

Knowledge Organiser

YEAR
9



David Attenborough



Dina Asher Smith



JK Rowling



David Walliams



Mary Seacole

“ Be the change that
you wish to see in
the world.”

M A H A T M A G A N D H I

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

THANK YOU FOR YOUR NOMINATIONS!

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 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?

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 be 30-40 minutes. Teachers will test you once a week to make sure that you are completing the homework and remembering your knowledge. Your knowledge organiser exercise book is where you will complete your practising. Each time you revise and practise, you should put the subject as the title and the date. Rule off when you have completed your revising for that subject. Teachers and form tutors will be regularly checking that you are revising.

HOW?

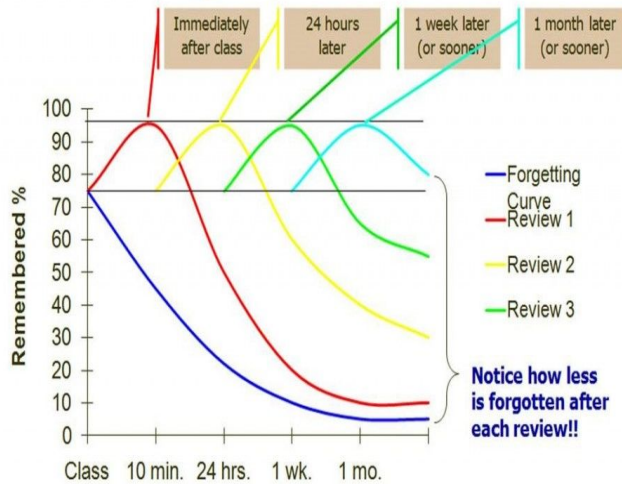
How will my teachers use them?

Each subject will set homework once a week 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 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](#)

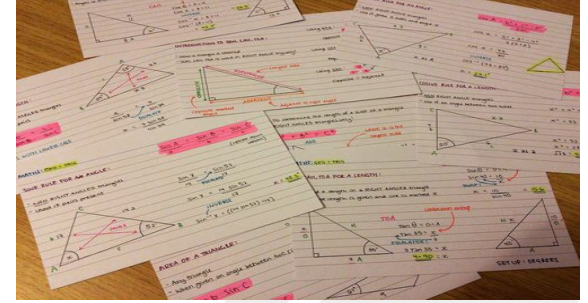
How we learn at Redmoor

Flash cards

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 they are trying to learn, and draw visuals to go with it

Learn more about dual coding here:

[Link To The Learning Scientists](#)

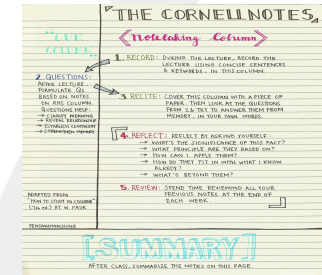
Try to come up with different ways to represent the information. For example: a timeline, a cartoon strip or a diagram of parts that work together.

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.

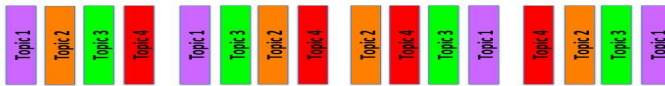
Eg. topic 1 cells, topic 2 digestive system

This will improve your memory!

Massed presentation



Spaced and interleaved presentation



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.

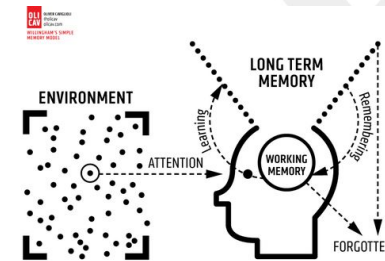
Mind maps help with memorisation of jey knowledge as it helps to organise information and begin to make links and connections to different pieces of information.

The use of visual images helps your brain to memorise the information with simple words next to them - 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/>



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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

POETIC TERMINOLOGY		
Allergy: Moral or political message hidden in the poem, often represented by symbols	Iambic: A rhythm with an alternating pattern of unstressed and stressed syllables: da-dum	Rhyme Scheme: The pattern of end rhymes on lines
Alliteration: Repetition of the same consonant sound at the start of adjacent words often to create onomatopoeia	Imagery: The pictures conjured by the words or scenes of the poems	Rhythm: The pattern of stressed (strong) and unstressed (weak) syllables
Anaphora: Repetition of the same word or phrase at the start of a line - used for emphasis	Internal rhyme: A rhyme that occurs within a single line	Romantic: Movement of the late 18th and early 19th centuries that celebrated the natural, artistic and emotional world in everyday language.
Assonance: Repetition of identical vowel sounds in words that are close together	Lyric poetry: Poems that talk about personal feelings, usually in the first person	Senses: Use of sight, sound, touch, smell and/or taste
Ballad: Popular form of poetry, usually derived from singing, that tells a story	Metaphor: Describing something as something else	Sestet: Six lines of verse which make up a stanza or section of a poem
Caesura: A short pause for effect in a line of poetry	Metre: The rhythm pattern	Sibilance: Repeated 's' sounds
Couplet: A pair of successive lines that rhyme	Mood: The sense created by the atmosphere, feeling and emotion of a poem	Simile: Describing something in terms of comparison with something else
Diction: The choice of words	Octave: Eight lines of verse which make up a stanza or section of a poem	Sonnet: A love poem of fourteen lines which has a set structure and rhyme scheme
Dramatic Monologue: One person speaking as if to an audience	Onomatopoeia: When a word sounds like its meaning	Stanza: Another word for verse
Elegy: A sad poem, often used to commemorate the loss of people or things	Pastoral: To do with the countryside	Syllable: A section of a word with one vowel sound
End-stopping: A line that pauses at the end with a full stop or semicolon	Personification: Giving human characteristics to something non-human	Tetrameter: Four repeated syllable patterns
Enjambment: A line with no end punctuation so that it runs on into the next line	Punctuation: Use of full stops, commas, semicolons, colons etc.	Theme: The topic or idea that runs through the poem
Epic poem: A long poem telling a story of olden times	Quatrain: A four-line stanza	Tone: Overall character of the poem, created by its attitude, sound and choice of words.
Epistrophe: The repetition of a word at the end of successive lines	Repetition: Deliberate use of words more than once	Volta: Dramatic change in direction of the ideas or feelings in the poem
Form: The physical structure of a poem including its metre and rhyme scheme	Rhetorical question: Question asked for effect, not expecting an answer	

REDMOOR ENGLISH DEPARTMENT: POETRY – THE HUMAN EXPERIENCE

‘She Walks in Beauty’ by George Gordon, Lord Byron (1788-1824)

Context

- Byron was a Romantic poet - one who believed that the heart was more powerful than the head.
- Byron was described by Caroline Lamb as ‘mad, bad and dangerous to know’.
- He was very good looking and independently wealthy and was rather like a rock star in his day becoming a celebrity in his own lifetime.
- The poem was originally in a collection called ‘Hebrew Melodies’, published in April 1815, which was intended to be set to music of a religious nature.

Meaning

The poem describes the feeling of instant attraction when Byron sees Anne Wilmot (the wife of his cousin) at a party in June 1814. He describes how he is instantly struck by her beauty and her purity, which is the antithesis (the complete opposite) of his own character. He keeps up that sense of contrast within the poem.

‘Autumn’ by John Clare (1793-1864)

Context

- John Clare was the son of a farm worker
- He had very little formal education and worked on farms himself. He was a self-taught poet.
- His poetry was praised for its focus on rural life as it was very much in the Romantic tradition of understanding the natural world.
- He became very ill, suffering from depression, alcoholism and a delusion that he was Byron and was admitted to a lunatic asylum.

Meaning

This poem is an intensely personal description of the changing of the seasons from autumn to winter - something that Clare would have seen at close hand in his farm labour.

‘Winter: My Secret’ by Christina Rossetti (1830-1894)

Context

- Rossetti born of an Italian family and lived in London where she was well-educated
- Her brother was the painter Dante Gabriel Rossetti
- She turned down three marriage proposals
- Religion played an important part in her life
- She challenged the expectations about women’s roles and behaviour in Victorian society
- She worked in a refuge for former prostitutes

Meaning

The poem imagines the speaker addressing someone who is perhaps an admirer and teasing him as she refuses to share ‘a secret’.

The ‘secret’ is perhaps the speaker’s independence!

‘Life’ by Sarojini Naidu (1879-1949)

Context

- Sarojini Naidu began writing at the age of twelve
- She was known as ‘The Nightingale of India’
- She was the first Indian woman to become President of the Indian National Congress and the first woman to become governor of an Indian state
- She was inspired to become an activist for Indian Independence after meeting Mahatma Gandhi in 1916
- She was also an advocate for women’s rights
- She spent 2 years in prison for her protests

Meaning

The poem is all about the harsh realities of life. She expresses that optimism is only possible in those who have not yet lived as they don’t realise what has to come.

‘Caged Bird’ by Maya Angelou (1928-2014)

Context

- Maya Angelou was a civil rights activist
- She worked with Martin Luther King and Malcolm X
- She fought against segregation and discrimination towards African-Americans in America
- She was an author, a composer, an actress and a film director amongst other things.

Meaning

Angelou was determined to give the ‘caged’ African-Americans a voice and in this poem, she shows that you may cage the body, but you cannot stop the bird from singing out.

‘Digging’ by Seamus Heaney (1939-2013)

Context

- Seamus Heaney was the eldest of nine children
- His father was a farmer and cattle dealer
- Heaney was Professor of Poetry at the University of Oxford from 1989
- He won the Nobel Prize for Literature in 1995
- He wrote many poems about his life growing up in Northern Ireland
- He referred to himself as Irish, not British

Meaning

This poem is about Heaney ‘digging’ back into his past. He thinks about first his father, then his grandfather and reflects on the fact that he cannot live up to them in the same way as he is no farmer, but instead, he must do what he is good at - ‘digging’ with his pen and writing about them, so that they will not be forgotten.

Rhetoric and Its Effects

'I Have A Dream' speech by Martin Luther King

Anaphora: the repetition of a word or phrase at the beginning of multiple sentences. This helps Martin Luther King stress the point he is trying to make, creating a sense of urgency. Change must happen now or it will not happen at all.

Now is the time to make real the promises of democracy. Now is the time to rise from the dark and desolate valley of segregation to the sunlit path of racial justice. Now is the time to lift our nation from the quicksands of racial injustice to the solid rock of brotherhood.

Pathos created through King's use of **direct address**. He is appealing to the audience's sense of duty. They all have a part to play in helping their country end racism and segregation forever.

Metaphor: Segregation is compared to a 'dark and desolate valley' to make it sound bleak. 'Dark' suggests negativity and 'desolate' implies there is a lack of hope.

Metaphor is used here to compare 'brotherhood' to a solid rock. A rock is strong and stable, a foundation for Martin Luther King's dream of a 'brotherhood', a community of people who are not divided.



The Aristotelian Triad

Writers of texts uses various strategies to appeal to their audiences. The 3 means by which you persuade your audience are ethos, logos and pathos.

Aristotle, the Ancient Greek philosopher (thinker), came up with the idea of the 3 modes of persuasion. It's a framework for understanding how language and structure can be used to persuade an audience.

Ethos



Appeals to the personality or character. Establishes the author's credibility using:

- Good will
- Good character
- Expertise

Logos



Appeals to reason. Establishes an argument based on logic using:

- Statistics/Facts
- Citing authority
- Data
- Benefits

Pathos



Appeals to the emotions of the author's audience. Writer's play on their audience's:

- Fear
- Duty
- Hope
- Patriotism

Rhetorical Methods	Example
Analogy: an analogy can be used to help an audience understand unfamiliar things by linking them to familiar ideas.	If that politician gets voted in during the next election, it will be like Donald Trump's reign all over again.
Anaphora: the repetition of a word or phrase at the beginning of multiple sentences.	Now is the time to make real the promises of democracy. Now is the time to rise from the dark and desolate valley of segregation to the sunlit path of racial justice.
Anecdote: a short, amusing or interesting story about a real incident or person.	When I was 13, I decided that I needed to improve my attitude towards my education...
Direct address: addressing a person or a group of people directly	Now is the time to lift <u>our nation</u> from the quicksands of racial injustice.
Hyperbole: exaggerated statements or claims that are not meant to be taken literally.	My shoes are killing me.
Imperative: a command.	If there is one thing I know for certain, it is that this has to stop.
Maxim: a brief expression of a general rule or principle (a short but wise statement)	Do unto others as you want others to do unto you.
Metaphor: a comparison which says one thing is the other.	... lift our nation from <u>the quicksands of racial injustice</u> .
Rhetorical question: a question which does not require an answer.	Why, 35 years ago, fly the Atlantic?
Tricolon: a series of three parallel words, phrases or clauses.	We can help all people to see it, to draw hope from it, and to move irresistibly towards it.

Structuring Persuasive Writing

Introduction

Introduce your argument to your audience.

Ethos

Establish your ethos. Why are you the best person to present this argument?

Argument #1: Logos

Present and explain the first point of your argument. Use logos to make your argument clear.

Conclusion

Conclude your argument using logos, pathos and ethos for the final time.

Argument #2: Pathos

Present and explain the second point of your argument. Use pathos to make your audience feel a particular emotion.

Counterargument

Consider what the opposing side would say and explain why their point of view is wrong.

