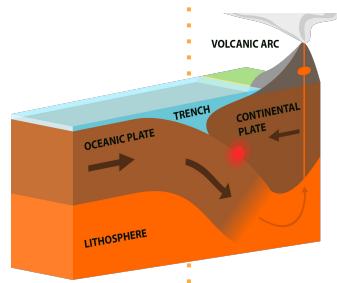
Geography  
Restless Earth



Types of Plate Margins

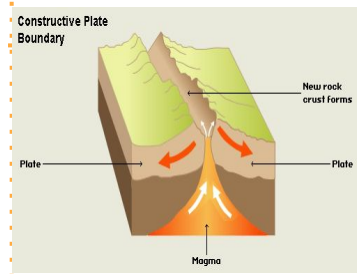
Destructive Plate Margin

When the denser plate subducts beneath the other, friction causes it to **melt and become molten magma**. The magma forces its ways up to the surface to form a volcano. This margin is also responsible for **devastating earthquakes**.



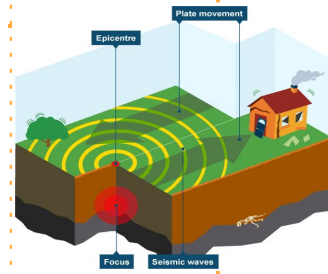
Constructive Plate Margin

Here two plates are **moving apart** causing new magma to reach the surface through the gap. Volcanoes formed along this crack cause a submarine mountain range such as those in the **Mid Atlantic Ridge**.



Conservative Plate Margin

A conservative plate boundary occurs where plates **slide past each other** in opposite directions, or in the same direction but at different speeds. This is responsible for earthquakes such as the ones happening along the San Andreas Fault, USA.



| Key word            | Definition                                                                                                  |
|---------------------|-------------------------------------------------------------------------------------------------------------|
| Earthquake          | An earthquake is the shaking and vibration of the Earth's crust due to movement of the Earth's plates       |
| Seismic Waves       | The energy of the earthquake.                                                                               |
| Focus               | Where an earthquake begins                                                                                  |
| Epicentre           | The area directly above an earthquake. This is where the most damage occurs.                                |
| Primary effect      | A primary effect is one that is directly caused by the disaster                                             |
| Secondary effect    | Secondary effects occur as a result of the primary effects, eg tsunamis or fires due to ruptured gas mains. |
| Ash cloud           | Small pieces of pulverised rock and glass which are thrown into the atmosphere.                             |
| Pyroclastic flow    | A fast moving current of superheated gas and ash (1000°C). They travel at 450 mph.                          |
| Composite volcanoes | Steep-sided and cone-shaped, made up of layers of ash and lava                                              |
| Shield volcano      | Gently sloping sides and runny lava that covers a wide area.                                                |

# Year 9 Geography - Our Unequal World

## What is Development?

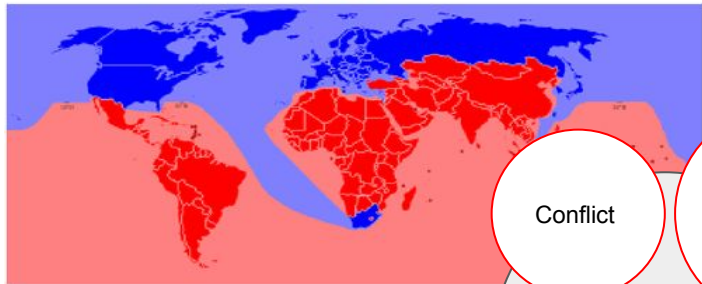
Development in Geography is the continued improvement in quality of life.

Quality of life is often defined as “health, wealth and education”.

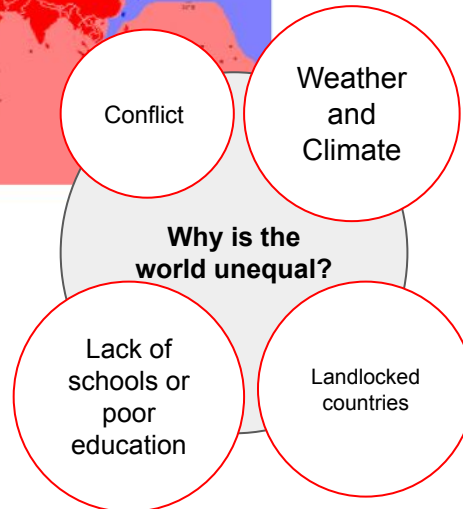
A country’s development often depends on its wealth. Therefore, in Geography we refer to countries as low income countries (LICs), high income countries (HICs) and newly emerging economies (NEEs).

