KNOWLEDGE ORGANISER

YEAR 7

CYCLE 2

Name: ----------

Tutor group: ----------

The Regis School
The best in everyone™
Part of United Learning

January 2021

YOUR KNOWLEDGE ORGANISER

- Knowledge Organisers contain critical knowledge you must know. This will help you recap, revisit and revise what you have learnt in lessons in order to remember this knowledge for the long term.

- You must have this book for every lesson – it is part of your equipment.

USING THE KNOWLEDGE ORGANISER FOR REVISION

- Students remember 50% more when they test themselves after learning.
- You can use your book to help **memorisation**.
- **Read** a section of your Knowledge Organiser.
- **Cover** it up.
- **Write** out what you've remembered.
- **Check** the Knowledge Organiser to see if you're right.
- **Repeat** this process.
- Do this **every day** to help commit the information to your **long-term memory**.

HOW TO USE THE BOOK FOR SELF-QUIZZING

Read	Cover	Write	Check
READ a small section of the KO	COVER up the information so you are unable to read/ see it	WRITE out what you can remember into your self-quizzing book	CHECK what you have written and use a green pen to mark and correct

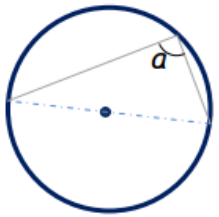
USING YOUR KNOWLEDGE ORGANISER FOR REVISION

Research shows that students remember 50% more when they test themselves after learning something.

You can use your 100% book to create **flashcards**.

These should be:

- **double-sided**
- **a question on one side, the answer on the other**
- **a keyword on one side, a definition or image on the other**
- **used for self-testing.**

Circles	**Circles**
1. What is the size of angle *a*? 2. State the rule. 	1. What do you know about the angles x and y? 2. State the rule. 

Q1 What is **emulsion**? Oil, water, droplet, shake, immiscible, bond, mixture.	**Q2** What is **one similarity** between an **alkene** and an **unsaturated** fat?
Q3 What is the name for the **test** for **unsaturated fat** or **alkene**? Describe what you would **see**.	**Q4** Describe two ways that **saturated** fat and **unsaturated fat** (oil) are **different**.
Q5 What is **the advantage** of cooking food in **oil**? **Explain** your answer.	**Q6** **Describe** what an **emulsifier** molecule does.
Q7 Name the **two parts** of an **emulsifier** molecule.	**Q8** What is the difference between a **monounsaturated** fat and **polyunsaturated** fat? **Mono** = one **Poly** = many

FEEDBACK

Your teachers will give you feedback about your learning and progress in many different ways. These will include:

- Verbal feedback about something you are working on in the lesson (practical or written work).
- Verbal feedback through asking questions.
- Guided independent self-assessment.
- Guided peer assessment.
- Instant/quick written comments or identification of SPAG errors on your work as you complete it.
- Written feedback on your work and setting R4 or extension questions for you to complete.
- Knowledge quizzing/short tests that give you a score (i.e. 15/20).
- Longer tests that may also give a score (i.e. in %) as well as feedback about the content you need to re-learn/refresh.

You will be expected to respond to feedback in the following ways:

- ✓ Correcting all SPAG errors and copying out spellings as directed by your teacher.
- ✓ Answering R4 questions and completing extension questions/tasks in green pen.
- ✓ Giving peer feedback when it is expected by the teacher, using the format provided.
- ✓ Setting yourself targets when required, to ensure that you keep developing your knowledge and skills.
- ✓ Focusing on the areas of knowledge that you need to learn and quizzing yourself on these for homework.
- ✓ Showing that you take pride in your work by presenting it neatly.
- ✓ Always asking for help if you don't understand the work or what to do.

ENGLISH – GRAMMAR

1. Punctuation Marks

Full Stop Used at the end of a sentence.	**Question Mark** Used at the end of an interrogative sentence to form a question.	**Exclamation Mark** Used at the end of an interrogative sentence to form a question.	**Comma** Use to separate clauses in a sentence.
Speech Mark Used to show when a character speaks.	**Colon** Used to separate two independent clauses when the second explains or illustrates the first.	**Semi Colon** Used to separate two independent clauses that about the same topic.	**Apostrophe** Used in three ways to show contraction, plural or possession.
Hyphen Can take the place of commas, parentheses, or colons – in each case to slightly different effect.	**Slash** Used to separate numbers, letters or words.	**Ellipsis** Use in non-fiction to show omission. In fiction show hesitancy or long pause.	**Parenthesis** Used to add extra information in a sentence.

2. Apostrophe Rules

To show contraction:
Used to show when letters are omitted from words.

- Do not = don't
- Could not = couldn't
- They are = they're

To show possession:
Can be used to show that one thing belongs to or is connected to something.

- The cat's tail was fluffy

Cat is a singular noun so you need to add an apostrophe and 's' to show that the tail belongs to the cat

- Charles's cat was naughty

Charles is a singular noun so, even though it ends in an 's' already, you need to add an apostrophe and another 's' to show that the cat belongs to Charles.

- The brothers' feet were muddy.

Brothers is a plural noun that ends in an 's' so you don't add another 's' after your apostrophe. You just add the apostrophe to show the feet belong to the brothers.

- The children's toys were broken

Children is a plural noun but it doesn't end with an 's', so you need to add an apostrophe and 's' to show that the toys belong to the children.

3. Sentence Types

Simple	Consists for one independent clause. (An independent clause contains a subject and verb and expresses a complete thought.) Examples: • I like coffee. • Mary likes tea.
Compound	Is two (or more) independent clauses joined by a conjunction or semi-colon. Each of these clauses could form a sentence alone. • I like coffee and Mary likes tea. • Mary went to work but John went to the party. • Our car broke down; we came last.
Complex	Consists of an independent clause plus a dependent clause. A dependent clause starts with a subordination conjunction or a relative pronoun and contains a subject and a verb but does not express a complete thought. • We missed our plane because we were late. • Our dog barks when she hears a noise.
Minor	Consists of a fragment, or incomplete clause that still conveys meaning. • Hello. • The more, the merrier.

4. Word Types

Noun: A name, place or thing	**Verb:** A being, doing or having word	**Adjective:** A word that describes the noun
Abstract Noun: An idea or concept, e.g. bravery, courage, love	**Modal Verb:** A word that shows necessity or possibility	**Pronoun:** A noun that can be substituted for a name
Concrete Noun: A noun that can be identified through one of the five senses (taste, touch, sight, hearing or smell)	**Adverb:** A word that describes a verb	**Preposition:** The position or location of a word

THE REGIS SCHOOL SPELLING LIST
Year 7

Why is spelling important?

Aside from being given marks for spelling in exams, learning to spell is extremely useful if we want to become confident readers and writers. If you are constantly stopping to think about how words are spelled while you write, it can interrupt the flow of your thoughts, taking you away from what we want you to be thinking about: your choice of words and how you construct those words into sentences that communicate exactly what you want to say.

If you are a confident speller, you are also much more likely to make adventurous vocabulary choices, selecting the exact word to communicate your message, rather than playing it safe and using a word you already know how to spell.

Being a great speller makes you a more effective communicator, allowing you to share your own thoughts and ideas with the world!

Quizlet

All spellings are available on 'Quizlet'. Follow the link and, if you haven't done so already, create an account using your school email address

Link: https://quizlet.com/join/9Nx5MHGr4

Use the spelling pages to practise your weekly spellings. First, look carefully at the word. Study its shape and the order of the letters. Then, cover the spelling; try to see it in your mind's eye. Attempt to write the spelling out. Check your work: have you missed a letter? Got letters mixed up or jumbled? Try again. Even if you get it right first time, practice makes perfect. Fill in the grid to ensure you are ready for your test in tutor time.

Week 1 – 'TION'	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Action				
Competition				
Conduction				
Convection				
Inspiration				
Lotion				
Motion				
Neutralisation				
Pollution				
Potion				
Challenge Words:				
Excommunication				
Syncopation				

Week 2 – Vowel Combinations	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Bacteria				
Beat				
Heat				
Hinduism				
Hygiene				
Nucleus				
Omniscient				
Piano				
Theist				
Treat				
Challenge Words:				
Entrepreneur				
Mitochondria				

Week 3 – 'ER'	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Afterlife				
Clergy				
Erosion				
Exercise				
Ever				
Ledger				
Monastery				
Amber				
Solder				
Berry				
Challenge Words:				
Jerusalem				
Sincerely				

Week 4 – Double Letters	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Accuracy				
Applique				
Express				
Narrator				
Parallel				
Pillar				
Skill				
Sudden				
Suggest				
Supplier				
Challenge Words:				
Correspondence				
Questionnaire				

Week 5 – S Words	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Simile				
Sketch				
Skill				
Solve				
Some				
Spain				
Stanza				
Strength				
Structure				
Sum				
Challenge Words:				
Stretching				
Symbolism				

Week 6 – Ends in E	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Because				
Before				
Calculate				
Debate				
Estimate				
Genre				
Particle				
Texture				
Tone				
While				
Challenge Words:				
Endurance				
Factorise				

Week 7 – ‘Ag’	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Agility				
Agnostic				
Agreeable				
Antagonist				
Baggage				
Caged				
Imagery				
Protagonist				
Rampage				
Snag				
Challenge Words:				
Plagiarise				
Spaghetti				

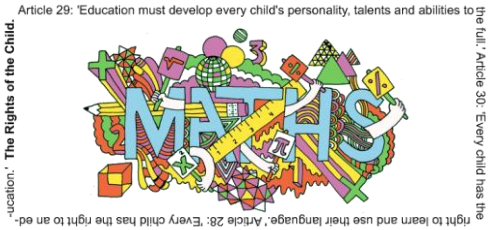
Week 8 – ‘the’	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Atheist				
Breathe				
Anthem				
Theme				
Therefore				
Mathematics				
Feather				
Weather				
Theatre				
Mother				
Challenge Words:				
Monotheism				
Apartheid				

Week 9 – 'ph'	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Metaphor				
Phase				
Photo				
Sphere				
Graphic				
Telephone				
Physical				
Phonics				
Paragraph				
Phoenix				
Challenge Words:				
Photography				
Physiology				

Week 10 – 'v-c-v'	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Balance				
Business				
Diffuse				
Disappoint				
Final				
Holocaust				
Kinetic				
Motor				
Power				
Research				
Challenge Words:				
Irresistible				
Quantitative				

Week 11 – 'recap'	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Anthem				
Because				
Heat				
Motor				
Particle				
Pollution				
Simile				
Theist				
Therefore				
Weather				
Challenge Words:				
Endurance				
Entrepreneur				

MATHS CORE KNOWLEDGE



hegartymaths

http://hegartymaths.com

Maths Lesson Essentials!

- Have you written and underlined the date and title?
- Have you written the question and shown your working out?
- Have you shown your units?
- Have you brought your calculator?
- Have you marked your answer in green pen?
- Does your answer make sense?

NUMBER and ALGEBRA

Ascending
Descending
Denominator
Numerator
Solve
Solution
Decimal
Percentages
Binary
Integer

DATA

Mean
Median
Mode
Range
Scale
Proportion
Discrete data
Continuous data
Frequency
Cumulative frequency
Upper quartile
Lower quartile
Interquartile range
Distribution
Correlation
Scatter graph

SHAPE

Names 3D

Sphere
Cylinder
Tetrahedron
Prism
Cone
Pyramid

SHAPE

Names 2D

Quadrilaterals
Parallelogram
Trapezium
Rectangle
Rhombus

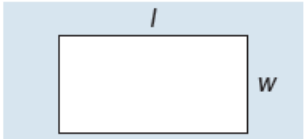
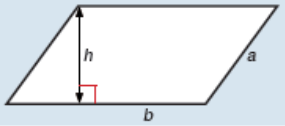
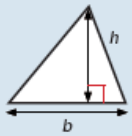
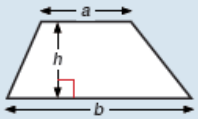
Triangles
Equilateral
Right-angle
Isosceles
Scalene

Keywords

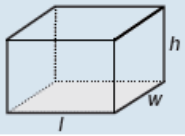
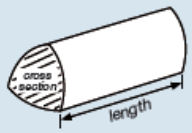
Circle
Polygon
Interior angles
Exterior angles
Acute angle
Right angle
Obtuse angle
Reflex angle
Vertically opposite angles
Corresponding angles
Alternate angles
Co-interior angles
Pythagoras
Trigonometry
Parallel
Perpendicular

MATHS CORE KNOWLEDGE

Areas

Rectangle = $l \times w$	
Parallelogram = $b \times h$	
Triangle = $\frac{1}{2} b \times h$	
Trapezium = $\frac{1}{2}(a + b)h$	

Volumes

Cuboid = $l \times w \times h$	
Prism = area of cross section × length	
Cylinder = $\pi r^2 h$	

Important Formulae

Compound measures

Speed

$$\text{speed} = \frac{\text{distance}}{\text{time}}$$

Pressure

$$\text{pressure} = \frac{\text{force}}{\text{area}}$$

Density

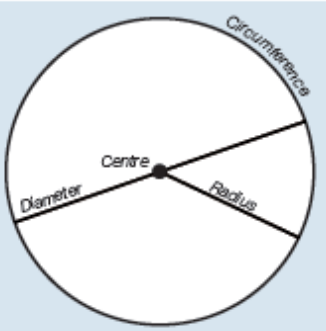
$$\text{density} = \frac{\text{mass}}{\text{volume}}$$