Chemistry: C1 – The Structure of the Atom

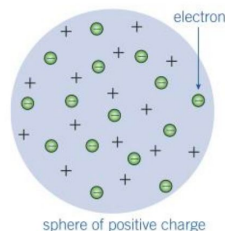
Plum Pudding model



Keyword

Definition

Atom	The smallest part of an element
Element	A substance made up of one type of atom ONLY. Cannot be broken down into anything simpler
Compound	A substance made when 2 or more elements are chemically bonded together
Mixture	2 or more elements or compounds NOT chemically bonded. Mixtures can be separated.
Reactants	Substance at the beginning of a chemical reaction (before the reaction has occurred)
Products	Substance made as a result of a chemical reaction
Conservation of mass	The total mass of the products formed in a reaction is equal to the total mass of the reactants
Filtration	Technique used to separate substances that are insoluble in a solvent from substances that are soluble
Crystallisation	Technique used to separate a solute dissolved in a solution
Distillation	Separation of a mixture of miscible liquids by evaporation followed by condensing
Fractional Distillation	Separation of multiple liquids from a mixture of miscible liquids by evaporation and condensing at different temperatures
Chromatography	Technique used to separate small mixtures of soluble substances by running a solvent along some blotting paper
Ion	A charged particle formed when an atom loses or gains an electron
Cation	A positively charged particle formed when an atom loses an electron
Anion	A negatively charged particle formed when an atom gains an electron
Isotope	Atoms that have the same number of protons but have a different number of neutrons



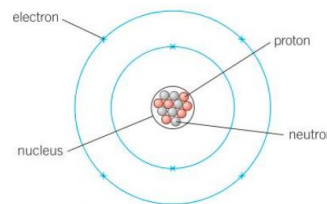
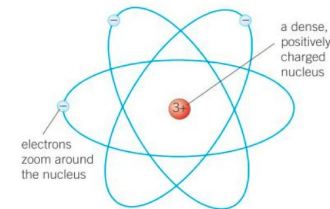
JJ Thomson found that negatively charged parts of the atom were attracted to a positive charge.

He called these negatively charged particles **ELECTRONS**. He imagined the electrons as bits in a "plum pudding"

Rutherford's model

Geiger and Marsden fired positively charged alpha particles at a sheet of foil. They found that many particles passed straight through the foil.

They concluded that most of the atom consisted of empty space and at the centre was a densely positively charged nucleus.

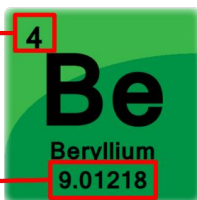


Niels Bohr discovered that when an atom was heated it emitted specific amounts of energy. He suggested that electrons must be orbiting at set distances from the nucleus, each with a different energy levels (electron shells).

This model did not contain neutrons until they were discovered in 1932 by James Chadwick

Atomic number

4



Relative atomic mass (*A_r*)

9.01218

Key Maths

Number of protons = Atomic number
 Number of electrons = Atomic number
 Number of neutrons = Mass number – Atomic number

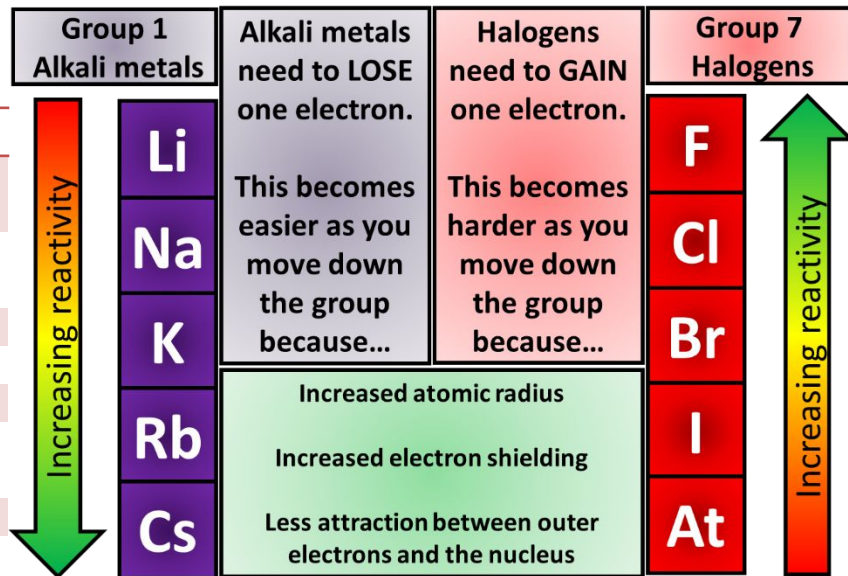
Type of subatomic particle	Relative charge	Relative mass
Proton	+1	1
Neutron	0	1
Electron	-1	1/2000 (almost 0)

Chemistry: C2 – The Periodic Table

Keyword

Definition

Groups	The columns of the periodic table – Elements in the same group have the same number of electrons on their outer shell
Periods	The rows of the periodic table – Elements in the same period have the same number of electron shells
Alkali metals	The name given to the group 1 metals
Halogens	The name given to the group 7 non-metals
Noble Gases	The name given to the group 0 gases
Transition elements	Element from the central block of the periodic table
Properties	The characteristics of an element or compound
Universal Indicator	A mixture of indicators that can change colour to show the pH of a solution
Displacement reaction	A reaction where a more reactive element takes the place of a less reactive element

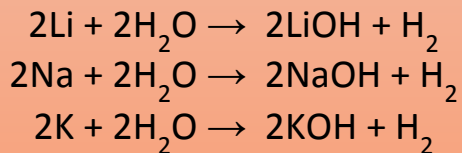


Explaining reactivity of alkali metals and halogens

Group 1 metal reactions with water

Reacting an alkali metal with water will always produce hydrogen gas and a metal hydroxide

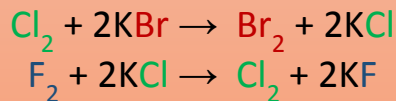
EXAMPLES:



Group 7 Displacement reactions

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

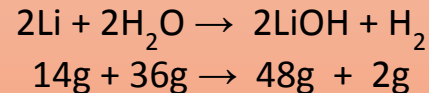
EXAMPLES:



The mass of the reactants in a reaction will ALWAYS equal the mass of the products of a reaction.

This is called **CONSERVATION OF MASS**

EXAMPLES:



Mass of reactants:

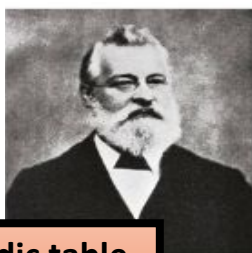
50g

Mass of products:

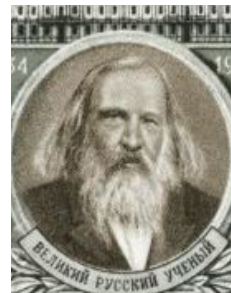
50g



John Dalton arranged the elements by **atomic weight**



John Newlands noticed that when the elements were arranged by atom weight, every 8th element had **similar properties** and introduced the **law of octaves**. This idea was quickly dismissed as it only worked for elements 1-20 in the periodic table.



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.

Development of the periodic table

Chemistry: C1 – The Structure of the Atom

Links to other topics;

The structure of the atom will help you to understand how an atom bonds with other atoms. It will also help to explain why certain elements react as they do based on their electronic configurations. Fractional distillation of crude oil is revisited during topic 9 and Chromatography is covered in more detail during topic 12 including a required practical.

Context;

Separation techniques can be used to separate different mixtures on an industrial scale e.g. Desalination of seawater, using chromatography in forensic science to be able to match ink and paint samples.

Practice;

1. Identify the number of protons, neutrons and electrons in the following atoms; He, Ar, C, W, Pd, Ne and Li.
2. Draw the electronic configurations of H, Li, Al, B, Ca, F and Ne.
3. Describe how Rutherford's experiment changed the plum pudding of the atom.
4. Explain why chlorine has a mass of 35.5.
5. Describe how fractional distillation can be used to separate a mixture of ethanol and water.

Challenge:

Chadwick's experimental work on the atom led to a better understanding of isotopes. Explain how his work led to this understanding.

Chemistry: C2 – The Periodic Table

Links to other topics;

The position of an element on the periodic table will help you to understand how an atom bond with other atoms. It will also help to explain why certain elements react as they do based on their electronic configurations.

Context;

Different elements produce different coloured compounds One example if this is when metals are used in fireworks

Practice;

1. Write a word and symbol equation when;
 - a. Sodium metal reacts with iodine vapour
 - b. Chlorine water reacts with sodium iodide solution
2. Explain why elements in many groups of the periodic table have similar chemical properties
3. Explain why noble gases are so unreactive
4. Explain why sodium is more reactive than Lithium, refer to the electronic configurations.

Challenge:

Mendeleev left spaces in his version of the periodic table where he though missing elements belonged. Why did Mendeleev's periodic table become more widely accepted than previous versions?

Qui est dans ta famille? Who is in your family



(1) Sentence Starter + Verb+ Noun			(2) PVS + Noun (Family Members) (masc/fem/plural)		
<p>Dans ma famille In my family</p> <p>Chez moi At my house</p>	<p>il y a there are</p> <p>j'ai I have</p>	<p>trois personnes; three people;</p> <p>quatre personnes; four people;</p> <p>cinq personnes; five people;</p> <p>six personnes; six people;</p>	<p>mon père my father</p> <p>mon frère my brother</p> <p>mon beau-père my step-dad</p> <p>mon beau-frère my step-brother</p> <p>mon demi-frère my half brother</p> <p>mon grand-père my grandad</p> <p>mon cousin my cousin</p> <p>mon oncle my uncle</p>	<p>ma mère my mother</p> <p>ma soeur my sister</p> <p>ma belle-mère my step-mum</p> <p>ma belle-sœur my step-sister</p> <p>ma demi-sœur my half sister</p> <p>ma fille my daughter</p> <p>ma grand-mère my grandma</p> <p>ma cousine my cousin</p> <p>ma tante my aunt</p> <p>ma femme my wife</p>	<p>mes grands-parents my grandparents</p> <p>mes parents my parents</p> <p>et moi. and me</p>

Tu t'entends bien avec ta famille? Do you get on with your family?

(3) Opinion	PVS + Noun	(4) Direct Object Pronouns			(5) Quality Vocab		(6) Verb	(7) Intensif	(8) Adjective
<p>J'adore I love</p> <p>Je ne supporte pas I can't stand</p> <p>Je m'entends bien avec I get on well with</p> <p>Je me dispute avec I argue with</p> <p>Je me fâche avec I get angry with</p> <p>J'ai un bon rapport avec I have a good relationship with</p> <p>J'ai des bonnes relations avec I have good relationships with</p>	<p>mon père. my father.</p> <p>ma mère. my mother.</p> <p>mes parents. my parents.</p>	<p>Je I</p>	<p>l' him/her</p>	<p>aime like</p>	<p>car because</p> <p>parce que because</p> <p>puisque as</p>	<p>pour moi for me</p> <p>je pense qu' I think that</p> <p>j'estime qu' I reckon that</p> <p>la plupart du temps most of the time</p> <p>je suis l'opinion qu' in my opinion</p> <p>je dirais qu' I would say that</p> <p>heureusement fortunately</p> <p>malheureusement unfortunately</p>	<p>il est he is</p> <p>elle est she is</p> <p>ils sont they (m) are</p> <p>elles sont they (f) are</p> <p>il peut être he can be</p> <p>elle peut être she can be</p>	<p>complètement completely</p> <p>tellement so</p> <p>un peu a bit</p> <p>plutôt rather</p> <p>trop too</p> <p>assez quite</p> <p>particulièrement particularly</p>	<p>amical(e)(s) friendly</p> <p>bavard(e)(s) chatty</p> <p>bête(s) stupid</p> <p>égoïste(s) selfish</p> <p>gentil(le)(s) kind</p> <p>généreux(euse)(s) generous</p> <p>casse-pieds annoying</p> <p>heureux(euse)(s) happy</p> <p>jaloux(ouse)(s) jealous</p> <p>méchant(e)(s) mean</p> <p>poli(e)(s) polite</p>
		<p>les them</p> <p>le him</p> <p>la her</p>	<p>déteste hate</p>						
							<p>il / elle me comprend he/she understands me</p> <p>il / elle ne me comprend pas he/she doesn't understand me</p> <p>il / elle m'énerve he/she annoys me</p> <p>on a les mêmes goûts. we have the same interests</p>		

Il/Elle est comment? What does he/she look like?



Verb Avoir	(9) PVS + Noun + Adjectives (colours)		(10) Adjectives
J'ai I have Il a He has Elle a She has Ils ont They (m) have Elles ont They (f) have	les yeux eyes	bleus blue verts green gris grey marron brown noisettes hazel	clairs. light. foncés. dark.
	les cheveux hair	blonds blonde châtain light brown noirs black marron brown roux ginger gris grey	courts. short. mi-courts. mid-length. longs. long. raides. straight. frisés. curly.

Décris ton / ta meilleur(e) ami(e) Describe your best friend

Sentence starter	Verb	
Mon meilleur ami My best friend (m)	est is	petit(e) small grand(e) (tall) mince thin gros(se) big joli(e) pretty
Ma meilleure amie My best friend (f)	aime likes	le foot. football la danse. dance les animaux. animals
	s'appelle is called	James. Sarah.

Il/Elle est comment? What is he/she like?

