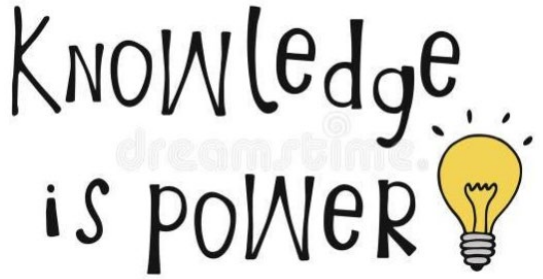
SARACENS
HIGH SCHOOL

Year 8 Knowledge Organiser



Summer Term
2023-2024

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KS3 Knowledge Organiser

1	Tone	Creating areas of light to dark on a piece of art
2	Line	The path left by a moving point. For example, a pencil or a brush
3	Shape	A shape is an area enclosed by a line
4	Form	A three dimensional shape or making a piece of artwork appear 3D
5	Pattern	A design that is created by repeating lines, shapes, tones or colours
6	Texture	How the artwork feels
7	Colour	Used to show what something looks like or to create a certain mood
8	Primary Colour	Blue, Red and Yellow. Cannot be made by mixing other colours together
9	Secondary Colour	Green, Orange and Purple. Made by mixing equal amount of 2 primary colours.
10	Harmonious Colours	Colours that sit next to each other on the colour wheel
11	Complementary Colours	Colours that sit opposite each other on the colour wheel and create contrast
12	Warm Colour	Red, Orange and Yellow
13	Cool Colour	Blue, Green and Purple
14	Monochrome	Using different tones of only one colour in a piece of art
15	Composition	How the elements in the work are arranged
16	Proportion	The size of something compared to something else
17	Scale	The overall size of a piece of artwork of the size of objects within the artwork
18	Focal Point	What you look at first is in a piece of art
19	Contrast	Using opposite elements within a piece of art. For example black and white
20	Foreground	The objects closest to you in a piece of art
21	Midground	The objects in between the foreground and background of a piece of art
22	Background	The objects furthest from you in a piece of art
23	Abstract	Art that does not represent an accurate image of reality
24	Realistic	Art that shows a realistic representation of reality
25	Shadows	The darkest tone to represent the darkest areas of a piece of art
26	Highlights	The lightest tone to represent the lightest areas of a piece of art
27	Mid tones	The tones in between the light and dark areas of a piece of art

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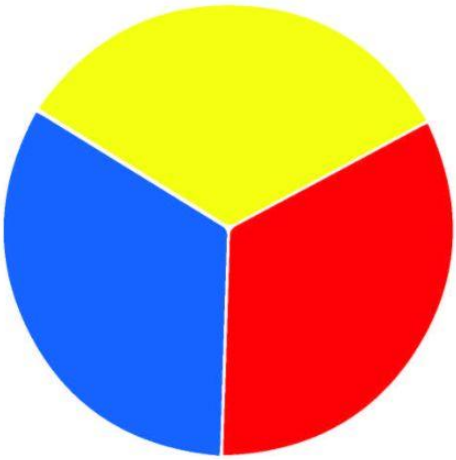
KS3 Knowledge Organiser

28	Landscape	Artwork of a natural scenery such as mountains, fields etc
29	Portrait	A piece of art that shows a persons face
30	Conceptual	Artwork that focuses an idea behind the work rather that the outcome
31	Mood	The atmosphere / emotion of feeling expressed in a piece of art
32	Expressive	Using shape, line, patterns and colour in an abstract way to create a thought / feeling
33	Pastiche	Art that copies the style of another piece of artwork
34	Minimalism	Artwork that consists of a simple design usually made up of shapes and or lines
35	Negative Space	The space around the artwork that has nothing there
36	Mural	Artwork that has been created on to a wall usually large scale
37	Typography	What text / words are referred to in your artwork
38	Media / Medium	The materials used to create art. For example pen, paint, pencil
39	Mixed Media	More than one media / medium used to create a piece of art

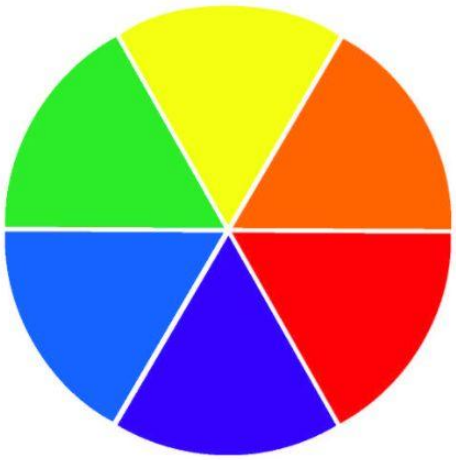
Techniques and Mediums		
40	Directional Shading	Shading following the direction of the object to build texture and tone
41	Stippling	Dots used to build texture and or tone
42	Cross-hatching	Lines that go in multiple directions used to build texture and or tone
43	Hatching	Line that go in the same direction used to build texture and tone
44	Scumbling	Overlapping lots of little circles used to build texture and tone
45	Bleeding	Running one colour into another
46	Blending	Mixing colours to create a gradual transition from one colour to another
47	Tonal Drawing	Drawing that consists of shading using tones of dark to light
48	Continuous Line Drawing	A drawing where the line is continuous and does not break
49	Line Drawing	A drawing that concentrates on the outline and main lines within a drawing but not tone
50	Applique	Joining one piece of fabric on top of another in a decorative way
51	Embellishment	Decorating fabric using buttons, beads and sequins etc
52	Embroidery	Decorating fabric through stitching

THE COLOUR WHEEL



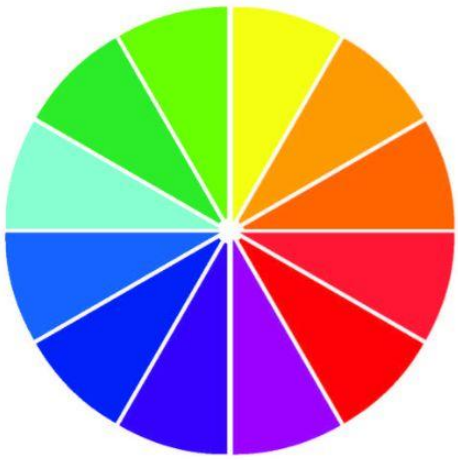
Primary Colours

Cannot be made from any other colours. All other colours are made from these



Primary and Secondary Colours

Made by mixing equal amounts of two primary colours



Primary, Secondary and Tertiary Colours

Made by mixing equal amounts of primary and secondary colours next to each other.

Harmonious Colours

Colours that are next to each other on the colour wheel are called harmonious.

Complementary Colours

Colours that are opposite each other on the colour wheel. When complementary colours are used they create contrast.

Warm and Cool Colours

Warm colours are on the red side of the wheel.
Cool colours are on the blue side of the wheel.

Neutral Colours

Black, White and Grey

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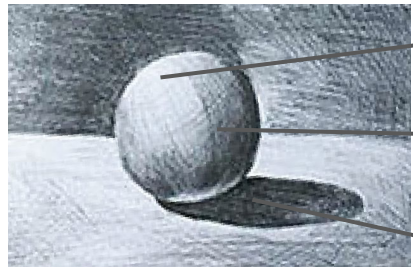
Year 8 Knowledge Organiser Practical tasks

1	Create a tonal bar using the technique stippling showing tones from dark to light	
2	Create a tonal bar using the technique hatching showing tones from dark to light	
3	Create a tonal bar using the technique scumbling showing tones from dark to light	
4	Create a tonal bar using the technique cross-hatching showing tones from dark to light	
5	Create a tonal bar using the technique directional shading showing tones from dark to light	
6	Shade in the rectangle using warm colours only	
7	Shade in the rectangle using cool colours only	
8	Create your own pattern and colour in a monochrome style	
9	Colour in the rectangles using complementary colours	
10	Colour in the rectangles using harmonious Colours	
11	Label the highlights, shadows and midtones on this image	
12	Is this image abstract or realistic? Explain why	

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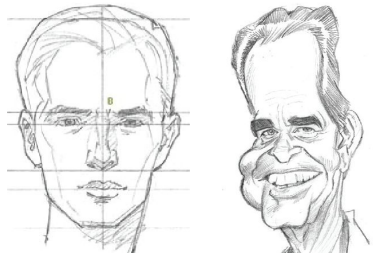
Year 8 Knowledge Organiser Practical tasks

13	Create a continuous line drawing of something in front of you (pencil case, shoe, drink etc)	
14	Create a line drawing of something in front of your (pencil case, shoe, drink etc)	

15	Explain the composition of this artwork	
16	Create a pastiche of Paula Scher's work	
17	Circle the image that show correcti proportions	
18	Create a tonal drawing of this shell	

COMPUTER SCIENCE: Year 8 TOPIC: DATA REPRESENTATION AND PYTHON PROGRAMMING

KEY TERMS AND DEFINITIONS		
1	What is an algorithm?	An algorithm is a plan. A logical step-by-step process for solving a problem. A set of rules that precisely defines a sequence of operation
2	What is programming?	The process or activity of writing computer algorithms
3	What is pseudocode?	A description of the code written in simple English that can be understood by humans
4	What is an instruction?	A single action that can be performed by a computer processor
5	What is syntax?	The arrangement of words and phrases to create well-formed sentences in a language
6	What is a variable?	A variable is a memory location within a computer program where values are stored
7	What is assignment?	Setting the value of a variable in a computer program
8	What is a constant?	A value in computer programming that does not change
9	What is debug?	The process of finding and correcting programming errors
10	What does execute mean?	To run a computer program
11	What is a High-Level language?	A computer programming language used to write programs. They need to be translated into machine code through a compiler, interpreter or assembler
12	What is machine code?	A low-level language that represents how computer hardware and CPUs understand instructions.
13	What is runtime?	The period when a computer program is executing or running
14	What is a programming language?	A language used by a programmer to write a piece of software. There are many programming languages.