A country may be classed as a HIC, a LIC, or a NEE but there can still be disparity within a country or even with a town or city.

**HICS**



**LICS**



| Key Term              | Definition                                                                               |
|-----------------------|------------------------------------------------------------------------------------------|
| HIC                   | High income country                                                                      |
| LIC                   | Low income country                                                                       |
| NEE                   | Newly emerging economy                                                                   |
| Malnourished          | Being weak or ill because of having too little food.                                     |
| Development           | The economic progress of a country and improvements to quality of life.                  |
| Development indicator | A measure of a country's level of development.                                           |
| Literacy rate         | How many people can read or write, as a percentage of the population over the age of 15. |
| Infant mortality rate | The amount of children who die before their first birthday.                              |
| GNI                   | Gross national income; the amount of money a country makes in a year.                    |
| Resources             | Something that has a value or purpose, such as food, water and energy.                   |
| Resource insecurity   | A lack of resources such as food, water and energy.                                      |
| Resource security     | Plentiful supply of resources like food water and energy.                                |

# Year 9 Computing

## Networking

### Networking Key Terms

|                       |                                                                                                                                                              |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Computer Network      | When two or more computers are connected together, allowing them to communicate with each other.                                                             |
| Network Switch        | A computing device that allows two or more computers to be connected together.                                                                               |
| Ethernet Cable        | A copper cable that is used to connect computers together.                                                                                                   |
| Wireless              | When computers are connected together without wires. Examples of this include WiFi and 3G.                                                                   |
| Fibre Optic Cable     | A type of cable that can be used to connect computers together that uses light to transfer data rather than electricity. It is extremely fast!               |
| Wireless Access Point | A computing device that allows a computer to connect to a network wirelessly.                                                                                |
| Router                | A device that allows a network to be connected to other networks.                                                                                            |
| Internet              | A network of networks. This involves networks being joined together from all over the world to create the super network we call 'the Internet'.              |
| The World Wide Web    | This is all of the web pages, videos, images and other resources that are transported across the Internet.                                                   |
| Web Server            | This is a powerful computer with only one job, to store and allow people to download web pages and other resources that are stored on it using the Internet. |
| Bandwidth             | How much data your computer can transfer in 1 second. Usually measured in Megabits.                                                                          |



# Year 9 Computing

## Web Design

| Web Page Design        |                                                                                                                                                                                                    |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Web Page               | A document that you can download from the Internet.                                                                                                                                                |
| Website                | A set of web pages that are linked together all provided by one person or organisation.                                                                                                            |
| Web Authoring Software | Software that allows you to create a web site.                                                                                                                                                     |
| Site map               | A list of pages on a web site showing which pages connect to other pages.                                                                                                                          |
| House style            | A set of rules for how all pages on the web site will look to try and keep the same style for each page. E.g. colours used, where the logo is placed, where the navigation bar will be.            |
| Master Page            | Provides a template for all other pages to follow.                                                                                                                                                 |
| Visualisation Diagram  | A rough sketch of what something will look like, usually drawn by hand.                                                                                                                            |
| Version Control        | Keeping track of the different changes to a file. Each time the file is changed and saved you would update the version number of a file e.g. version 1.0, version 2.0, version 2.1.                |
| Resources of a website | The information that appears on a website. This can be in the form of: <ul style="list-style-type: none"><li>- Images</li><li>- Sound</li><li>- Video</li><li>- Animation</li><li>- Text</li></ul> |

| Components of a Website |                                                                                                                             |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Navigation bar          | A set of buttons or images that a user can click on to go to a different page on a web site.                                |
| Hyperlink               | An image or text that can be clicked on that will navigate you to another page.                                             |
| Buttons                 | Images that can be clicked on to navigate you to another page.                                                              |
| Backgrounds             | The colour or image that appears behind everything else on a web page.                                                      |
| Banners                 | A short and wide image at the top of a website. This would usually have the title of the website or the company logo in it. |
| Text                    | The writing that appears on a web page.                                                                                     |
| Fonts                   | The style of the text that appears on a web page.                                                                           |

| Devices that can be used to access web pages |
|----------------------------------------------|
| Laptops and PCs                              |
| Smartphones                                  |
| Tablets                                      |
| Games Consoles                               |
| Smart TVs                                    |

# Year 9 Art - Drawing Skills

## What happens when we stop trying to make "perfect" drawings?

Drawings that show a full range of tones, or shades, look more realistic. Study the different shades in your subject carefully - some areas will be lighter and some darker. These tones are dependent on where the light source is. Drawings can seem **flat** if there is little difference between the darkest and lightest areas.

