# Knowledge Organiser











Year 9 Artwork

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

# Knowledge Organisers at Redmoor Academy



# Why do we have knowledge organisers?

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



# What are my teachers' expectations of me?

In year 7 and 8 your teachers will give you homework. That means you will be spending 20 minutes a week learning information from your knowledge organiser for each subject. In year 9 this will increase to 30-40 minutes. Teachers will test you once a week to make sure that you are completing the homework and remembering your knowledge. Teachers and form tutors will be regularly checking that you are revising.



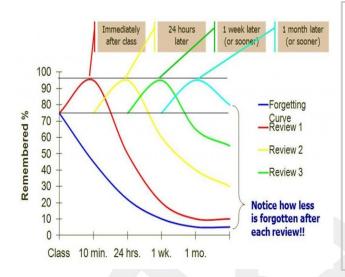
# How will my teachers use them?

Each subject will set homework that will help you to learn your knowledge organiser. They will also test you once a week on certain parts 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 revise?

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 so that when you revise, you are just recalling knowledge that you have already stored. Also, you will have practised lots of revision techniques whilst revising your knowledge organisers over the past 5 years, which will help prepare you for the 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. So we need to be 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: <u>Link to the Learning</u> Scientists

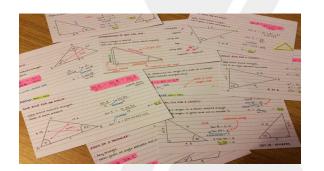
# How we learn at Redmoor

# Flash cards

Simply create questions on one side, answers on the other. Colour code the cards for specific topics. Post it notes can be useful for keywords and timelines.

Once you have created your flash cards, you need to think about how you will use them effectively. There is a link below to Leitner system of using flashcards:

YouTube: The Leitner Method



# **Dual Coding**



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

Simply take information that you are trying to learn, and draw visuals to go with it.

Learn more about dual coding here:

Link To The Learning Scientists

Try to come up with different ways to represent the information. For example: 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.

Simply split your page into 3 sections as shown on the diagram below:

- Note Taking
- Key words / concepts
- Summary



# THINK HARD, WORK HARD, GO FAR

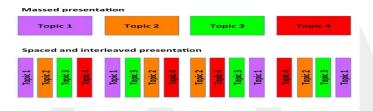
# How we learn at Redmoor

# Spacing and Interleaving

Don't revise your all topics in one go (cramming). Instead, you should revise 'chunks' of a topic for small amounts of time (15-30 minutes) and then move onto another 'chunk' from a different Topic.

Eg. topic 1 cells, topic 2 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 it helps to organise information and begins 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 - links to dual coding!

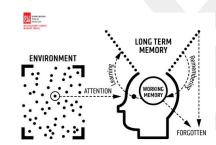
# Useful links:

The learning scientists: <a href="https://www.learningscientists.org/">https://www.learningscientists.org/</a>

Memrise: <a href="https://www.memrise.com/">https://www.memrise.com/</a>

Quizlet: https://quizlet.com/en-gb

Seneca: <a href="https://www.senecalearning.com/">https://www.senecalearning.com/</a>



# Literacy

# **Proofreading Guidance**

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.

<u>Paraaraphs</u>

- 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."

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.

## 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. X

I should have / should've played tennis.

I of / should of played tennis.

I/she/he were late. X I/she/he was late.

They were late. ✓ They was late. X
You were late. ✓ You was late. X

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

I ran quick<u>lv</u>, passing the ball brilliant<u>lv</u>. I played amazing<u>lv</u>. ✓