Verb (Être)	Comparative	Adjective		
Je suis (I am)	plus (more)	grand(e) (tall)	que (than)	moi (me)
Il est (he is)	moins (less)	intelligent(e) (intelligent)		lui. (him)
Elle est (she is)	aussi (as)	drôle (funny)		elle. (her)
		sportif/ive (sporty)		

Verb (Être)	Pronoun	Superlative	Adjective
Je suis (I am)	le (the)	plus (most)	grand(e)(s) (tall)
Il est (he is)	la (the)	moins (least)	intelligent(e)(s) (intelligent)
Elle est (she is)	les (the)		drôle(s) (funny)
Ils sont (they are)			sportif/ive(s) (sporty)
Elles sont (they are)			
		meilleur(e). (the best) <i>of a group</i> mieux. (the best) <i>at something</i> pire. (the worst)	

Spanish

¿Qué deportes haces?	What sports do you do?
1. Juego al tenis después de colegio .	I play tennis after school .
2. Los sábados hago patinaje con mis amigos.	On Saturdays I go skating with my friends.
3. Nunca juego al fútbol porque me aburre.	I never play football because it bores me.
4. Me encanta jugar al baloncesto porque me gustan los deportes de equipo.	I love to play basketball because I like team sports.
5. Para mantenerse en forma , me gusta hacer ciclismo.	To keep in shape , I like to do cycling.
6. Me gustaba jugar al hockey, pero ahora prefiero jugar al baloncesto.	I used to like playing hockey but now I prefer to play basketball.
¿Qué haces en tu tiempo libre?	What do you do in your free time?
7. Veo la televisión todos los días y una vez por semana salgo con mis amigos.	I watch TV every day and once a week I go out with my friends.
8. En mi tiempo libre me chifla salir con mis amigos.	In my free time I love to go out with my friends.
9. Los fines de semana suelo ver la televisión con mi hermano.	At the weekends I usually watch TV with my brother.
10. Si hace sol voy al parque, sin embargo, si llueve voy al cine.	If it's sunny I go to the park, however, if it rains , I go to the cinema.
11. Me gusta montar en bicicleta sin embargo mi hermano prefiere escuchar música.	I like to ride my bike however my brother prefers to listen to music.
12. Cuando hago mis deberes, me gusta escuchar música	When I do my homework, I like to listen to music.
¿Qué te gusta hacer?	What do you like to do?
13. Me gusta salir con mis amigos porque es divertido, pero es un poco caro.	I like to go out with my friends because it's fun, but it is a bit expensive.
14. Odio hacer mis deberes porque me aburre .	I hate doing my homework because it bores me.
15. Creo que navegar por internet es una pérdida de tiempo .	I think that surfing the internet is a waste of time .
16. Ya que soy deportista me gusta hacer atletismo.	As I am sporty, I like to do athletics.
17. Para descansar me gusta ver la televisión.	To relax , I like to watch television.
18. Además, Me chifla escuchar música porque me relaja .	Furthermore, I like to listen to music because it relaxes me.

Spanish

¿Qué vas a hacer...?	What are you going to do ...?
19. Si hace sol voy a jugar al tenis, pero si hace mal tiempo voy a ir al cine con mi mejor amigo.	If its sunny I am going to play tennis, but if its bad weather I'm going to go to the cinema with my best friend.
20. Voy a ir al parque para jugar al fútbol con mis amigos.	I am going to go to the park in order to play football with my friends.
21. Este fin de semana mi familia y yo vamos a ir de compras.	This weekend my family and I are going to go shopping.
22. Me gustaría salir con mis amigos sin embargo tengo que hacer mis deberes después.	I would like to go out with my friends however I have to do my homework.
23. Por la mañana voy a hacer natación y después voy a salir con mis amigos.	In the morning I am going to go swimming and after I am going to go out with my friends.

<p>Time Phrases</p> <p>En este momento – at the moment</p> <p>Ahora – now</p> <p>Cuando era pequeña / joven – when I was little / young</p> <p>En el futuro – in the future</p> <p>La semana próxima – next week</p> <p>Un día – one day</p> <p>Cuando sea mayor – when I am older</p> <p>Ayer – yesterday</p> <p>La semana pasada- last week</p>	<p>Opinion phrases</p> <p>En mi opinión – in my opinion</p> <p>Creo que – I think that</p> <p>Pienso que – I think that</p> <p>Diría que – I would say that</p> <p>Mi madre dice que - my mum says that</p> <p>Mi padre dice que - my dad says that</p> <p>Mis padres dicen que-my parents think that</p> <p>Mi amigo/a dice que - my friend says that</p> <p>Mi amigo/a piensa que - my friend thinks that</p>	<p>Intensifiers</p> <p>Muy - very</p> <p>Un poco - a bit</p> <p>Demasiado - too much</p> <p>Suficiente - enough</p> <p>Bastante - Quite</p> <p>Casi - almost</p> <p>Tan - so</p> <p>Completamente – completely</p> <p>Verdaderamente - really</p> <p>Extramadamente - extremely</p>
<p>Time Phrases</p> <p>Siempre - always</p> <p>Generalmente - generally</p> <p>Usualmente - usually</p> <p>Algunas veces - sometimes</p> <p>Rara vez - rarely</p> <p>Nunca - never</p> <p>De vez en cuando – from time to time</p> <p>Todos los días – every day</p> <p>Una vez a la semana – once a week</p> <p>Cada mes- every month</p>	<p>The verb To be (ser)</p> <p>Es – it is</p> <p>Son - they are</p> <p>Fue – it was</p> <p>Era – it was</p> <p>Será – it will be</p> <p>Sería – it would be</p>	<p>Linking words</p> <p>Sin embargo - however</p> <p>No obstante - nevertheless</p> <p>Después - after</p> <p>Además - besides</p> <p>También - also</p> <p>Pero - but</p> <p>Y - and</p> <p>Porque / dado que / ya que – because</p> <p>Aunque - although</p> <p>Desafortunadamente – unfortunately</p> <p>Por suerte – luckily</p>

YEAR 9 HISTORY: WW2

STEPS TO WAR:

Axis : Germany & Italy

Allies: UK, France, USSR & Poland

Demilitarised zone: an area with no military force

Rhineland: demilitarised zone between France and Germany

Annexe: forcible addition of one state's territory by another state.

Appeasement: keeping someone happy by letting them have what they want.

Neville Chamberlain: the British Prime Minister who believed in appeasement.

Sudetenland: border area of Czechoslovakia where many Germans lived.

Anschluss: the union of Austria with Germany that took place in 1938.

1936 March : German troops enter the Rhineland

1936 November: Hitler makes alliances with Italy and Japan.

1938: Germany "annexes" Austria

1938 September: Hitler threatens to invade part of Czechoslovakia where many ethnic Germans lived.

1939 March: Germany invaded the rest of Czechoslovakia

1939 September: Hitler invades Poland

3rd September 1939: Britain and France declare war on Germany

BLITZKRIEG:

Blitzkrieg: means "lightning war" and was a tactic used by the German army

Reconnaissance: military observation of a region

Refugee: a person who has been forced to leave their country in order to escape war, persecution, or natural disaster.

Infantry: soldiers marching or fighting on foot

Artillery: large-calibre guns used in warfare on land

Stuka: dive bombing aircraft that became notorious as a terror weapon partly because it was fitted with a siren that wailed as the plane dived

DUNKIRK:

Dunkirk: scene of a British retreat from May 26 to June 4, 1940

Ardennes Forest: region of forest and rugged terrain in southeast Belgium that extends into Germany and France.

Winston Churchill: 10th May he became new British Prime Minister

Maginot Line: This French line of defence was constructed along the country's border with Germany during the 1930s

Operation Dynamo: the plan to evacuate British and French soldiers

Little Ships: civilian boats and ships that sailed across the Channel to help soldiers get to the larger ships

Luftwaffe: German Air Force

BEF: British Expeditionary Force

D-DAY 6TH JUNE 1944:

Atlantic Wall: large network of fortifications and beach defences along the coast of France

Operation Bodyguard: campaign of allied deception leading up to D Day

Window: strips of aluminium which were dropped by aircraft in order to confuse German radar

Normandy beaches: area of Northern France chosen as the location for invasion

Landing craft: small seagoing vessel that allowed troops onto the beaches

Hobart's Funnies: a number of unusually modified tanks

Mulberry Harbour: artificial harbour that would be anchored near to the landing beaches

PLUTO: Pipeline under the ocean used to supply allied vehicles

Operation Fortitude: code name for the deception campaign leading up to the D-Day landings

Operation Overlord: code name for the Battle of Normandy

Operation Neptune: code name for the channel crossing phase of Operation Overlord

BATTLE OF BRITAIN:

RAF: Royal Air Force

Operation Sea Lion: Nazi Germany's code name for the plan for an invasion of Britain

Radar: British invention worked by sending out radio waves which would bounce back if they hit any large metallic object

Attack of the Eagles: The Luftwaffe switching of their targets to the RAF itself

June 1940: Germans targeted shipping, aim was to starve Britain into submission

August 1940: Attack of the Eagles

7th September 1940: Luftwaffe unexpectedly changes its target to London.

15th September 1940: Battle of Britain Day



OTHER EVENTS:

Battle of the Atlantic: struggle by the Allies to secure shipping routes

7th December 1941: Japan attacks Pearl Harbour

8th May 1945: VE Day, Germany surrenders

6th August 1945: Atom bomb dropped on Hiroshima

9th August 1945: Atom bomb dropped on Nagasaki

2nd September 1945: VJ Day, Japan surrenders

Hot Deserts

Knowledge Organiser



Distribution described.

Deserts are mainly found around the Tropics of Cancer and Capricorn, between 15° and 30° north and south of the equator. The main temperate deserts are found in the middle latitudes. Deserts are found in North Africa, central Australia and towards the south west of the USA. Deserts are often found on the west coast of continents.

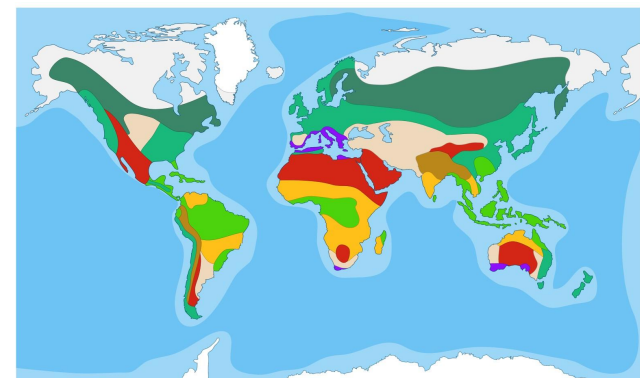
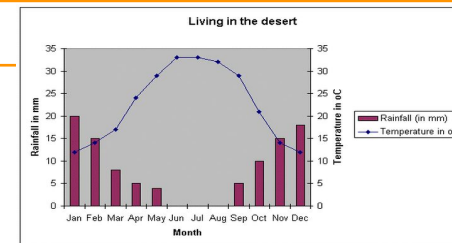
Distribution explained.

Hot air rises at the equator, where the land receives the greatest amount of the sun's radiation. Most of the world's deserts are located near 30 degrees north latitude and 30 degrees south latitude, where the heated equatorial air begins to descend. The descending air is dense and begins to warm again, evaporating large amounts of water from the land surface. The resulting climate is very dry.

Other deserts are located in the rain shadows of mountain ranges. As moist air passes over a mountain range, it expands and cools, precipitating most of its moisture as it rises. As it sweeps down the other side of the mountain range, it warms and compresses, causing high evaporation rates and shedding little rain. Many of the deserts in the southwestern United States are the result of rain shadows.

Climate

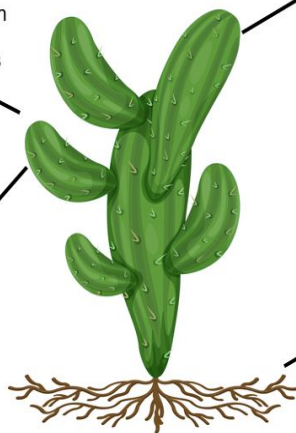
Deserts have extreme temperatures. During the day the temperature may reach 50°C, when at night it may fall to below 0°C. This means the desert has a high diurnal range (difference between the highest and lowest temperature within a day). Deserts have less than 250 mm of rainfall per year. The rain can be unreliable. Several years can pass between rainfall events.



- | | | | | |
|--------------|--------------|---------|---------|---------------|
| Polar desert | Taiga | Montane | Savanna | Mediterranean |
| Tundra | Mixed forest | Steppe | Tropics | Desert |

Vegetation Adaptations.

Cacti are succulent plants which means they store water. They need to store water as rainfall is infrequent and unreliable.



Cacti have needles which helps to reduce moisture loss and deters animals from eating the plant.

Cacti have shallow roots that sit just below the surface of the Earth and are up to 1m wide (heavy lateral branching). This is because it does not rain very often so the roots can absorb as much water as possible.

The surface has a waxy coating which reduces water loss and avoids the plant drying out.

Animal Adaptations.

Fat is stored in the hump of the camel. This provides energy in times of food shortage in the desert. They don't store water in their humps!



Camels have two rows of eyelashes which are long and slit-like nostrils which help keep out the sand being blown around in the desert.

Thick fur on the top of the body for shade, and thin fur elsewhere to allow easy heat loss in high desert temperatures.

Large padded feet which allows them to spread their weight on the sand.

Key terms

- Desert
- Climate
- Vegetation
- Adaptation
- Distribution
- Sahara
- Gobi

Antarctica - Knowledge organiser



Overview

- Antarctica is the world's southernmost continent. It is the location of the geographic South Pole.
- Antarctica is the world's fifth largest continent by size; 14.2 million km². It is about twice the size of Australia.
- About 98% of Antarctica is covered by ice, this averages about 1.5 miles in thickness.
- Antarctica is the coldest, driest and windiest continent on earth.
- It's population is only about 2000 people, who are temporary scientists and research teams.



Human Geography

Race to the south Pole - In late 1911, Robert Scott's British team and Roald Amundsen's Norwegian team were in direct competition to reach the South Pole first. Amundsen's team won the race by 33 days. Scott and his team were ill prepared and died on their return from the Pole, freezing to death in their tents.

Melting Ice - Antarctic Ice has been melting over recent years, as a consequence of global warming. This is alarming as the melting ice could allow sea levels to rise and flood low-lying countries such as the Maldives.