Circles

Circumference = $\pi \times$ diameter, $C = \pi d$

Circumference = $2 \times \pi \times$ radius, $C = 2\pi r$

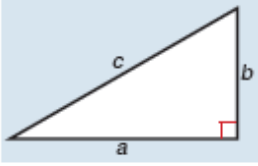
Area of a circle = π x radius squared $A = \pi r^2$



Pythagoras

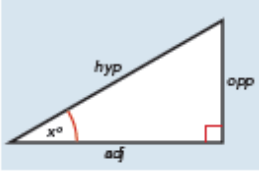
Pythagoras' Theorem

For a right-angled triangle,
$a^2 + b^2 = c^2$



Trigonometric ratios (*new to F*)

$$\sin x^\circ = \frac{\text{opp}}{\text{hyp}}, \cos x^\circ = \frac{\text{adj}}{\text{hyp}}, \tan x^\circ = \frac{\text{opp}}{\text{adj}}$$



http://hegartymaths.com

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SCIENCE CORE KNOWLEDGE

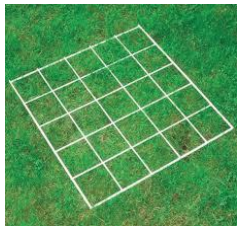
1. How Science Works Keywords

Keyword	Definition
Evidence	A set of data that proves a prediction or hypothesis.
Hazard	Something that could be dangerous.
Risk	Chance of something dangerous happening.
Prediction	Something you think will happen.
Hypothesis	Why you think something will happen.
Variables	Something that changes.
Independent variable	The variable that is changed or controlled in an experiment to test the effects on the dependent variable.
Dependent variable	The variable being tested and measured in an experiment.
Control variable	Something that is constant and unchanged during the experiment.
Repeatability	Closeness of repeats of results to each other.
Reproducibility	Agreement of results from different groups testing the same factor.
Accuracy	Closeness of a measured value to a standard or known value.
Precision	Closeness of two or more measurements to each other.
Reliability	The degree to which the result of a measurement can be depended on to be accurate.

2. Key Equipment

Measuring cylinders – 10 ml cylinders will allow measurement to the nearest 0.1 ml.
100 ml cylinders will allow measurement to the nearest 1 ml.

Thermometers – digital thermometers allow measurement to 1 decimal place, whereas alcohol thermometers only allow measurement to the nearest degree.



Quadrats – are used to do sampling and find the amount of a species in a certain area. Quadrats are placed on the ground.

Metre ruler – used in multiple investigations in the lab. Allows us to measure to the nearest cm.

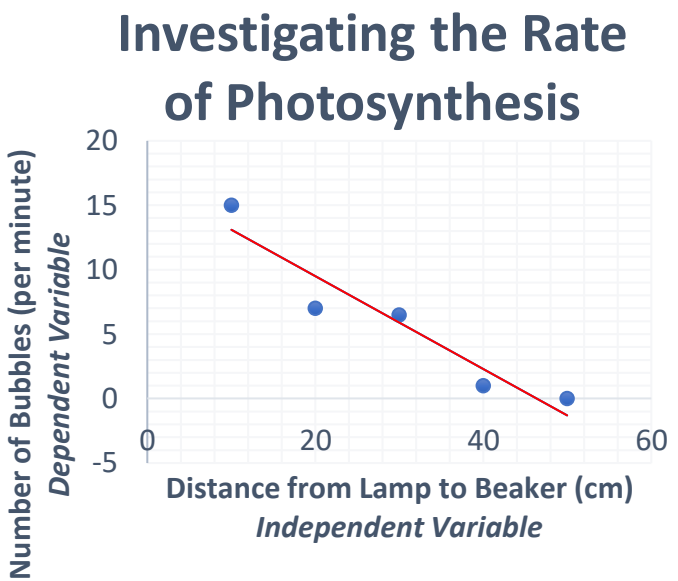
Measuring tape – used in sampling alongside the quadrat. Placed onto the ground to make a transect line to measure against.

SCIENCE CORE KNOWLEDGE

3. Graphing, Analysis and Evaluation Keywords

Keyword	Definition	Example
Hypothesis	An educated guess based on what you already know.	The rate of photosynthesis will increase as the lamp moves closer to the beaker.
Independent Variable	The variable that can be changed by the scientist, it is the cause. Found on the *x*-axis.	Distance from lamp to beaker (cm)
Dependent Variable	The variable that the scientist observes, it is the effect. Found on the *y*-axis.	Number of bubbles (per minute)
Control Variable	The variables that must always be kept the same.	Temperature, the size of the pond weed, amount of water
Line of Best Fit	A line that goes roughly through the middle of all the scatter points on a graph.	The red line on the graph above shows the line of best fit for the data plotted.
Calculations	Use the correct equation to be used based on the variables of the experiment. Use correct units.	Calculation for mean of number of bubbles per minute: Trial 1 + Trial 2 + Trial 3 ÷ 3 15 + 14 + 15 ÷ 3 = 14.6
Results Analysis	Identify patterns in data. Describe what the table and graph show.	As the lamp is getting closer to the beaker, more bubbles are produced.
Conclusion	Answer your original question. State whether or not the hypothesis was supported.	The results prove that the rate of photosynthesis is effected by the distance of the light source. As the lamp was moved closer to the baker, more bubbles were produced.
Evaluation	Suggest an improvement for the equipment used. Suggest an improvement for the method used.	Use an LED lamp. Measure the volume of oxygen produced.

Distance from lamp to beaker (cm)	Number of bubbles (per minute)			Mean number of bubbles
	Trial 1	Trial 2	Trial 3	
10	15	14	15	14.6
20	7	7	7	7
30	7	7	6	6.7
40	1	2	1	1.3
50	0	0	0	0



ART

Practical Skills Visited

Skills

Colour

The colour wheel – deepening knowledge and ability to confidently mix primaries and secondaries

Drawing

Mark-making
Basic shapes/accuracy of outline shapes
Tone – shading from dark to light and directional shading
Portrait basic – proportions

Painting

Colour mixing, blending, directional brushstrokes

Printing

Mono – printing

3D

Clay – basic intro – rolling/joining, pinch pot etc.

Photography

Photography for recording ideas – basic editing on phones

Literacy

To be able to explain ideas, and reflect on your own work.
To be able to write about an artwork, describing it in detail using the model 'form, content, process, mood'.

Vocabulary

Colour

Tone – Darks and lights and everything in between

Primary colours – Red, yellow and blue: cannot be created by mixing other colours together

Secondary colour – 2 primary colours mixed together in equal amounts: green, purple and orange

Portrait – An artwork focussing on a person's face

Proportion – The size things are in comparison to each other

Blending – Mixing colours or tones together

Charcoal – Burnt willow sticks used to create very black dramatic lines and shadows

Texture – The way something feels to the touch – or showing this through the way you draw or paint something, e.g. through mark making

Form – The 3D shape of something

Natural forms – Objects that are natural, e.g. leaves, seedpods fir cones shells

Still life – A group of objects arranged together in a particular way

Stretch/Further Reading

Drawing

1. Complete drawings of anything from real life each week, focussing on the actual shape.
2. Complete some 'blind contour' drawings.
https://www.bing.com/videos/search?q=blind+colto ur+drawing&&view=detail&mid=645E010C9DA18F6 75865645E010C9DA18F675865&&FORM=VDRVRV
3. See how many different tones/shaded you can get out of an HB pencil.
4. Find out about traditional African Art.
   a. How is Moroccan Art different from the Art of Kenya?
   b. How was Picasso influenced by African Art?
5. If possible, visit the British Museum in London.
https://www.bing.com/videos/search?q=british+mu seum+african+art&view=detail&mid=2AEAAA6B885 C5075FC092AEAAA6B885C5075FC09&FORM=VIRE

Artists

Find out about the following artists:

- Van Gogh
- Matisse
- Paul Klee
- Picasso

COMPUTING (THE COMPUTER)

Keyword	Definition – Add from Bitesize
Hardware	
Software	
Peripheral	
Motherboard	
CPU	
Spreadsheet Software	
Web Browser	
Database Software	
Presentation Software	
Word Processing Software	

Homework Checklist for first term		
1	Get ahead	https://www.bbc.com/bitesize/topics/zmpsgk7
2	Idea Badges	• Teamwork, The Art of Selling, Researcher • Digital Research
3	Keywords from KO	You could also use https://quizlet.com to practice
4	Extension work	Cyber Spies, Build your own – https://www.computerplanet.co.uk/ How much?

PERFORMANCE ARTS – DRAMA AND DANCE

Drama Techniques

1	**Ensemble:** This is a French word for group. Working as an ensemble means working or moving or talking together as a chorus.
2	**Characterisation:** Creating a character that is different from yourself by using a combination of vocal and physical drama skills.
3	**Soundscape:** Building up a serious of sounds, noises, words or rhythms to create an atmosphere or create the impression of a particular setting, e.g. a storm at sea.
4	**Mime:** Silently using your body language and gesture to act like you are doing something but without props.

Drama Techniques

1	**Choral speaking:** Talking at once as an ensemble/chorus. Also known as 'speaking in unison'.
2	**Choral movement:** Moving at once as an ensemble/chorus. Also known as 'moving in unison'.

Dance
Creating and Developing a Motif

1	Using actions, space, dynamics and relationship content.
2	Choreographic devices to manipulate movement such as repetition, unison, canon and contrast.
3	Choreographic process to include research, improvisation, refinement and development.

Dance
Physical and Expressive Skills

1	**Flexibility**: The range of movement in the joints (involving muscles, tendons and ligaments).
2	**Balance**: A steady or held position achieved by an even distribution of weight.
3	**Stamina**: Ability to maintain physical and mental energy over periods of time.
4	**Strength**: Muscular power.
5	**Focus**: Use of the eyes to enhance performance or interpretative qualities.
6	**Projection**: The energy the dancer uses to connect with and draw in the audience.
7	**Musicality**: The ability to make the unique qualities of the accompaniment evident in performance.
8	**Safe Practice**: To include warm up and appropriate clothing.

ENGLISH (READING ANALYSIS)

1. What, How and Why prompts

What is the writer doing?

- The writer is …
- In the novel … the writer uses … to …
- The writer creates an atmosphere of … by using …

In Chapter 8 of Treasure Island*, the writer describes Long John Silver as a physical strong and able character.*

How are they doing this? How do they use the language/language techniques/structure to do this? How do key words/phrases show this?

- For example, (add quotation) the use of …
- The adjective/alliteration/simile/metaphor …
- This suggests/implies/demonstrates/presents/ highlights/
- The writer uses … coupled with … to highlight …

For example, 'under the left shoulder he carried a crutch, which he managed with wonderful dexterity, hopping about upon it like a bird.' The simile 'hopping like a bird' suggests that Long John Silver is very happy.

Why are they doing this? Why did they choose that language? Why might they want us to interpret it in different ways?

- This may suggest … Alternatively it may suggest …
- The writer wants to create a feeling of … Additionally it may suggest …

This may suggest that despite losing a leg Long John Silver is not physically held back in any way, rather he is able to move lightly and happily. Alternatively, it may suggest that Long John Silver is always looking for a way to escape the inn in the way that a bird might fly away at any moment.

3. Writing about the effect

3a. How the reader feels

The writer makes the reader feel …

- Suspicion
- Outrage
- Disgust
- Curious
- Calm
- Joyous
- Anxiety
- Irritation
- Compassion
- Respect
- Horror

3b. Vocabulary to write about texts

The writer …

- Builds
- Develops
- Contrasts
- Intensifies
- Reinforces
- Highlights
- Begins
- Maintains
- Introduces
- Emphasises
- Organises

4. Literary techniques

4a. Language techniques:

Emotive language: language used to provoke strong feelings in the reader.

Rhetorical question: a question designed not to require an answer.

Imagery: vivid description of a particular scene.

Adverb: modifies a verb, adjective, adverb or phrase.

Metaphor: direct comparison of two things without using 'like' or 'as'.

Repetition: the repeating of key words or ideas.

Alliteration: words close to or next to each other that start with the same sound.

Onomatopoeia: Words used to imitate sound.

Personification: Non-human things that are given human characteristics.

Simile: A comparison using 'like' or 'as'.

Tripartite sentence or triple: giving three reasons or explanations of something.

4b. Structural techniques:

Contrast: the deliberate positioning of two or more objects/events/characters who have distinctly different characteristics.

Listing: a number of connected items written one after the other to emphasise a particular quality.

Shifts in focus: the change of focus in or between paragraphs

Zooming in and zooming out: the narrowing and the widening of narrative focus.

Narrative voice: 1st, 2nd, 3rd person

Chronological structure: arranged in order of time.

Tense: past, present, future.

Dialogue: the speech of a character indicted by speech marks.