# <u>Apostrophes</u>

- 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
۸	Missing word/letter
0	Capital letter/Punctuation
~~~~	Unclear/poorly worded
//	New paragraph
th	Use a thesaurus
W	Wrong word

# Contents Page

English	1
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Music	19
PE	20-21









# 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

Redmoor English Department: Creative Writing			
BIG QUESTION: What's the point of punctuation?			
Apostrophe	Can be used to show ownership or indicate a		

to show strong emotion.

missing letter.

question.

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

building.'

sunshine.

'the sun smiled at us.'

'Bang' or 'buzz'.

honeybee.'

Colon

Semi-colon

Question mark

Exclamation

Adjective

Alliteration

**Emotive** 

Language

Metaphor

Personification

Onomatopoeia

Simile

mark

Used to indicate the start of a list

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.

Used at the end of a sentence, when asking a

Used at the end of an exclamatory sentence

An adjective describes a noun. E.g 'the tall

other. E.g 'Daniel doesn't like dentists.'

the nasty bully pushed him over.'

response such as anger, sadness, joy or

Alliteration occurs when you use the same letter

Words that make the reader feel an emotional

A metaphor is when you describe someone or

using the words 'like' or 'as'. E.g 'you are my

Personification occurs when you give human

characteristics to something that isn't human. E.g.

A word that sounds like the thing it describes. E.g.

A simile is a comparison of two things by using

the words 'like' or 'as'. E.g 'she was as sweet as a

something as if it were something else, without

sympathy. E.g 'the innocent boy broke his leg when

at the start of words that are next to, or near, each

Simple

Compound

Complex

Paragraphs

Cyclical

structure

Sentence

In medias res

Foreshadowing

Shift in focus

Cliffhanger

Flashback

lengths

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.

A compound sentence is formed when you join two main clauses

sentence the clauses are often linked by connectives such as 'and',

that make sense on their own with a connective. In a compound

A complex sentence contains one main clause and one or more

subordinate clause that relies on the main clause to make sense.

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

Your writing ends by making a link back to the beginning.

to draw attention to, use a single sentence or single word

Starting the writing in the middle of the action.

setting to writing about the character.

A part of a story that goes back to events in the past.

Hinting at something that will happen later in the story.

Changing what you're focusing on, e.g. shifting for describing a

A technique where the writer leaves the reader not knowing what

Shorter sentences can alter the pace of your writing. Complex

sentences can alter the rhythm. For single, sudden ideas you want

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

'but', 'so' etc.

writing.

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

paragraph.

will happen next.

MATHS - Assessment 1				
Sparx Code	TOPIC			
U166	Expected results from repeated experiments			
LIEGO	Calculating experimental probabilities			

		Q	8	dst
Sparx Code	TOPIC	in lessons	reflection	st reflection
U166	Expected results from repeated experiments			
U580	Calculating experimental probabilities			
U280	Frequency trees			
				_

# Probability Formula Number of times an event occurs /happens

Total number of possible outcomes

Simple Interest Formula

pxrxt

ρ = principal amount (amount start with)

r = interest rate t = time

Standard Form

1.99 x 10 <sup>4</sup> = 19 900