DATA REPRESENTATION DEFINITIONS		
15	What is binary?	A number system that contains two symbols, 0 and 1. Also known as base 2
16	What is denary?	The number system most commonly used by people. It contains 10 unique digits 0 to 9. Also known as decimal or base 10.
17	What is hexadecimal?	A number system that contains sixteen symbols, 0 to 9 and A to F. Also known as base 16.
18	What is a character set?	A mapping of keyboard characters to numbers used to represent those keyboard characters in a computer system
19	What is ASCII?	American Standard Code for Information Interchange – A 7-bit character set for representing English keyboard characters

UNITS OF DATA REPRESENTATION		
20	What is a bit pattern?	Any sequence of more than one bit
21	What is a bit?	A single symbol in a binary number. Either 1 or 0
22	What is a nibble?	A bit pattern which is four bits long
23	What is a byte?	A bit pattern which is eight bits long
24	What is a Kilobyte?	1000 bytes
25	What is a Megabyte?	1000 Kilobytes
26	What is a Gigabyte?	1000 Megabytes
27	What is a Terabyte?	1000 Gigabytes
28	What is a Petabyte?	1000 Terabytes

BINARY ADDITION		
29	What is 1 + 0?	1 + 0 = 1
30	What is 1 + 1?	1 + 1 = 0 carry 1

Key characters	Description
1. Christopher Boone	The protagonist. A 15-year-old boy who is very good at maths but is socially awkward.
2. Ed Boone	Christopher's Dad. He cares about his son but is very hot-headed and stubborn
3. Judy Boone	Christopher's Mum. Left due to not being able to handle his odd behaviour. Has a fun and romantic view of life
4. Siobhan	Christopher's teacher. She is calm, patient and encouraging. She gives Christopher advice on what he should do.
5. Rodger Shears	Christopher's Mum's boyfriend. He is not understanding towards Christopher's needs and is often sarcastic
6. Mrs Shears	Rodger's wife. Helped Ed and Christopher. Wellington's owner.
7. Mrs Alexander	An elderly woman who lives on Christopher's street. She is kind and welcoming, but could also be seen as a gossip.

8. Pace	fast or slow
9. Gesture	a movement of part of the body, especially a hand or the head, to express an idea or meaning
10. Gait	walk
11. Posture	the position in which someone holds their body
12. Facial expression	usually links to an emotion. Tells the audience the character's feelings and what they are thinking
13. Pace	fast or slow
14. Pause	An actor stops talking for a moment/beat during a line
15. Pitch	high or low
16. Tone	reveals an emotion i.e. angry, scared
17. Volume	loud or quiet
18. Accent	shows where someone is from or gives clues as to their upbringing

Frantic Assembly Techniques	
19. Push Hands	A movement exercise to enhance partnership and teamwork. Actors move together with joined hands. Hands are placed palm to palm, the person with their hands on top is 'leader' and should explore space and levels with their partner.
20. Principles of Lifting	Exploring the mechanics of beginning to use lifts in creative work. Starting with basic trust exercises, using tension and balance. Building from this into transitional lifts, then into full group work lifting.
27. Round by Through	A string of movement material with R-B-T at the centre of each movement choice. Round = Any move that involves passing closely around the body of partner By = Slotting in move that is neat and efficient. Reducing the space between the partners to as small as possible. Through = Passing through the partner, usually confined to the upper body and arms.
Set design key words - The set should represent the context of the play.	
21. Themes/symbols	The set design can also communicate abstract concepts, such as themes and symbols. As an example, a design could include a large, dead tree to suggest the themes of death in the play.
22. Style	Set design is also important in supporting the style of the production. For example, a play in a naturalistic style would aim to create the impression of reality through realistic-looking props and set items. A play performed in a minimalistic style would use just a few, simple props to represent a setting, such as a large, suspended window frame to suggest the performer is standing inside a grand manor house.
23. Colour	Colour can be used within set design to symbolise various ideas on stage. For example, the set designer for this play could include dull greys and a monochromatic palette (single colour) this could enhance the sad atmosphere and dark themes in the play.
24. Condition	The condition of a design can reveal important information about the setting or a character's circumstances. For example, shabby, ragged and decaying piles of rubbish might suggest that the area is run down and a waste ground.
25. Levels	A set designer can vary levels using a rostra, blocks, ramps and/or steps. Blocks, staging units, scaffolding and planks can be used to create levels and can be joined together to create steps or other shapes. Levels are often used in productions to portray a character's status, power or situation.

26. Projections	Projections- can be used to add detail and texture on stage. Scenery can be projected, for example the pylon and the waste ground, the problem is that if the image is not projected behind the set, the actors will cast shadows onto it.
27. Position	Where you put the items of set on the stage. Use the correct language **upstage; downstage; centre stage; stage left; stage right; upstage centre; upstage left; upstage right, downstage centre; downstage left; downstage right.**
28. Stage furniture	Items of set that can be moved on stage but are not **props.**
29. Stage flats	Short for scenery flat which is a flat piece of theatrical scenery which is painted and positioned on **stage** so as to give the appearance of buildings or other background.
30. Cyclorama	A large curtain or wall, often concave, positioned at the back of the stage (upstage). It often encircles or partially encloses the stage.
31. Backdrop	The background image, behind the set, on the back wall of the stage. This can set the imaginary location for the scene.
32. Location	The set can tell the audience where and when the scene takes place.
33. Symbolism	Items and actions on stage that represents a message.

A: NATURAL Timber:

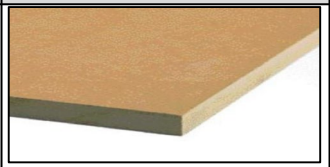
Deciduous Trees:	**Coniferous Trees:**
With Broad leaves that fall in Autumn.	With needles and are evergreen.
Grows fully for ¼ of the year	Grows all year round. Slower in the Winter
The growth rings are closer together	Trees grow tall and straight which makes it easier for the **manufacturer** to cut long straight planks of wood.
They produce timber known as **Hardwood.**	They produce timber known as **Softwood.**
Expensive as they take longer to mature.	Cheaper, widely available in DIY stores

B:	HARDWOOD	PROPERTY	USE
1.	Beech	Does not splinter	Tool handles. Children toys.
2.	Oak	Strong & Hard	Flooring, furniture, veneers.
3.	Mahogany	Rare from S. Americas, Asia. Hard. Expensive	Furniture. Veneers.
4.	Teak	Durable. Oily.	Outdoor furniture
5.	Balsa	Light weight	Model making

C:	SOFTWOOD	PROPERTY	USE
1	Scots Pine	Knotty. Straight grained. Cheap.	DIY. Furniture. Door frames.
2.	Spruce	Small hard knots. **Not durable.**	Indoor white furniture. Bedroom kitchen.
3.	Yellow Cedar	Light weight, stiff stable.	Furniture, boat building, veneers, model making.
4.	European Redwood	Strong, durable when preserved. Cheap.	General use, shelves, cupboards, roofs.

D:	IMAGE	NAME	ORIGIN	PROPERTIES	USE
1		**Veneer: Is NOT a manufactured board.**	1-10 mm thick strips of wood sliced/peeled in a roll from **Natural Wood., soft or hard wood**	Variable depending on the source wood type.	Added to manufactured boards to look **expensive** and aesthetically pleasing

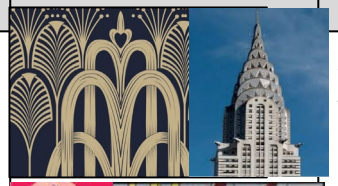
D: MANUFACTURED BOARDS:

	IMAGE	NAME	ORIGIN	PROPERTIES	USE
1.		**Plywood**	Veneer or Plys strips from many types of **Natural timber.** Layers are glued together at 90° angles.	Strong. Relatively cheap. Varying thickness. 3mm -24mm **Large boards**. 2400x1200mm	Construction, flooring, walls. Usually hidden/covered.
2.		**MDF:** Medium density Fibreboard	Made from powdered waste wood (80%) plus resin (glue). Dust when cut considered health risk.	**Cheap**. Varying thickness. **Large boards**. smooth surface. Easy to cut. **Swells when wet**	Furniture doors. **Radiator covers.** Wardrobes etc. Can be **veneered** or covered in **Melamine** to **protect** it.
3.		**Chipboard**	**Made from waste wood from Plywood manufacture.** Uses recycled wood.Plus resin (glue)	**Cheap**. Varying thickness. **Large boards**. **Swells when wet.**	Flatpack furniture. Kitchens. Coated with **Melamine** for **waterproof** and **hardness.**

E: TOOLS:

	IMAGE	NAME	USE:
1		Coping saw	Cutting thin wood and acrylic. Cutting intricate shapes.
2		Sand paper and block	Removing edges, shaping, preparation for painting.
3		Wood Plane	Stripping layers of wood away. Shaping and smoothing.
4		Files and rasps	**Rasps:** Removing excess wood **Files:** Smoothing and shaping.
5		Scroll saw	Fixed blade for cutting intricate shapes

F:DESIGN MOVEMENTS AND DESIGNERS:

Name	Date	IMAGE	MAIN FEATURES	DESIGNERS
ART DECO	1910-1939		Architectural Symmetry Metallic colours	RAYMOND TEMPLER: Jeweler WILLIAM VAN ALLEN: The Chrysler Building
POP ART	1947-1960		Graphics Fun Colour	ANDY WARHOL: Graphics, films ROY LICHENSTEIN: graphic-comic style art
MEMPHIS	1980-1986		Bright colours Shapes Fun Challenging the 'normal'	ETTORE SOTSASS: Furniture, fittings MICHEAL GRAVES: Furniture, Household goods, buildings
BAUHAUS	1919-1933		Function over form Clean lines Little decoration	MARCEL BREUER: Furniture ANNIE ALBERS: Textiles, rugs

	Characters		Themes
1	Juliet Montague: Main Female character	10	Honour: In the play the love of family honour surfaces because both the Montagues and Capulets believe their honour is greater than each other.
2	Romeo Montague: Main male character	11	Gender: In Romeo and Juliet, Shakespeare shows the society in Verona as a time in which there were harsh gender roles that differentiate between men and women. Men had the ruling voice in society and women were expected to follow.
3	Lady Capulet : Lord Capulets wife and Juliet's mother.	12	Arranged marriage: A marriage in which the husband and wife are chosen for each other by their parents.
4	Lord Capulet: Head of the Capulet house and Juliet's father	13	Courtly love: A romantic love between two unmarried people. Followed strict rules and a way for the ladies or knights to show their admiration. Popular during the medieval era.
5	Tybalt: Juliet's cousin, a very well known Capulet	14	Catholicism: A Christian tradition and way of life following the bible. Religious imagery is very important in Romeo and Juliet.
6	Mercutio: Neither Capulet nor Montague and Romeo's dear friend.	15	Conflict& Violence: Conflict means a serious disagreement or argument while violence means behaviour inkling physical force to hurt or kill someone.
7	Benvolio: Romeo's cousin	16	Family: The two families are the Montagues and Capulet's. Both are "alike in dignity," meaning they have roughly the same prestige in Verona. Romeo is a Montague, and Juliet is a Capulet.
8	Friar Lawrence: A dear friend to both families and a well known monk	17	Fate: The idea that Romeo and Juliet's lives are already mapped out, and the events cannot change. They must live their fate.
9	Nurse: Close to Juliet's family.	18	Tragedy: Tragic plays usually end with death. In this play, It is a tragic story where the two main characters, Romeo and Juliet, are supposed to be sworn enemies but fall in love.