ENGLISH (WRITING)

1. FICTION WRITING

1a. Literary Terminology

1st person narrator	Written from the perspective of 'I'.
omniscient narrator	An all seeing, all wise narrator
symbolism	The use of symbols to represent ideas or qualities
motif	Repeated image or idea.
foreshadowing	A warning or indication of a future event.
onomatopoeia	Words that when spoken aloud sound like their meaning.
metaphor	A comparison of one thing to another saying it is something else.
personification	The attribution of a personal nature or human characteristics to something non-human.
simile	A comparison of one thing to another using like or as.
extended metaphor	Comparison between two unlike things that continues throughout a series of sentences in a paragraph.
pathetic fallacy	When the weather reflects the feelings of the character and/or mood of the piece.
alliteration	The occurrence of the same letter or sound at the beginning of adjacent or closely connected words.

1b. Part Story Structure for Narrative Writing

Exposition	Rising Action	Climax	Denouement	Resolution
This is where you outline your setting, introduce your main characters and the time in which your story is set.	The author puts the character into a complicated situation and forces them into an irreversible situation.	The story reaches a crucial moment. The tension builds reaching a peak.	The story explores the consequences of the climax. The tension starts to ease.	The story's central problem is finally resolved leaving the reader with a sense of completion.

1c. Ideas to structure a piece of Descriptive Writing.

Drop: How can we drop the reader into the action?
Shift: Will we shift in time, mood or place? Decide where you want to take your piece of writing.
Zoom in: What tiny detail shall we zoom in on and write a lot about?
Zoom out: Returning to the main scene, what shall we focus on?
Leave: Write a one-line paragraph that finishes off your piece.

2. NON-FICTION WRITING

2a. Key Terminology

bias	An inclination or prejudice for or against one person or group.
humour	The quality of being amusing or comic.
tone	The choice of writing style the writer employs to convey specific feelings, emotions or attitudes.
empathy	The ability to understand and share the feelings of another.
anecdote	A short amusing or interesting story about a real incident or person.
irony	A state of affairs or an event that seems deliberately contrary to what one expects and is often amusing as a result.
rhetoric	The art of effective persuasive writing often using a range of persuasive techniques such as alliteration, facts, rhetorical questions and tripartite sentences.
persuasion	To convince someone through rational argument that your opinion is correct.
imperatives	Phrases used to give orders, commands, warning or instructions.
pathos	A quality that evokes pity or sadness.
logos	To appeal to logic and reason.
ethos	To appeal to people's sense of right and wrong.

2b. Forms of Non-Fiction Writing

Article	Letter	Essay	Speech	Leaflet
Clear/apt original title Strapline/ subheading Subheadings Introductory paragraph	Dear Sir/Madam or name Addresses Date Paragraphs Yours sincerely/ faithfully	An effective introduction and conclusion.	Clear address to audience Rhetorical indicators that an audience is being addressed throughout A clear sign off	Clear/apt/original title Organisational devices such as inventive subheadings or boxes Bullet points

2c. Ideas to structure a piece of Non-Fiction Writing.

Plan 1	Plan 2
Introduction outlining your point of view/argument Point 1 (your 1st reason for or against) Point 2 (your 2nd reason for or against) Point 3 (your 3rd reason for or against) Conclusion – briefly concluding your argument with a strong statement.	Introduction outlining your point of view/argument. Point 1 (how the issue affects you locally) Point 2 (how the issue affects the country) Point 3 (how the issue affects the world) Conclusion – briefly concluding your argument with a strong statement.

ENGLISH (19TH CENTURY LITERATURE: *TREASURE ISLAND*)

1. CONTEXT

Author: Robert Louis Stevenson (1850–1894)
Nationality: Scottish
Other notable works: *'The Strange Case of Dr. Jekyll & Mr. Hyde', 'Kidnapped' and 'The Master of Ballantrea'*
Dates: Written 1881, published 1883
Genre: Adventure, Bildungsroman, Quest narrative
Set: The events take place in the mid-18th century
Two separate locations: Admiral Benbow, a small sea-side inn situated in Black Hill Cove, near Bristol on the South-western coast of England (opening) and an island off the coast of 'Spanish America' (*Treasure Island*)

Author biography

- Born in Edinburgh, Scotland, in November 1850.
- The only child of a prosperous middle-class family.
- Two of the most important influences on his childhood were his family's strict Presbyterian religion and his own ill health.
- Travelled widely in search of health.
- Aged sixteen, he followed in his father's footsteps by studying engineering at Edinburgh University. He later abandoned this to study law, although he never practiced.
- His passion for reading developed in childhood and inspired him to write.
- Started writing periodical, short stories, travel pieces and essays.
- *Treasure Island* was his first full fiction novel and brought him wide spread fame.

Social & historical background

- In the 18th Century between 1713 and about 1725, thousands of pirates prowled the Atlantic.
- This time period was referred to as the so-called 'Golden Age of Piracy'.
- Many government officials, particularly in the American colonies, turned a blind eye to piracy, and often supported it.
- Trading vessels from European countries, e.g. Great Britain, were an easy target.
- Many men turned to piracy partly because were badly treated and poorly paid so often volunteered to join their captors.
- The crews of naval or merchant ships served under the strict rule of a captain and officers they had not chosen.
- Pirate crews were generally democratic – each crew would elect their captain and depose them if they were unhappy.
- Stolen coins, precious metals, and other non-perishable items were often hard to sell so stored in safe places until they could return to sell for a profit.
- Pirates buried their loot on one of the many small islands around the Caribbean Sea.
- Many men who sailed under pirate flags were in their teens, or even younger. Before they turned forty, many pirates were retired, blind, crippled or dead.
- A chance to recover a large amount of treasure would have been a dream come true for older pirates like Billy Bones and Pew.

2. KEY CHARACTERS

Jim Hawkins: twelve or thirteen year old boy. Son of an innkeeper and the novel's protagonist and principal narrator.
Mr. & Mrs Hawkins: Jim's parents.
Squire John Trelawney: a country squire; a wealthy man who finances the trip to Treasure Island.
Captain Alexander Smollett: the new captain of the *Hispaniola*, the ship Squire Trelawney has bought.
Dr. David Livesey: a local doctor and district magistrate who is a minor narrator in Chapters 16–18.
Mr. Arrow: the First officer of the *Hispaniola;* a drunkard.
Billy Bones ("The Captain"): an old sailor; a pirate.
Black Dog: Billy Bones' old shipmate; another pirate.
Long John Silver: a Bristol tavern-keeper; ship's cook; another pirate.
Pew: A blind beggar; another pirate.
Ben Gunn: the "man of the island,"; a reformed pirate.
Tom Redruth, Hunter, Joyce: servants of Squire Trelawney.
Abraham Gray, Tom, Alan: honest seaman on the *Hispaniola.*
Job Anderson, Israel Hands, Tom Morgan, George Merry, O'Brien, Dick: crewmen on the *Hispaniola*; pirates.

3. KEY TERMINOLOGY

Bildungsroman	A type of novel that focuses on the education, spiritual, psychological and moral development of its protagonist from childhood to adulthood (also known as a 'coming of age novel').
literary conventions	Defining features of particular literary genres, such as novel, short story, ballad, sonnet and play.
quest narrative	A quest is used as a plot device in mythology and fiction. The story follows a difficult journey towards a goal, often symbolic or allegorical.
protagonist	The central character or leading figure in a poem, narrative, novel or any other story. Sometimes can also be referred to as a "hero" by the audience or readers.

4. KEY VOCABULARY

	Definition
hero	A main character in a literary work who, in the face of danger, combats adversity through feats of resourcefulness, bravery or strength.
heroism	The qualities of a hero or heroine; exceptional or heroic courage when facing danger.
villain	A character in a novel, play or film whose evil actions or motives are important to the plot.
moral ambiguity	A lack of certainty about whether something is right or wrong.
coracle	A short roundish boat of skins or waterproofed canvas stretched over a wood or wicker frame.
piracy	Typically an act of robbery or criminal violence at sea.
mutiny	An open rebellion against the proper authorities, especially by soldiers or sailors against their officers.
mutineers	A person, especially a soldier or sailor, who rebels or refuses to obey the orders of a person in authority.
marooned	To leave someone trapped and alone in an inaccessible place, especially an island, as a means of punishment.
plunder	To steal goods from (a place or person), typically using force and in a time of war or civil disorder.
Davy Jones	In folklore, the spirit of the sea, or the sea personified; used by sailors of the eighteenth and nineteenth centuries.
booty	The term given to stolen treasure, plunder, or any valuables gained by deceitful or dishonest means.

3. KEY TERMINOLOGY

stock characters	A fictional character based on a common stereotypes. Stock characters rely heavily on cultural types or names for their personality, manner of speech and other characteristics.
archetype	A typical character, an action or a situation that seems to represent universal patterns of human nature. Also known as "universal symbol," which may be a character, a theme, a symbol or even a setting.
first person narrative	A narrative or mode of storytelling in which the narrator appears as the 'I' recollecting his or her own part in the events that occur, either as a witness of the action or as an important participant in it. *(narrative perspective)*
foreshadowing	A literary device in which a writer gives an advance hint of what is to come later in the story.
rising action	A related series of incidents in a literary plot that build towards the point of greatest excitement/interest.
climax	The point of highest tension in a narrative.

ENGLISH (SHAKESPEARE, *THE TEMPEST*)

1. CONTEXT

Playwright: Shakespeare (April 23rd 1564–April 23rd1616)
Dates: written around 1610
Published: in '*The First Quarto*' in 1597
Era: Renaissance (1500–1600)
Genre: Comedy (sometimes classed as a problem play)
Set: an island somewhere in the Mediterranean
Structure: Five-Act Play

Biography of Shakespeare

- Born in Stratford-Upon-Avon on April 23rd 1564.
- Married Anne Hathaway in 1582.
- Left his family around 1590 to move to London to become an actor and playwright.
- Highly successful, he established himself as the most popular playwright of his day.
- Part-owner of The Globe Theatre in London.
- His first theatre group was called Lord Chamberlain's Men, later changed to the King's Men (1603) under the patronage of King James I.
- A prolific writer who is said to have written at least thirty-seven plays, as well as narrative poems and a collection of sonnets.
- Died on his birthday in Stratford-upon-Avon in 1616.

Notable works

Shakespeare's plays can be categorised into three genres.

- ***Tragedy***: e.g. '*Macbeth*', '*King Lear*', '*Hamlet*'
- ***History***: e.g. '*Richard III*', '*Antony & Cleopatra*', '*Henry V*'
- ***Comedy***: e.g. '*Much Ado About Nothing*', '*As You Like It*', '*Twelfth Night*'

Social, Historical & Literary Context

Colonisation:

- The play deals with the theme of colonisation. At this time England was starting to colonise foreign lands often seeing the inhabitants as savages.
- England was fast becoming a world power; Shakespeare explores the relationship between the coloniser and the colonised in The Tempest through the characters of Prospero and Caliban.
- Social status was gained through education, only accessible to the wealthy, therefore native people were often seen as second class citizens.

Magic and Science:

- In Shakespeare's time there was little distinction between magic and science.
- Many writers incorporated otherworldly elements into their work to find some rationale for all the misfortune in the world (plague, war, death, disease etc.).

2. KEY CHARACTERS

Prospero: the play's protagonist. He wields power over his enemies through magic and, having been usurped as Duke of Milan, now rules the island.

Miranda: Prospero's daughter. Naive, compassionate and loyal due to her sheltered life on the island.

Ariel: Prospero's spirit slave. Prospero rescued him from the witch Sycorax.

Caliban: Prospero's slave who believes the island rightfully belongs to him. His name is an anagram of cannibal.

King Alonso: King of Naples who aided Antonio in usurping Prospero. He learns to regret his actions.

Ferdinand: son and heir of Alonso.

Gonzalo: an, old honest Lord. He helps Prospero and Miranda when Alonso sends them off in a leaky boat.

Antonio: Prospero's brother. Power-hungry and foolish.

Sebastian: Alonso's brother. Aggressive, cowardly and disloyal.

Stephano: a drunken butler.

Trincolo: a jester.

3. KEY TERMINOLOGY

Comedy play	A style of play that has a happy ending, usually involving marriages between the unmarried characters, and a tone and style that is more light-hearted than Shakespeare's other plays.
Literary Conventions	Defining features of particular literary genres, such as novel, short story, ballad, sonnet and play.
soliloquy	A speech or passage in a drama when a character on stage speaks to himself/herself or the audience, expressing their inner thoughts and feelings.
aside	A remark or passage in a play that is intended to be heard by the audience but is supposed to be unheard by the other characters on the stage.

4. KEY VOCABULARY

	Definition
Usurp	To take and keep (power) in a forceful way
Wield	To have and use
Betray	To hurt someone who trusts you
Conspirator	A person involved in a secret plan to do something harmful or illegal.
Protagonist	Main character
Antagonist	Villain
Colonisation	Taking control of an area, often by a stronger, richer country
Empire	A group of countries controlled by one ruler
Archetypal	A perfect example of
Enslave	To make (someone) a slave
Microcosm	A small version of the world
Avenge	To harm or punish someone who has harmed you
Hierarchy	A ranking system according to importance or status
Ubiquitous	Seen everywhere
Cannibal	A person who eats their own kind
Savage	Cruel, violent and wild
Oppressive	To remove someone's freedoms

3. KEY TERMINOLOGY

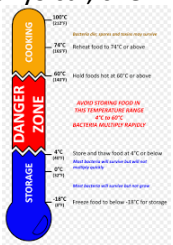
blank verse	Unrhymed lines written in a poetic meter and usually written in iambic pentameter *(see below).*
rhyming couplets	Two successive lines of verse of which the final words rhyme with another.
iambic pentameter	A line of verse with five metrical feet, each consisting of one short (or unstressed) syllable followed by one long (or stressed) syllable, with the accent (or emphasis) placed on the second syllable.