Pre-tes

Post te

A way of writing very large or very small numbers:

 $0 \times 10^{n}$ 

a is a number equal to or greater than 1

& less than 10 1 ≤ a <10

n is the power (integer) POSITIVE Power = Large Number

NEGATIVE Power = Small Number

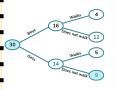
 $1.99 \times 10^{-4} = 0.000199$ 



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



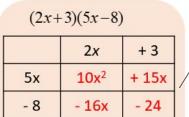
Roll a die 100 times.



		Covered	Pre-test	Post tes
Sparx Code	TOPIC	Covered in lessons	Pre-test reflection	Post test reflection
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)			2

# MATHS - Assessment 2 Covered in lessons Pre-test reflection Post test reflection Sparx TOPIC Code 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 Factorising quadratic equations of the form $x^2 + bx + c$ U178 Expanding double brackets M960 U337 Constructing and solving inequalities Solving double inequalities U145

# Expanding Double Brackets



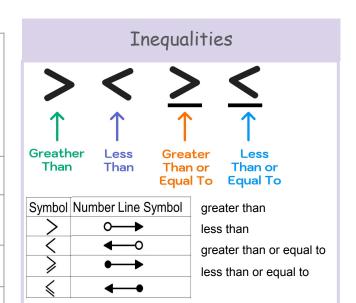
U738

Grid Method

Solving inequalities with the unknown on both sides

# Changing the Subject

Make f the subject of  $h = \frac{f+4}{2}$ Changing the subject means rearranging the equation to make the letter given f the subject / be on its own  $f = \dots$ 



# Factorising Quadratics

$$ax^{2} + bx + c = 0$$

Factorise (put into brackets):

$$x^{2} + 8x + 15$$

find factor pairs of 15

1, 15

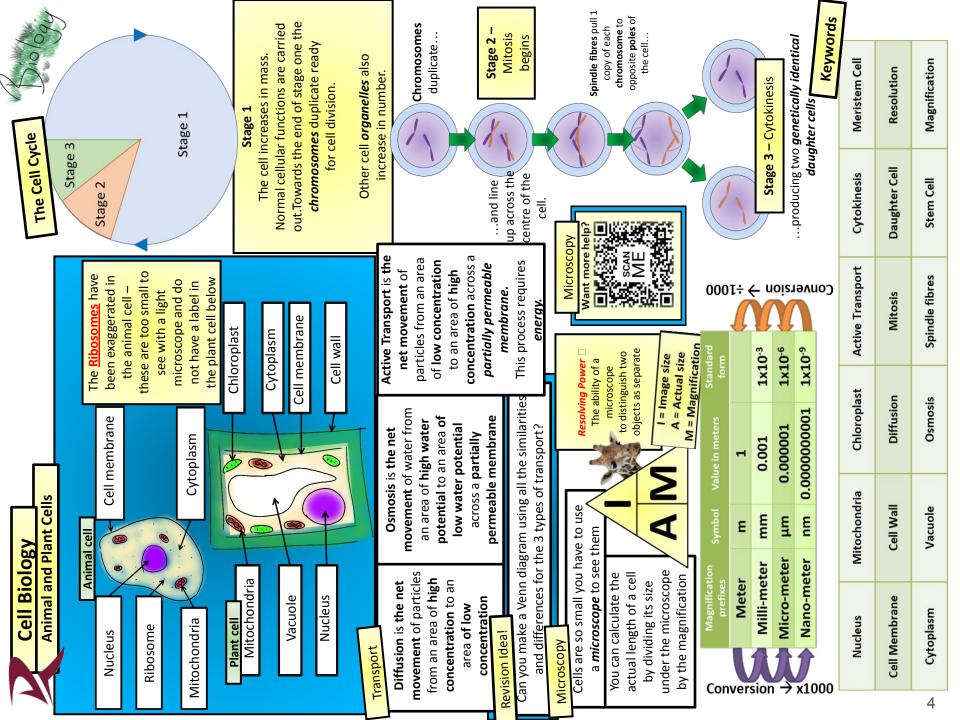
3, 5

choose a pair that add up to 8

$$3 + 5 = 8$$

put those numbers into 2 brackets with *x* 

$$(x+3)(x+5)$$



# **Periodic Table** Topic: Atoms and the

History of the Atom



J. Thomson

Ernest Rutherford





James Chadwick

**Niels Bohr** 



1913

<u>1</u>

0

1904

All matter is made of atoms that have no

charge

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

Small

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

electrons (-ve) orbit around the nucleus **Development of the Periodic Table** 

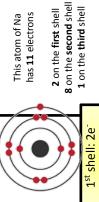
neutron (0 charge), Discovered the

located in the nucleus

# Discovery of the Nucleus

charged **alpha particles** at Rutherford fired positively 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**



ts electronic configuration 2,8,1 2<sup>nd</sup> shell: 8e 3rd shell: 8e

full outer shell lons

stable when they have a Atoms become more



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

when the elements were arranged by atomic weight, every 8<sup>th</sup> element had **similar** 

John Newlands noticed that

properties and introduced the law of octaves.

atomic weight in

1808.

arranged the elements by

John Dalton

Alkali metals how elements in the periodic Mendeleev's work allows us to make predictions about

Halogens

need to GAIN

Halogens

Alkali metals need to LOSE one electron.

one electron.

This becomes harder as you

This becomes easier as you

=

table will react

move down

move down

Na

the group

¥

Increasing reactivity

the group

**Group 7** 

**Displacement Reactions** 

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

ncreasing reactivity

Br

Cl<sub>2</sub> + 2KBr □ Br<sub>2</sub> + 2KCl + 2KF ֶ ב'י + 2KC

¥ Less attraction between outer electrons and the nucleus S

Increased electron shielding Increased atomic radius

윤

They become positively charged because they have lost a negative charge ☐ Metals will lose electrons

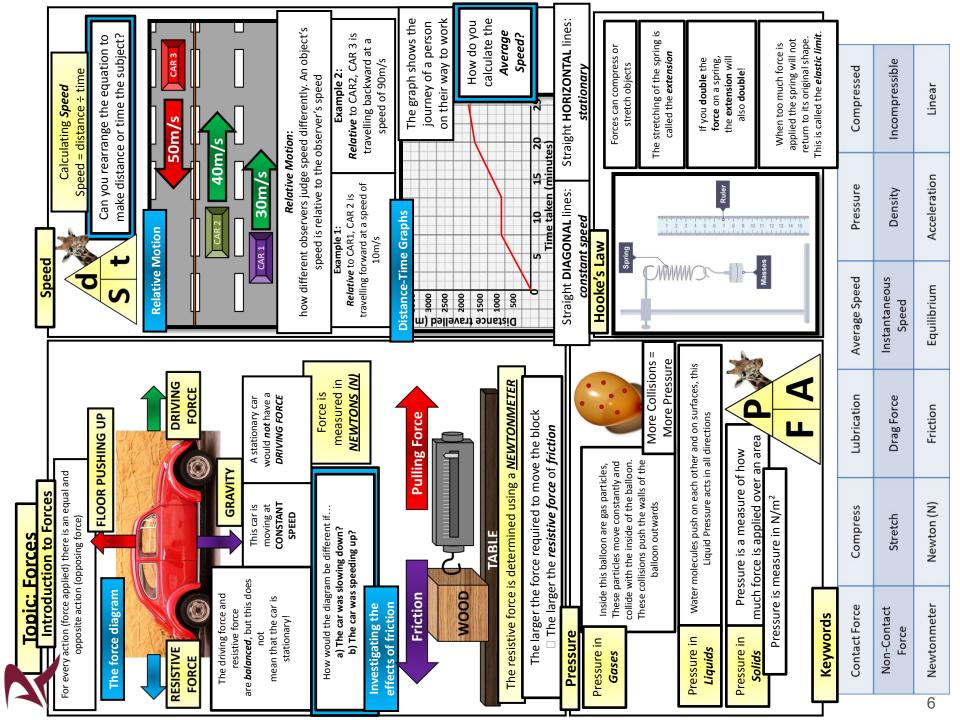
**Electronic Config** of Cl ion: 2,8,8 **Electronic Config of** 

Non-Metals will gain electrons

Displacement **Properties** Halogen Reaction Alkali Metal Group Period Chromatography Isotope <u>6</u> Crystallisation Distillation Filtration Conservation of Reactant Product Keywords Element Mixture Atom