Objects are three-dimensional, so tone changes over the surface.

### Light and Dark Values:

Shading creates the **illusion** of light and shadow, allowing artists to convey the three-dimensional form of objects.

### Pressure Control:

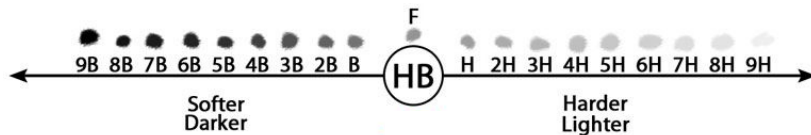
The harder an artist presses down on the pencil, the darker the stroke will be.

### Stroke Direction:

The direction of pencil strokes can influence how shadows and highlights are **rendered**, adding texture and depth.

### Layering and Blending:

Overlapping strokes and **blending** them can create smoother transitions between light and dark areas.



## Do you need talent to be an artist?

The more you look at your subject matter, the better your drawing will be. When you are making a closely **observed** drawing spend more time looking than you do drawing. Remember to look carefully at:

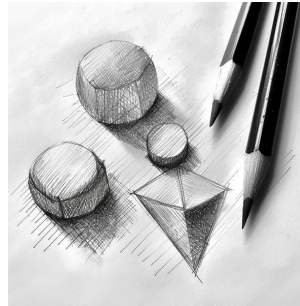
- edges
- spaces
- relationships between objects
- light and shadows

A **contour** drawing uses the outline of shapes to show the subject. It is made up entirely of lines, with no shading or tones.

**Blind contour drawing** - This involves drawing while you look at your subject not the drawing. This helps you concentrate on what you see rather than what you think it should look like.

**Continuous line drawing** is a similar technique, however there must be continuous contact between the drawing tool and the surface that is drawn on. This technique helps you concentrate on varying the weight of line produced by changing the pressure you apply while drawing.

## Accuracy in Drawing



## How does composition affect artwork?

**Background.** - The part of an artwork that seems the farthest away.

**Bird's Eye View.** - A point of view looking down directly from above.

**Composition** - describes the different ways elements of an artwork are arranged.

**Continuous Line Drawing** - is a type of line drawing where the drawing implement is not taking off the page until the drawing is complete. It is often a fast paced way of working resulting in fluid mark making.

**Contour Drawing** - is a type of drawing where only the outlines of shapes within the subject of the drawing are drawn.

**Direct Observation** - is drawing from life rather than drawing from a photograph.

**Foreground** - The part of the artwork that seems to be closest to you.

**Line** - A line is a path made by an object moving across a surface.

**Middle Ground** - The middle layer of an artwork that appears to be between the foreground and background.

**Observational Drawing** - Drawing what you see, not what you think you see.

**Perspective** - refers to the representation of objects in three-dimensional space on the two-dimensional surface of a picture.

**Scale** - refers to the actual size of an artwork or the size of the objects in an artwork.

**Still Life** - A painting or drawing that shows an arrangement of objects.

# Year 9 Art - Cubism and Lino Printing

## Does all art need to be realistic?

Realistic and abstract art differ mainly in how they represent the world. Realistic art aims to depict subjects as they appear in real life, focusing on accurate detail, **proportion**, and **perspective**. In **contrast**, abstract art does not try to represent reality directly; instead, it uses shapes, colours, lines, and forms to express emotions, ideas, or concepts.

Personal opinion can help you understand artwork by encouraging deeper engagement and emotional connection. When you express your own thoughts, feelings, and **interpretations**, you actively explore the meaning behind the piece. This reflection helps you consider the artist's choices—such as colour, composition, and subject matter—and how they affect you personally. Your opinion may reveal cultural, emotional, or symbolic layers that aren't immediately obvious. It also opens the door to seeing art from different perspectives, making your understanding more thoughtful and personal rather than just technical or factual. In short, your opinion turns passive viewing into active understanding.

## How can artists use pattern in art?

Patterns are all around us, in nature as well as in art and design. We see patterns where shapes, lines or colours are repeated. How complicated a pattern is depends on what is repeated and the way in which it is repeated.

Patterns can be **regular** or **irregular**.

In regular patterns the motif (or motifs) is repeated in a way that is **predictable**. It could be exactly the same each time, or it could change in a way that is regularly repeated. An irregular pattern is one in which the motif changes or the way it is repeated is unpredictable.