FOOD PREPARATION AND NUTRITION

Keywords

Bacteria – A single celled organism that can cause food poisoning.

Contamination types – physical, chemical and bacterial.



Cross contamination – When bacteria travels using equipment or food to a different source.

High risk food – Those most likely to encourage bacterial growth, e.g. meat, poultry, fish and dairy.

Danger zone – The temperature range in which bacteria thrives.

Ambient temperature – Normal room temperature.

Processes and Techniques

Bridge Hold

Claw Hold

The Eatwell Guide

Tips for healthy eating:

1. Base your meals on starchy food
2. Eat lots of fruit and vegetables
3. Eat more fish
4. Cut down on saturated fat and sugar
5. Try to eat less salt – not more than 6 g a day
6. Drink plenty of water
7. Don't skip breakfast

Electronic scales using for measuring ingredients, e.g. flour, butter, sugar

Measuring jug used to measure liquid ingredients, e.g. water, milk, oil

Macronutrients

Macronutrients are needed by the body in large amounts.

Carbohydrates

- Provides the body with energy.
- Most of our energy should come from complex starchy food.
- One third of your diet should come from starch foods.
- If the diet contains more carbohydrates than the body needs, it will turn into fat and be stored in the body.

Fats

- Animal fats are usually saturated (**solid**) and vegetable fats are usually unsaturated (**liquid**).
- Saturated animal fats have been linked to increased cases of heart disease.
- Fat provides us with energy.
- It keeps the body warm.
- It protects and cushions internal organs by covering them.

Protein

- Essential for growth, repair, maintenance and energy.
- High biological value (HBV) proteins come from animals.
- Low biological value (LBV) proteins come from mainly plant foods.

FOOD PREPARATION AND NUTRITION (RECIPES)

FRUIT SALAD

1 apple
1 orange
5 grapes
some berries
1 kiwi
a small carton of fruit juice (orange/apple)
a plastic container, with your name on it, to take your fruit salad home in

FAIRY CAKES

100 g self raising flour
100 g butter/margarine
100 g caster sugar
2 eggs
12 cake cases

FRUITY BISCUITS

75 g caster sugar
225 g plain flour
150 g butter

ROCKY ROAD

250 g digestive biscuits
150 g milk chocolate
150 g dark chocolate
100 g butter
150 g golden syrup
100 g chopped dried apricots
75 g raisins

PASTA IN TOMATO SAUCE

200 g pasta shapes
2 tbsp oil
1 small onion
1 clove of garlic
1 small tin tomatoes
1 tbsp tomato puree
1 tbsp mixed herbs
50 g grated cheese
OPTIONAL INGREDIENTS: 1 red/green pepper, 1 courgette, 6 mushrooms

TOMATO AND BASIL TART

1 packet of readymade short curst pastry
2 tomatoes
50 g cheese, e.g. mozzarella, gruyere, cheddar
handful of basil leaves
2 eggs
125 ml semi-skimmed milk
black pepper

MUFFINS

240 ml milk
125 ml sunflower or vegetable oil
2 medium-sized eggs
250 g plain flour
100 g sugar
2 heaped tsp baking powder
muffin cases

ALWAYS REMEMBER A CONTAINER TO TAKE YOUR FOOD PRODUCTS HOME!!!!

FRENCH (SPRING TERM 1)

LEARN KEY WORDS

Vocab Set 1 – describing your school	
1) grand	big
2) petit	small
3) coloré	colourful
4) Tout neuf	Brand new
5) ancien	old
6) accueiillant	welcoming
7) moderne	modern
8) propre	clean
9) Sale	dirty
10) impressionnant	Impressive

Vocab Set 2 – school subjects	
1) Le dessin	Art
2) l'histoire	history
3) Le français	French
4) l'allemand	German
5) l'espagnol	Spanish
6) l'EPS	P.E.
7) La SVT	biology
8) Je suis fort(e) en…	I am good at
9) Je suis faible en…	I am bad at
10) j'apprends	I learn / I am learning

Vocab Set 3 – opinions and reasons	
1) Ma matière préférée est…	My favourite subject is…
2) J'adore étudier	I love studying
3) j'aime étudier	I like studying
4) Je déteste étudier	I hate studying
5) Je n'aime pas étudier	I don't like studying
6) Car c'est	Because it's
7) Facile	easy
8) barbant	boring
9) Utile	Useful
10) Amusant	entertaining

BUILD PARAGRAPHS

Model Answer – describe your school, what do you think of the subjects that you study?, what is your uniform like?	
Mon collège, qui s'appelle Le collège Louis-Pasteur, est grand et coloré.	My school, which is called Le collège Louis-Pasteur, is big and colourful.
On étudie beaucoup de matières	We study lots of subjects.
Mais la meilleure est la musique.	But the best one is music.
J'adore étudier la musique car je suis créatif.	I love studying music because I am creative.
Mais je déteste apprendre les maths car c'est difficile.	But I hate learning maths because it's difficult.
A mon avis, j'adore l'uniforme car c'est très chic.	In my opinion, I love the uniform because it's very stylish.
On porte une veste noire, une chemise blanche et un pantalon noir.	We wear a black blazer, a white shirt and black trousers.
Le bâtiment est tout neuf	The building is brand new
Il y a beaucoup de salles d'informatique	There are lots of ICT rooms
Et une grande bibliothèque	And a big library
Mais il serait mieux si on avait une mini-ferme!	But it would be better if we had a petting zoo!
Et toi? Décris ton collège.	And you? Describe your school.

Vocab Set 4 – uniform	
1) Un pantalon noir	Black trousers
2) Un pull noir	A black jumper
3) Un collant noir	Black tights
4) Une jupe noire	A black skirt
5) Une cravate	A tie
6) Une chemise blanche	A white shirt
7) c'est cher	It's expensive
8) C'est démodé	It's old-fashioned
9) il faut porter	You must wear…
10) On ne peut pas porter	We cannot wear…

Vocab Set 5 – school equipment	
1) Une bibliothèque	A library
2) Une salle d'informatique	An ICT room
3) Des ordinateurs	computers
4) Une piscine	A swimming pool
5) Un centre sportif	A sport centre
6) Un terrain de foot	A football pitch
7) Une cour de récréation	A playground
8) Une patinoire	An ice rink
9) Un snack-bar	A snackbar
10) Une cantine	A canteen

AIM HIGH PHRASES	
1) Qui s'appelle…	Who is called…
2) Il faut que je sois honnête,	I have to be honest,
3) Pour qu'on puisse	So that we can
4) Il serait mieux si j'étais	It would be better if I was…
5) Ce que me plait, c'est…	What I like is

Vocab Set 1 – (revision) describing someone

1) Elle a	She has
2) Les cheveux	Hair
3) Les yeux	Eyes
4) châtains	Light brown
5) bruns	Dark brown
6) noirs	black
7) roux	Ginger
8) Verts	green
9) Bleus	blue

Vocab Set 2 – (revision) adjectives

1) Il est	He is
2) Elle est	She is
3) Sympa	Nice
4) Gentil	Kind
5) Agaçant	Annoying
6) Strict, sévère	strict
7) Bavard	Chatty
8) Drôle	Funny
9) très	very
10) assez	Quite

Vocab Set 3 – housework

1) Chez moi	At my house
2) J'adore	I love
3) j'aime	I like
4) Je déteste	I hate
5) Je n'aime pas	I don't like
6) Faire mes devoirs	Doing my homework
7) Faire la vaisselle	Doing the washing up
8) Faire le repassage	Doing the ironing
9) Faire la lessive	Doing the washing
10) Passer l'aspirateur	Doing the hoovering

Model Answer – describe your teachers, what do you do to help around the house, what would you like to do when you're older?

Il y a 60 professeurs au collège	There are 60 teachers at school.
Mais la meilleure s'appelle Madame Marot.	But the best one is called Mrs Marot.
Elle a les cheveux courts et blonds et les yeux bruns.	She has short blonde hair and brown eyes.
Elle est très douée et créative	She is very talented and creative.
Donc elle m'inspire d'apprendre le français.	So she inspires me to learn French.
Chez moi, après avoir fait mes devoirs, je fais la vaisselle.	At my house, after having done my homework, I do the washing up.
Quelquefois je passe l'aspirateur	Sometimes I do the hoovering.
Mais je déteste faire le repassage!	But I hate doing the ironing!
Quelquefois ma mère me donne de l'argent de poche!	Sometimes my mum gives me some pocket money!
Un jour, je voudrais devenir	One day I would like to become …
Soit prof de maths, soit avocat comme mon père	Either a maths teacher or a lawyer like my dad.
Car je suis très intelligent et travailleur	Because I am very intelligent and hardworking.
Et toi? As-tu des projets pout l'avenir?	And you? Do you have plans for the future?

Vocab Set 4 – future jobs

1) Je voudrais devenir	I would like to become
2) Comme	like
3) maçon	Builder
4) Coiffeur	hairdresser
5) avocat	Lawyer
6) prof	teacher
7) sapeur-pompier	Firefighter
8) médecin	Doctor
9) infirmier	nurse
10) Hôtesse de l'air	Air hostess

Vocab Set 5 – personality for jobs

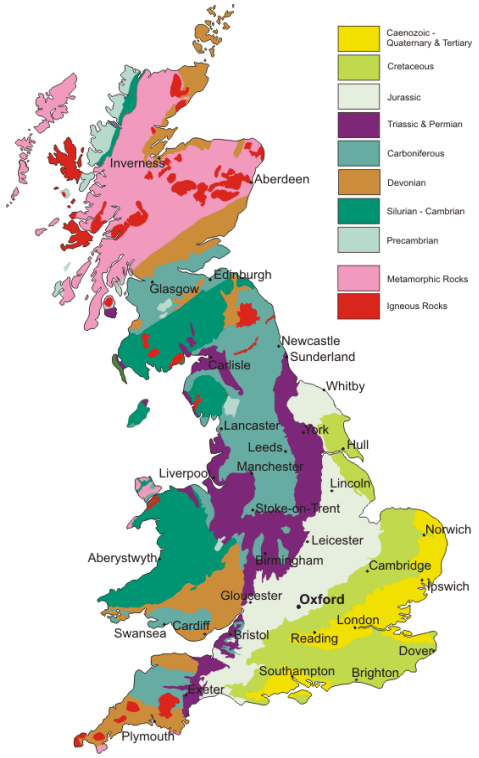
1) Je suis	I am
2) Je ne suis pas	I am not
3) travailleur	Hard-working
4) ponctuel	Punctual (on time)
5) Fiable	reliable
6) créatif	Creative
7) comme	Like
8) Plus intelligent que	More intelligent than
9) Moins paresseux que	Less lazy than
10) Plus travailleur que	More hard working than

AIM HIGH PHRASES

1) Qui s'appelle…	Who is called…
2) Il faut que je sois honnête,	I have to be honest,
3) Pour qu'on puisse	So that we can
4) Il serait mieux si j'étais	It would be better if I was…
5) Ce que me plait, c'est…	What I like is…

GEOGRAPHY

How does geology shape the UK?

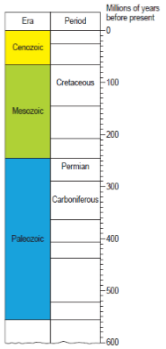


Rock type varies across the UK and it has an impact on the landscape and population distribution of different areas.
For example:
The **metamorphic rock** found in Scotland is home to the **'Upland Mountains,'** here the population is small due to the extreme relief of the land.
Whereas, the **'Jurassic'** rock running through Leicester and Oxford, contains **sandstone, clay and shale**, making it ideal for farming.
The **Cenozoic band**, which is found on the east coast, is **made of clay and sand**. This is being destroyed (eroded) by the sea, as it is fairly soft, forcing people to move.

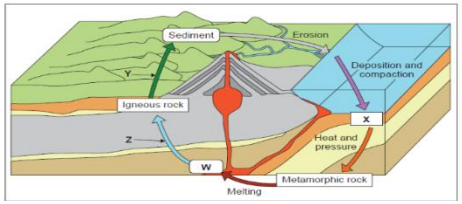
Rock Type		
Igneous 	Sedimentary 	Metamorphic 
Formed by volcanoes **Often contain crystals** **Examples – Basalt / Granite**	Formed on the seabed Contains rocks such as chalk and clay	Rock that is heated – not melted Contains slate and marble

How do we use different rocks?

Sedimentary rock gives limestone is used mainly in the manufacture of Portland cement, the production of lime, manufacture of paper, petrochemicals, insecticides, linoleum, fiberglass, glass, carpet backing and as the coating on many types of chewing gum.
Metamorphic rock gives marble is used for building materials and artwork. Marble is beautiful for statues and decorative items such as vases. Ground up marble is also a component of toothpaste, plastics and paper.
Igneous rock gives granite is used in buildings, bridges, paving, monuments and many other exterior projects. Indoors, polished granite slabs and tiles are used in countertops, tile floors, stair treads and many other design elements.