Mass

5



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

# Tu a voyagé comment? How did you travel?

- <b>6</b> -	=
W W	
China S	

# French Unit 7 Les Vacances

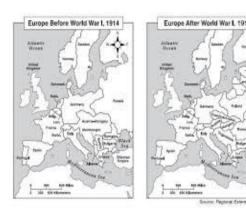
(1) Time Phrase	(2) Verb (perfect tense)	(3) Preposition + Place	(4) Verb (Perfect Tense)	(5) Preposition + Transport			(6) Adjectives
L'année dernière (last year) La semaine dernière (Last week) Le mois dernier (last month) Il y a trois ans (three years ago) L'été dernier (last summer) L'hiver dernier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

# Tu est 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)
Je suis resté(e) (I stayed)  Nous sommes restés (we stayed)  J'ai logé (I stayed)  Nous avons logé (we stayed)	dans un hôtel (in a hotel) dans un camping (in a campsite) dans un appartement (in an apartment) dans une caravane (in a caravan) chez des amis (with some friends) chez mes grandparents (with my grandparents)	au bord de la mer. (by the sea) à la campagne. (in the country) en centre ville. (in the town) à la montagne. (in the mountains) près de la plage. (near to the beach)	C'était (it was)  Ce n'était pas (it wasn't)  Le logement était (the accommodation was)  Le logement n'était pas (the accommodation wasn't)	magnifique (magnificent) super (super) beau (beautiful) sale (dirty) moche (ugly) bien équipé (well equipped) bien situé (well situated)	Il faisait chaud donc (it was hot so) Il faisait mauvais donc (It was bad weather so) Il faisait du soleil donc (It was sunny so) Il pleuvait donc (It rained so)  Après avoir mangé, (After having eaten) Après avoir fait ça, (After having done that) Avant de faire ça, (Before doing that)	j'ai joué au foot (I played football) j'ai fait de la natation (I did some swimming) j'ai mangé une glace (I ate an ice cream) j'ai visité le musée (I visited the museum) j'ai rencontré des amis (I met some friends) je suis allé en ville (I went to town) j'ai fait du tourisme (I did some sightseeing)

# 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.

**Jew** - 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.

**Einsatzgrüppen** - 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.

# **Year 9 Geography - Coasts**

# **Key term**

**Swash** – the water that washes up a beach when a wave breaks on the shore.

**Backwash** – the water that runs back down the breach to the sea.

**Fetch** – the distance that the wind has been blowing over the water to form a wave – the longer a wave's fetch, the more energy it will have.

**Coastal management** – strategies used to defend coastal environments, divided into three different approaches: hard engineering, soft engineering, and managed retreat.

# **Erosion** - the wearing away of rocks by the sea

**Hydraulic action** - As waves approach the coast they trap air and force it into gaps in the cliff. Eventually this weakens the rock.

**Abrasion** - Waves fling sand, pebbles and large rocks against the rock, wearing it away like sandpaper.

**Attrition** - Rocks and pebbles being carried by the sea knock together and are broken down; the pebbles become smaller, smoother and rounder.

**Solution** - Weak acids in the water dissolve rock particles and minerals.

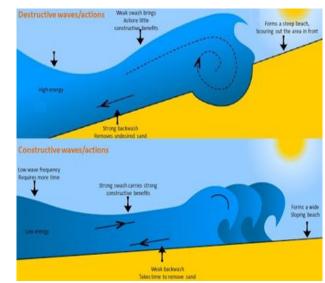
Transportation - the movement of material from one place to another

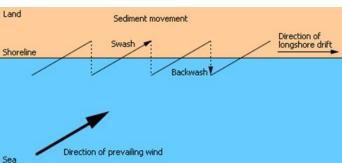
**Traction** - Large stones are rolled along the seabed.

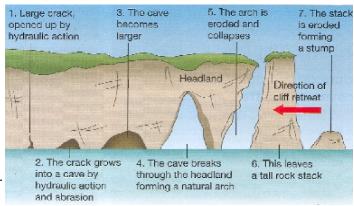
**Saltation** - Smaller stones bounce along the seabed over one another.

**Suspension** - Small particles of rock, dirt, and plants are carried along floating in the water.

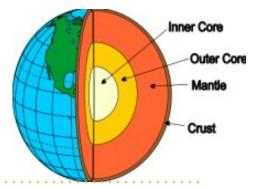