Antarctic Treaty - The Antarctic Treaty was declared to end disputes over territory in Antarctica. The current claims are now fixed and no country can claim any area south of 60 degrees latitude.



Physical Geography

Weather extremes - Antarctica is the coldest and windiest place on earth. In the mountains, temperatures regularly drop below -60 degrees in the winter. It is slightly warmer around the coastal areas, but rarely exceeds 0 degrees.

Animals - Despite a hostile climate, including freezing temperatures, gale force winds and winter darkness, Antarctica is home to many specially adapted animals. Emperor Penguins are one of the best-known, and one of the only animals to remain on Antarctica throughout winter.

Ice Sheet - The Antarctic Ice Sheet is the largest on earth. In winter, it extends beyond the continent and that growth mainly occurs on the coast.

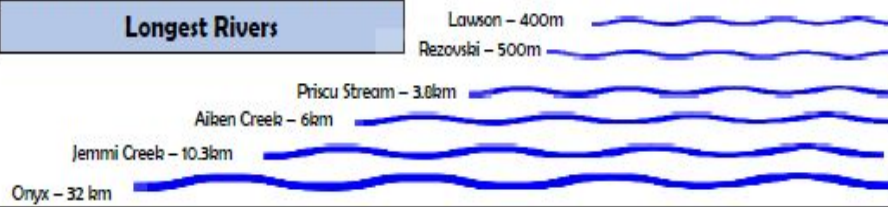
There are no countries in Antarctica, and no personal residents. Antarctica is divided into foreign-run territories.

Largest settlements in Antarctica

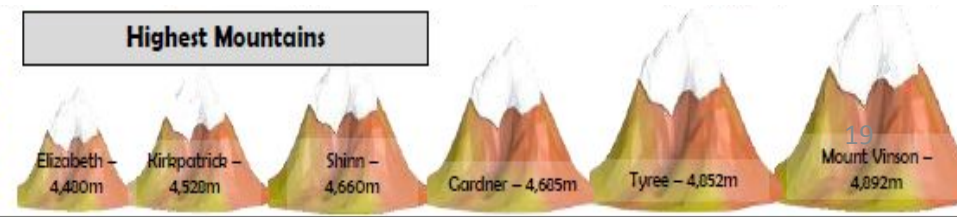
1. McMurdo Station (USA)
2. Frei Station (Chile)
3. Amundsen-Scott (USA)
4. Mimy - (Russia)
5. Esperanza - Argentina



Longest Rivers



Highest Mountains



JAPAN - Knowledge organiser

Overview

- Japan is an Island country located off the eastern coast of Asia.
- It is bordered by the sea of Japan to the west and the Pacific Ocean to the east.
- Japan is an archipelago of 6,852 Islands.
- The five main Islands are Hokkaido, Honshu, Kyushu, Shikoku and Okinawa.
- About 126 million people live in Japan. It is the 11th most populated country in the world.



Physical Geography

- Japan is an archipelago that spreads across 3,000km along the east Asian coast.
- Honshu is by far the largest island.
- The terrain of Japan is mostly mountainous, with about 60% forests.
- East of Japan there are deep ocean trenches in the Pacific. This is caused by tectonic plates overlapping. This causes frequent earthquakes, Tsunamis and the creation of volcanoes in Japan.
- The highest mountain in Japan is Mt Fuji, at 3,776M, which is also a volcano.
- The Japanese land area is slowly growing due to volcanic eruptions and the natural expansion of islands.



Human Geography

Population - With around 126 million people, Japan is the 11th most populated country in the world. Most of the population is clustered into urban areas on the coast, the plains and the valleys. The population density of Japan is 336 people per square kilometer - it is VERY densely populated.

Settlements - The capital city of Japan is Tokyo, it has a population of around 30 million people. Tokyo is considered to be the most populous city in the world. Other large cities include Yokohama (3.7 million) and Osaka (2.6 million).

Economic activity - The currency in Japan is called the Yen. Throughout the late 20th and early 21st century Japan's economy grew rapidly and is now one of the largest economies in the world.

Resources/trade - Japan is a world leading producer of a wide range of products, including motor vehicles, Iron and steel products. Its main trading partners are the USA, China the European Union and South Korea.

Key words

Pacific Ocean

Mount Fuji

Hokkaido

Okinawa

Honshu

Japan

Kyushu

Asia

Shikoku

Denseley

Tokyo

Yokohama

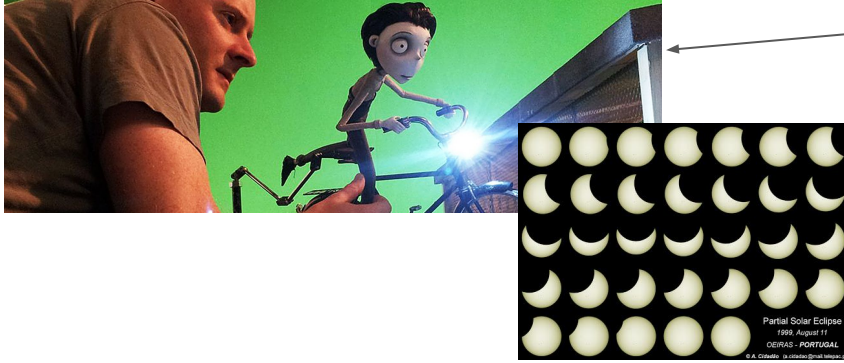


Year 9 ICT & Computer Science

Python to English	
<code>print('hello!')</code>	Prints a value on screen (in this case, hello!)
<code>input('')</code>	Inputs a value into the computer.
<code>x=input('')</code>	Inputs a value and stores it into the variable x.
<code>x=int(input(''))</code>	Inputs a value into x, whilst also making it into an integer.
<code>print(str(x))</code>	Prints the variable x, but converts it into a string first.
<code>if name == "Fred":</code>	Decides whether the variable 'name' has a value which is equal to 'Fred'.
<code>else:</code>	The other option if the conditions for an if statement are not met (eg. name = 'Bob' when it should be Fred)
<code>elif name == "Tim"</code>	elif (short for else if) is for when the first if condition is not met, but you want to specify another option.
<code>#</code>	# is used to make comments in code – any line which starts with a # will be ignored when the program runs.

Python Programming Terminology	
Python	A text based programming language that is very close to written English.
Algorithm	A set of steps or instructions to complete a task.
Variable	A place to store a single piece of data.
Input	Where data is entered into a computer by a user/human.
Output	Where data is displayed by the computer. Examples include: text, images, sound, or video displayed on a monitor or through speakers.
Assignment	When one variable is set equal to another e.g. <code>x = y</code>
Sequence	When code is run in a specific order, usually from top to bottom.
Selection IF ELIF ELSE	Also called a decision, when a program takes a course of action based on an answer. <code>if answer == 0: print("Even") else: print("Odd")</code>
Loops While For	When one or more lines of code are repeated. <code>for i in range(11): print ("The count is: " + str(i))</code>

Year 9 ICT & Computer Science

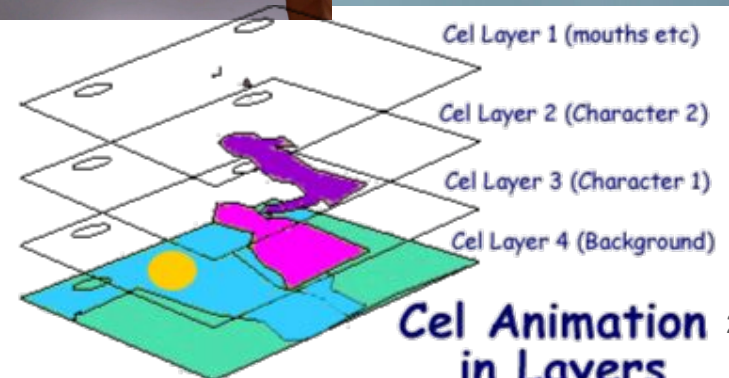


Animation Types

Stop motion	A way of making objects look like they are moving by shooting a single frame, moving the object a bit, then shooting the frame again. This process is repeated.
Time-lapse	Where frames are captured over a long period of time then played together sped up.
Cel animation	Where objects are drawn onto a transparent plastic sheets called 'cels' to overlay over a video.
Cut out	Stop motion animation but using cut out characters, props, and backgrounds.
Flipbook	A series of pictures shown in sequence quickly. A book may be used to present the animation by flipping through the pages.
Digital animation	Animation created using a computer.

Animation Techniques

Frame by frame	Where an animation is drawn one frame at a time. The small differences in each frame creates the movement
Onion skinning	An animation technique where you can see several frames at once. Seeing the last few frames you have drawn helps you to design the next ones
Key frame	Where an animation draws the start and end point and another person or computer fills in the frames in the middle
Inbetweening	The process of drawing what happens between two key frames.
Still motion	Similar to stop motion but the next frame doesn't have to be related to the last one.
Squash and stretch	Where a shape is squashed or stretched in an animation to make it look flexible, bendy or full of life.
Layering	Where one image (or layer) is stacked on top of others. The background may be one layer with some scenery in the next and a character in another layer.



Cel Animation 22
in Layers

YEAR 9 ART INTRODUCTION

Sarah Graham

5 facts about the designer

1. British painter Sarah Graham was born in Hitchin in 1977, and works almost exclusively in oil on canvas.
2. She completed a BA (hons) in Fine Art painting from De Montfort University, Leicester in 2000, and has been pursuing her practice ever since.
3. 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.



Theme for the Project - Drawing Skills

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. Monoprinting.

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
- the whole

Design Movement/Art Style

What is still life?

- 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 for formal experiment, for example by Paul Cézanne, the cubist painters and, later in the twentieth century, by Patrick Caulfield.

Drawing Style/Skill/Technique

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.

1900

1910

1920

1930

1940

1950

1960

1970

1980

1990

2000

2010

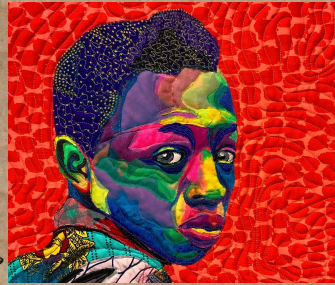
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YEAR 9 PORTRAITS

Bisa Butler

5 facts about the artist

1. Artist Bisa Butler draws from an array of vibrant patterned fabrics to create portraits of everyday people.
2. She eschews representational colours, favoring layered jewel-toned hues to form the skin of her Black subjects, and often groups figures together into strong silhouettes.
3. She began using fabric in her paintings in college, and then converted to quilting as a way to continue her dedicated art practice while protecting her young daughter from toxic materials and fumes.
4. She would often start her pieces with a black and white photo which would allow her to tell the story.
5. The portraits tell stories that may have been forgotten over time.



Theme for the Project

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.

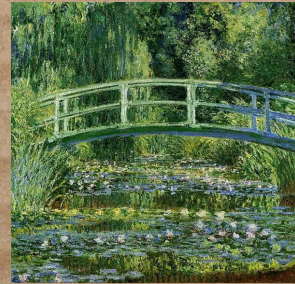
Stippling involves placing individual dots across a surface in a pattern that will be identifiable, especially when viewed from a distance; the further you are, the more your mind is forced to fill in the gaps on its own. Basically, instead of drawing a circle, you compose this shape with tiny dots,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

Design Movement/Art Style



What is impressionism?

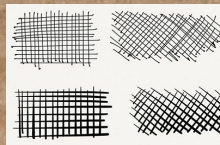
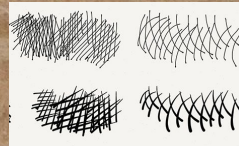
- Impressionism developed in France in the nineteenth century and is based on the practice of painting spontaneously 'on the spot' rather than in a studio from sketches. Main impressionist subjects were landscapes and scenes of everyday life
- Instead of painting in a studio, the impressionists found that they could capture the momentary effects of sunlight by working quickly, in front of their subjects, in the open air rather than in a studio. This resulted in a greater awareness of light and colour and the shifting pattern of the natural scene. Brushwork became rapid and broken into separate dabs in order to render the fleeting quality of light.



Drawing Style/Skill/Technique



A portrait is a representation of a particular person. A self-portrait is a portrait of the artist by the artist. Portraiture is a very old art form going back at least to ancient Egypt, where it flourished from about 5,000 years ago. Before the invention of photography, a painted, sculpted, or drawn portrait was the only way to record the appearance of someone. But portraits have always been more than just a record. They have been used to show the power, importance, virtue, beauty, wealth, taste, learning or other qualities of the sitter.



1900

1910

1920

1930

1940

1950

1960

1970

1980

1990

2000

2010

2020

YEAR 9 3D DESIGN

Katharine Morling 5 facts about the designer



1. Katharine Morling is an award-winning artist working in the medium of ceramics.
2. She set up her studio in 2003 and has since gained international acclaim for her work.
3. Katharine creates sculptures in porcelain in her signature monochromatic aesthetic.
4. Each piece on the surface, an inanimate object, is inspired by Katharine's personal narrative.
5. The work is made fired without glaze accentuating the 'drawn' quality of the work.



Portrait of Igor Stravinsky (1882-1971) 1920 (graphite on paper) by Picasso, Pablo (1881-1973) Private Collection

Theme for the Project - Everyday Objects

Three-dimensional art made by one of four basic processes: carving, modelling, casting, constructing

Carving

Carving is a sculptural technique that involves using tools to shape a form by cutting or scraping away from a solid material such as stone, wood, ivory or bone.

Casting

Casting involves making a mould and then pouring a liquid material, such as molten metal, plastic, rubber or fibreglass into the mould. A mould can be cast more than once, allowing artists to create editions of an artwork.

Modelling

Modelling is an additive process. This means a soft material is worked by the artist to build up a shape or form.