The Earth is thought to be 4,600 million years old. Life is believed to have become dominant on earth 542 million years ago.
The geological periods relate to events that have happened in the Earth's history. For example, during the **carboniferous period** there were tropical weather conditions in the UK and coal and limestone were formed.
The most recent period in geological time is called the **quaternary**, when the Ice Age occurred.
Rocks are formed at different times and are a result of the environment present during that time. For example, chalk is formed in the **cretaceous** period, as this is when warm tropical seas were present around the shores of the UK.
Era – An era is a length of geological time that can vary in length – the Palaeozoic was much longer than the Mesozoic.
Eras are subdivided into shorter lengths of time known as periods.



Weathering – Is the process whereby rocks are broken down by the action of things in the environment, such as; the temperature (hot / cold), gases in the air (acid rain) and plants and animals (roots of trees).

1. **Mechanical weathering** – the breaking of rock into smaller pieces without any change in its chemical nature.
2. **Biological weathering** – the breaking down of rocks by plant roots or borrowing animals.
3. **Chemical weathering** – causes an alteration to the chemical composition of rock due to a reaction.
4. **Freeze thaw** – water freezes in cracks and expands, then thaws and so on.
5. **Onion skin** – as the sun shines on rocks during the day it causes them to expand. During the night the rock contracts due to the colder temperature. Over time this continued process causes small pieces of surface rock to flake off.
6. **Solution** – where acidic rain is able to dissolve rocks, e.g. limestone.

The rock cycle:

1. Rock on the Earth's surface is broken down into stones, sand and clay by **weathering**. It is known as **sediment**.
2. The sediment can enter rivers and will be eroded and transported by the river.
3. The river drops the sediment on the ocean floor. This builds up on the ocean bed. Over time the weight causes the sediment to be compacted, leading to **sedimentary rocks** forming.
4. Further weight pushes the sedimentary rocks downwards into the Earth's crust. Heat and pressure change this into **metamorphic rock**.
5. The metamorphic rock gets buried further and gets so hot it **melts** to form magma.
6. Overtime the magma rises up and begins to cool to form **igneous rock**. Some of this magma shoots out of volcanoes, cooling on the surface.
7. In time the igneous rock on the Earth's surface is weathered down to form sediment and the process repeats.

Your case study on the impacts of a quarry. You must remember your place-specific information!

Advantages – in extraction of rock, distribution and supporting local shops and cafes, providing alternative jobs to farming in rural areas and offering opportunities for young people, providing an essential resource – cement for building.
A quarry will normally try to reduce any problems that it creates, e.g. re-planting trees, adding new habitats, using solar energy etc.

Disadvantages – visual impact due to the presence of a large hole in the ground and the presence of spoil heaps, the impact of noise via blasting, transport via large lorries or trains, air pollution and the presence of dust; the loss of wildlife habitats.

HISTORY (RELIGION AND MEDIEVAL LIFE)

Timeline

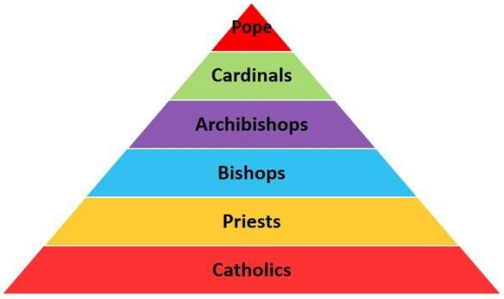
632	Prophet Muhammed dies, having established Islam
638	Muslims conquer Jerusalem.
1076	Seljuk Turks seize control of Jerusalem and stop non-Muslims from travelling there.
1095	Pope Urban II launches First Crusade.
1099	The Christian army captured Jerusalem. Jerusalem was in Christian hands for 88 years.
1187	Muslims began to unite under one leader, Saladin. 1187 Saladin's army recaptured Jerusalem and took other land controlled by Christians.
1192	King Richard met Saladin and they agreed that Jerusalem could remain in Muslim hands, but Christians could visit without coming to any harm.
1217	There were more crusades to recapture the Holy land from Muslims. They all failed.. The Muslims stayed in control for the rest of the medieval age.

Key people

St Benedict of Nursia	Is a Christian saint famous *for being the* founder of the Benedictine monastery. Many rules that future monks and nuns followed were started by him.
Pope Urban II	Was the Pope from 1088-1099. He is most famous for calling the First Crusade. This was where he ordered Christian soldiers to recapture the Holy Land from Muslim Turks.
Richard the Lionheart	Richard I was King of England from 1189 –1199. Richard got the nickname 'lionheart' because of his bravery in battle. Although King of England he spent most of his reign trying to recapture the Holy Land from Saladin. Failing at this he made his way back to England where he died when a crossbow hit him in his neck during a siege of a French castle.
Saladin the Merciful	Was a Muslim military leader who united much of the middle east under one rule. He was famous for recapturing Jerusalem from the Christians.

Pictures & Diagrams

Doom Paintings	A "Doom painting" or "Doom" is a traditional English term for a wall-painting of the Last Judgment in a medieval church. This is the moment in Christian belief when Christ judges souls to send them to either Heaven or Hell. They were used to teach illiterate peasants what the afterlife held for those that did and did not follow the churches teachings.



Roman Catholic Hierarchy

Just like the kings hierarchy , the feudal system, was based on land the church had their own hierarchy based on power . At the top you would have the Pope who was seen as Gods representative on Earth. His teachings and instruction would be sent to his cardinals and spread to all the archbishops of the Western World. The Archbishop was the most important religious figure in a country, under him he would have many bishops who would be in charge of all the priests in an area. Priest would take mass every Sunday and teach their congregation how to live a holy life. Not in the hierarchy but still an important part of the Christian church were monks and nuns. They lived in monasteries and would help their local community.

Importance of the Catholic Church

Religious

- The church was important in teaching people how to look after their soul. so they would go to heaven and not hell in the afterlife.
- Medieval people would go to mass every Sunday and make sure that they confessed their sins. They would also pay a **tithe** to the church to make sure they did not upset God.

Legal

- The church was very important in medieval society because it was seen as the court. Suspects would be tried and God would be seen as the judge.
- Trial by ordeal saw a suspect go through an unpleasant experience to see if he was either innocent or guilty. Trial by Fire, Trial by Water and Trial by combat were all types of ordeal.
- The Church could also try moral crimes such as cheating on your partner or gambling. The church courts could punish those found guilty of crimes with **public penance** – this meant standing in the church dressed only in your underwear, holding a lit candle.

Community

- The church was important because it gave medieval society a sense of community and belonging. It would ring the bells to let people know the time of the day. It provided medieval society with holidays 'holy days'.
- The Church encouraged rich people to help the poor so they could spend less time in purgatory. Money used in this way was called **alms**. Some built **alms-houses** for poor people to live in.
- Medieval people's lives revolved around the church. It was a key factor in people's lives it is where they would get baptised/ married and their last rights said.

Health

- Monks and nuns had a duty to provide care for the sick and terminally ill. They would grow herbs and spices in the monastery to be sold as medicine for their local community.

Education

- If the priest could read and write, he might have taught some **Latin** to a few villagers. Children from richer families might have been taught by monks in monasteries.
- Universities were controlled by the church and so to were the books and knowledge. It was the church that decided what knowledge got passed down.

HISTORY (RELIGION AND MEDIEVAL LIFE)

Key Terms :

Alms	Money donated to the Church by the rich to help the poor
Archbishop	The most powerful religious figure in a particular country. The Archbishop in England sits in Canterbury.
Afterlife	Where medieval people thought they went for eternity after death
Bishop	A senior member of the clergy. In charge of a particular area (diocese) gives orders to priests.
Black Death	A pandemic that killed 1/3 of Britain's population . Spread by infected fleas carried on rats.
Chivalry	A religious, moral and social code that knights lived by
Christendom	All the Christian countries together (both the Roman Catholic and the Eastern Orthodox)
Clergy	Officials of the Church who were led by the Pope
Crusades	A religious war fought in the medieval ages between Christians and Muslims for control of the Holy Land (Jerusalem)
Doom Paintings	A painting showing people being sent to Heaven or Hell on the Day of Judgment
Excommunication	The power of the Pope to expel someone from the Church
Heaven	A place regarded in Christianity as the realm of God and the angels . It is where you go if you have lived a good and holy life.
Hell	A place regarded in Christianity as the realm of the devil and demons. It is where you go if you have lived an unholy life.
Hue and Cry	A Loud cry calling for the pursuit and capture of a criminal.
Jerusalem	The Holy City, for both Muslims and Christians, conquered by Muslims in 638
Mass	The main religious service given on Sunday that parishioners were expected to attend
Monastery	A building housing a religious order of monks or nuns
Monks/Nuns	Men and women that dedicates their entire life to God and lives in a monastery
Pilgrimage	A religious journey, typically taken to a site of religious importance
Priest	A member of the clergy that would take Sunday Mass and perform certain rites i.e marriage, baptism and last rites.
Purgatory	A stage before Heaven, where the dead are removed of their remaining sins
Tithe	A Church tax of 10% on a person's earnings

Knowledge Outcomes:

1.What religion was England?	Roman Catholic
2.Who is the head of the Christian church in the West?	Pope in Rome
3.Who is the head of the church in England?	Archbishop of Canterbury
4.What observance were ordinary parishioners expected to attend every Sunday?	Mass
5.Why did people go on pilgrimage?	To be forgiven of sin; or cured of disease; or to receive good fortune
6.What was the name of a 10% tax on income paid to the church?	Tithe
7.Who came up with the Theory of the Four Humours	Hippocrates
8.Who did the church say caused disease?	God as a punishment or test of faith
9.Who were under a religious duty to care for the sick and terminally ill?	Monks and Nuns
10.What were the paintings called that represented the Day of Judgment?	Doom Paintings
11.Which place between heaven and hell did medieval people believe they would go in the afterlife?	Purgatory
12.In what language was Mass told?	Latin
13.Who called for the First Crusade?	Pope Urban II
14.Why was the Crusades called?	To recapture Jerusalem from the Seljuk Turks who had seized control of the Holy Land and were attacking Christian Pilgrims
15.Why was Jerusalem holy to the Christians?	Jesus died and was resurrected in Jerusalem and the Church of the Holy Sepulchre was built on the site of the resurrection
16.What motivated the poor to Crusade?	Land/ Wealth/ secure place in heaven
17.How did Europeans benefit economically from the Crusades?	By trading in goods from the East, including lemons, dates and olive oil
18. Who was the famous Christian crusader general?	Richard the Lionheart
19.Who was the Famous Islamic crusader general ?	Saladin

Maths

hegartymaths

http://www.hegartymaths.com

Year 7 Cycle 2

Fractions as Part of a Whole		
Equivalent fractions	You must multiply or divide the numerator and denominator by the same number.	$\frac{1}{2} \times \frac{3}{3} = \frac{3}{6}$
Simplify fractions	Divide both the numerator and the denominator by the highest common factor.	$\frac{18}{24} \div \frac{6}{6} = \frac{3}{4}$

Fractions as a Value (+/-)		
Adding/subtracting fractions	You must have a common denominator. Find the LCM of the denominators. Use equivalent fractions to change each fraction to the common denominator. Add or subtract the numerators and keep the denominators the same.	$\frac{2}{3} - \frac{1}{5}$ LCM of 3 and 5 is 15 $\frac{2}{3} \times \frac{5}{5} = \frac{10}{15}$ and $\frac{1}{5} \times \frac{3}{3} = \frac{3}{15}$ So, $\frac{10}{15} - \frac{3}{15} = \frac{10-3}{15}$ $= \frac{7}{15}$

Fractions as a Value (Comparing)		Fractions as an Operation	
Comparing fractions	You must have a common denominator. Then you can compare the numerators. Ascending means smallest to largest. Descending means largest to smallest.	Finding fractions of amounts	Divide the value by the denominator. Multiply the answer by the numerator.

Key Vocabulary	
Integer	A whole number
Fraction	A mathematical expression representing the **division** of one integer by another
Numerator	The 'top' number of a fraction
Vinculum	A horizontal line that separates the numerator and denominator in a fraction
Denominator	The 'bottom' number of a fraction
Equivalent Fractions	Fractions that represent the same value
Simplified Fractions	Fractions where the highest common factor of the numerator and denominator is 1
Highest Common Factor	The largest factor that is common to 2 or more integers
Lowest Common Multiple	The first multiple to appear in the times tables of 2 or more integers
Improper Fraction	A fraction where the numerator is larger than the denominator
Mixed Number	A number formed of an integer part and a fraction part

Converting	
Mixed numbers to improper fractions	Multiply the denominator by the integer. Add the numerator to the answer. This is your new numerator. The denominator stays the same.
Improper fractions to mixed numbers	29

MATHS

Basic Rules of Algebra

Simplifying Expressions	Collect **like terms**. Be careful with negatives.	$2x + 3y + 4x - 5y + 3 = 6x - 2y + 3$
$x \times x$	The answer is x^2 not $2x$	Squaring is multiplying by itself, not by 2
$p \times p \times p$	The answer is p^3 not $3p$	If $p = 2$, then $p^3 = 2 \times 2 \times 2 = 8$ not $2 \times 3 = 6$
$p + p + p$	The answer is $3p$ not p^3	If $p = 2$, then $3p = 2 + 2 + 2 = 6$ not $2^3 = 8$

Expanding and Factorising

Expanding a single bracket	To expand a bracket, multiply each term in the bracket by the expression outside the bracket.	$3(m + 7) = 3m + 21$
Factorise	The reverse of expanding. Factorising is writing an expression as a product of terms by 'taking out' a common factors. Do this by dividing each term by the HCF.	$6x - 15 = 3(2x - 5)$ where 3 is the highest common factor

Substitution

Substitution	Substitute letters for words in an equation. When you substitute you replace a variable for a number. You must always follow BIDMAS.	
$3a$	$3 \times a$	If $a = 5$, $3a = 3 \times 5 = 15$
y^2	$y \times y$	If $y = 7$, $y^2 = 7 \times 7 = 49$
$2x^2$	$2 \times x^2 = 2 \times x \times x$	If $x = 9$, $2x^2 = 2 \times 9 \times 9 = 2 \times 81 = 162$

Stretch and Challenge

Can you make your own questions involving fractions and algebra?	$\frac{5}{12}$ $5x$ [redacted] $\frac{2}{3}$ $(2x + \frac{1}{6})$	By collecting like terms, give an expression for the perimeter of the rectangle in its simplest form.