19	Context: This period was 'The Elizabethan Era' which was also known as 'The Renaissance': a time of significant change in the fields of religion, politics, science, language and the arts. Romeo and Juliet was set during a time of religious and political turmoil.

	Key quotes:
20	"A pair of star-crossed lovers take their life, whose misadventured piteous overthows doth with their death bury their parents' strife."
21	"I have a soul of lead so stakes me to the ground I cannot move."
22	"For never was a story of more woe/than this of Juliet and her Romeo."
23	"Did my heart love till now? Forswear it, sight! For I ne'er saw true beauty till this night."
24	But soft! What light through yonder window breaks? It is the east, and Juliet is the sun." Romeo
25	"A plague on both your houses!"
26	Or if thou wilt not, but be sworn my love, And Ill no longer be a Capulet.
27	"O Romeo, Romeo, wherefore art thou Romeo?"
28	“Abraham: Do you bite your thumb at us, sir? Sampson: I do bite my thumb, sir.”
29	“That which we call a rose By any other name would smell as sweet.”
30	“O teach me how I should forget to think!”

	Brief Summary:
31	ACT 1: Set in Verona, we find two feuding families – the Montagues and the Capulets. There is a ball and two young people meet and fall in love – Romeo Montague and Juliet Capulet. Their families will never allow this.
32	ACT 2: Romeo and Juliet continue to see each other secretly. Romeo wishes he was not a Montague and they decide that they will secretly marry.
33	ACT 3: Tybalt (Juliet’s cousin) tries to argue with Romeo, who refused. Mercutio (Romeo’s friend) goads Tybalt into a fight and is killed by Tybalt when Romeo attempts to stop them. Romeo then murders Tybalt in his anger.
35	ACT 4: Juliet asks for help from Friar Lawrence. He gives her a sleeping potion that will make her appear dead so that on her supposed wedding day to Paris, she will be carried to the family vault, where Romeo will find her and whisk her away.
35	ACT 5: Romeo does not receive a letter about the plan. He hears Juliet has died and obtains a poison for himself. Romeo sees Juliet (assuming she is dad) and poisons himself. Juliet awakes and realising what has happened kills herself. The Two families reconcile in the wake of the tragedy. They realise this ongoing feud must stop before more people die.

Weekly Spelling Test Words – You will need to know how to spell all the words listed below.

1. Props: An object which is used on stage as part of the play.	31. Banished: Send (someone) away from a country or place as an official punishment.
2. Stage Direction: An instruction telling an actor how to perform.	32. Violence: Bheaviour involcing physical orce or hurt, damage, to kill someone or something.
3. Lighting: How light is used on stage for effect.	33. Society: The aggregate of people living together in a more or less ordered community.
4. Dialogue: Speech spoken by characters.	34. Mutiny: A mutiny is a refusal by people, usually soldiers or sailors, to continue obeying a person in authority.
5. Sound Effects: How sound is used on stage for effect.	35. Elizabethan: The term, "Elizabethan Era" refers to the English history of Queen Elizabeth I's reign (1558-1603)
6. Curtain: A large piece of cloth used to open and close the stage.	36. Brawl: A rough or noisy fight or quarrel.
7. Stage: A raised floor where plays are performed.	37. Relationship: the way in which two or ore people or things are connected, or the state of being connected.
8. Playwright: Someone who writes plays.	38. Courtly: Very polite or refinsed, very polite or refined, as befitting a royal court.
9. Actor: A person who performs as a character on stage.	39. Dignity: the state or quality of being worthy of honour or respect.
10. Actress: A person who performs as a character on stage.	40. Tyrant: a cruel and oppressive ruler.
11. Soliloquy: an act of speaking one's thoughts aloud especially by a character in a play.	41. Religious: relating to or believing in a religion.
12. Plague: A deadly disease or any terrible thing that harms many people.	42. Catholics: a member of the Roman Catholic Church
13.Patriachy: a system of society or government in which the father or eldest male is head of the family and descent is reckoned through the male line.	43. Church: a building used for public Christian worship.
14. Scenes: This is what a play is broken up into	44. Dignity: the state or quality of being worthy of honour or respect.
15. Shakespeare: William Shakespeare, an English playwright	45. Montague: The family name of Romeo in Shakespeare's Romeo and Juliet.
16. Oxymoron: A figure of speech that combines contradictory words with opposing meanings.	46. Capulet: The family of Juliet in Shakespeare's Romeo and Juliet.
17. Protagonist: The main character.	47. Poison: a substance that is capable of causing illness or death when absorbed
18. Verona: A city in North-eastern Italy where this play is set.	48. Romeo: Main Male character
19. Dramatically: A way that relates to drama or the performance of drama.	49. Juliet: Main Female character
20. Theme: An idea that recurs in or pervades a work of art or literature .	50. Tybalt: Juliet's cousin, a very well known Capulet
21. Marriage: the legally or formally recognized union of two people as partners in a personal relationship	51. Paris: Count Paris is the relative of Escalus, and prince of Verona, who wishes to marry Juliet.
22. Arranged marriage: a marriage planned and agreed by the families of a couple	52. Mercutio: Neither Capulet nor Montague and Romeo's dear friend.
23. Revenge: Inflict hurt or harm on someone for an injury or wrong doing to oneself.	53. Benvolio: Romeo's cousin.
24. Antithesis: a person or thing which is the direct opposite of someone or something.	54. Overpowering: extremely strong or intense; overwhelming.
25. Prejudice: Preconceived opinion that is not based on reason or actual experience.	55. Fate: be destined to happen, turn out, or act in a particular way.
26. Foreshadowing: be a warning or an indicator of a future event	56. Couplet: a pair of successive lines of verse, typically rhyming and of the same length.
27. Prologue: An introduction before the main action.	57. Troublemaker: a person who habitually causes difficulty or problems
28. Epilogue: A speech at the end of a play that serves as a conclusion to what has happened.	58. Swordfights: A fight or duel using swords.
29. Monologue: A long speech by one actor in a play, or as part of a theatrical programme.	59. Unrequired love: refers to having romantic feelings for someone who does not feel the same way.
30. Tension: Refers to a state of mental or emotional strain that arises from a conflict or uncertainty.	60. Innocent: Not guilty of a crime.

61. Iambic: a term for a rhythm which has an unstressed syllable followed by a stressed syllable.	91. Symbolise: represent
62. Pentameter: a term for a rhythm where there are 10 beats in a line.	92. Evoke: bring a memory or image to the memory.
63. Juxtaposition: two things being seen or placed close together with contrasting effects.	93. Emphasise: to give special importance or value to.
64. Tragedy: a play dealing with tragic events with an unhappy ending.	94. Accentuate: make more noticeable or prominent.
65. Antagonist: a person who opposes the protagonist of a story.	95. Alliance: a union or association formed for mutual benefit.
66. Protagonist: the lead character in a play, film or book.	96. Apothecary: a person who prepared and sold medicines and drugs.
67. Belligerent: hostile and aggressive.	97. Woe: very great sadness.
68. Idolatry: extreme admiration or love for someone	98. Peril: serious and immediate danger.
69. Dutiful: conscientiously or obediently fulfilling one's duty.	99. Glooming: have a dark or sombre appearance.
70. Conflict: a serious disagreement or argument that lasts a long time.	100. Envious: jealous or resentful.
71.Tyrannical: oppressive and controlling, exercising power in a cruel way.	101. Inconstant: frequently changing.
72. Impulsive: acting on something without forethought.	102. Grudge: a persistent feeling of ill will or resentment as the result of a past insult or injury.
73. Melancholy: a feeling of thoughtful sadness.	103. Misadventured: an unlucky event or misfortune.
74. Tormented: to be caused to be worried or to suffer.	104. Everlasting: lasting forever, or a very long time.
75. Despair: the complete absence of hope.	105. Inauspicious: unfavourable, something that is unpromising or unlikely to be successful.
76. Infatuation: an obsessively strong love for someone.	106. Glorious: worthy of admiration, having a striking beauty or splendour.
77. Confident: feeling or showing certainty about something.	107. Virtue: behaviour showing high moral standards.
78. Aggression: feelings of anger resulting in violent actions.	108. Vice: immoral or wicked behaviour.
79. Allusion: an indirect or passing reference to something.	109. Vengeance: punishment inflicted for an injury or a wrong.
80. Denouement: the point where the plot is pulled together and resolved.	110. Variable: able to be changed or adapted.
81. Fate: the development of events outside a person's control.	111. Bounty: something given or occurring in generous amounts.
82. Feud: a long and bitter argument that has been going on for months or years.	112. Beauteous: very beautiful.
83. Sonnet: a fourteen line poem.	113. Garish: very bright or showy.
84. Figurative: departing from a literal use of words; metaphorical	114. Mercy: compassion or forgiveness shown to someone who should receive punishment.
85. Catastrophe: a disaster causing great and usually sudden damage or suffering.	115. Tedious: boring and tiring.
86. Consequences: a result or effect of something.	116. Bounded: restricted, placed within limits
87. Denote: be a sign of or indicate.	117.Tomb: a large vault, usually underground, for burying the dead
88. Connote: imply or suggest in addition to the literal meaning. What we understand it to mean.	118. Ancient: belonging to the distant past.
89. Imply: suggest as a logical consequence.	119. Infinite: limitless or endless.
90. Inference: a conclusion reached on the basis of evidence and reasoning.	120. Fatal: causing death

FOOD: YEAR 8 **TOPIC: FOOD PREPARATION AND NUTRITION**

1	What are the steps to make bread?	kneading, proving, and shaping
2	What are the different types of raising agents?	Biological raising agents - yeast, chemical raising agents - baking powder
3	Why do we cook food?	I. To aid digestion, II. To improve palatability (taste, texture and appearance), III. To avoid food contamination
4	What are the macronutrients?	protein, carbohydrate & fat
5	What are the micronutrients?	vitamins & minerals
6	What is the Eatwell Guide?	a visual tool showing how much of each food group to eat for a balanced diet
7	What is gelatinisation?	when starch carbohydrate is heated in a liquid the starch granules soften and absorb water and the mixture thickens e.g. a cheese sauce
8	What is caramelisation?	when sugar is cooked and turns brown
9	What happens to protein when cooked?	it coagulates, e.g. egg white
10	What is provenance?	where food comes from, is grown, raised, or reared

GEOGRAPHY YEAR 8 — TOPIC: DEVELOPMENT GLOBALISATION AND SUPERPOWERS

DEVELOPMENT		
1	What is development?	The economic, social and political progress a country or a population make. It is about improving quality of life.
2	What is the development gap?	The difference in income and the quality of life in general between the richest and poorest countries of the world.
3	What is a developing country?	A country with very low human development.
4	What is a developed country?	A country with very high human development.
5	What is economic development?	Improvements in employment, income or living standards.
6	What is social development?	Improvements in health, education and culture.
7	What is political development?	Improvements in systems of government. For example, creating a democracy.
8	What is global inequality?	Where global populations vary in their development and are unequal.
9	What is GDP?	The total value of goods and services produced by a country in a year
10	What is GNI?	The total income of a country per year.
11	What is HDI?	A measure of quality of life using life expectancy, literacy rates and standards of living.
12	What is the corruptions index?	Ranking of countries according to perceived levels of corruption
13	What is purchasing power parity (PPP)?	How much $1 can buy in different countries.
14	What is the dependency theory?	A theory which blames underdevelopment of developing countries with exploitation by the developed world for example colonialism.