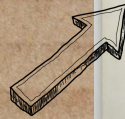
Constructing and assembling

These are still life subjects made from scrap (found) materials glued together. Artists have used techniques including bending, folding, stitching, welding, bolting, tying, weaving, and balancing to construct sculptures from a wide variety of materials and found objects.

Design Movement/Art Style

What is monochrome?

- Monochrome means one colour, so in relation to art, a monochrome artwork is one that includes only one colour
- For centuries artists used different shades (tones) of brown or black ink to create monochrome pictures on paper. The ink would simply be more or less diluted to achieve the required shades. Shades of grey oil paint were used to create monochrome paintings, a technique known as grisaille, from the French word 'gris' meaning grey. In such work the play of light and dark (chiaroscuro) enabled the artist to define form and create a picture.
- In the twentieth century, with the rise of abstract art many artists experimented with making monochrome paintings including Anish Kapoor, Ad Reinhardt, Robert Ryman and Robert Rauschenberg.



Drawing Style/Skill/Technique

Drawing from **primary or secondary sources** is a good way of researching your theme.

Primary - something in front of you, real life objects, people, objects.

Secondary - magazines, the internet, photographs, books.

1900

1910

1920

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2010

2020

YEAR 9 DESIGN

Thomas Kieseletter

1. Kieseletter was Born in 1963, in Kassel, Germany. He still lives and works in Berlin.
2. Thomas primarily uses metal to create his sculptures, bolting pieces together and then painting them
3. His work can be classed as tabletop Cubist models, relating to the theme of abstract art.
4. He combines organic shapes with industrial materials to develop his designs.
5. He creates small, individual, geometric components, which he then combines to create the larger, spontaneous pieces.



Theme for the Project - Design

Principles of Design

These are the standards or rules to be observed by Artists in creating works of Art; they are how to create and organize Artwork. When elements are utilized with the principles in mind, outstanding Artwork is created.

Balance

A distribution of visual weight on either side of the vertical axis. Symmetrical balance uses the same characteristics. Asymmetrical uses different but equally weighted features.



Contrast

The arrangement of opposite elements (light vs. dark, rough vs. smooth, small vs large, etc...) in a composition so as to create visual interest.



Emphasis

Used to make certain parts of an Artwork stand out. It creates the center of interest or focal point. It is the place in which an Artist draws your eye to first.



Movement

How the eye moves through the composition; leading the attention of the viewer from one aspect of the work to another. Can create the illusion of action.



Pattern

The repetition of specific visual elements such as a unit of shape or form. A method used to organize surfaces in a consistent regular manner.



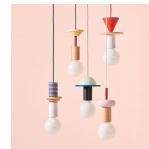
Rhythm

Regular repetition of, or alternation in elements to create cohesiveness and interest.



Unity

Visually pleasing agreement among the elements in a design; It is the feeling that everything in the work of Art works together and looks like it fits.



Design Movement/Art Style

The 'State Bauhaus' was founded by Walter Gropius as a school of arts in Weimar in 1919. As the 'Bauhaus' was a combination of crafts and arts, its purpose and concept was regarded as something completely new back then. Today, the historical 'Bauhaus' school is known as the most influential educational establishment in the subjects of architecture, art and design.

People in the 1920's found the style of Bauhaus items and houses in particular (which were very unusual) very shocking compared to what they were used to.

Since then, 'Bauhaus' has been a synonym for brave, rational and functional ideas in art, architecture and design. The "cool" aesthetics are still very modern.

Drawing Style/Skill/Technique

A designer plays a key role in a creative company. Using the principles of design a designer always has an extremely creative mind that can absorb visual trends and deploy them in fresh and exciting ways. Product designers discuss designs with colleagues and clients, as well as working closely with engineers, model makers, sales and marketing staff and other skilled people. They use drawings, 3-D models and computer designs to express their ideas.

1900

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Drama Keywords

Split-Staging	2 scenes performed at the same time on stage. (BUT the TECHNIQUE of this needs to be used!!!)
Expression	Use of Facial Expression to SHOW how you feel.
Body Language	To show your emotion & TOWARDS others in your body.
Emotion	To show your feelings of your character to the audience through expression, body and voice.
Reactions	To respond to each other as characters, on stage. Reacting to their words, feelings, actions.
Proxemics	The distances between characters/actors in a play. It shows their feelings & emotions- NOT THROUGH SPEAKING!
Semiotics	How meaning is created through systems of signs & symbols of drama. All elements that makes up a theatrical performance- the audience READS & INTERPRETS them (costume, lighting, etc.)
Duologue	Part of a scene in a drama which is scripted conversation between only 2 characters.
Hot-Seating	A technique to gain a deeper understanding of the character that you are playing, through asking specific questions- to make it more 'realistic'!
Gobo	A thin metal plate, placed on top of the light itself, to project a particular design. This creates shadows, patterns, objects.

[Drama techniques, skills \(Remember all of the previous ones and lighting.](#)

Year 9 Drama: Unit 3: Blood Brothers (Prep for GCSE)

(Jan-April)



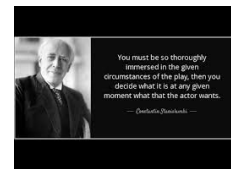
Key Knowledge:

- For this unit, you will learn about the plot & characters- Twin brothers Mickey & Eddie, separated at birth & grow up within two different classes. Their birth mother, Mrs Johnstone of lower class, shows the struggles of a single- working parent. Mrs Lyons, a lady of leisure & of upper class, can't have children biologically, & sets an agreement with Mrs Johnstone.
- The Writer's intention, Willy Russell, explores this 'Nature versus Nurture'- how two brothers of the same blood, grow up so differently through the difference of class & class divide.
- You will be exploring the whole play, & this will show further themes of superstition, Fate of the brothers always meeting through the years, Betrayal of the lies being created, Tragedy of the truth being revealed at the end of the play, showing the final scene of death.
- This is a circular plot, as we see this final scene at the beginning of the play. A flashback is performed. This is where after the present day, they move into the past.
- You will work in pairs, on a section of the Script. You will apply your ideas for the skills with how they show their characterisation & also the techniques needed to set the scenes. You will have two contrasting scenes from the play; between Mickey & Eddie, or Mrs Johnstone, & the final scene, showing a difference of time, circumstances & characterisation.
- You will show your knowledge of the themes, characters & plot, through costume, lighting & set designs. This will show the symbolism needed in the play.

Use of Practitioners, Performance Spaces:

Stanislavski:

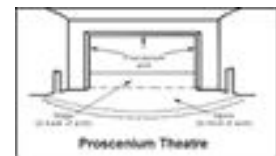
Creating as much Naturalism/Realism as possible on stage. Thinking about the 'Magic If':
What if I was this character? How would I feel?
AND the 'GIVEN CIRCUMSTANCES' (What has Your character been through...)



Performance Spaces to choose from:

Proscenium Arch Staging:

Audience have one viewpoint & a frame is created . Also a 'Fourth wall' is made between Audience & actors.



Morals and Ethics Islam



The moon and star is the symbol of Islam. It means that God will guide his people like the moons and stars used to

Assumption: Conclusions based on limited knowledge of the facts.

Stereotype: A mental image of a group based on opinion without regard to individual differences

Prejudice: A negative judgement or opinion formed about a group without knowledge of the facts.

Discrimination: Treating people in a less favourable way because they are members of a particular group.

Refugee: A person who has been forced to leave their country in order to escape war, persecution, or natural disaster. They have been granted asylum and are protected by law

Asylum seeker: A person who has left their country of origin and formally applied for asylum in another country but whose application has not yet been accepted.

Islamophobia: Hatred against Muslims because of their religion

Fake news: When someone posts a news story, usually on line, that they know is untrue.

Allah: Arabic word for God

99 names of Allah: The 99 names of God that explain his attributes

5 pillars: The 5 duties Muslims must do to lead a good life. These include

Hajj: Pilgrimage (special journey) to Mecca, where Islam started.

Kaaba: The black stone structure that sits at the heart of Mecca

Shahada: The basic statement of Islamic faith

Ramadan/ Sawm: The ninth month of the Islamic calendar when Muslims fast

Zakat: Giving a set amount of money to the poor

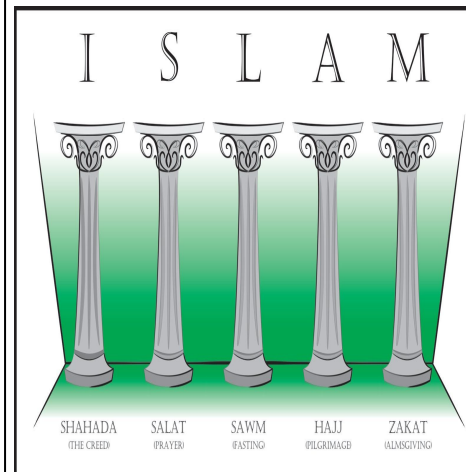
Salat: Praying 5 times a day

Wudu: Special washing that Muslims complete before they pray. This is to make them pure before God

Shahada: There is no god but Allah, Muhammad is the messenger of Allah.

لا اله الا الله محمد رسول الله

<https://www.refugeecouncil.org.uk/>
Find out 10 facts about refugees and asylum seekers from the Refugee Council



The Life of Muhammad

- Born in Mecca 570 CE. Died 632
- His parents died before he was 5
- The angel Gabriel revealed all of the Qur'an (holy book) to him
- He could not read or write
- He led many battles and eventually regained the ka'ba and Mecca and Muslim

Step By Step

بِسْمِ اللَّهِ

Starting Supplication >



Washing Hands >



Washing Mouth & Nose >



Washing Face >



Washing Arms >




Washing Head & Ears >





Washing Feet >

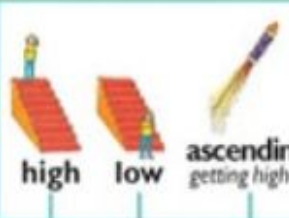
كَلِمَةُ الشَّهَادَةِ

End Supplication >

long short



steady pulse
 steady beat


rhythms and word rhythms

 spi-der spi-der bee shh!


high low



ascending
 getting higher

descending
 getting lower

scale
 a set of tuned notes


pentatonic
 a 5-note scale


loud quiet



crescendo
 getting louder


diminuendo
 getting quieter


fast slow



accelerando
 getting faster



rallentando
 getting slower



solo


accompaniment

ensemble
 vocal
 instrumental

polyphonic
 combinations of melodies (tunes)


polyrhythmic
 combinations of rhythms


chords
 groups of notes sounding together




shh!


vocal



body percussion


tuned **untuned**



instrumental



environmental



electric


verse/chorus


round
 "London's Burning"

12 bar blues
beginning/middle/end


question & answer
ABA - ternary form
 same at the beginning and end


call & response
ABACA - rondo form
 first section keeps coming back


KEY VOCABULARY - ITALIAN TERMS - ELEMENTS OF MUSIC

TONALITY - RELATIONSHIP BETWEEN NOTES, CHORDS AND KEYS

Major- cheerful, bright, joyful sounding

Minor- serious, sad or dark sounding

Modal - various fixed orders of the various notes in an octave

Atonal- music that lacks a tonal centre

STRUCTURE - THE WAY A PIECE IS BUILT UP

Binary form A B - musical form in 2 different but related sections eg Empire of the Ants by Gorillaz and Greensleeves by Henry VIII

Ternary form A B A - musical form in 3 sections, the 3rd section being a repeat of the first eg Twinkle Twinkle Little Star by Mozart and Minuet in G by Beethoven.

Rondo form A B A C A - musical form with a recurring leading theme eg Every Breath you take by The Police and Fur Elise by Beethoven

Verse-chorus form - song writing structure built around 2 repeating sections, a verse and a chorus. eg Chasing Cars by Snow Patrol eg La Donna E Mobile from Rigoletto by Verdi

Strophic form AAA - a song structure form where all verses are sung to the same music. eg Amazing Grace. by John Newton and Silent Night by Gruber

Through Composed - different music for each verse/stanza of the lyrics. eg. Bohemian Rhapsody by Queen and The Erl-King by Schubert

MELODY/PITCH - THE 'TUNE' HIGH AND LOW SOUNDS

Conjunct - a melody that moves smoothly and in small tone or semitone steps

Disjunct - an angular melody with large leaps between notes

Treble clef line notes- E G B D F - Every Green Bus Drives Fast

Treble clef space notes- F A C E

Bass clef line notes - G B D F A - Green Buses Drive Fast Always

Bass clef space notes - A C E G - All Cows Eat Grass

TEXTURE - LAYERS OF SOUNDS

Monophonic - 1 layer, 1 single melody

Polyphonic - 2 or more different melodies played at the same time.

Homophonic - Several parts all moving at the same time

Heterophonic - 1 melody, but different variations of it are being sung or played at the same time.

WORD SETTING - HOW WORDS ARE SET TO MUSIC

Syllabic- each syllable of a word is broken up and given to an individual note. One syllable, one note.

Melisma- a musical phrase of several notes sung to 1 syllable

Vocables - sequence of sounds or letters sung without meaning eg. Ooh, aah, lah,

DYNAMICS - VOLUME

pp - pianissimo - very quiet

p - piano - quiet

mp - mezzo piano moderately quiet

mf - mezzo forte - moderately loud

f - forte - loud

ff - fortissimo - very loud.

< cresc -crescendo -gradually get loud

> dim -diminuendo -gradually get quiet

TEMPO - SPEED

Allegro - fast

Presto - super fast

Vivace - lively

Andante- at a walking pace

Allegretto - quite fast

Lento - slowly

Accel - accelerando - gradually getting faster

Rall - rallentando - gradually getting slower

Rit. - ritardando - gradually getting slower

HARMONY - SIMULTANEOUSLY BLENDING NOTES.