A radiating is a pattern that is arranged around a central point is called a radiating pattern. It seems to radiate out in all directions. Radiating patterns result in designs that feel balanced. They can be an effective way to create a focal point at the centre of the pattern.

Cubism  
and  
Pattern



## How do you think Art will look in the future?

**Fine artist** - Fine artists create and sell their original artwork, often specialising in mediums such as painting, drawing or sculpture. There are no formal qualification requirements for a career.

**Illustrator** - Illustrators work to a brief to create designs for products such as books, cards and clothes. You can start out by taking on small or unpaid commissions and freelancers can register with the Association of Illustrators to access resources and opportunities for self-promotion.

**Graphic designer** - Graphic designers create clear and eye-catching graphics for media products such as websites, magazines and advertisements.

**Photographer** - Photographers take and edit photos according to a brief and usually specialise in an area such as commercial photography (including areas such as weddings or photojournalism) or fine art photography.

**Interior designer** - Interior designers design and renovate interiors according to the wishes of clients, considering cost, the type of building and the space they are working with – giving them an opportunity to use both creative and practical skills.

**Curator** - Curators look after and organise artworks that a museum or gallery owns or has on loan, often specialising in a specific style or period.

**Art therapist** - Art therapists use art to guide and help people suffering from mental or physical health problems.

**Product designer** - Product designers design and improve everyday items according to a brief, and often create and test prototypes. A good level of computer literacy is essential for this.

# Year 9 Design - GCSE Project

## Do all ideas come from another?

Artists and designers find stimuli in the world around them or research a particular topic to find stimuli. They use this material to help them generate a personal creative response in their work.

A stimulus is something which interests an artist or designer and gives them new ideas. A stimulus can be as simple as a word or as complex as a novel, person, place or an entire culture. The plural is stimuli.

In design work, carrying out market research might suggest possible starting points. You may also work from a source of inspiration or from a design problem as a stimulus to help you generate ideas.

There are many different ways to respond to stimuli for design work. You could:

- Base a list or a spidergram on your design brief to explore possibilities.
- Make a collage of market research images in your sketchbook or make a moodboard.
- Make a collection of images of designers' work that you particularly admire.
- Make a collection of images relating to your source of inspiration.
- Make 3D forms based on your source of inspiration, if appropriate.
- Take photographs.
- Doodle some initial ideas in your sketchbook.
- Make drawings based on your source of inspiration.

## Do designers need to follow rules?

Designers use a brief to give them guidance and focus. A brief helps define the design problem and gives details on important considerations and constraints.

Once they have decided on a basic design problem, they then expand on it to create your brief.

To do this, they identify key considerations for the brief. These can be:

- aesthetic considerations - these relate to the appearance of a design
- functional considerations- these relate to the purpose of a design
- market considerations - these relate to who a design is for

By creating a design brief, designers can see if they have been successful or not once they've produced their final idea.

Developing  
Successful  
Ideas



## Do you only need one good idea?

Developing ideas is part of the creative process for artists and designers. By exploring and refining ideas, effective decisions can be made about the final piece of artwork or design solution. There are many ways to develop ideas for design.

**Refining Your Ideas** Refinement does not involve major changes, but is about making small changes which improve the idea in some way.

This might be done by:

- Varying a technique - eg producing a graphic design using software to achieve a more professional look
- Producing a jewellery or textile design using different materials
- Modifying an idea so that it functions more effectively or looks more aesthetically pleasing.
- Changing a particular part of a design - eg changing a handle on a product so that it can be picked up more effectively.
- Enhancing the idea by experimenting with materials that give a better finish.
- Altering one visual aspect - eg changing the type of repeat pattern in a textile design, or changing the scale of an element to make a design look more interesting.
- Fine-tuning a design through small changes - eg making a chair design balance more effectively.
- Changing the position of particular elements - eg re-arranging windows in an architectural model to improve the use of natural light in the building.