Key Vocabulary

Variable	An 'unknown'. A letter used to represent a number, these can take any value.
Expression	Made up from numbers and/or letters representing unknown values where there is no equals symbol.
Terms	The separate parts of expressions. For example in $5x + 3y - 4$ there are three terms: $5x$, $+ 3y$ and $- 4$.
Coefficient	The numbers in front of the variable. For example, in $6x$ the coefficient of x is 6.
Like terms	Terms with the same variable. For example, $4x$, x and $5x$ are all like terms. x^2 and x are not like terms.

BIDMAS

BIDMAS	An acronym that tells you the order in which to do operations.	
B	Brackets	
I	Indices	Also known as 'powers'.
D	Division	With strings of multiplication and division or addition and subtraction, work from left to right.
M	Multiplication	
A	Addition	
S	Subtraction	

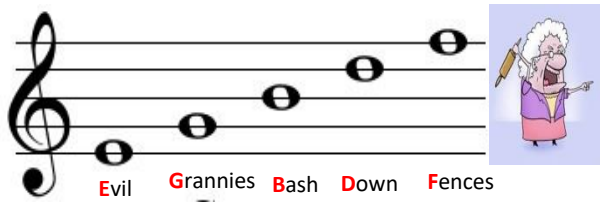
MUSIC

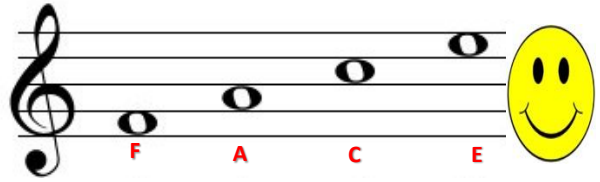
Keywords		
Dynamics	Symbol	Definition
Fortissimo	*ff*	Very Loud
Forte	*f*	Loud
Mezzoforte	*mf*	Moderately Loud
Mezzopiano	*mp*	Moderately Quiet
Piano	*p*	Quiet
Pianissimo	*pp*	Very Quiet
Crescendo	<	Becoming gradually louder
Decrescendo	>	Becoming gradually quieter

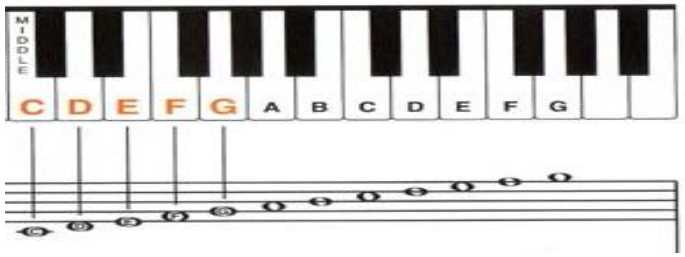
Tempo	Definition
Lento	Slowly
Largo	Slow and stately
Adagio	Leisurely
Andante	At a walking pace
Allegro	Fast
Vivace	Lively
Presto	Very Quickly

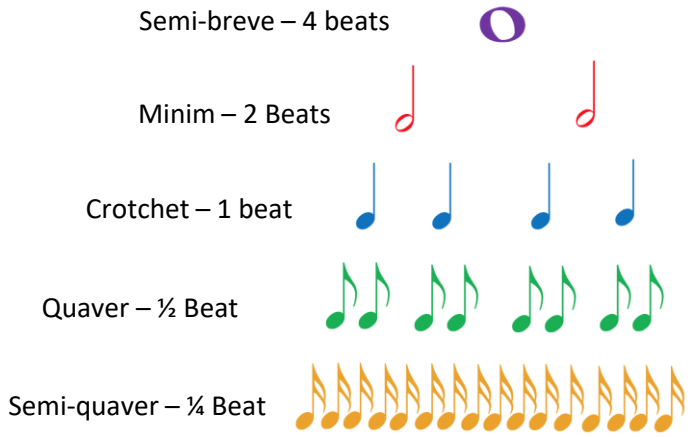
Musical Instrument Families

Woodwind	**Brass**
Flute Clarinet Oboe Saxophone Bassoon	Trumpet French horn Trombone Tuba
Strings	**Percussion**
Violin Viola Cello Double Bass	Timpani Piano Glockenspiel Xylophone









Spellings to Learn in Music

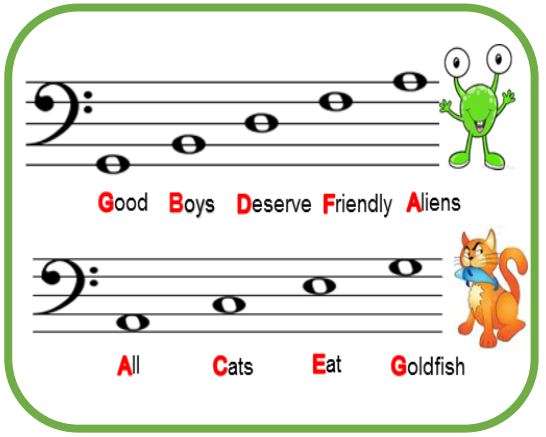
Rhythm
Rehearsal
Guitar

Stretch and Challenge

Listen to the following piece of music. Would you be able to identify each instrument of the orchestra if you heard it again?

'Peter and the Wolf' by Prokofiev

https://www.youtube.com/watch?v=9ueGfjBKbiE



PHYSICAL EDUCATION

Components of Fitness

1	**Balance** – the ability to maintain centre of mass over a base of support. There are two types of balance: static balance and dynamic balance.
2	**Coordination** – the smooth flow of movement needed to perform a motor task efficiently and accurately.
3	**Reaction Time** – the time taken for a sports performer to respond to a stimulus.
4	**Agility** – the ability of a sports performer to quickly and precisely move or change direction without losing balance or time.
5	**Power** – the product of strength and speed. Expressed as the work done in a unit of time.
6	**Muscular Strength** – the maximum force (in kg or N) that can be generated by a muscle or muscle group.
7	**Speed** – distance divided by the time taken. Speed is measured in metres per second (m/s).
8	**Flexibility** – the ability to move a joint fluidly through its complete range of movement.
9	**Aerobic Endurance** – the ability of the cardiorespiratory system to work efficiently, supplying nutrients and oxygen to working muscles during sustained physical activity.
10	**Muscular Endurance** – the ability of the muscular system to work efficiently, where a muscle can continue contracting over a period of time against a light to moderate fixed resistance load.

What KPIs will I be assessed in?

1	Controlled Skills	6	Being a Role Model
2	Tactical Thinking	7	Personal Fitness
3	Feedback	8	Use of Warm Ups/Cool Downs
4	Leadership	9	Active, Healthy Living
5	Applying Tactics		

What sports will I be assessed in?			Fundamental Skills
1	Invasion	Football, Hockey, Handball, Basketball, Rugby, Netball	Throwing, Catching, Passing, Dribbling, Tackling, Shooting
	Net and Wall	Badminton, Tennis, Volleyball	Attacking shots, Defensive shots, Serving
2	Artistic	Gymnastics and Trampolining	Balance, Travel, Vaulting, Landing, Timing, Rotation, Aesthetics
3	Striking and Fielding	Rounders, Stoolball, Softball, Cricket	Striking, Throwing, Catching, Long Barrier, Decision Making
4	Athletics	Long Jump, High Jump, Shotput, Discus, Javelin, Long Distance, Short Distance, Relay	Running, Jumping, Throwing, Pacing
5	Swimming	Front Crawl, Backstroke, Breast Stroke, Butterfly, Personal Survival	Streamlining, Breathing, Technique




PRODUCT DESIGN (MATERIALS AND TOOLS)

Tools and Equipment
If you are unsure, ask about the use first!

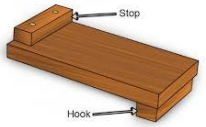
Coping Saw for cutting **curved** lines in **thin** material with a thin blade. The blade can be rotated by undoing the handle first.

Tenon Saw for cutting straight vertical cuts. The depth of the cut is restricted by the brass spine. You must stretch the index finger out when using this saw to steady it and get a more accurate cut. Start cutting on a corner, drawing back several times.

Bevel Edge Chisel for removing wood. Always chisel away from yourself. Use only for cutting wood – they must be razor sharp!

Steel Rule Measuring with accuracy up to 1/2 mm depending on your eyes! It starts at zero on the end, unlike a ruler that has material on the end first. Make sure that you look at the measurements from above to get an accurate reading. You also need a sharp pencil!

Bench Hook and Clamp Use the bench hook to help cut wood with accuracy. Top tip – always cut all the way through your work into the bench hook to avoid splintering the back of your work.



Squares: 45 degree and 90 degree Take care of these – your work accuracy depends on them being accurate! You must keep the stock (wooden bit) tight against your work and your pencil must be sharp!

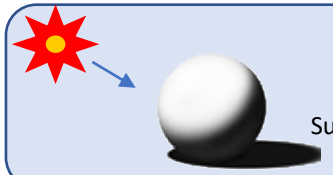
Soldering Iron These are used to join electrical items such as wire, remember to take care because these are very hot, be sensible, use a stand. Apply heat to the whole area to be soldered before putting the solder wire onto the joint.

Machine tools You must not use these unless you have been shown how to by a teacher and you understand! Always ask if you are unsure.

Fret saw for cutting **curved** lines in **thin** material with a thin blade. Always keep your fingers clear. Make sure the guard is intact. Cut slowly. Use the clamp to stop wood rattling about.

Pillar Drill
We use this for drilling vertical holes in material. Almost always you will clamp your work down first. Wear glasses, use the guard and know how to turn it off in an emergency. Do not use if you are unsure – ask!

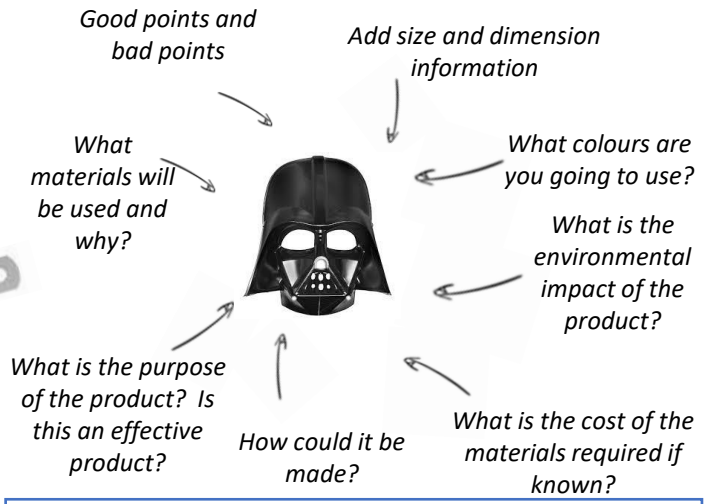
Rendering



Surface facing directly towards light = lightest tone

Surfaces facing directly away from light = darkest tone

Product Analysis



Project Materials

MDF (Medium Density Fibre Board) – a product made of recycled wood dust

Solder – a thin strip of metal used to help stick electronic components together

Switch – a component that allows electricity to go through a circuit

Battery snap – a component that lets you connect a battery to the circuit

Connector block – a component that lets you connect wires together

Wire – red wire is positive, black wire is negative

PRODUCT DESIGN (MATHS ELEMENT)

Measuring

Length: measured using a steel rule or ruler. For small measurements we use mm, then cm and m for larger ones.

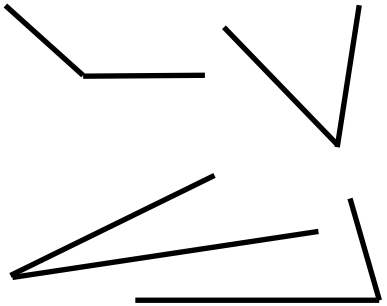
Angles: measured using a protractor and using degrees. A right angle = 90°. There are 360° in a circle.

Examples: line measuring below – use a ruler and ask someone to check your answer. Give the answer in mm and cm

1)

2)

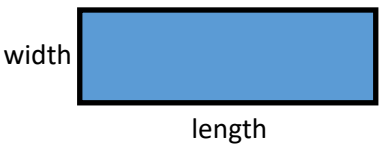
3).



Examples:
Angle measuring – use a protractor to measure these angles and ask someone to check for you.