Chord - a group of 3 or more notes played together at the same time.

Triad - 3 notes vertically stacked in thirds and played at the same time

Cadence - the sequence of chords at the end of a musical phrase.

Tonic - 1st note of a scale and tonal centre of a key- I

Dominant - 5th note of a scale- V

Subdominant - 4th note in a scale - IV

Diatonic - notes that belong to a key.

Chromatic- notes not in the scale of a key

Atonal - music with no tonal centre

Dissonant - harshness, clashing, jarring sounds

INSTRUMENTS/TIMBRE/SOUND QUALITY.

Strings -violin, viola, cello, double bass, harp.

Woodwind-flute,piccolo, oboe, cor anglais, clarinet,bass clarinet, saxophone, bassoon, double bassoon

Brass - trumpet, French horn, trombone tuba.

Percussion - hand held eg cowbell, tuned percussion eg glockenspiel, drums and 'kitchen sink' eg rattles,whistles

RHYTHM - THE REGULAR PULSATION OF MUSIC

Time signature 4/4 - a sign to indicate meter. The top number specifies how many beats in a bar and the bottom, which type of note value is to be given one beat.

Compound Time - each beat in a bar is divided into 3 equal, shorter beats

Simple Time - 4/4 or 3/4 or 2/4 or 2/2





















Syncopation - where the strong emphasis in the rhythm falls on a normally weak beat.

Cross Rhythms - two rhythms with different emphases played at the same time.

Triplet - 3 notes played in the time of 2.

DURATION

Note Values

Note	Name	Beats	Rest	Note	Name	Beats	Rest
	Semibreve	4			Dotted Semibreve	6	
	Minim	2			Dotted Minim	3	
	Crotchet	1			Dotted Crotchet	1 1/2	
	Quaver	1/2			Dotted Quaver	3/4	
	Semiquaver	1/4			Dotted Semiquaver	3/8	

STRING FAMILY



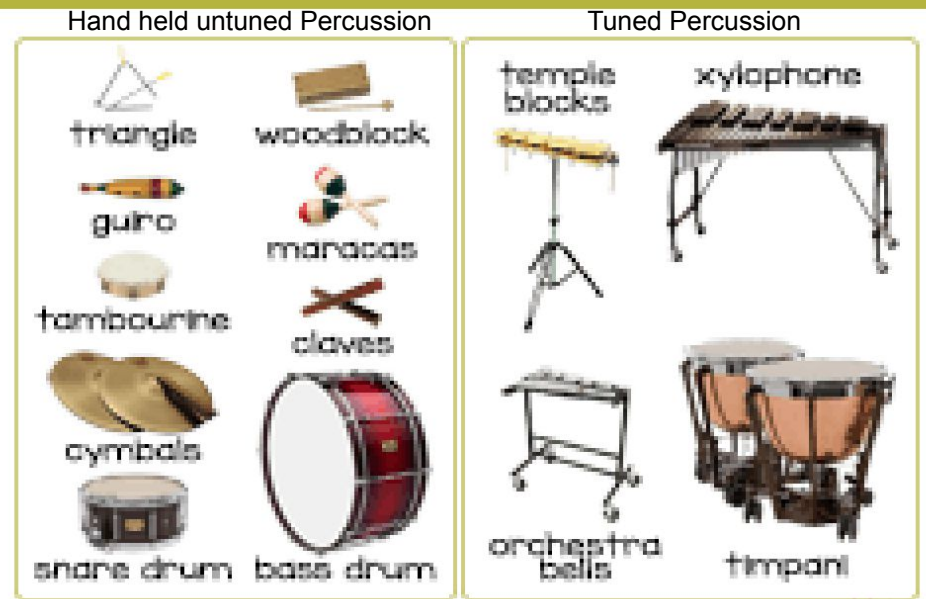
BRASS FAMILY



WOODWIND FAMILY



PERCUSSION FAMILY



MELODIC WRITING DEVICES

REPETITION

Repeating something already written down.

Two staves of music in 4/4 time. The first staff shows a melody starting on A4, with a bracket labeled 'a' covering the first four notes and a bracket labeled 'a' (sequence)' covering the next four notes. The second staff shows the melody starting on A5, with a bracket labeled 'a' covering the first four notes and a bracket labeled 'b' covering the next four notes.

SEQUENCE

A short motif restated at a higher or lower pitch.

A single staff of music in 4/4 time. A red bracket labeled 'Melody' covers the first four notes. A blue bracket labeled 'Melody repeated at higher pitch' covers the next four notes. A green bracket labeled 'Melody repeated at higher pitch' covers the next four notes. A pink bracket labeled 'Melody repeated at higher pitch' covers the final four notes.

IMITATION

A melody is repeated in a different voice.

Two staves of music in 3/4 time. The top staff has the lyrics 'I-mi-tate Me!' under the first two measures and 'I-mi-tate Me!' under the last two measures. The bottom staff has the lyrics 'I-mi-tate Me!' under the first two measures and 'I-mi-tate Me!' under the last two measures.

INVERSION

Turning a melody upside down.

Two staves of music in 3/4 time with a key signature of one sharp (F#). The top staff is labeled 'Original' and the bottom staff is labeled 'Inversion'.

MIRROR

Music played first forwards then backwards.

Two staves of music in 3/4 time. The top staff shows a melody played forwards, and the bottom staff shows the same melody played backwards.

RETROGRADE

Playing the melody backwards.

Two staves of music in 3/4 time with a key signature of one sharp (F#). The top staff is labeled 'Theme' and the bottom staff is labeled 'Retrograde Theme'.

CONJUNCT

A stepwise melody

A single staff of music in 4/4 time. The first two notes are labeled 'conjunct ascending' and the next two notes are labeled 'conjunct descending'.

DISJUNCT

Disjointed melody. Gaps between the notes.

A single staff of music in 4/4 time. The first two notes are labeled 'disjunct ascending' and the next two notes are labeled 'disjunct descending'.

READING MUSIC

Treble Clef Notes

Line Notes: E G B D F
Space Notes: F A C E

Notes altogether

C D E F G A B C D E F G A B C

Bass Clef Notes

G B D F A C E G

FINGER NUMBERS - HANDS ON - HOW TO PLAY THE KEYBOARD.

Left Hand: 4 3 2 1
Right Hand: 2 3 4 5

Mnemonics:

Every Green Bus Drives Fast
F A C E

Green Buses Drive Fast Always
G B D F A C E G

Root Chords and their Inversions

Chord triads in Root position
C Dm Em F G Am B

C major chord and its inversions.

Root Position: C-E-G
First Inversion: E-G-C
Second Inversion: G-C-E

C major chords and its inversions

Root Position: C E G
1st Inversion: E G C
2nd Inversion: G C E

C Major Chord Inversions

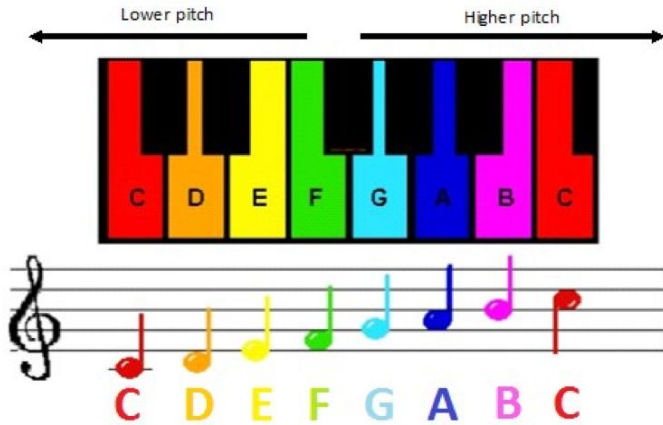
Guitar Layout

Key: R = Root Δ3 = Major 3rd P5 = Perfect 5th

Root Position: 10 12 17
First Inversion: 14 15 17
Second Inversion: 17 18 19

BLUES IMPROVISATION

12 BAR BLUES CHORDS



Improvisation

To make music up on the spot without planning. This was widely used in Blues music.

Syncopation

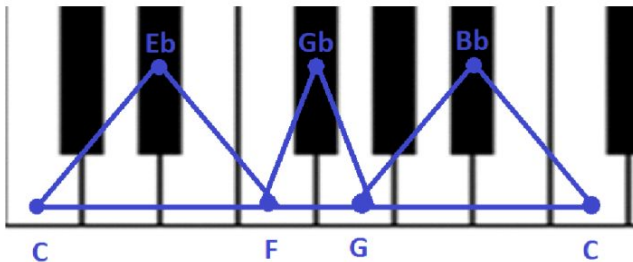
When music is played on the off-beat (i.e. not played on the main beats of the bar). Syncopation create a disjointed feel.

Walking Bass

The bass part in Blues 'walks' up the notes of a chord creating a 'walking bass' part.

Blues Scale

The melody of a blues piece, uses a special scale. This blues scale is built using: **C Eb F Gb G Bb C** (remember the 3 triangles below)



12 Bar Blues

Traditional style of music, using 3 chords (C, F, G) over a 12 bar cycle. See the diagram below.

Song Structure

A typical pop song consists of: Verse - Chorus - Verse - Chorus - Middle 8 - Chorus - Instrumental - Chorus

Accompaniment

The accompaniment is the background music that supports a melody. This is provided by the chords, played either on Piano or Guitar

Chord

A chord is 3 notes played at the same time. This type of chord is called a *triad*. Only certain notes sound nice as a chord. The notes have to have a space of 1 keyboard key between them. There are 2 types of chord: Major and Minor. Major chords sound happy, Minor chords sound sad.

Chord	Keyboard	Ukulele	Notes
C			C E G
F			F A C
G			G B D
Am			A C E

Chords in the 12 Bar Blues

C (CEG) C (CEG) C (CEG) C (CEG) F (FAC) F (FAC) C (CEG) C (CEG) G (GBD) F (FAC) C (CEG) G (GBD)



RULES AND REGULATIONS

There are two teams of **five players**.

Players cannot hold the ball for longer than five seconds

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

CONTACT – Fouls are given for hitting, holding or pushing an opponent. A **FOUL** on the shooter gives them 1-3 free throws (each 1 point).

DOUBLE DRIBBLE - To dribble the ball with two hands at the same time or to dribble, stop, and then begin to dribble again.

TRAVEL - To move the pivot foot illegally, fall to the floor without maintaining a pivot foot or to take 3 steps without dribbling the ball.

Once the attacking has brought the ball across the mid-court line, they cannot go back across the line during possession.

BACKCOURT VIOLATION - Touching the ball in the backcourt after it has entered the frontcourt or failing to bring the ball from the backcourt into the frontcourt within the allotted time of 8 seconds.

Year 9 Basketball



KEY TERMS

Players cannot remain in the **KEY** for 3 seconds or more.

SCREEN - to prevent a defender from guarding a teammate by standing in the defender's way. The player must remain stationary; a moving screen is an offensive foul.

TECHNICAL FOUL - A foul assessed for unsportsmanlike non-contact behaviour, (eg. having too many players on the floor). Penalized by loss of possession after a free throw.

VIOLATION - An infraction of the rules other than a foul, such as traveling or a three-second violation.

COMPONENTS OF FITNESS FOR BASKETBALL

Cardiovascular fitness - the ability to work the whole body for long periods without tiring.

Agility - Being able to change direction quickly.

Balance - Being able to keep your body stable when still or moving.

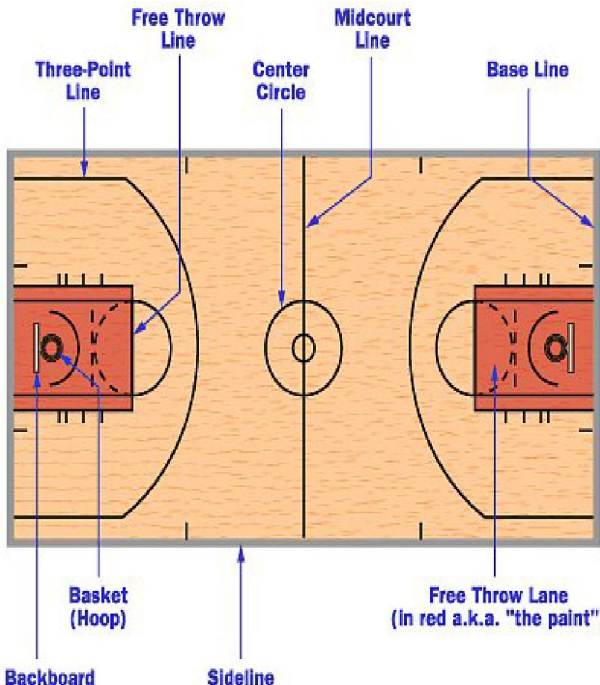
Coordination - using 2 or more body parts at once.

Power - Combines strength and speed.

Speed - The ability to move quickly.

APPLICATION OF SKILLS

- 3 man weave, moving screen
- Decision making
- Demonstrate communication on court
- Positional strengths
- Adhere to the rules and safety advice



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SKILLS IN ISOLATION

PASSING & RECEIVING – chest, bounce, javelin, overhead

SHOOTING – lay-up, reverse lay-up with weak hand, set, jump

DRIBBLING – either hand, changes of direction, pace, crossover, spin

REBOUNDING & BOXING OUT

FOOTWORK – pivot, stop.

HOW CAN YOU APPLY THESE TO BASKETBALL?

★ What components of fitness do you need for basketball?

★ When do you score 2 points and 3 points?