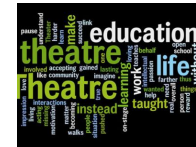
## Drama Keywords

|                                     |                                                                                                                                                                          |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tone of Voice</b>                | The emotion heard in your voice to express how the character is feeling.                                                                                                 |
| <b>Body Language</b>                | To show your emotion towards others/the situation in your body.                                                                                                          |
| <b>Posture</b>                      | How a character stands, e.g. upright, hunched, slumped.                                                                                                                  |
| <b>Movement</b>                     | How the character physically inhabits the character and travels around the stage.                                                                                        |
| <b>Narration</b>                    | To tell a story/information of what is happening to the audience.                                                                                                        |
| <b>Flashback/<br/>Flash Forward</b> | A scene which shows events from before or after the main action of the play. It can give extra information about the plot or help to develop characters.                 |
| <b>Analyse</b>                      | To look at the information provided and break it down to identify and interpret the main points being raised. You need to talk about specific effects this has in Drama. |
| <b>Evaluate</b>                     | To evaluate is to make a personal judgement about the performance using the available evidence.                                                                          |

## Year 9 Drama - Autumn Term 1 Theatre in Education project

### Key Knowledge

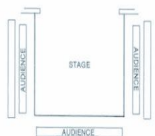
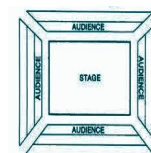
- We will explore Theatre in Education and how/why it was created
- We will discover how traditional theatre practices have influenced Theatre in Education, and how schools and teachers can utilise this style to enhance learning
- We will create our own TIE theatre companies and produce a play which educates children on the transition from primary to secondary school
- We will explore creating theatre for a specific audience



## Year 9 Drama - Autumn Term 2 Devising

### Key Knowledge

- We will explore a range of stimuli to help us create interesting pieces of theatre
- Working in groups, you will carry out research to enhance your performance
- We will explore **Genre, Practitioners, Target Audience and Staging Types**, thinking about **skills and techniques** you can use
- You will log and evaluate the process of devising process



# Philosophy - love of wisdom

**Ethical theories** - ways of deciding what is right and wrong

**Thomas Aquinas** (1225-1274) believed that all humans were built with an inbuilt knowledge of Gods' natural Law. These were to protect the innocent, reproduce, live in society, worship God and educate children. Therefore, these laws are absolute.

**Immanuel Kant** (1724-1804) introduced duty based ethics. He said that doing the right thing was easy, we should use absolute morality and do our duty. We should also never tell lies and if we make a rule, it must be for everyone. These rules are absolute.

**Utilitarianism** is an ethical theory from **Jeremy Bentham** (1748- 1832). He believed that we should use relative morality to make decisions. Bentham said that we should use the hedonic calculus to make decisions. *Pleasure - pain = the right choice*

**Joseph Fletcher** (1905-1991) put forward situation ethics. He argued that choices need to be made based on the circumstances. Fletcher was influenced by his Christian values of Love and the story of the Good Samaritan. He believed that we should make decisions based on relative morality.



## The Parable of the Good Samaritan - NIV

An expert in the law stood up to test Jesus. "Teacher... what must I do to inherit eternal life?"..."Love the Lord your God with all your heart and with all your soul and with all your strength and with all your mind and, love your neighbour as yourself..."the man asked "And who is my neighbor?" Jesus said: "A man was going down from Jerusalem to Jericho, when he was attacked by robbers. They stripped him of his clothes, beat him... leaving him half dead. A priest ... passed by on the other side. So too, a Levite... But a Samaritan (his enemy) ...took pity on him; ...bandaged his wounds ... put the man on his own donkey, brought him to an inn and took care of him ... (Jesus asked) "Which of these three do you think was a neighbour...? The expert in the law replied, "The one who had mercy on him." Jesus told him, "Go and do likewise."



**Peter Singer** (born 1947) Singer's theory of animal liberation requires that we reject speciesism, which would, for example, prevent the use of animals in experiments in those situations in which we would not use humans who had the same interests at stake. Singer is a Utilitarian.

## Additional Key Terms

**Absolute morality:** some things are always right, or always wrong. Circumstances don't make a difference.

**Relative morality:** what is considered right or wrong depends on circumstances. It depends on what is happening in society now.

**Abortion:** The termination of a pregnancy

**Euthanasia:** The ending of a life for reasons of compassion

**IVF:** In vitro fertilization

**Genetic engineering:** The changing of a genetic structure

## Music Keywords

|                 |                                                                               |
|-----------------|-------------------------------------------------------------------------------|
| Chromatic scale | A scale that involves every single note played individually.                  |
| Cluster chord   | A group of notes close together that are played at the same time.             |
| Drone           | A continuous sounding note. Often in the bass end of the piano or instrument. |
| Motif           | A musical idea that represents a theme.                                       |
| Ostinato        | A repeated musical idea                                                       |
| Glissando       | A slide from one note to another.                                             |
| Sequence        | A musical idea repeated but a note higher or lower each time.                 |

## Ornaments

Trill. Mordent. Acciaccatura. Appoggiatura. Arpeggio. Turn.