**Solution** - Particles of rock and chemicals are dissolved and carried along in the water unseen.







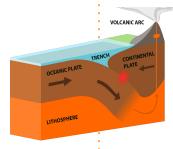
# Geography Restless Earth



# **Types of Plate Margins**

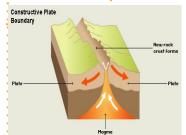
#### **Destructive Plate Margin**

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.



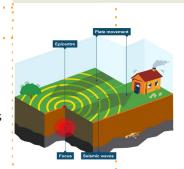
# **Constructive Plate Margin**

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.

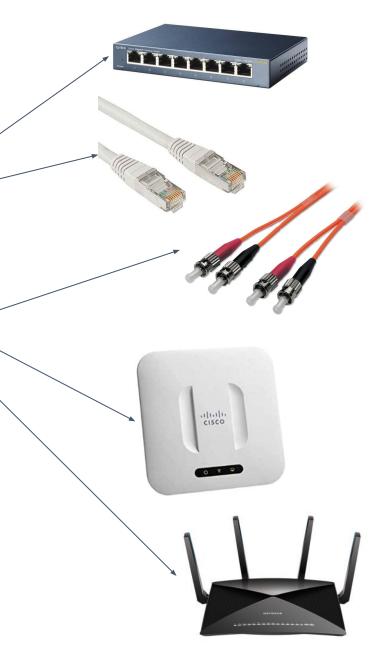


Key word	Definition
Earthquake	An earthquake is the shaking and vibration of the Earth's crust due to movement of the Earth's plates
Seismic Waves	The energy of the earthquake.
Focus	Where an earthquake begins
Epicentre	The area directly above an earthquake. This is where the most damage occurs.
Primary 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.
	11

# **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:  - Images - Sound - Video - Animation - Text	

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

# Do you need talent to be an artist?



- British painter Sarah Graham was born in Hitchin in 1977, and works almost exclusively in oil on canvas.
- She completed a BA (hons) in Fine Art painting from De Montfort University, Leicester in 2000, and has been pursuing her practice ever since.
- Her work typically depicting a host of sweets and toys.
- 4. In 2012, Sarah was **commissioned** by the British band Kaiser Chiefs to paint the album cover of their singles collection Souvenir, which was released worldwide.
- 5. Sarah uses photographs as **reference** and scales up by eye and sketching out in yellow acrylic.

**Composition** gives layout and structure to each art piece, and also affects the way the **subjec**t is perceived and understood. It leads the eye of the observer through the image and emphasizes the focal point. Strong artistic compositions are vital to the success of a piece of art. The composition of a piece is what captures a viewer's eye and holds their attention once they take a closer look.

The grid method involves drawing a grid over your reference photo, and then drawing a grid of equal **ratio** on your work surface (paper, canvas, wood panel, etc). Then draw the image on your canvas, focusing on one square at a time, until the entire image has been transferred. Once you're finished, you simply erase or paint over the grid lines, and start working on your painting, which will be now be in perfect **proportion.** 

# Does all art need to be realistic?

One of the principal **genres** of Western art – essentially, the subject matter of a still life painting or sculpture is anything that does not move or is dead.

Still life includes all kinds of man-made or natural objects, cut flowers, fruit, vegetables, fish, game, wine and so on. Still life can be a celebration of material pleasures such as food and wine.

In modern art simple still life arrangements have often been used as a **relatively neutral** basis for formal experiment, for example by Paul Cézanne, the cubist painters and, later in the twentieth century, by Patrick Caulfield.

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 - Lino Printing

# Printing or drawing, which is better?

Printmaking is an artistic process based on the principle of transferring images from a **matrix** onto another surface, most often paper or fabric. Traditional printmaking techniques include woodcut, etching, engraving, and lithography.

The **medium's** ability to reproduce images and create unique visual qualities has influenced everyone from book publishers to graphic designers.