YEAR 9 THEORY

Health Fitness and Wellbeing

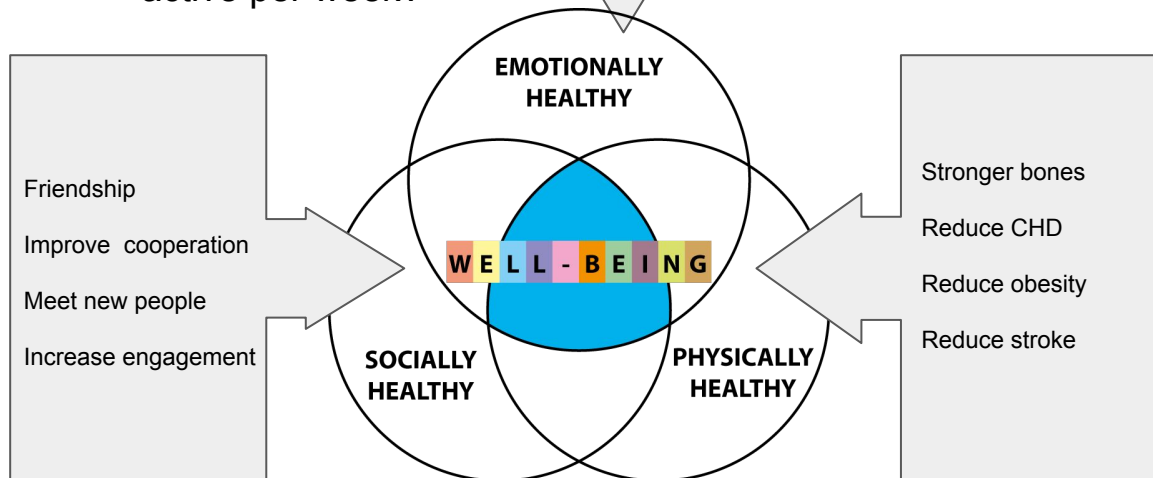
Sedentary Lifestyle

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?

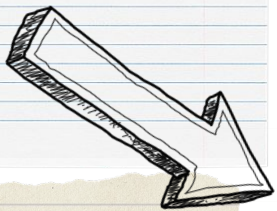
3. *Socio-economic* - golf is expensive so you can only play if you have money.

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?

ACCELERATION THROUGH DEPTH...



ENGLISH

- Research the writer's context and explain the links between this and the writer's purpose.
- Can you make links between this text and another text you have studied?
- Can you change any words in your writing today using your knowledge organiser?
- Turn the text, or its key ideas, into another form (poem, article, letter, speech, short story, etc)

SCIENCE:

- **Content:** Using the topics you have studied so far in science, can you make any links? What understanding from other topics do you need to have for the topic you are studying now? Can you do this across biology, chemistry and physics?
- **Context:** Looking at what you have been covering during the topic you have been covering, can you put the science into a real life context? When would what you understand be important to someone's life? Can you link it to any careers and jobs?
- **Practical skills:** Look at a set of data you have collected in a recent practical. Describe and explain the trend in your data in as much detail as you can. How could you make your data more repeatable and reproducible? Can you find any errors, systematic or random? How could you reduce the error? Is your data accurate and valid? How could you make the data more accurate and improve the validity.

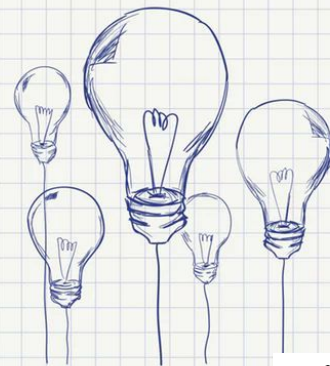
MATHS:

- Please go to the NRICH postcards and select a problem to solve.

MFL:

Research how to form the present tense in French either by using the link <https://youtu.be/p1RfmaoYZFI> or asking your teacher for a grammar sheet.

- Create a help sheet for other students to explain the rules with step by step instructions.
- Design a worksheet with an answer sheet which can be used in other French/Spanish classes.



PE:

- What training method/s would be suitable for your sport?

GEOGRAPHY

- The answer is Geography. What are 5 possible questions?
- How do you think Geography in school will change over the next 10 years with the development of new technology?
- List words associated with geography (A-Z)

HISTORY:

- Strengthen your evidence; read through your work, can you swap any words for key terms.
- Write an evaluate question about this topic
- Outline an idea of how could you teach this topic in a different way to either younger, peers or older students?
- Identify how this topic links to any British Values:
Democracy.
Individual liberty
Mutual respect
Tolerance of those of different faiths & beliefs.

ICT:

- Learning programming is about trial and error, experimenting and trying different projects of your own. Try a project of your own or use one of the websites below to give you some inspiration. Attempt to put into practice the techniques learnt in your Computer Science lesson and extend what you can do by using online resources, there are loads available if you carry out a quick Google search.

Python

https://www.codeabbey.com/index/task_list

ART/DESIGN

- Explore the work of an artist or designer linked to the Art or Design movement on your KO page by producing a mini artist study. (Visit **the Tate** website)
- Investigate 3 different art, modelling or textile techniques. How could you apply these to an end piece?
- Create your own project for a class to study using the current theme of your work.
- Visit **the Tate** website and complete one of the activities they've created.

MUSIC:

- Demonstrate and improve your depth of knowledge and understanding by reading through your written work and swapping normal words for more technical 'musical' words and Italian terms.
- In 'listening library' tasks - extra to the written criteria requested - try and direct your listening to as many of the other different elements of music as well, and include comments and information about them also. Again use Italian terms where possible.

ME:

- Include two quotations from scripture in your answer.
- Create 5 questions that your teacher might ask you about what you have learnt about today.
- Transform today's learning outcomes into questions.
- Select 5 key terms that you have used in your work today.
- Create a sentence using all of these terms.
- Based on what you have learnt today, what do you think that you should study next lesson and why?
- Produce a summary of what you have learnt today. When done, reduce it to either a single sentence of three bullet points

DRAMA:

- Discuss and Write the Changes that you would have made to your performance piece, if you could create and perform this again. (Write about the Drama Skills and Techniques used in performance)
- Discuss and Write the audience response and effect to your performance piece. How did they feel? What feedback did they give? Did your story, characters, intention for your piece come through to them?
- After performing your piece and if you could chose a different Performance Space, what would it be? Describe the performance space, what viewpoints would your audience have? How would a relationship between the actor and audience be created?

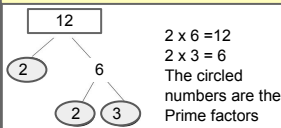
Maths Block 3: Factors, Powers & Roots

Prime Numbers

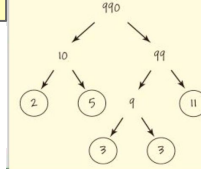
2 3 5 7 11 13 17
19 23 29 31 37 41
43 47 53 59 61 67
71 73 79 83 89 97

A prime number is a whole number greater than 1 whose only factors are 1 and itself.

Prime Factorisation



Write 990 as a product of prime factors



Start by finding 2 products of 990
Keep breaking the number down with 2 products (factors) until you reach a prime number
 $990 = 2 \times 3^2 \times 5 \times 11$

INDICES POWERS

What does 4^2 actually mean?

4×4 16

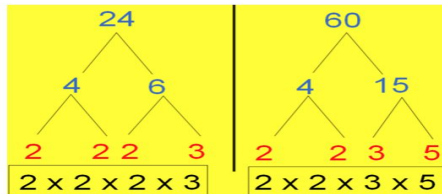
HCM & LCM



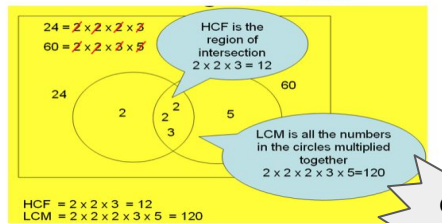
The **Highest Common Factor (H.C.F)** of two (or more) numbers is the largest number that divides evenly into both numbers.
In other words the H.C.F is the largest of all the common factors.

The **Lowest Common Multiple (L.C.M)** is the **smallest number** that is a common multiple of two or more numbers.

Find the HCF and LCM of both 24 and 60



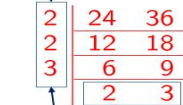
Place the prime factors into a venn diagram.



HCF: $2 \times 2 \times 3 = 12$

HCF and LCM

Find the HCF and LCM of 24 and 36 using Repeated Division



LCM: $2 \times 2 \times 3 \times 2 \times 3 = 72$

Square Roots $\sqrt{25} = 5$
&
Cube Roots $\sqrt[3]{8} = 2$

3 cubed is 27, so the **cube root of 27 is 3**



The **cube root** of a number is the opposite to a number cubed. times, gives that number.

Example:

$3 \times 3 \times 3 = 27$, so the **cube root** of 27 is 3

- $\sqrt{1} = 1$ since $1^2 = 1$
- $\sqrt{4} = 2$ since $2^2 = 4$
- $\sqrt{9} = 3$ since $3^2 = 9$
- $\sqrt{16} = 4$ since $4^2 = 16$
- $\sqrt{25} = 5$ since $5^2 = 25$
- $\sqrt{36} = 6$ since $6^2 = 36$
- $\sqrt{49} = 7$ since $7^2 = 49$
- $\sqrt{64} = 8$ since $8^2 = 64$
- $\sqrt{81} = 9$ since $9^2 = 81$
- $\sqrt{100} = 10$ since $10^2 = 100$

Simplifying Surds:

$$\begin{aligned}\sqrt{12} &= \sqrt{4 \times 3} \\ &= \sqrt{4} \times \sqrt{3} \\ &= 2\sqrt{3}\end{aligned}$$

Rationalise the denominator = Getting rid of surds from denominator

SURDS

A **surd** is a square root which cannot be reduced to a whole number.

Examples:

$\sqrt{2}$ is a surd.
 $\sqrt{5}$ is a surd.

- $2^5 = 32$
- $2^4 = 16$
- $2^3 = 8$
- $2^2 = 4$
- $2^1 = 2$
- $2^0 = 1$
- $2^{-1} = \frac{1}{2}$
- $2^{-2} = \frac{1}{4}$ - ($1 \div 2 \times 2 = 4$)
- $2^{-3} = \frac{1}{8}$ - ($1 \div 2 \times 2 \times 2 = 8$)
- $2^{-4} = \frac{1}{16}$ ($1 \div 2 \times 2 \times 2 \times 2 = 16$)

Indices is the mathematical term for 'power'
Indices is the plural term for 'index'



Multiplying Indices

(ADD THE INDICES)

$$\begin{aligned}8^3 \times 8^4 \\ &= 8 \times 8 \times 8 \times 8 \times 8 \times 8 \times 8 \\ &= 8^7\end{aligned}$$

Dividing Indices

(Subtract the Indices)

$$\begin{aligned}2^5 \div 2^2 \\ &= \frac{2 \times 2 \times 2 \times 2 \times 2}{2 \times 2} \\ &= 2^3\end{aligned}$$

Indices in Brackets

(Multiply the indices)

$$\begin{aligned}(3^5)^3 \\ &= 3^5 \times 3^5 \times 3^5 \\ &= 3^{15}\end{aligned}$$

Rationalise the denominator of $\frac{\sqrt{8}}{\sqrt{6}}$.

The denominator can be rationalised by multiplying the numerator and denominator by $\sqrt{6}$.

$$\frac{\sqrt{8} \times \sqrt{6}}{\sqrt{6} \times \sqrt{6}} = \frac{\sqrt{48}}{6} = \frac{\sqrt{(16 \times 3)}}{6} = \frac{4\sqrt{3}}{6} = \frac{2\sqrt{3}}{3}$$

Algebra & Indices Law Block 3

Expression

$$4x - 7 = 5$$

Terms

Coefficient Variable

$$4x - 7 = 5$$

Operator Constants

Remember

5a not 5 x a

ab not ba

not $x \div 2$
but $\frac{x}{2}$

2xy not yx2

Expanding Double Brackets

F O I L

first outer inner last

$$(x+8)(x+5)$$

$$x^2 + 5x + 8x + 40$$

$$x^2 + 13x + 40$$

Law of Indices

Rule	Example
$a^m \times a^n = a^{m+n}$	$2^5 \times 2^3 = 2^8$
$a^m \div a^n = a^{m-n}$	$5^7 \div 5^3 = 5^4$
$(a^m)^n = a^{m \times n}$	$(10^3)^7 = 10^{21}$
$a^1 = a$	$17^1 = 17$
$a^0 = 1$	$34^0 = 1$
$\left(\frac{a}{b}\right)^m = \frac{a^m}{b^m}$	$\left(\frac{5}{6}\right)^2 = \frac{25}{36}$
$a^{-m} = \frac{1}{a^m}$	$9^{-2} = \frac{1}{81}$
$a^{\frac{x}{y}} = \sqrt[y]{a^x}$	$49^{\frac{1}{2}} = \sqrt{49} = 7$

Factorising into Double Brackets

Find 2 numbers when added or subtracted give the term $3+4=7$ (number + letter) & that multiply to give the constant (number on its own) $3 \times 4 = 12$

$$x^2 + 7x + 12$$

$$(x+3)(x+4)$$

Simplifying Algebraic Fractions

FACTORISE the top and/or the bottom if possible

Cancel common factors

$$\frac{3x+6}{3x^2} = \frac{\cancel{3}(x+2)}{\cancel{3}x^2} = \frac{x+2}{x^2}$$

Subject of an equation

Single letter on one side of = sign
 $s = 10t + 4$

s is the subject!

exponent (or index, or power)

$$10^2$$

base

Expanding-

Remove brackets by multiplying

Factorising-

add brackets by finding common factors

Expanding

$$4(x+3) = 4x + 12$$

Multiply everything on the outside of the bracket with everything inside the bracket

Like Terms ?