## Musical knowledge - How to Read Music

### Definitions

1. **Pulse** = the underlying count in the music. Like a heartbeat. You clap/dance to this. You *feel* it rather than *hear* it.
2. **Rhythm** = long and short notes, and the gaps between them:

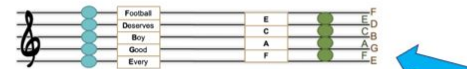


### Bars and time signatures

1. Notes on the **stave** are divided up into **bars** by **bar lines**.



2. The **time signature** = two numbers at the start of the music. It tells us **how many beats are in a bar: how we count in the piece**.
3. The top number tells us how many **beats** are in a bar. The bottom number tells us what sort of beats they are.



## How to read rhythms

1. **These are the basic types of notes.** American note names are more logical: here, the UK names are in brackets.
2. **Rhythms** can be made up of any combination of notes or rests, as long as each bar adds up correctly.

| Note/Rest Name               | Note Symbol | Rest Symbol | Note/Rest Value (Length) |
|------------------------------|-------------|-------------|--------------------------|
| Whole Note/Rest (Semibreve)  | O           | ≡           | 4 beats                  |
| Half Note/Rest (Minim)       | ⌒           | ≡           | 2 beats                  |
| Quarter Note/Rest (Crotchet) | ♩           | ≡           | 1 beat                   |
| Eighth Note/Rest (Quaver)    | ♫           | ≡           | 1/2 beat                 |

Pairs or 4s of quavers are beamed together. Remember each blob is a note.

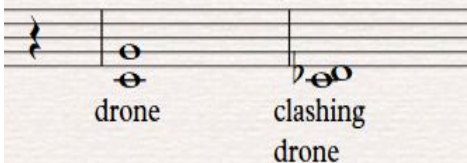
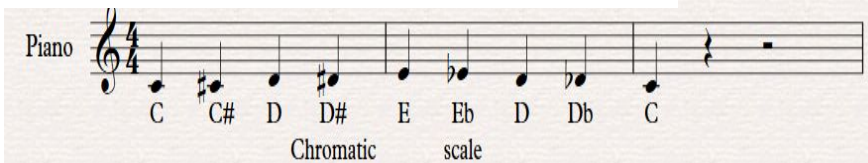
## How to read pitches

1. The blobs of the notes are arranged on the lines and spaces of the stave. The higher the blob on the stave, the higher the pitch.



2. Notes alternate being on a line and in a space.
3. Notes higher or lower than the stave have their own little line called a **ledger line**, like middle C shown above.
4. You can remember the notes on the lines with 'Every Good Boy Deserves Football', and the notes in the spaces spell 'FACE'. Remember to go upwards when doing this!

## Specific techniques



# Year 9 PE - Football

## KEY TERMS

- Possession
- Shadowing
- Tactics
- Crossing
- Low block
- Goal kick
- Jockeying
- Counter Attack
- Throw-in
- Strategy

## SKILLS IN ISOLATION

- Passing
- Tackling
- Dribbling
- Running with the ball
- Volleying
- Control

## METHODS OF TRAINING

- Continuous** – working with no rest
- Interval** – periods of high intensity work and rest
- Resistance** – uses free weights or machine to improve strength and power
- Circuit** – a series of stations to improve specific components of fitness
- Fartlek** – 'speed play'
- Plyometric** – explosive movements to improve power



## COMPONENTS OF FITNESS

**Cardiovascular Fitness** – being able to exercise the whole body for long periods of time

**Agility** – Change direction quickly with control

**Speed** – the rate in which you perform a movement

**Strength** – the amount of force a muscle can generate

**Power** – performing a forceful movement as quickly as possible

**Co-ordination** – moving two or more body parts together

## RULES AND REGULATIONS

- Game is started by a kick off in the centre of the pitch.
- In a full sided game each team consists of 11 players.
- If the ball goes off the side of the pitch it is a throw in to the team that didn't touch the ball last.
- If the ball goes off the end of the pitch it is a corner or a goal kick depending who the ball touched last.
- Depending on where the incident takes place, a free kick or a penalty is awarded if the player in possession of the ball is illegally infringed.
- The goalkeeper is the only player allowed to touch the ball with their hands and can only do this inside their 18 yard box.
- To score a goal, the ball must cross the opposition's goal line.
- If a player is past the opponent's last defender and in the opposition half when the ball is passed they are offside and a free kick is awarded to the opposition team.