GLOBALISATION AND SUPERPOWERS		
15	What is globalisation?	The increasing interdependence and interconnectedness between people and place.
16	What are the dimensions of globalisation?	Economic, social, cultural, political and environmental.
17	What are TNCs?	Transnational corporations. These are international companies with branches and operations all around the world.
18	What are geopolitics?	The study of how geography and natural features of the Earth influence conflict and politics amongst nations.
19	What are international relations?	The way in which two or more nations interact and view each other, especially within the topics of economic, cultural or political relationships
20	What is a resource?	A naturally occurring raw material which humans require.
21	What is a superpower?	A country/nation that can project its power and influence anywhere in the world and is a dominant global force. It has economic, cultural and political power.
22	What is uni-polar power?	International system of a sole superpower having global influence.
23	What is bi-polar power?	International system of two superpowers, battling to become the sole superpower to have global influence.
24	What is multi-polar power?	Multipolar power is where several emerging powers exerting and competing for global influence.
25	What is soft power?	Soft power is an indirect approach to maintain superpower status. Using moral influences, creating attractive cultures or having good trade alliances.
26	What is hard power?	Hard power is a direct approach to maintain superpower status. Using political influence, physical threat or controlling debt.
27	What is a stakeholder?	Groups of people or countries which have an interest in or effected by something

GEOGRAPHY YEAR 7 UNIT 4: ENERGY AND CLIMATE CHANGE

1. Energy		
1	What is energy?	A type of power that creates the ability to do work.
2	What are fossil fuels?	These are fuels which are found in the Earth's crust they are burned for energy.
3	Name the three fossil fuels?	Coal, oil and natural gas
4	What is non renewable energy?	Energy which will run out. It is finite, such as fossil fuels.
5	What is renewable energy?	Energy which will not run out. It is infinite such as wind, solar, tidal.
6	How many years is left of each fossil fuel?	50 years – natural gas 50 years - oil 132 years - coal
7	What is green energy?	Energy that is produced in a way that does not harm the environment
8	How can we save energy?	Turning off lights, recycling, using energy saving light bulbs, insulation.

2. Climate change (part one)		
9	What is climate change?	The long term changes in temperature and rainfall on the Earth.
10	What is mitigation and adaption?	Mitigation is proactive steps to manage something happening. Adaptation is reactive steps taken when something is happening.
11	What is the evidence for climate change?	Tree rings, ice cores / cover and historical records.
12	What are green house gases?	Nitrous oxide, Methane and Carbon Dioxide.
13	What is the greenhouse effect?	Natural process whereby the greenhouse gases keep the planet warm enough for life on Earth.
14	What is the enhanced greenhouse effect?	Human process whereby too many greenhouse gases overheat the Earth.
15	What are the natural causes for climate change?	Sunspot theory, eruption theory, orbital theory.
16	What human activities create greenhouse gases?	Burning fossil fuels, deforestation (cutting down trees), agriculture (farming), transportation, urban growth.
17	How do humans create more carbon dioxide?	Burning fossil fuels in factories or by driving non-electric cars.
18	How do humans create more methane?	Agriculture (farming) - cattle ranching and rotting landfill sites.
19	How do humans create more carbon dioxide?	Fertilisers used in agriculture

3. Climate change (part two)		
20	How does climate change effect the poles?	Melting sea ice, melting shelf ice (glaciers), warmer oceans
21	How does climate change effect the land?	More extreme weather events – storms, hurricanes, droughts, floods.
22	How does climate change effect the oceans?	Warmer oceans, coral bleaching, more acidic oceans
23	How does climate change effect the atmosphere?	More storms, stronger storms, hotter temperatures, less snow and ice

4. Consequences of climate change:		
24	UK negative impacts from climate change?	UK sea levels could rise in low lying areas in East of England, Scottish ski resorts may lack snow, droughts and floods could become more likely, increased demand for water during hotter summers.
25	UK positive impacts from climate change?	Crops such as oranges, grapes and peaches can be grown in the UK; Winter heating costs will be reduced as winters will be milder; Accidents on the roads in winter will be less likely to occur.
26	Global negative impacts from climate change?	Sea level rise will affect 80 million people; Tropical storms will increase in strength; Species in affected areas (e.g. Arctic) may become extinct; Diseases such as malaria increase - an additional 280 million people may be affected.
27	Global positive impacts from climate change?	Energy consumption may decrease due to a warmer climate; Longer growing season for agriculture; Frozen regions such as Canada may be able to grow crops.

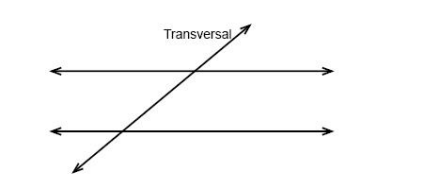
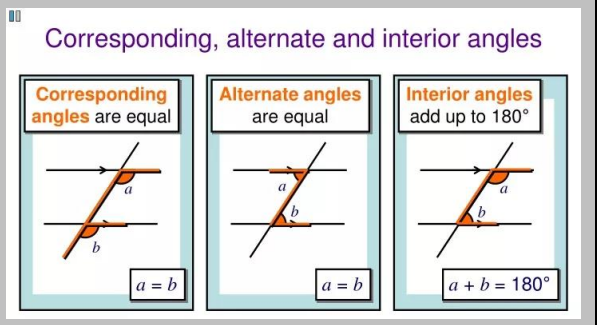
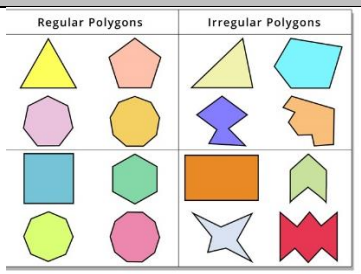
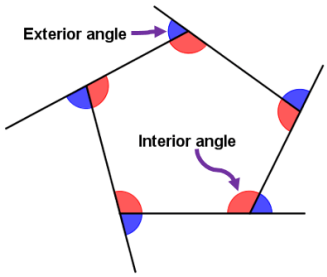
EQ 8.5 World War One - Accident or Choice

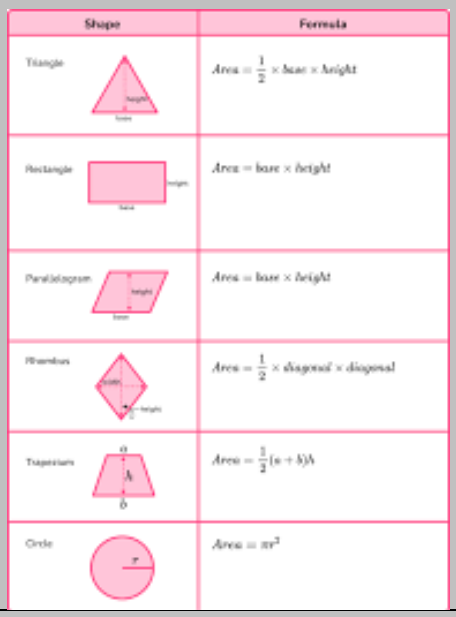
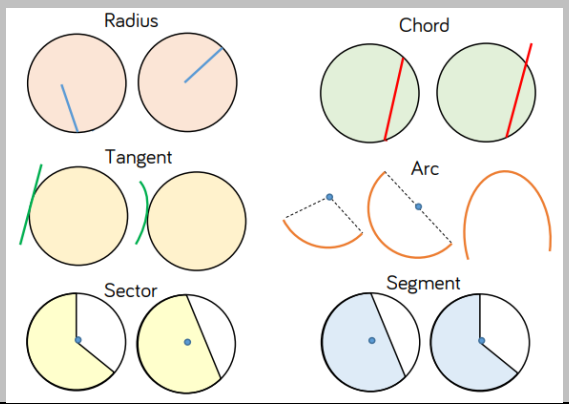
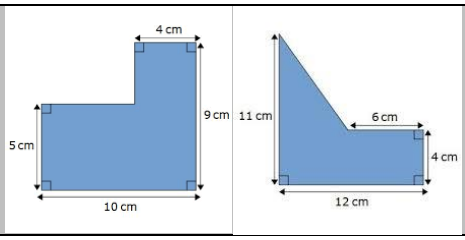
KEY WORDS		
1	**Politics**	Anything related to how a country is led/governed and by whom
2	**Society**	Anything related to the people in a place and how they lived their lives
3	**Monarchy**	A person who reigns over a kingdom/empire
4	**Alliance**	a relationship formed between countries/leaders to benefit those countries/leaders
5	**Nationalism**	wanting your country to be the best or to be free from someone's empire
6	**Imperialism**	taking control of other countries to increase your country's power
7	**Empire**	a group of territories/countries under the control of one rule
8	**Colony**	a territory/country controlled by another country
9	**Militarism**	belief that it is necessary to always have a strong armed force for your country
10	**Arms Race**	a competition between countries for the best and biggest military.
11	**Mobilisation**	a country preparing their soldiers for war.
12	**Front (war)**	the area where battles take place
13	**Conscription**	forcing people to join the armed forces
14	**soldier/troop**	a person who serves in the military
15	**Civilians**	a person not in the military
16	**Volunteer**	a person who freely offers to take part in something.