Area: the two-dimensional space taken up by something – for example, the area of a sheet of material like card. Measured in either cm^2 or m^2 for larger problems.

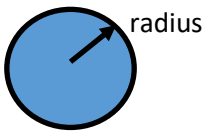
Area of a rectangle = width × length



Area of a circle = πi^2

π = 3.142

The radius is half the diameter

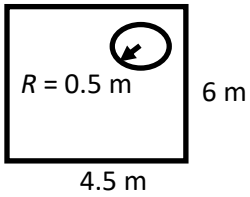


Examples – rectangle area

1) If the width of a piece of fabric is 10 cm and its length is 15 cm, what is its area in cm^2?
2) Width = 12 cm, length = 32 cm, what is the area?
3) Width = 3 m, length = 8 m, what is the area in m^2?
Answers below.

Examples – circle area

1) If the radius of a piece of metal is 5 cm, what is its area in cm^2?
2) Radius is 3 cm, what is the area?
3) Radius is 9.5 cm, what is the area?
4) Diameter is 12 cm, what is the radius?
Answers below.



Harder Example – combined area problem

This is plan for a carpet for a room. The circular part will be removed for a special floor. How much is the actual carpet area now?

Extension question – if the carpet costs £12 per m squared, how much will this cost?

Answers below.

The easiest way to remember these is to ask someone to set you more questions!

Answers:

Rectangle area: 1) 150 cm^2. 2) 384 cm^2. 3) 24 m^2

Circle area: 1) 78.57 cm^2. 2) 28.2 cm^2. 3) 283.6 m^2. 4) 452.4 cm^2

Harder question: rectangular area 27 m^2; circle area .78 m^2; total area = 26.21 m^2; carpet cost = £314.55

RELIGIOUS EDUCATION (JEWISH BELIEFS AND PRACTICES)

Keyword	Definition
Chosen people	Jewish belief that G-d chose them for his own.
Covenant	A promise, testament or agreement.
Dietary laws	The food laws given by G-d to the Jews.
Eternal	Beyond time and space and without end.
Exodus	The departure of the Israelites (Jews) from Egypt.
Israel	Jewish homeland promised to them by G-d.
Justice	Fairness and fighting for people's rights.
Kashrut	The name for the Jewish law that states that foods can and cannot be eaten and how those foods must be prepared.
Kosher	Food that is 'clean' and meets the requirements of the Jewish laws.
Obedience	Following rules.
Omnibenevolent	G-d is all-loving.
Omnipotent	G-d is all-powerful.
Omnipresent	G-d is always there.
Omniscient	G-d is all-knowing.
Orthodox	Following traditional practices, rituals and beliefs.
Prophet	A person regarded as an inspired teacher or proclaimer of the will of G-d.
Reform	Jews who have changed certain practices to adapt to modern society.
Responsibility	Being trusted and accepting consequences.
Ritual	A religious ceremony observed by believers.
Rosh Hashanah	The Jewish new year.
Shema	The central prayer in Judaism.
Synagogue	The Jewish place of worship.
Torah	Jewish Holy scripture, part of the written law.
Trefah	Literally means 'torn' – forbidden food.
Trust	Faith in another person.
Yom Kippur	The day of Atonement; day of fasting on the tenth day after Rosh Hashanah.

Prophets	Explanation of this Prophet's Life
Adam	First man on Earth. Eve was made from Adam's rib. Eve tempted Adam to eat from the forbidden tree of knowledge. This disobedience cause original sin to come upon all of humanity.
Noah	Society had become dangerous and many people had turned away from G-d. G-d spoke to Noah and asked him to build an ark as G-d wanted to create a great flood to remove all sin and evil from the world. Two of each animal and Noah's family survive the flood. Noah was given new rules in order to keep society in order, such as 'do not worship idols'.
Abraham	The founder of Judaism and often called 'father Abraham' or 'father of the Jews'. G-d created a covenant between himself and Abraham and stated 'you will be a father of a great nation, if you walk in my ways'. Abraham left his home town to find the promised land and G-d rewarded his obedience by enabling Abraham and Sarah to conceive (have children) even though Abraham was 100 years old.
Moses	Known as the servant of G-d and leader of the Exodus – whereby the Israelites were freed from slavery out of Egypt. After freeing the Israelites, Moses was given the Ten Commandments to inform people in society of how to behave.

CHALLENGE

Go to the links below and extend your knowledge on Jewish beliefs and practices.

- http://www.bbc.co.uk/religion/religions/judaism/
- https://www.bbc.com/bitesize/topics/ztrqxnb

RELIGIOUS EDUCATION (JEWISH BELIEFS AND PRACTICES)

Themes	Beliefs
G-d	Jews are monotheists, which means they only believe in one G-d who is omnipotent (all powerful), omniscient (all knowing) and omnibenevolent (all loving).
Covenant	Judaism says that the Jews entered a special relationship with G-d, whereby G-d promised to teach Jews how to live, and Jews are to worship one true G-d and obey his commandments.
Ten Commandments	The fundamental set of rules to guide Jews, revealed by G-d to Moses on Mount Sinai.
Free Will	The belief that G-d created humans with the ability to do good and bad to test them on whether they choose to worship him or not.
Orthodox Jews	Orthodox Jews follow the Torah literally including all the mitzvot (commandments) as these were given to Moses from G-d. Orthodox Jews observe mitzvot by not working on the Sabbath, men wear the *Kippah* at all times and men and women sit separately during worship.
Reform Jews	Reform Jews believe that the Torah must be made relevant to today so women alongside men can wear the Kippah and men and women can sit together during worship. Reform Jews might set aside some teachings if these are not relevant to today's society.

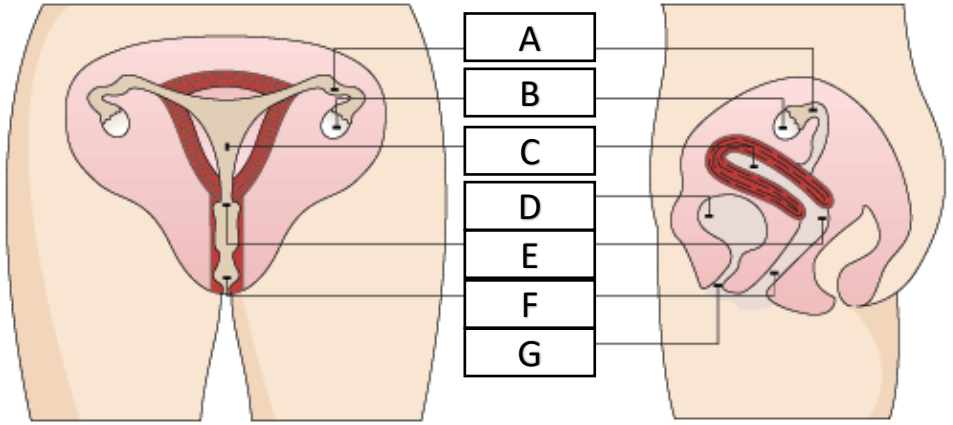
Themes	Practices
Shabbat	Shabbat is the Jewish Sabbath, which occurs Friday night until Saturday night. As the Torah states to 'Keep the Sabbath holy', Jews tend to not work during this holy day as Shabbat means 'stopping' and Jews set the time aside for G-d. At the arrival of Shabbat, a prayer is said and Jews remember G-d's creation of the world whereby he rested on the seventh day as well as the Israelites escape from slavery.
Kashrut	Jews are only able to eat *kosher* foods: foods that are permitted and prepared under Jewish law. Jews are allowed to eat any animals that chew the cud and have split hooves, e.g. cows, and any fish with fins, e.g. haddock. Any foods that do not fit this category are *trefah* – not permitted. Food must also be prepared under Jewish law. Jews are also not able to eat dairy and meat together and often have separate facilities for this, e.g. two sinks, two fridges, two sets of plates and cutlery.
Bar/Bat Mitzvah	A religious coming of age ceremony that Jewish children observe at the age of 12, for girls and 13, for boys. Represents the time after which the 613 *mitzvot* (commandments) are to be followed.
Passover	A religious festival where Jews remember how the Israelites left slavery when Moses led them out of Egypt 3000 years ago.

Seder plate

SCIENCE (7BR BIOLOGY - REPRODUCTION AND VARIATION)

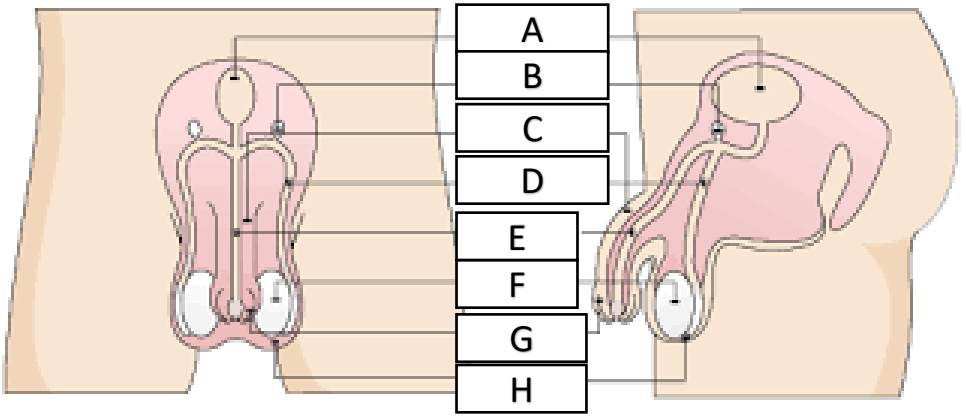
1. The Female Reproductive System

	Part	Function
A	Oviduct (Fallopian tube)	To transport eggs from the ovary
B	Ovary	Production of eggs
C	Uterus (womb)	Where the baby develops
D	Bladder	Where urine is stored
E	Cervix	Entrance to uterus Holds baby in place
F	Vagina	Where penis enters during sexual intercourse
G	Urethra	Tube that carries urine



2. The Male Reproductive System

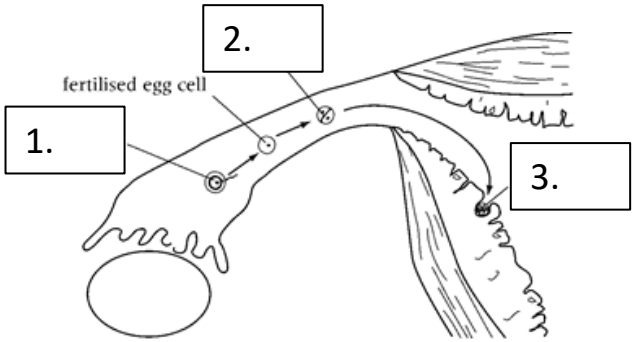
	Part	Function
A	Bladder	Where urine is stored
B	Glands	Excrete fluid that the sperm travel in
C	Penis	Enters the vagina during sexual intercourse
D	Sperm duct	The tubes along which sperm travel
E	Urethra	Tube that carries urine
F	Testis	Produce sperm
G	Foreskin	The retractable roll of skin covering the end of the penis
H	Scrotum	Skin covering testis, keeping them below body temp



SCIENCE (7BR BIOLOGY - REPRODUCTION AND VARIATION)

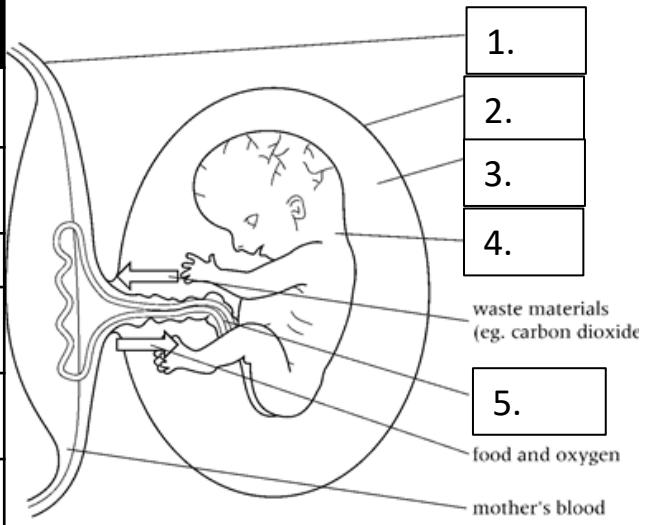
3. Conception of a Baby

No.	Keyword	Definition
	Ovulation	An egg cell is released from ovary
1.	Fertilisation	When the sperm meets the egg
2	Embryo	A small ball of cells that will grow into a foetus
3	Implantation	The fertilised egg sticks into the uterus lining



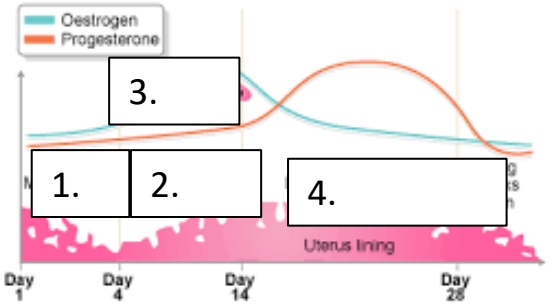
4. The Developing Baby

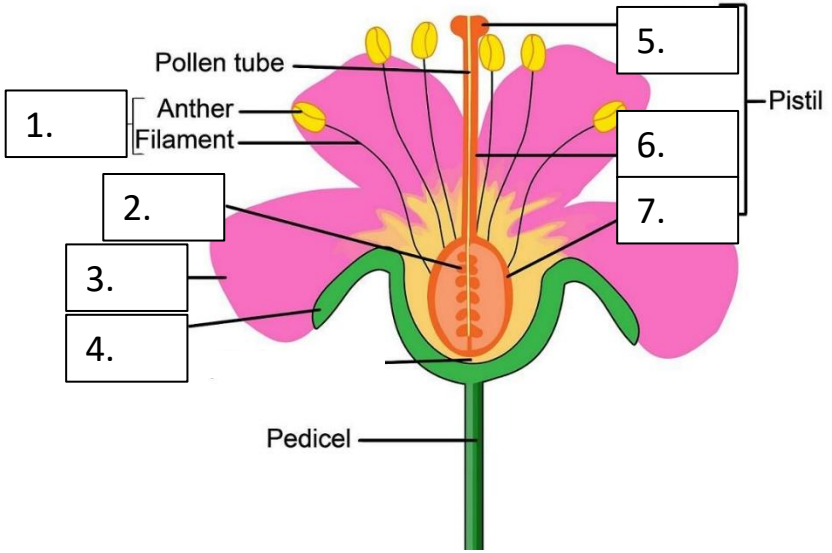
No.	Keyword	Definition
1	Placenta	Provides, food, oxygen and removes gases from the foetus
2.	Amnion	Protective sac around foetus
3.	Amniotic fluid	Fluid (liquid) contained din the amnion sac
4.	foetus	A developing child that looks like a baby
5.	Umbilical cord	Connects the placenta to foetus.