# Year 9 PE - Gymnastics

## KEY TERMS

**Sequence;** A sequence is a series of movements which flow together. When composing a sequence it must have a clear start and end. Think of this at the Capital letter to start a sentence and a full stop to end it.

Any gymnastics routine should aim to be aesthetically pleasing and display the following;

- Extension
- Body tension
- Control
- Clarity of shape
- Resilience
- Flow



## SKILLS IN ISOLATION

### Key Shapes

Tuck  
Straddle  
Pike  
Dish  
Arch  
Puck  
Star  
Straight

### Key Skills

Forward roll  
Backwards roll  
Cartwheel  
Summersault  
Headstand  
Handstand  
Round off  
Walk over



## PERFORMANCE

### Apparatus

Pommel horse, rings, high bar, parallel bars, vault, balance beam, asymmetric bars.

### Floor routine

Create a sequence combining and linking key shapes and skills.

### Rhythmic routine

Ball, Clubs, Rope, Ribbon, Hoop



## WHAT FITNESS TEST WOULD YOU DO FOR EACH COMPONENT OF FITNESS?

**Balance,**      **Strength,**      **Flexibility,**      **Co-ordination,**  
**Power,**      **Speed,**      **Agility,**  
**Muscular Endurance,**      **Reaction Time.**

**What fitness tests do you need to be good at for gymnastics?**

**How could you improve each of them?**

**Set yourself a weekly target to improve your health and fitness.**



## RULES AND REGULATIONS

A gymnast must create her own routines at an appropriate skill level for his/ her degree of difficulty.

No jewellery, body piercing or adornments of any kind are permitted

A judge panel usually scores gymnastics competitions.

**Gymnasts** have two different **scores**, the **D score** (difficulty of the routine) and the **E score** (execution of the routine aka how neat and tidy it is!).

All **gymnasts** begin with a 10.0 execution **score** which then has points removed for faults such as bent legs, arms and falls.

# Year 9 PE - Netball

## CAN YOU MATCH THE FITNESS TEST TO THE COMPONENT OF FITNESS?

|                        |                   |
|------------------------|-------------------|
| Cardiovascular fitness | Illinois run      |
| Agility                | 3 ball juggle     |
| Balance                | 30m sprint        |
| Coordination           | 12 min Cooper run |
| Power                  | sergeant jump     |
| Speed                  | standing stork    |

## METHODS OF TRAINING

**Continuous** - working with no rest.

**Circuit** - A series of exercise stations to develop relevant components of fitness.

**Interval** - Periods of work and rest.

**Fartlek** - 'Speed play' - similar to interval.

**Weight** - Lifting light or heavy weights to improve endurance or strength.

**Plyometric** - Explosive movements to improve power.

## HOW CAN YOU APPLY THESE TO NETBALL?

## ARE SOME MORE SUITABLE THAN OTHERS? WHY?



- Set plays e.g. centre pass, back lines
- Decision making
- Demonstrate communication on court
- Adapt to the environment
- Adhere to the rules and safety advice

## SKILLS IN ISOLATION

**Passing** – chest, shoulder, bounce, over head.

**Handling** – ball control.

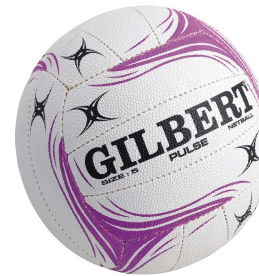
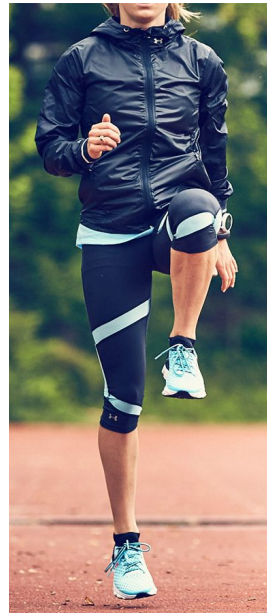
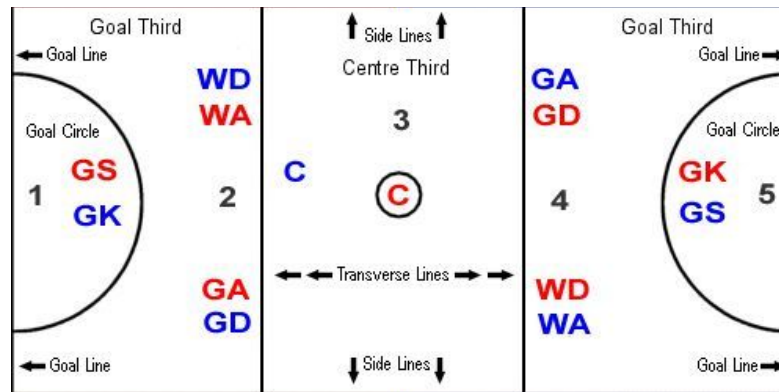
**Catching** – 1 and 2 handed.