Woodcuts and linocuts share a graphic quality because the relief process forces you to create images with flat planes of colour. Linocuts, which emerged in the 20th century, also fall under the category of relief printmaking, but instead of carving from a block of wood, linocuts are made by cutting into a sheet of linoleum.

This smooth material has no directional grain, so you are free to carve in any direction you like, and can use woodcut or engraving tools. Since linoleum's surface is smooth, it only leaves a slightly spongy, grainy texture behind.

This technique is frequently introduced to printmaking beginners because it's easy to learn, and its low-cost materials make it relatively accessible.

# Under water





# 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.

# How can line express meaning?

Mark making describes the different lines, dots, marks, patterns, and textures to create in an artwork. It can be loose and **gestural** or controlled and neat. It can apply to any material used on any surface: paint on canvas, ink or pencil on paper, a scratched mark on plaster, a digital paint tool on a screen, a tattooed mark on skin. Artists use gesture to **express** their feeling and emotions in response to something seen or something felt – or gestural qualities can be used to create a purely **abstract composition**.

For pencil or pen-and-ink drawing, using *hatching\_* is one of the easiest and cleanest ways to fill in the dark areas. By drawing fine lines that are more or less parallel, the area as a whole is perceived as being darker than the individual lines are in reality.

Cross Hatching adds a second layer of lines that are drawn in the opposite direction. The

second layer of lines are applied at right angles. Using cross hatching builds the **illusion** of darker tones.

Stippling involves placing individual dots across a surface in a pattern that will be identifiable, especially when viewed from a distance; the further you are, the more your mind is forced to fill in the gaps on its own. Basically, instead of drawing a circle, you compose this shape with tiny dots, and shade it the same way to create the **impression** of depth.

# Year 9 Design - Clock 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











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 eq 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

Tone of Voice	The emotion heard in your voice to express how the character is feeling.
Body Language	To show your emotion towards others/the situation in your body.
Posture	How a character stands, e.g. upright, hunched, slumped.
Movement	How the character physically inhabits the character and travels around the stage.
Narration	To tell a story/information of what is happening to the audience.
Flashback/ Flash Forward	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.
Analyse	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.
Evaluate	To evaluate is to make a personal judgement about the performance using the available evidence.

# Year 9 Drama - Autumn Term 1 Global Theatre

# Key Knowledge

- We will explore theatre from around the world in this topic, looking at the culture, traditions and history of lots of countries
- We will discover how traditional theatre practices have influenced modern theatre, and how each country has their own style and techniques
- We will look at theatre from Japan, India, Greece, Italy and more!
- Theatre around the world offers a rich tapestry of cultural signposts, reflecting the diverse ways societies understand and express their experiences.







# 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









# Key beliefs

Christianity is a **monotheistic** religion – they believe in **ONE** God.

Christians believe God is:
Omnipotent (all powerful)
Omniscient (all knowing)