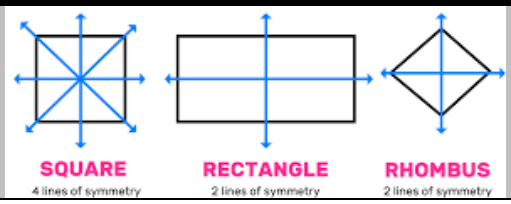
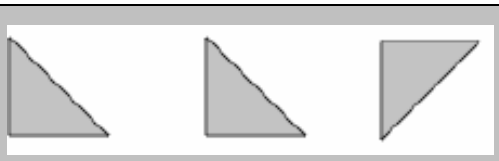
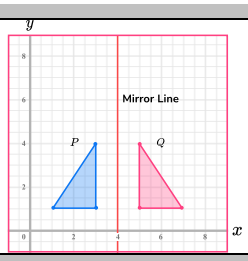
KEY WORDS		
17	**Recruitment**	the action of getting people to join the military
18	**Propaganda**	information that is used to influence people's' opinions
19	**Ideology**	a system of beliefs
20	**Commonwealth**	a group of countries who work together and were previously part of the British Empire

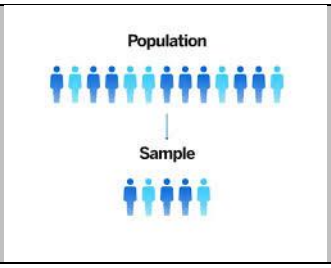
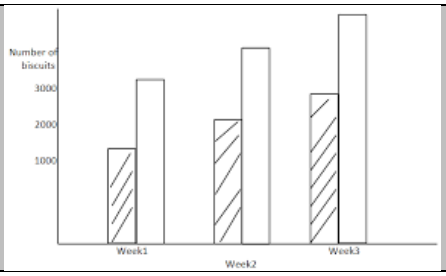
KEY PEOPLE		
21	**King George V**	King of Britain 1910-1936
22	**Kaiser Wilhelm II**	King/Kaiser of Germany 1888-1914
23	**Franz Ferdinand**	Heir to the Austro-Hungarian throne until his death in 1914
24	**Gavrilo Princip**	Serbian who assassinated Franz Ferdinand

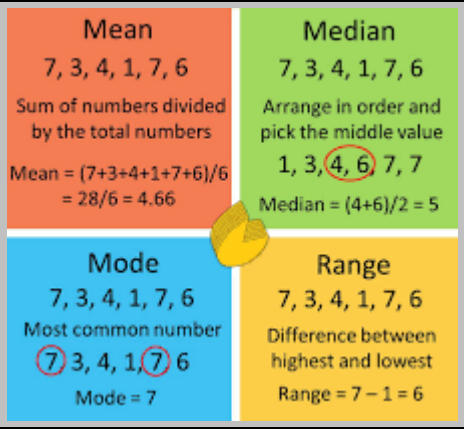
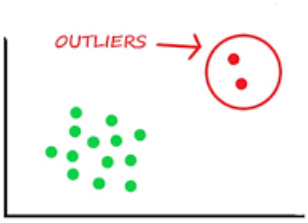
CORE KNOWLEDGE		
25	**Which group orchestrated the assassination of Franz Ferdinand?**	The Black Hand
26	**What were the Balkans?**	South-eastern region of Europe with a complex mixture of nationalities and ethnicities
27	**Why did the Black Hand have an issue with Franz Ferdinand?**	He represented the Austrians - the Serbians wanted Bosnia part of their kingdom and blamed the Austrians for taking it.
28	**Who were the Triple Alliance?**	Formed in 1882: Germany, Austria-Hungary, Italy
29	**Who were the Triple Entente?**	Formed in 1907: Britain, France, Russia
30	**What was the Schlieffen Plan?**	German plan designed to allow Germany to fight on two fronts?
31	**How did WW1 affect society?**	900,000 British soldier deaths during World War I (including Commonwealth soldiers), economic balance of the world changed, advances in technology and medicine made, women gained the right to vote.

Maths: Year 8		Unit 13: Angles in Parallel Lines & Polygons	Term: Summer Half Term 1
46	**Parallel**	Lines that never intersect	
47	**Transversal**	A line that crosses two or more parallel lines	
48	**Alternate**	Angles on the opposite side of the transversal that are equal	
49	**Corresponding**	Angles that have the same position in two intersections of a transversal and parallel lines and that are equal	
50	**Co-Interior**	Angles on the same side of the transversal that add up to 180°	
51	**Vertically Opposite Angles**	Angles opposite each other when two lines cross	
52	**Bisect**	To cut in half	
53	**Construct**	Draw accurately using a pencil, a ruler and compasses	
54	**Isosceles**	Having two sides the same length	
55	**Polygon**	A shape made with only straight sides	
56	**Regular**	A polygon where all sides are exactly the same length	
57	**Interior Angles**	An angle inside a polygon	
58	**Exterior Angles**	An angle outside a polygon along a straight line extended from the polygon	
59	**Equidistant**	At the same distance from	

Maths: Year 8		Unit 14: Area of Trapezia	Term: Summer Half Term 1
60	**Area**	The space inside a 2-D shape	
61	**Perpendicular Height**	The height of a shape measured at a right angle to the base	
62	**Sector**	Part of a circle between two radii and an arc	
63	**Radius**	The distance from the center of a circle to the circumference; half of the diameter	
64	**Diameter**	The distance from one point on a circle across to the other side through the center; twice the radius	
65	**Pi**	The ratio of the circumference of a circle to its diameter	π
66	**Compound Shape**	A shape made up of two or more other shapes	

Maths: Year 8		Unit 15: Line symmetry and reflection	Term: Summer Half Term 1
67	**Line of symmetry**	A line that cuts a shape exactly in half	
68	**Symmetrical**	When one half of a shape is the mirror image of the other	
69	**Congruent Shapes**	Shapes are congruent if they are identical same shape and same size.	
70	**Reflection**	A transformation of mirroring across a line	
71	**Vertex (vertices, plural)**	A point where two line segments meet; a corner of a shape	

Maths: Year 8		Unit 16: The Data Handling Cycle	Term: Summer Half Term 2
72	**Primary data**	Data you collect yourself	
73	**Questionnaire**	A list of questions to gather information	
74	**Sample**	A selection taken from a larger group	
75	**Secondary data**	Data already collected by someone else	
76	**Key**	Used to identify the categories in a graph	
77	**Line Graph**	This has connected points and shows how a value changes over time	
78	**Multiple Bar Chart**	A way to represent several related sets of data	
79	**Range**	The difference between the largest and smallest values	

Maths: Year 8		Unit 17: Measure of Location	Term: Summer Half Term 2
80	**Mean**	The total frequency divided by the total quantity	
81	**Median**	The middle number in an ordered list	
82	**Mode**	The item which appears most often in a set of data	
83	**Frequency**	The number of times something happens	
84	**Midpoint**	The point halfway between two other points	
85	**Outlier**	A value that differs significantly from the others in a data set	

GYMNASTICS

KEY WORDS		
1	**Balance**	A static position, which holds the body in a distinct shape and is usually used on beam.
2	**Flight**	Is a skill where the gymnast is suspended completely in the air without their hands or any other part of the body touching the ground.
3	**Rotation**	Is movement patterns that require the body to move through space, such as twisting, rolling or spinning.
4	**Aesthetics**	Is a part of gymnastics that is focused on exaggerating natural body movements, for example pointing your toes.
5	**Tension**	Is the tightening of the muscles so that Gymnasts can control the action of their body more easily.
6	**Countertensio n**	Is when gymnasts perform a balance which involves two or more of them pulling away from each other where the weight is not even.
7	**Canon**	Is when the same movement is performed by people one after the other.
8	**Unison**	Is when the the same movement is performed by people at the same time.

GYMNASTICS

KEY WORDS		
9	**Travel**	Is formed when at least one player from each team are in contact, on their feet and over the ball which is on the ground.
10	**Routine**	Is a combination of skill elements and movements on one apparatus (piece of equipment) or event.
11	**Extension**	Is the Stretching or straightening your limbs to exaggerate the body more easily.For example straightening your arms and pointing your fingers.
12	**Tuck**	Is a gymnastics body position where the knees and hips are bent and drawn into the chest with the hands holding the knees.
13	**Straddle**	Is a body position in which the body faces forward and the legs are spread far apart to the side, ideally to a 180 degree split or more.
14	**Pike**	Is a body position with the body bent forward at the waist with the legs kept straight.

The Heart

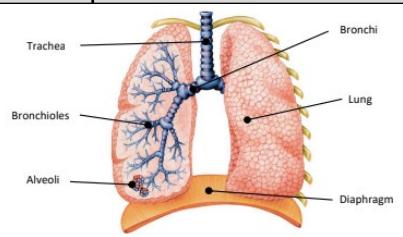
Key Words		
1	**Heart rate**	The number of times the heart beats per minute.
2	**Stroke Volume**	The volume of blood pumped from the left side of the heart per beat.
3	**Cardiac output**	Heart rate x Stroke volume.
4	**Cardiovascular**	Relating to the heart and blood vessels.
5	**Red blood cells**	Carry oxygen from the lungs to the working muscles.
6	**Function on the cardiovascular system**	1. Transport O2 and CO2 around the body 2. Regulate body temperature 3. Clott open wounds
8	**Resting heart rate**	How many times your heart beats at rest.
9	**Working heart rate**	How many times your heart beats during exercise.
10	**Heart rate recovery**	How quickly your heart can return to resting after exercise.
11	**Maximum heart rate**	The greatest number of beats your heart can possibly reach (220 - Age).

Positive and Negative Effects of the Media

Key Words		
12	**Participation**	Media coverage of sport can lead to spectators and fans deciding to take part.
13	**Raising the profile of a sport**	Media coverage of sports vary, when a sport receives more coverage it raises the profile of that sport and increases participation.
14	**Education**	The media provides knowledge to its readers, listeners and viewers through statics, pundits, commentators etc.
15	**Revenue**	Revenue is the total amount of money generated by a organisation.
16	**Commodity**	A product that can be sold.
17	**Ethical issues with sponsors**	Ethics are the moral principles that govern a person behaviour,
18	**Gender Divide**	Media coverage of sport is largely male dominated.
19	**Coverage of inappropriate behaviour**	Media coverage can cover and sensationalise inappropriate behaviour for the viewing spectators to see.
20	**Scrutiny and Criticism**	Social media has given people the ability to give their own opinions publicly rather than simply accept the opinions of others. These opinions can be in the form of scrutiny and criticism.

The Lungs

Key Words		
1	**Vital Capacity**	The greatest volume of air that can be expelled from the lungs after the deepest breath possible
2	**Tidal volume**	The amount of air breathed in each breath
3	**Breathing rate**	The number of breaths per minute
4	**Breathing depth**	The amount of air inhaled or exhaled in a single breath
5	**Effects on exercise on respiratory system**	1. Increase tidal volume 2. Increase breathing rate 3. Increase breathing depth
6	**Respiratory system**	The network of organs and tissues that help you breathe
7	**Minute ventilation**	The minute ventilation is the amount of air a person breaths in a minute



Ethical Factors in Sport

KEY WORDS		
8	**Deviant Behaviour**	Actions or behaviors that go against social norms or expectations.
9	**Etiquette**	The unwritten rules concerning player behaviour.
10	**Sportsmanship**	Involves playing within the letter and the spirit of sport. Using appropriate, polite and fair behaviour while participating in a sporting event.
11	**Rules**	Rules are issued by NGBs. They are the key ideas that sports people follow in order to compete within a sport.
12	**Gamesmanship**	Involves bending the rules, making use of dubious methods that are not strictly outside of the rules to gain an advantage.
13	**Anti-doping**	Opposing or prohibiting illegal doping to improve athletic performance
14	**PEDs**	PEDs (Performance Enhancing Drugs). Any substances that are used to improve any form of activity performance in human beings.
15	**Ethics**	The moral principles that govern a person's behaviour.