- 1) $4g$ and $4h$ **NO** - letter variables are different.
- 2) $3h$ and $-h$ **YES** - letters the same ($-h = -1h$)
- 3) $5x$ and $4xy$ **NO** - letter variables are different.
- 4) $2x^2y^3$ and $2x^2y^5$ **NO** - y powers are different.
- 5) $5p^2q^3$ and $-4p^2q^3$ **YES** - letters & powers same

$$1x = x$$

No need to write the 1!



Substitution

You can substitute (replace) a value into an expression (or formula) to find its value

If $a = 12$

$$4a + a^2 = \chi$$

$$4 \times 12 + 12^2 = 48 + 144$$

$$\chi = 192$$



Factorising

Outside the bracket - find the HCF (number 1st and then letter/variable)

Inside the bracket - put what to multiply to get back to the original expression)

$$= 8n^2 + 20n$$

$$4n(2n + 5)$$

(4 is HCF of 8 & 20 n is in both terms
So, 4n is on outside of bracket

$$4 \times 2 = 8 \quad n \times n = n^2 \quad \text{so } 2n \text{ is in bracket}$$

$$+ 5 \text{ as } \quad 4n \times 5 = 20n$$

Year 9 Factors, Powers & Roots

Square Roots $\sqrt{25} = 5$
Cube Roots $\sqrt[3]{8} = 2$

3 cubed is 27, so the **cube root of 27 is 3**



The **cube root** of a number is the opposite to a number cubed.

Example:
 $3 \times 3 \times 3 = 27$, so the **cube root** of 27 is 3

- $\sqrt{1} = 1$ since $1^2 = 1$
- $\sqrt{4} = 2$ since $2^2 = 4$
- $\sqrt{9} = 3$ since $3^2 = 9$
- $\sqrt{16} = 4$ since $4^2 = 16$
- $\sqrt{25} = 5$ since $5^2 = 25$
- $\sqrt{36} = 6$ since $6^2 = 36$
- $\sqrt{49} = 7$ since $7^2 = 49$
- $\sqrt{64} = 8$ since $8^2 = 64$
- $\sqrt{81} = 9$ since $9^2 = 81$
- $\sqrt{100} = 10$ since $10^2 = 100$

- Cube Numbers**
- $1^3 = 1 \times 1 \times 1 = 1$
 - $2^3 = 2 \times 2 \times 2 = 8$
 - $3^3 = 3 \times 3 \times 3 = 27$
 - $4^3 = 4 \times 4 \times 4 = 64$
 - $5^3 = 5 \times 5 \times 5 = 125$
 - $6^3 = 6 \times 6 \times 6 = 216$
 - $7^3 = 7 \times 7 \times 7 = 343$
 - $8^3 = 8 \times 8 \times 8 = 512$
 - $9^3 = 9 \times 9 \times 9 = 729$
 - $10^3 = 10 \times 10 \times 10 = 1000$
-

Prime Numbers

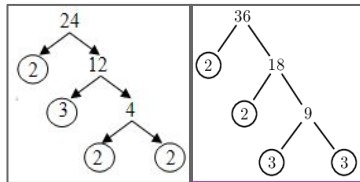
- 2 3 5 7 11 13 17
 19 23 29 31 37 41

A prime number is a whole number greater than 1 whose only factors are 1 and itself.
 OR
 a whole number that cannot be made by multiplying using other whole numbers

The **Highest Common Factor (H.C.F)** is the largest number that is a factor of two (or more) other numbers.

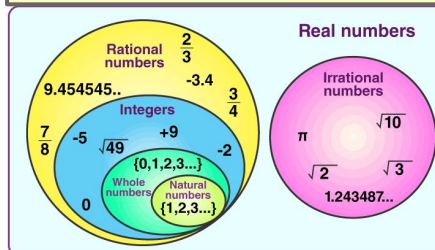
The **Lowest Common Multiple (L.C.M)** is the smallest number that is a common multiple of two or more numbers. (in both timestables)

To find HCF & LCM of 24 & 36
 Find prime factors of both numbers
HCF: find the common factors and multiply them
LCM: Use the HCF and multiply by the rest of the factors



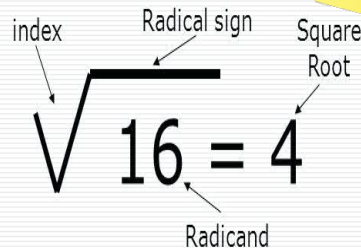
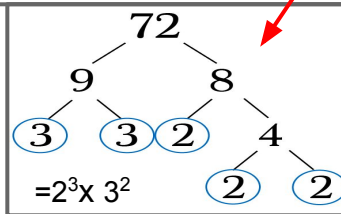
HCF: $2 \times 3 \times 2 = 12$
 LCM: $12 \times 2 \times 3 = 72$

Rational Numbers can be written as a fraction
Irrational Numbers **cannot** be written as a fraction



Prime Factorisation

Find any 2 factors of the given number
 If the factor is prime, circle it
 If not, continue to factor the numbers until you only have prime numbers left



Note:

What is a Surd ?

$\sqrt{3}$ **root of a whole number** = 1.732050808 ... **irrational number**

A **surd** is a square root which cannot be reduced to a whole number.

Simplifying Surds:

$$\begin{aligned} \sqrt{12} &= \sqrt{4 \times 3} \\ &= \sqrt{4} \times \sqrt{3} \\ &= 2\sqrt{3} \end{aligned}$$

To simplify surds:
 Find factor pairs of 12
 1, 12 2, 6 3, 4
 See if any factors are a square number
 - choose highest square number
 4 = square number
 Separate the square roots & solve separately

To Rationalise the Denominator means replacing the surd with a rational number

$$\begin{aligned} \frac{3}{\sqrt{5}} &= \frac{3}{\sqrt{5}} \times \frac{\sqrt{5}}{\sqrt{5}} && \text{Equivalent to multiplying by 1.} \\ &= \frac{3 \times \sqrt{5}}{\sqrt{5} \times \sqrt{5}} && \text{Rationalise the denominator.} \\ &= \frac{3\sqrt{5}}{5} && \sqrt{5} \times \sqrt{5} = \sqrt{25} = 5 \\ &= \frac{3}{5} \sqrt{5} && \text{Equivalent form} \end{aligned}$$

Year 9

FRACTIONS

The division of one integer by another.

+/- Mixed Numbers $3\frac{2}{5} + 1\frac{4}{7}$

Change to improper/top heavy fractions

$$3\frac{2}{5} + 1\frac{4}{7} = \frac{17}{5} + \frac{11}{7}$$

ADDING / SUBTRACTING FRACTIONS

Denominators **MUST** be the same!
If they are just add or subtract the numerators

$$\frac{2}{9} + \frac{5}{9} = \frac{7}{9}$$

$$\frac{2}{15} + \frac{3}{5} = ?$$

If denominators are **different** - you must find an equivalent fraction!

$$\frac{2}{15} + \frac{3 \times 3}{5 \times 3}$$

$$\frac{2}{15} + \frac{9}{15} = \frac{2+9}{15} = \frac{11}{15}$$

Same

Top Tip

Just multiply each side by the opposite side's denominator

$$3 \times \frac{7}{9} - \frac{2 \times 9}{3 \times 9}$$

When **COMPARING** fractions, the denominator **MUST** be the same!

$$\frac{21}{27} - \frac{18}{27} = \frac{3}{27}$$



Dividing Fractions

K- Keep the 1st fraction
F- Flip the 2nd fraction
C- Change \div to \times

$$\frac{1}{3} \div \frac{2}{5} = \frac{1}{3} \times \frac{5}{2} = \frac{5}{6}$$

Dividing Fractions is as easy as pie,
Flip the 2nd fraction and multiply!

FRACTIONS

$\frac{1}{5}$ **Proper Fraction**
Numerator smaller than denominator

$\frac{6}{2}$ **ImProper Fraction**
Numerator greater than denominator

$2\frac{1}{2}$ **Mixed fraction**
Whole number and fraction together

Mixed Number to Improper Fraction

$$2\frac{3}{4} = \frac{(4 \times 2) + 3}{4} = \frac{11}{4}$$

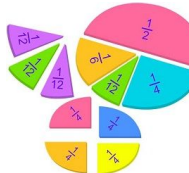
Multiply the whole number by denominator
Add this to the numerator

SIMPLIFYING FRACTIONS

Divide the numerator and denominator by a common factor

$$\frac{32 \div 2}{40 \div 2} = \frac{16 \div 2}{20 \div 2} = \frac{8 \div 2}{10 \div 2} = \frac{4}{5}$$

You know when the fraction is in its simplest form when you can no longer find a common factor



An **integer** is a whole number (not a fraction) that can be positive, negative, or zero.

RECIPROCAL

The reciprocal of a number is a fraction flipped over

$$\frac{2}{3} \rightarrow \frac{3}{2} \quad 5 = \frac{5}{1} \rightarrow \frac{1}{5}$$

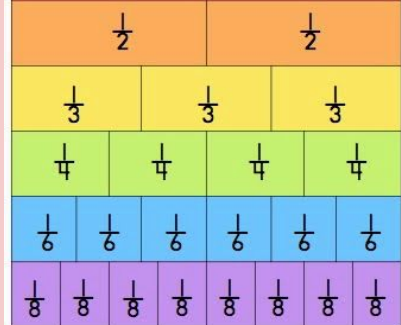
EQUIVALENT FRACTIONS

Fractions which represent the same value.

To find an equivalent fraction multiply or divide the numerator and denominator by the same number

$$\frac{1}{3} \xrightarrow{\times 2} \frac{2}{6} \xrightarrow{\times 2} \frac{4}{12} \xrightarrow{\times 2} \frac{8}{24} \xrightarrow{\times 2} \frac{16}{48}$$

1 whole



Multiplying Fractions

Not a problem: top x top & bottom x bottom!

Multiply the numerators

$$\frac{3}{4} \times \frac{1}{2} = \frac{3 \times 1}{4 \times 2} = \frac{3}{8}$$

Multiply the denominators

Unit Fraction

A fraction where the numerator is **one** and the denominator is a positive integer.

$$\frac{1}{5}$$

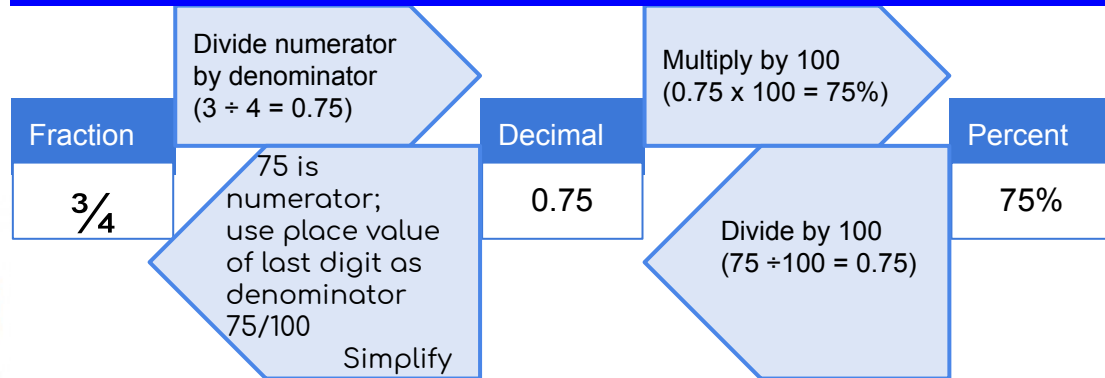
Year 9

FRACTIONS ↔ **DECIMALS**
↕
PERCENTAGES

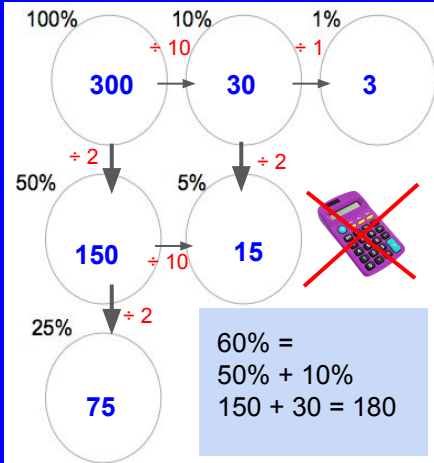
Percent
= out of 100!
(per = divide
cent = 100)



Converting Fractions / Decimals/Percentages



Percentage Bubbles help you to work out any percentage



Percentage Increase /Decrease

Increase 140 by 12%	Decrease 140 by 12%
Find 12% of 140	Find 12% of 140
12% of 140 is 21	12% of 140 is 21
Add it to the original value	Subtract from original value
$140 + 21 = 161$	$140 - 21 = 119$

Express one value as a percentage of another

What is 35 as a percentage of 900?

1. Divide the first value by the total value
 $35 \div 900$

2. Multiply by 100 (per cent)

$$\frac{35}{900} \times 100 = 3.9\% \text{ (to 1 decimal place)}$$

What is 12 as a percentage of 120?

$$\frac{12}{120} = \frac{1}{10} \times 100 = 10\% \text{ (simplify)}$$

Learn these Fractions Decimals & %

$$\frac{3}{4} = 0.75 = 75\%$$

$$\frac{1}{3} = 0.33\bar{3} = 33.3\%$$

$$\frac{1}{4} = 0.25 = 25\%$$

$$\frac{1}{5} = 0.2 = 20\%$$

$$\frac{1}{8} = 0.125 = 12.5\%$$

Percent - Calculator

Convert your percentage to a decimal to get a multiplier

12% of 630

$$12 \div 100 = 0.12$$

Multiply by this decimal

$$630 \times 0.12 = 75.6$$

Fraction of an Amount

Multiply by the numerator
Divide by the denominator

Find $\frac{2}{5}$ of £60

$$\frac{2 \times 60}{5}$$

Decimal Place Value