**Footwork** – landings, pivot, running pass.

**Evasion** – holding space, dodging.

**Shooting** – 1 or 2 handed, forward/backward step.

**Defending** – stage 1 man to man, stage 2 defend the pass, stage 3 deny space.



## RULES AND REGULATIONS

**Rules resulting in a FREE PASS** (Involves 1 player):

**FOOTWORK** – A player must not move their landing foot before passing the ball.

**OFFSIDE** – A player must stay in their playing area. See diagram above.

**HELD BALL** - The ball can only be held for 3 seconds by a player.

**REPLAYING** – A player must not bounce the ball to themselves when playing.

**Rules resulting in a PENALTY PASS** (Involves 2 players):

**CONTACT** – A player must not touch another player whilst on court.

**OBSTRUCTION** – Any player must stand 1 metre away from the player with the ball.

## KEY TERMS

**Goal Third** – The 2 areas of the court including the shooting circle.

**Centre Third** – The area in the middle including the centre circle.

**Umpire** – The name of the person who officiates the match.

**Intercept /**

**Interception** – Gaining the ball by getting in between a pass from the opposing team.

**Possession** – Keeping the ball.

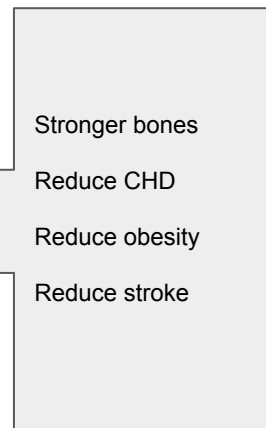
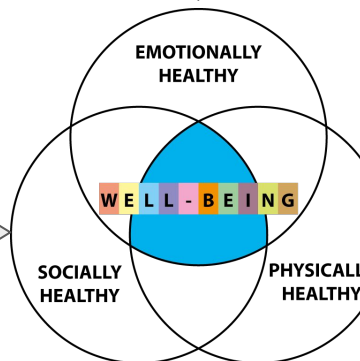
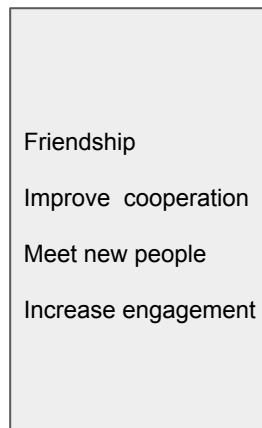
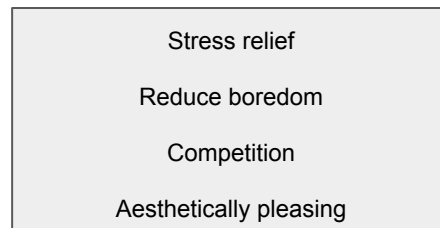
# YEAR 9 THEORY

## Health Fitness and Wellbeing

### Sedentary Lifestyle

A sedentary lifestyle is a lifestyle where there is very limited or no physical activity.

- ★ What risks would this have on health?
- ★ Create an eatwell plate for the food you ate yesterday.
- ★ How many hours are you active per week?



### Nutrition

#### ● Macronutrients:

1. Carbohydrates
2. Proteins
3. Fats

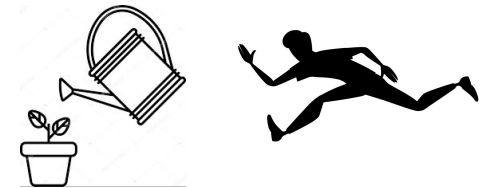
#### ● Micronutrients:

4. Vitamins
5. Minerals

#### ● Other

6. Water
7. Fibre

**My, Very, Fast, Friend, Can't, Water, Plants**



### Influences of participation

1. **Gender** - stereotypically, boys play more football and rugby. Girls do dance and gymnastics!

2. **Age** - young people have access to more sporting activities?

3. **Socio-economic** - golf is expensive so you can only play if you have money.

4. **Ethnicity** - stereotypically, Americans play ice hockey and baseball.

5. **Disability** - there are no disability clubs near me so I can't take part.

- ★ Do you agree or disagree with these statements?