ATHLETICS

KEY WORDS		
1	**Shot putt**	is a track and field event involving "putting" (throwing) a heavy spherical ball as far as possible.
2	**Discus**	is a track and field event where a weighted disc is thrown as far as possible.
3	**Javelin**	is a track and field event where the javelin, a spear about 2.5 m (8 ft 2 in) in length, is thrown as far as possible.
4	**Long Jump**	is a track and field event where an attempt to leap as far as possible from a takeoff point, landing in a sand pit.
5	**High Jump**	is a track and field event in which competitors must jump unaided over a horizontal bar placed at measured heights without dislodging it.
6	**100m**	is a sprint race in track and field competitions. It is the shortest common outdoor running distance.
7	**200m**	is a sprint running event. On an outdoor 400 metre racetrack, the race begins on the curve and ends on the home straight, so a combination of techniques is needed to successfully run the race.

ATHLETICS

KEY WORDS		
8	**400m**	is a sprint event in track and field competitions. On a standard outdoor running track, it is one lap around the track. Runners start in staggered positions and race in separate lanes for the entire course.
10	**800m**	is a common track running event. It is the shortest commonly run middle-distance running event. It is run over two laps of an outdoor (400-metre) track
11	**1500m**	is the foremost middle distance track event in athletics. it is three and three-quarter laps around a 400-metre track.

KEY WORDS		
1	**Religion**	The belief and worship of something/someone.
2	**Rules**	An accepted principle or instruction that states the way things are or should be done, and tells you what you are allowed or are not allowed to do.
3	**Doctrinal**	Set of beliefs.
4	**Ninian Smart**	A psychologist who studied religion.
5	**Mythological**	A collection of myths or stories about a specific person,culture,religion, or any group with shared beliefs.
6	**Ethical**	Concerned with human conduct whether something is right or wrong.
7	Ritual	The performance of ceremonial acts prescribed by tradition or sacerdotal decree.
8	**Experimental**	Using new methods,ideas that have not been tried before.
9	**Institution**	An established organisation.
10	**Jedi**	A follower of Jediism.
11	**Census**	An official count or survey, especially of a population.
12	**Scientology**	A religion founded by L. Ron. Hubbard.
13	**Cult**	A small religious group that is not part of a larger and more accepted religion and that has beliefs regarded by many as extreme or dangerous.
14	**L .Ron. Hubbard**	Founder of scientology.
15	Morality	Is the belief that some behaviour is right and acceptable and that other behaviour is wrong.
16	**Rastafarianism**	A religious movement typically among black Jamaicans.
17	**Haile Selassie**	Emperor of Ethiopia (1930-1974) . He is also regarded as the messiah of the African race by many Rastas.
18	**Marcus Garvey**	He was a Jamaican political activist.
19	**Livity**	The principle of balanced lifestyle.
20	**Ital**	Dictates that followers of Rastafarianism should eat food grown from the earth around them unmodified.

1.Name two features of a religion.	Set of rules, Ethical code, having a day of worship, Holy Book.
2.Who was Ninian Smart?	A psychologist who tried to explain what religion is. He came to the conclusion that religion needs to have six dimensions.
3.What are the six dimensions of a religion?	Doctrinal, Mythological, Ethical, Ritual, Experimental, Institutional.
4.What are Jedis?	In the Star Wars films, there is a religion and its followers are called Jedis. They believe in 'the force'.
5. How many people put down Jediism as their religion in the 2001 UK government census?	Over 390,00 people.

SCIENTOLOGY	
1.When was Scientology founded?	Scientology was founded in the 1950s.
2.Who founded Scientology?	Scientology was founded by a science fiction author called L. Ron. Hubbard.
3.How many people are followers in the Church of Scientology?	Just under 40,000 people worldwide.
4. Is there a holy book in Scientology?	There are 'sacred scriptures' in Scientology and these include all the writings and taped lectures of L. Ron. Hubbard.

RASTAFARIANISM	
1.What is Rastafarianism?	It is a religion that developed in Jamaica during the 1930s.
Name one belief in Rastafarianism.	One belief in Rastafarianism is that they believe that they are God's chosen people and are being tested by God through hardships and in return they expect to be reunited in Zion.
3.How do Rastafarians refer to God.	Rastafarians call God 'Jah'.
4. What festivals are celebrated by Rastafarians?	They celebrate the Jamaican visit of Haile Selassie, some celebrate the birthday of Marcus Garvey. Also, some celebrate the Ethiopian New Year.

KEY WORDS		
1	Sacred	Special, connected to God
2	Stewardship	The idea that we have a responsibility to be stewards of creation, to look after God's world.
3	Dominion	Humans have power over the world and the other species, given to us by God.
4	Awe	A feeling of amazement, for example when thinking about how beautiful the world is.
5	Genesis	The Biblical story of how God created the world.
6	Adam	The First man.
7	Responsibility	The state or fact of being responsible, answerable, or accountable for something within one's power, control, or management.
8	Duty	A moral or legal obligation.
9	Climate Change	Significant change in global temperature, precipitation, wind patterns and other measures of climate that occur several decades or longer.
10	Complex	Having many parts, details, ideas, or functions often related in a complicated way
11	Khalifah	Muslim ruler.
12	Islamic Relief	Islamic charitable organisation that supports people and those affected by natural disasters
13	Ahimsa	The principle of non violence.
14	Violence	The intentional use of physical force or power against a group or community resulting in the likelihood of harm.
15	Karma	All actions have consequences.
16	Reincarnation	The idea of birth, death and rebirth.
17	Atman	It means soul.
18	Brahman	The one supreme reality God in Hinduism.
19	Just stop oil	Environmentalist organisation group.

Islam and the Planet	
1.How do Muslims believe that Allah created the universe?	Allah simply said 'Be' and the universe came into existence.
2. What is one Islamic belief that shows God created the universe?	The beauty and complexity of the world cannot be an accident.
3. Why have Muslims been appointed as stewards in the world?	Muslims believe that looking after the environment is a responsibility and a test from God.
4. Name one Islamic group that supports the evironment?	Islamic Relief.

Stewardship in Christianity	
1.What effect does Climate Change have on the world?	The temperature of the world is getting hotter and this is negatively affecting the quality of life for both humans and animals.
2. What Christian teaching that supports Christians looking after the environment?	*God made the world and gave duty of stewardship to humans.*

1.What is Genesis?	The biblical story of how God created the world.
2. Name one Christian group that supports the environment.	Christian Aid.

Hinduism and the planet.	
1.How does the idea of Ahimsa affect how Hindus think about the environment?	Ahimsa means treating living things with respect and avoiding harm. If Hindus follow that teaching that means that they will not harm the environment.
2. How does the idea of Karma affect the way Hindus live their lives?	Hindus believe that your actions affect your life. If you are good then good things will happen in this life or the next. Therefore, Hindus will take care of the environment.
3. How does the idea of Atman change the way Hindus approach the world and living creatures?	The world is apart of Brahman and Hindu's wouldn't' want to cause harm to this.

SCIENCE: BIOLOGY YEAR 8 TOPIC: PHOTOSYNTHESIS

Photosynthesis

1	What three organelles are found only in plant cells	Chloroplast, vacuole and cell wall
2	What is the function of chloroplast?	An organelle that contains chlorophyll and is where photosynthesis takes place
3	What is chlorophyll?	Green pigment that absorbs light for use in photosynthesis
4	Name three plant organs	Roots, stem and leaves
5	What is a producer?	An organism that produces its own food
6	Why is a plant a producer?	Because it produces food-glucose in photosynthesis
7	What is photosynthesis?	A chemical reaction in plants that uses sunlight to make food - glucose
8	Where in the plant does photosynthesis take place?	Leaf
9	What is the equation for photosynthesis?	Carbon dioxide+water□ glucose+oxygen
10	What are two reactants needed for photosynthesis?	Carbon dioxide and water
11	Where does the carbon dioxide enter the plant from?	From the air, it enters holes at the bottom of the leaf, called the stomata.
12	Where does the water enter the plant from?	From the soil it enters through the root.
13	What provides the energy for photosynthesis to take place?	Light from the sun.
14	What are the two products of photosynthesis?	Glucose and oxygen
15	What is the food produced in photosynthesis?	Glucose
16	What is glucose used for?	Energy and building molecules
17	How is glucose stored in a plant?	Starch
18	How can you test for starch?	Boil the leaf, place in ethanol and test with iodine.
19	What is a positive result for starch?	Turns iodine from orange to blue/black

Leaf

20	How are leaves adapted for photosynthesis?	• Thin • Large surface area • Veins to transport water and sugar
21	Where is the leaf darkest green?	At the top
22	What makes the leaf green?	Chloroplast, which contains chlorophyll
23	Why do the cells at the top of the leaf have more chloroplast?	So they can absorb as much sunlight as possible
24	Why is the leaf covered in a waxy layer?	To make it waterproof
25	What are stomata?	Holes at the bottom of a leaf
26	How do gases get into and out of the leaf?	Through the stomata
27	What controls the opening and closing of the stomata?	Cells either side of it called guard cells.
28	How is water lost from a plant?	It escapes through the stomata

Plant Minerals

29	Why do plants need potassium?	A mineral needed by plants for healthy leaves and flowers.
30	Why do plants need phosphates?	Minerals containing phosphorus for healthy roots.
31	Why do plants need nitrates?	Minerals containing nitrogen for healthy growth.
32	Why do plants need magnesium?	A mineral needed by plants for making chlorophyll
33	What is a deficiency?	A lack of minerals, that causes poor growth.
34	What are fertilisers?	Chemicals with minerals used by farmers to help crops grow.

Investigating Photosynthesis

35	What is investigated?	How light intensity affect the rate of photosynthesis?
36	What is the independent variable?	Light intensity- distance from the lamp
37	What is the dependent variable?	Number of bubbles produced in one minute
38	What are the control variables?	Temperature, type of plant.