Omnipresent (everywhere)
Benevolent (loving)
Transcendent (beyond understanding)
Immanent (personal)
Eternal (no beginning and no end)

Forgiving (he will forgive sins)



# Reasons for believing in God



# The Design Argument

Our world is too complicated and full of intricate working systems, to have just happened by chance. If we came across a watch, we would assume it has been 'designed' due to its complexity. Like the watch, some assume our world had a designer.



# The Cosmological Argument

We live in a world of 'cause and effect'.
Something must have 'caused' our world to have come into existence. The only being powerful enough to do this is God – the 'uncaused cause'.

#### **Religious Experience**

#### Numerous experience

This feeling of being **overwhelmed** by the sense of the presence of something greater than you is a **spiritual** emotion.

Conversion Experience

Conversion is all about

**Change.** Changing from one religion to another or from no religion to following one. Conversion usually follows some **life altering event** that convinces an individual that there must be some sort of God. **Miracles** 

Christians believe God is **omnipotent** (all-powerful). As a result they feel God can break the laws of nature and work miracles. Many people say incredible events in their life are a miracle. In France, **Lourdes** gets thousands of Catholic visitors every year.



# Creation



Science tells us that our universe is approx. 14 billion years old, and our planet is approx. 4bn years old.
An explosion (The Big Bang) led to the creation of all space, time and matter.
Humans have evolved over time, through a process of natural selection. This is called

'evolution'.

Genesis 1 &2 says that God created the world in 6 days, and on the 7<sup>th</sup> He rested. Some Christians take this LITERALLY and read this story as fact (fundamentalist). Others see the Genesis story as a symbolic story (Liberal)

# <u>Life after death</u>

**HEAVEN** 

Heaven is

traditionally seen as

a physical place

where God is. Jesus

called it "paradise"

or "my Father's

house". A more

modern view is that

heaven is simply

'with God'.

# **PURGATORY**

Roman Catholics believe there is a place before heaven, where people go to have their sins cleansed. People say prayers for souls to be released from Purgatory.

# **HELL**

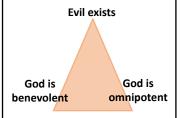
Hell can be an actual place of torment and suffering OR it can be when man is separated from God.

# Soul

#### Our souls are:

- Immortal
- God-given
- Eternal
- Make us distinct from the rest of creation
- Return to God when we die

# The problem of evil



Moral evil = suffering caused by humans

Natural evil =

suffering caused by nature

#### Responses:

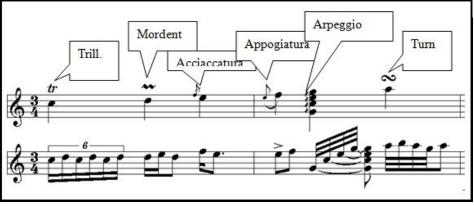
- Suffering is a necessary part of life
- 2. Suffering is **temporary**
- 3. Suffering is a punishment for sin
- 4. Suffering is caused by humanity's free will
- 5. Suffering is a part of God's plan
- Suffering is a test of faith

Christians believe they will be judged on their actions in this life on judgement day – Parousia.



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

# **Ornaments**



#### Musical knowledge - How to Read Music How to read rhythms

**Definitions** 

1. Pulse = the underlying count in the music. Like a heartbeat. You

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

2. Rhythm = long and short notes, and the gaps between them:

clap/dance to this. You feel it rather than hear it.

Bars and time signatures

sort of beats they are.

2. The time signature = two numbers at the

start of the music. It tells us how many beat: 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