SCIENCE: BIOLOGY YEAR 8 TOPIC: RESPIRATION

Respiration

1	What is the function of mitochondria?	Where respiration takes place
2	What is respiration?	A chemical reaction that takes place in all cells to release energy from glucose
3	Why do cells need to carry out respiration?	To gain energy
4	What is the energy from respiration used for?	Growth, repair, movement, making and breaking new chemicals, transporting chemicals
5	Does respiration take place in plants?	Yes, they also need energy.

Aerobic Respiration

6	What is aerobic respiration	A type of respiration that organisms use most of the time and it requires oxygen
7	What are two reactants of aerobic respiration?	Oxygen and glucose
8	Where does the glucose needed for respiration come from?	Food broken down by our digestive system
9	Where does the oxygen needed for respiration come from?	Inhaled from the air into our lungs.
10	What is haemoglobin?	The substance in blood that carries oxygen around the body.
11	What are two products of aerobic respiration?	Water and carbon dioxide.
12	How do we get rid of the carbon dioxide produced in aerobic respiration?	Leaves our cells, into the blood, to our lungs and we exhale it.
9	What is the word equation for aerobic respiration?	Glucose+Oxygen□ carbon dioxide + water
10	What happens to the respiration rate when you exercise?	It increases
11	How does respiration rate increase during exercise?	Heart rate and breathing rate increases, so oxygen can get to cells faster.

Anaerobic Respiration Animals

13	What is anaerobic respiration?	Where respiration takes place
14	When does anaerobic respiration take place?	During vigorous (extreme) exercise. E.g. sprinting
15	Why would an organism switch from aerobic to anaerobic respiration?	Because it can't meet the body's demand for oxygen quickly enough.
16	What is the equation for anaerobic respiration in animals?	Glucose□ lactic acid
17	Is anaerobic respiration as good as aerobic?	No. It produces less energy and toxic lactic acid.
18	Can you do anaerobic respiration for long?	No
19	What does lactic acid make us feel?	Muscle pain
20	What is oxygen debt?	The amount of oxygen needed to get rid of lactic acid, by oxidizing it into carbon dioxide and water

Anaerobic Respiration Plants and Yeast

21	What is the equation for anaerobic respiration in plants and yeast?	Glucose□ ethanol+carbon dioxide
22	What is anaerobic respiration in plants and yeast called?	Fermentation
23	Why is anaerobic respiration in yeast useful?	It can be used to make bread and alcoholic drinks
24	How is fermentation used to make bread?	It produces carbon dioxide which helps bread rise
25	How is fermentation used to make beer and wine?	It produces ethanol which makes the drink alcoholic.

SCIENCE: CHEMISTRY YEAR 8 TOPIC: CHEMICAL REACTIONS

Chemical Changes

1	What is a chemical change?	A process where new substances are made (reactants turn into products) e.g. a chemical reaction
2	What is a physical change?	A change of state or dissolving
3	In terms of chemical bonds, what happens in a chemical reaction?	Some are broken and others are made
4	Why is a change of state not a chemical change?	No new substances are made
5	How can you tell if a chemical reaction has taken place?	Change in temperature, a change in colour, a gas formed, solid formed
6	How do scientists show what happens in a chemical reaction?	With an equation (word or symbol)
7	What are reactants?	Substances you start with in a reaction
8	What are products?	Substances you end with in a reaction
9	In an equation symbol do we use to show a chemical change is taking place?	→
10	What is the law of conservation of mass?	That atoms cannot be created or destroyed
11	To obey the law of conservation of mass we have to balance symbol equations. What does this mean?	There are the same number of atoms of each element in the reactants and products.
12	$H_2 + O_2 \rightarrow H_2O$ Why is this reaction not balanced?	There are two oxygen atoms in the reactants but only 1 in the products
13	Why are state symbols added to chemical equations.	The show the state of matter of the reactants and products
14	There are four state symbols (s) (l) (g) (aq). What does each mean?	(s) solid (l) liquid (g) gas (aq) aqueous / dissolved
14	Give an example of a type of chemical reaction	Oxidation, neutralisation, thermal decomposition, combustion.

Types of chemical reactions:

Oxidation Reactions

15	What forms when a metal reacts with oxygen	A metal oxide
16	What is a combustion reaction?	A reaction where a fuel is heated (burned) and reacts with oxygen
17	What is a fuel?	A substance which stores energy in the chemical store
18	Name an example of a fuel?	Wood, petrol, methane
19	What are the products formed when a carbon-based fuel undergoes combustion?	Carbon dioxide and water
20	Write a word equation for the combustion of methane	Methane + Oxygen → Carbon dioxide + Water
22	Why are combustion reactions useful?	They release thermal energy
22	What can we use combustion reactions for?	Heating, transport, generating electricity

Thermal decomposition reactions

23	What does thermal decomposition mean?	Breaking down a substance with heat
24	What happens in a thermal decomposition reaction?	Reactants are broken down with heat forming new products
25	What is the formula for calcium carbonate	$CaCO_3$
26	What is produced when magnesium carbonate undergoes thermal decomposition?	Magnesium oxide and carbon dioxide
27	What is the test for carbon dioxide?	Bubble the gas through limewater. If it turns cloudy, carbon dioxide is present.
28	In a thermal decomposition why does it appear that mass has decreased?	A gas was produced and escaped into the room

Displacement reactions

29	What is a displacement reaction?	A reaction where a more reactive element takes the place of a less reactive element in a compound

Reactions of acids

30	When an acid reacts with a metal what are the products?	Hydrogen gas and a salt
31	When a acid reacts with a alkali what are the products?	Water and a salt

Rates of reactions

32	What is the rate of a reaction?	How quickly reactants are turned into products
33	What factors can change the rate of a reaction	Temperature, catalyst, concentration and surface area

SCIENCE: CHEMISTRY YEAR 8 TOPIC: THE PERIODIC TABLE

The structure of the periodic table		
1	What is the periodic table?	An organised table showing the different elements
2	What two types of elements are there?	Metals and non-metals
3	Who first prepared the modern periodic table?	A scientist called Mendeleev
4	What is a group in the periodic table?	The vertical columns
5	What is a period in the periodic table?	The horizontal rows
6	How are groups different to periods in the Periodic Table?	Groups are the columns whereas the periods are the rows
7	Why did Mendeleev put some elements together in groups?	They had similar chemical and physical properties
8	Which sides of the period table shows metals and non-metals	Left shows metals, right shows non-metals
9	Are most of the elements metals or non-metals	Metals
10	What is a property?	A characteristic of something
11	What is a chemical property	The way an substance reacts with other chemical substances
12	What is a physical property	A property of a substance that can be observed or measured e.g. melting point, appearance, density

Group 1		
13	What type of elements do we find in group 1?	Metals
14	What name is given to the group 1 elements?	Alkali metals
15	Give 3 physical properties of alkali metals	They are shiny, not very dense, have low melting points and are soft
16	How does the melting and boiling point of alkali metals change down the group?	It decreases
17	What are physical properties of the alkali metals makes then different to a typical metal	Low density, low melting point and softness
18	When an alkali metal is added to water what are the products?	A metal hydroxide and hydrogen gas
19	Why are alkali metals called alkali metals?	They are metals that react with water to form alkalis (metal hydroxides)
20	When alkali metals react with oxygen what product is formed?	A metal oxide
21	Why are alkali metals stored in oil?	To stop them reacting with oxygen
22	When alkali metals react with oxygen what happens to their appearance?	They turn dark in colour.
23	How does the reactivity of alkali metals change down the group?	It increases

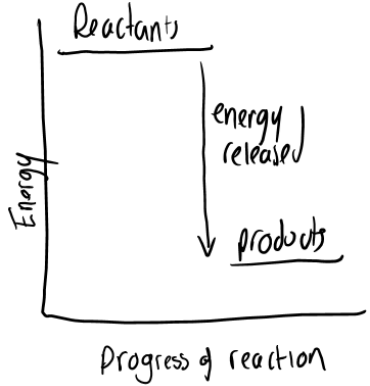
Group 7		
24	What type of elements do we find in group 1?	Non-Metals
25	What name is given to the group 7 elements?	The halogens
26	Give 2 physical properties of the halogens	They have low melting and boiling points, they form coloured vapors
27	How does the melting/boiling point of halogens change down the group?	Increases
28	What happens to the colour of the vapour produced by the halogens as you go down the group?	It gets darker (yellow > green > brown > purple)
29	Give 2 chemical properties of the halogens?	They are very reactive and toxic
30	When a halogen reacts with a group 1 element what is formed?	A salt (metal – non-metal compound)
31	What would the name of the salt be formed by iodine and potassium	Potassium iodide
32	How does the reactivity of halogens change down the group?	It decreases
33	Which is the most reactive halogen?	Fluorine
34	Halogens take part in displacement reactions. What is a displacement reaction?	A reaction where a more reactive element takes the place of a less reactive element in a compound

Group 0		
35	What type of elements do we find in group 0?	Non-Metals
36	What name is given to the group 0 elements?	The Nobel gases
37	Give a physical properties of the Nobel gases?	The have low boiling points and are all gases at room temperature
38	Give a chemical properties of the Nobel gases?	They are very unreactive

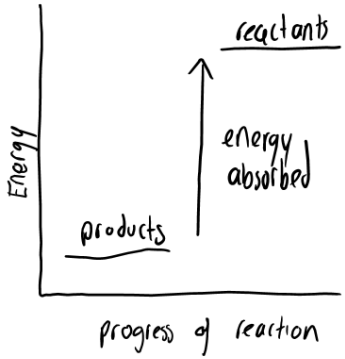
SCIENCE: CHEMISTRY YEAR 8 TOPIC: ENERGY CHANGES

Energy changes		
1	We can use the word exothermic to describe physical and chemical changes. What does this word mean?	It is a change where energy is released into the surroundings
2	Give an example of a physical process that is exothermic?	Freezing and condensing
3	We can use the word endothermic to describe physical and chemical changes. What does this word mean?	It is a change where energy is taken in from the system into the substance
4	Give an example of a physical process that is endothermic?	Melting and boiling
5	Does breaking bonds require or release energy?	Require
6	Does making bonds require or release energy?	Release
7	What is an exothermic reaction?	A reaction where energy is released into the surroundings
8	What is an exothermic reaction?	A reaction where energy is taken in from the surroundings
9	How can you measure the temperature change of a chemical reaction?	Use a thermometer to monitor the surroundings
10	What will happen to the temperature in an exothermic reaction?	It will increase
11	What will happen to the temperature in an endothermic reaction?	It will decrease
12	Give an example of an exothermic reaction	Combustion / neutralisation / metals and acids / respiration
13	Give an example of an endothermic reaction.	Thermal decomposition / photosynthesis
14	If more energy is needed for breaking bonds than is released from making bonds, which type of reaction will this be?	Endothermic
15	If less energy is needed for breaking bonds than is released from making bonds, which type of reaction will this be?	Exothermic
16	What is a reaction profile?	A graph that shows how the energy of the reactants and products changes in a reaction

16	Draw a reaction profile for an exothermic reaction	



17	Draw a reaction profile for an endothermic reaction	



SCIENCE: CHEMISTRY YEAR 8 TOPIC: MATERIALS AND PROPERTIES

Properties		
1	What is a property?	A characteristic of something
2	What is a chemical property	The way an substance reacts with other chemical substances
3	What is a physical property	A property of a substance that can be observed or measured e.g. melting point, appearance, density
Non-Metals		
4	Where are the non-metals in the periodic table?	To the right of the stepped line
5	What are the physical properties of all non-metals	Non-conductive, dull
6	What is a simple molecule?	A non-metal molecule made of a small number of atoms bonded together
7	What are the properties of simple molecules?	Low boiling point
8	What is a giant molecule?	A molecule made of billions of atoms bonded together
9	What is a are the properties of giant molecule?	A molecule made of billions of atoms bonded together
Metals		
10	Where are the metals in the periodic table?	On the left of the stepped line
11	What are the physical properties of all metals?	Shiny and good conductor
12	What are the physical properties of group 1 and 2 metals?	Low density, lower melting point, soft
13	What are the physical properties of the transition metals and other metals?	High density, high melting point, hard
14	What are the chemical properties of group 1 and 2 metals?	Highly reactive
15	What are the chemical properties of the transition metals and other metals?	Less reactive
16	Which metals are unreactive?	Gold, silver, platinum
17	What is the reactivity series?	A list of metals in order of the most reactive to the least reactive
18	Where do we find metals naturally?	In the earths crust
19	What is a metal ore?	Naturally occurring rocks that contain enough metals or metal compounds to make it worthwhile extracting them
20	How do we extract less reactive metals from their ores?	Displacement reactions
21	How do we extract more reactive metals from their ores?	Electrolysis
22	What is an alloy?	An alloy is a mixture of two or more elements, at least one of which is a metal.
23	How are the properties of alloys different to pure metals?	They are harder
Polymers		
24	What is a polymer?	A polymer is a molecule which has thousands of smaller molecules joined together in a repeating chain
25	What do we call the small molecules that make up a polymer	monomer
26	Are polymers metal or non-metal?	Non metals
27	What type of molecule are polymers?	Simple molecules
28	How are natural polymers different to synthetic polymers?	Natural polymers are not manmade whereas synthetic polymers are manmade
29	Give an example of a natural polymer	Wool, silk, DNA, hair, rubber
30	Give an example of a synthetic polymer	Plastic (PVC), nylon
Ceramics		
31	What is a ceramic?	A material formed from a soft substance that is heated to make a hard material.
32	Is a ceramic metal or non-metals?	Non-metal
33	What are four of the physical properties of ceramics?	Hard, brittle, stiff, solid (at room temperature), high melting point, strong, electrical insulator
34	What are the chemical properties of ceramics?	They are very unreactive – they do not react with oxygen, water or acids.
Composites		
35	What is a composite?	Synthetic materials materials are made from two or more different types of material.
36	Why are composites made?	To have very specific properties

SCIENCE: CHEMISTRY YEAR 8 TOPIC: EARTH CHEMISTRY

	The Structure of the Earth	
1	What are the four main layers of Earth?	Crust, mantle, outer core, inner core
2	What is the outermost layer of the earth called?	The crust
3	Why can the crust move?	It has tectonic plates (which are moved by the mantle).
4	What is a rock	A solid material made out of metal compounds
5	What are the three types of rock?	Sedimentary, igneous, metamorphic
6	Give an example of a sedimentary rock?	Sandstone, chalk
7	Give an example of a metamorphic rock?	Marble
8	Give an example of an igneous rock?	Granit
9	How do sedimentary rocks form?	Smaller bits of other rocks get stuck together
10	How do metamorphic rocks form?	When rocks are compressed or heated within Earth's crust
11	How are igneous rocks form?	When magma cools above or below ground
12	What is the rock cycle?	The continual change of rocks due to weathering and erosion.
13	Give two properties of sedimentary rocks	Crumbly, form in layers, porous
14	Which type of rock is most durable?	Igneous
15	In what kind of rock are fossils found?	Sedimentary

	The Atmosphere	
16	What is the atmosphere?	The layer of gases around the earth
17	What are the 4 main gases in the atmosphere?	Oxygen, nitrogen, carbon dioxide and argon
18	What is the composition of these gases in the atmosphere?	Nitrogen 79% Oxygen 21% Argon 1% Carbon dioxide 0.04%
19	What force holds these gases around the earth?	Gravity
20	Why is the atmosphere important?	It helps to keep our planet warm through the green house effect
21	What is the green house effect	A process whereby gases absorb heat energy from the sun
22	What is a green house gas?	A gas that can absorb thermal energy
23	Name two green house gases	Carbon dioxide, methane or water vapor

	The changing atmosphere	
24	What is the carbon cycle?	The processes and events involved in recycling carbon in the environment.
25	What processes add carbon dioxide to the atmosphere?	Combustion and respiration
26	What processes remove carbon dioxide from the atmosphere?	Photosynthesis and dissolving in the oceans
27	Over the last 200 years why have atmospheric carbon dioxide concentrations rapidly risen?	The industrial revolution let to more combustion of fuels
28	Why is the increase in atmospheric carbon dioxide levels a concern?	It is a green house gas (it traps heat from the sun) making our planet warmer than it should be and causing global warming.
29	What is global warming	The increase in Earth's average temperature.
30	Climate change	A long term change in weather patterns caused by global warming
31	What is an impact of climate change?	Extreme weather, melting ice
32	What is an effect of climate change	Floods, droughts, food shortages, diseases

	Recycle, Reuse, Reduce	
33	What is recycling?	Converting waste into reusable material.
34	What is sustainability?	Not affecting the environment for future generations.
35	Why is following the 3R's important?	So that we less energy and slow down the rate at which the earth is warming.

A: Donde vivo		
Vivo en (I live in)	una casa (a house)	en el centro de la ciudad (in the city centre)
	una casa adosada (a semi-detached house)	en las afueras de la ciudad (in the outskirts)
	un piso (a flat)	en el norte/sur/este/oeste (in the north/south/east/west)
Me gustaría vivir en (I would like to live in)	un edificio (a building)	en la montaña (in the mountains)
	una granja (a farm)	en la costa (on the coast)
	una mansion (a mansion)	en el campo (in the countryside)

B: En mi casa					
En mi casa (In my hosue)	hay (there are)	cinco (5)	habitaciones (rooms)	por ejemplo (for example)	el dormitorio de mis padres (my parents' bedroom)
					mi dormitorio (my bedroom)
		seis (6)			una cocina (a kitchen)
					un comedor (a dining room)
En mi piso (In my flat)		siete (7)		como (such as)	un salón (a living room)
					un cuarto de baño (a bathroom)
		ocho (8)			un aseo (a toilet)
					unas escaleras (stairs)
También temenos (we also have)					un jardín (a garden)
					un aparcamento (a driveway)

C: Objetos		
En la cocina hay (In the kitchen there is)	En mi salón hay (In the living room there is)	En mi dormitorio hay (In my bedroom there is)
un horno (an oven)	un sofá (a sofa)	un armario (a wardrobe)
un lavaplatos (a dishwasher)	un sillón (an arm chair)	un escritorio (a desk)
una despensa (a pantry)	una alfombra (a carpet/rug)	un espejo (a mirror)
una nevera (a fridge)	una mesita (a side table)	una cama (a bed)
una mesa (a table)	una televisión (a tv)	una estantería (a shelf/book case)
unas sillas (some chairs)	una lámpara (a lamp)	unas cortinas (curtains)

D: Opiniones y razones

Me gusta mucho (I really like)	vivir (living)	en mi casa (in my house)	porque
Me fascina (I'm fascinated by)		en mi piso (in my flat)	
Me encanta (I love)		en mi edificio (in my building)	dado que
Me flipa (I love)		en mi barrio (in my neighbourhood)	
No me gusta nada (I really don't like)		en mi ciudad (in my city)	puesto que
Me aburre (I'm bored of)		en mi zona (in my zone)	
Me repugna (I'm disgusted by)		en mi área (in my area)	ya que
Me preocupa (I'm worried about)		en mi pueblo (in my town)	

es (it is)	acogedor/a (welcoming)
	agradable (pleasant)
	bonito/a (cute/pretty/nice)
	grande (big)
	seguro/a (safe)
	tranquilo/a (calm)
	antiguo/a (old)
	desagradable (unpleasant)
	feo/a (ugly)
	peligroso/a (dangerous)
	pequeño (small)
	ruidoso (noisy)
está (it is)	bien amueblado (well-furnished)
	limpio/a (clean)
	sucio/a (dirty)

F: Ubicaciones

El cine (The cinema)

Mi casa (My house)

Mi edificio (My building)

Mi piso (My flat)

Está (it is located)

a la derecha (on the right)
a la izquierda (on the left)
al lado (next)
cerca (near)
lejos (far)
delante (in front of)
detrás (behind)
enfrente (opposite)
en la esquina (in the corner)

Femenine nouns

de la	biblioteca (library) sinagoga (synanogue) tienda de música (music shop) panadería (bakery)

Masculine nouns

del	centro commercial (shopping centre) campo de fútbol (football pitch) instituto (high school) estadio (stadium) parque (park)

entre (in between) la carnicería (the butchers) el cine (the cinema) y la piscina (the swimming pool) el supermercado (the supermarket)

E: En mi ciudad		
En mi ciudad (In my city)	hay (there is)	muchas cafeterias (lots of cafes)
		muchos restaurants (lots of restaurants)
		muchos edificios antiguos (lots of old buildings)
		un ayuntamiento (a town hall)
		un mercado (a market)
En mi barrio (In my neighbourhood)		una plaza (a plaza)
		una biblioteca (a library)
		una iglesia (a church)
		una mezuita (a mosque)
		una joyería (a jewelers)
	no hay (there isn't/aren't)	una zapatería (a shoe shop)
En mi calle (In my street)		una tienda de deportes (a sports shop)
		una tienda de ropa (a clothes shop)
		muchas cosas que hacer (lots of things to do)
		muchas cosas que ver (lots of things to see)
Cerca de mi casa (Close to my house)	se puede (you can)	ir de compras (go shopping)
		ir de paseo (go for a walk)
		ir al cine (go to the cinema)
		ir a la bolero (go bowling)
	no se puede (you can't)	comer bien (eat well)
		hacer deporte (do sport)