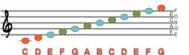
- These are the basic types of notes. American note names are more logical: here, the UK names are in brackets.
- 2. Rhythms can be made up of any combination of notes or rests, as long as each bar adds up correctly.



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

#### How to read pitches

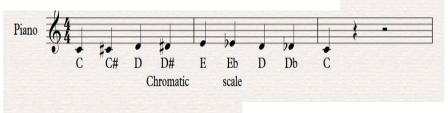
 The blobs of the notes are arranged on the lines and spaces of the stave. The higher the blob on the stave, the higher the pitch.

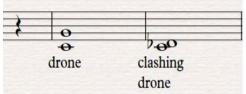


- Notes alternate being on a line and in a space.
- Notes higher or lower than the stave have their own little line called a ledger line, like middle C shown above.
- You can remember the notes on the **lines** with **'Every Good Boy Deserves Football'**, and the notes in the **spaces** spell **'FACE'**.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

# **Specific techniques**





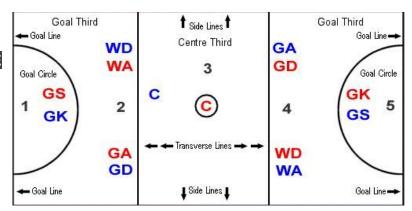


# Year 9 PE - Netball

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

Cardiovascular fitness Agility Balance

Coordination Power Speed Illinois run
3 ball juggle
30m sprint
12 min Cooper run
sergeant jump
standing stork



# 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.

# 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?



# 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.



# ace.

Set plays e.g. centre pass, back lines Decision making

APPLICATION OF SKILLS

Demonstrate communication on court Adapt to the environment Adhere to the rules and safety advice



# 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.

# 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

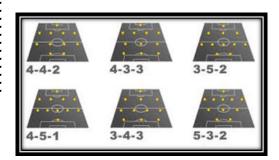
#### **METHODS OF TRAINING**

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



# **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.

# 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

# Year 9 PE - Fitness

# COMPONENTS OF FITNESS

movement

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

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

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

**Coordination –** moving two or more body parts together

**Muscular Endurance** - repeatedly using the same muscles without them getting tired.

**Balance** - maintaining your body's stability when static or moving.

**Flexibility** - the range of movement at a joint.

**Body Composition** - percentage of bone, muscle and fat.

**Reaction time** - ability of your body to react to a stimulus.

#### **SMART Targets**

**Specific -** ensuring the target is specific you you and your sport

Measurable - you must be able to measure whether or not you have achieved your target, usually through numbers not words

**Achievable** - the target should be set at a level that is challenging yet reachable

**Realistic** - you need to be able to carry what you are asking of yourself.

**Time-bound** - give yourself a set amount of time in order to achieve your target









#### **METHODS OF TRAINING**

Continuous – working with no rest over a long period of time
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'. Continuous running of a variety of intensities and terrains.

Plyometric - explosive movements to improve power

#### PRINCIPLES OF TRAINING

**Progressive Overload** - the gradual increase of stress placed upon the body during an exercise program

**Specificity** - training program being suited to the sport

**Individual Needs** - training program being suited to the athlete

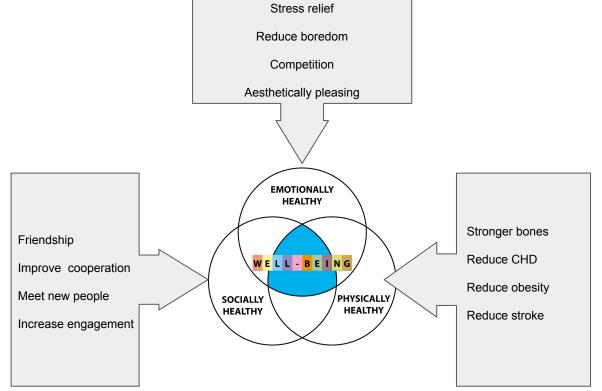
# YEAR 9 THEORY Health Fitness and Wellbeing

# 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?