5. The Menstrual Cycle

No.	Day	Process	Reason
1.	1–4	Menstruation : lining is lost, woman has a period	To remove the old unused lining
2.	4–14	Uterus lining builds up	To prepare for a possible pregnancy
3.	14	Ovulation	To create a new baby
4.	14–28	Uterus lining maintained	In case the egg is fertilised

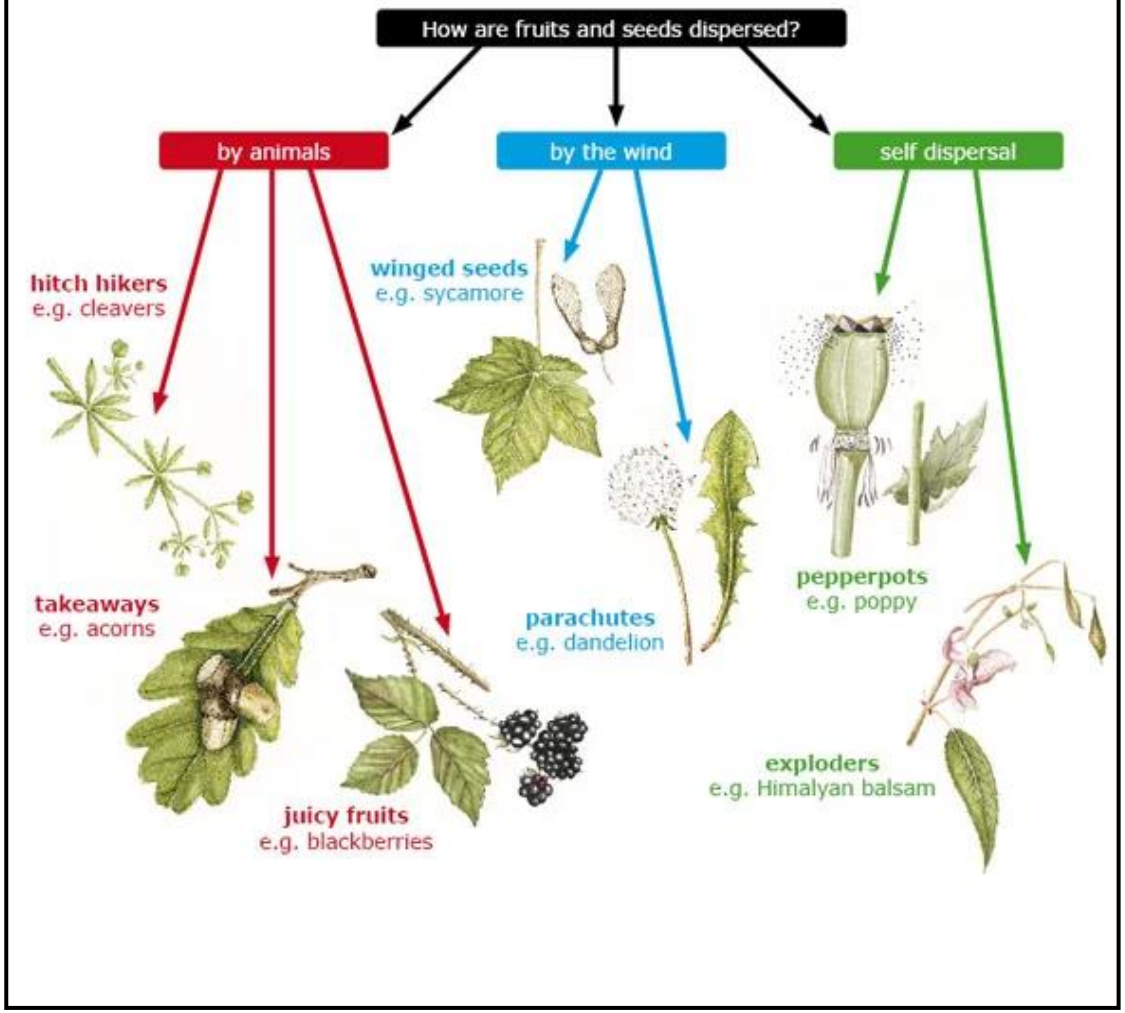




6. Plant Reproductive Organs

No.	Keyword	Meaning
	Pollen	The plant equivalent of sperm
1.	Stamen	Male reproductive organ. Contains the pollen on the anther
2.	Ovule	The plant equivalent of the egg cell
3.	Petal	Brightly coloured parts that draw attention to the stamen and stigma
4.	Sepal	Protective layer covering the flower while it develops
5.	Stigma	When the pollen grain lands to fertilise the ovule
6.	Style	Connects the stigma to the ovary
7.	Ovary	Where the ovules are stored. Where the seed grows

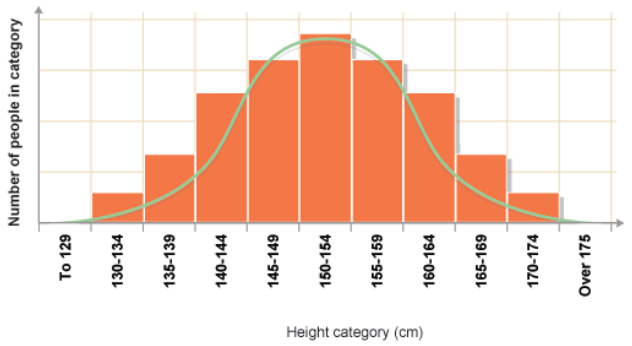
7. Seed Dispersal



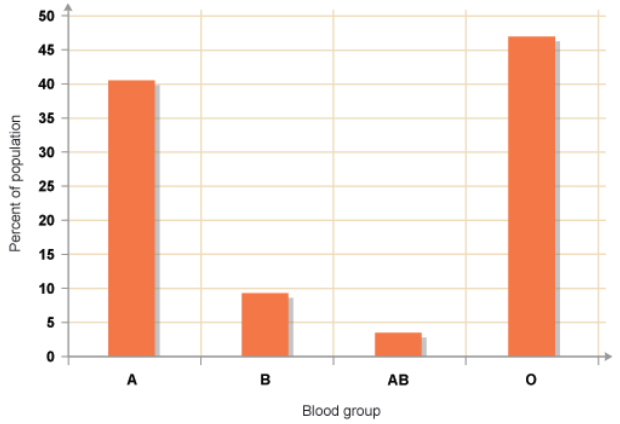
8. Variation Keywords

Keyword	Meaning
Variation	Differences between things
Species	A group of living things that have similar characteristics. They can breed together to produce offspring that can have children
Characteristics	A quality that allows you to separate things
Gene	A section of DNA that gives the instructions for a characteristic
DNA	A long chemical in every cell that gives the instruction to make a living thing
Inherited variation	Differences within the same species caused by children inheriting different genes from their parents
Environmental variation	Difference within the same species caused by the environment
Clone	Two living things with identical genes
Identical twins	Formed from one embryo dividing into two. They have identical genes but show environmental variation
Non-identical twins	Formed from two egg cells being fertilised by two different sperm. They are equivalent to brothers and sisters

1.



2.



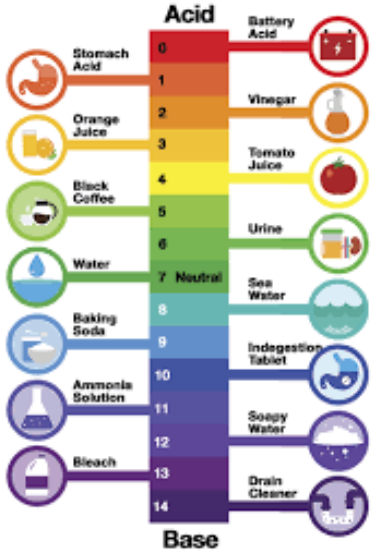
9. Drawing Variation

No.	Type of variation	Cause
1.	Continuous	Inherited and environmental
2.	Discontinuous	Inherited only

SCIENCE (7CC CHEMISTRY – CHEMICAL REACTIONS)

1. Word Equations

Keyword	Meaning
Word equations	Show the names of all the chemicals involved in a reaction
Reactants	The chemical(s) at the start of a chemical reaction
Products	The chemical(s) at the end of a chemical reaction



2. Conservation of Mass

Keyword	Meaning
Conservation of mass	Total mass of products = Total mass of reactants

Reactants		Products
sodium hydroxide + hydrochloric acid	→ sodium chloride	+ water
sodium hydroxide + sulfuric acid	→ sodium sulfate	+ water
sodium hydroxide + nitric acid	→ sodium nitrate	+ water
magnesium oxide + hydrochloric acid	→ magnesium chloride	+ water
magnesium oxide + sulfuric acid	→ magnesium sulfate	+ water
magnesium oxide + nitric acid	→ magnesium nitrate	+ water

3. pH Scale and Neutralisation

Keyword	Meaning
Acidic	A solution with a pH less than 7. The lower the number the stronger the acid
Neutral	A solution with a pH of 7
Base	Reacts with an acid to for a salt and water
Alkali	A base that dissolves in water to give a solution with a pH greater than 7. The higher the number the stronger the alkali
pH scale	A measure of how acidic or alkaline a substance is
Neutralisation	A chemical reaction that produces a salt and has a pH of 7
Oxidation	A chemical reaction where a substance reacts with oxygen

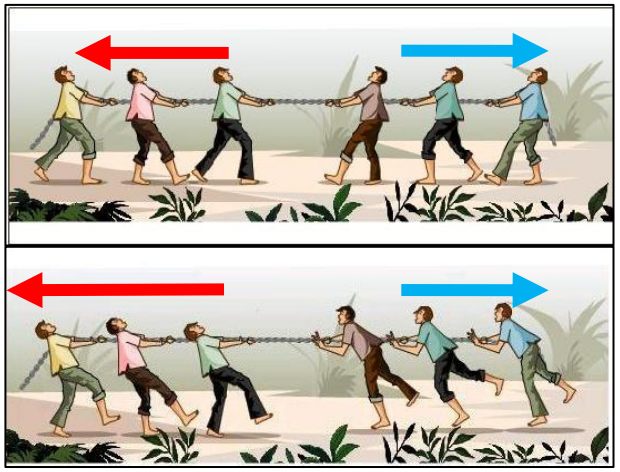
4. Naming Salts

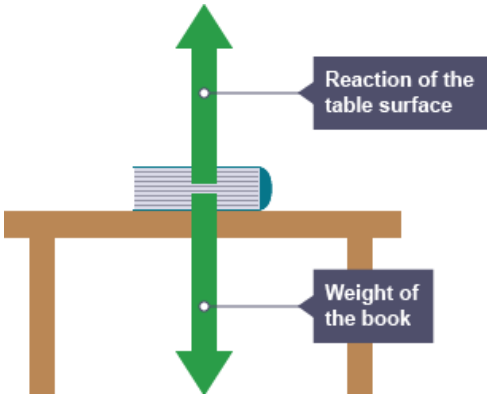
Acid used	Second part of the salt's name
Hydrochloric acid	chloride
Sulfuric acid	sulfate
Nitric acid	nitrate

SCIENCE (7PF PHYSICS – FORCES AND MOTION)

1. Forces Keywords

Keyword	Meaning
Force	Something that makes a change happen
Contact force	Can only act when two things touch
Non-contact force	Can act on things not touching
Balanced (forces)	When forces are equal and opposite each other also called **equilibrium**
Unbalanced (forces)	When opposing forces are not equal to each other
Resultant (force)	The overall force once all the forces are considered
Force arrows	Show direction and size of a force
Opposing forces	Forces working in opposite directions
Weight	The amount gravity pulls an object down
Pressure	Force shared or an area
Newton	Units that force is measured in

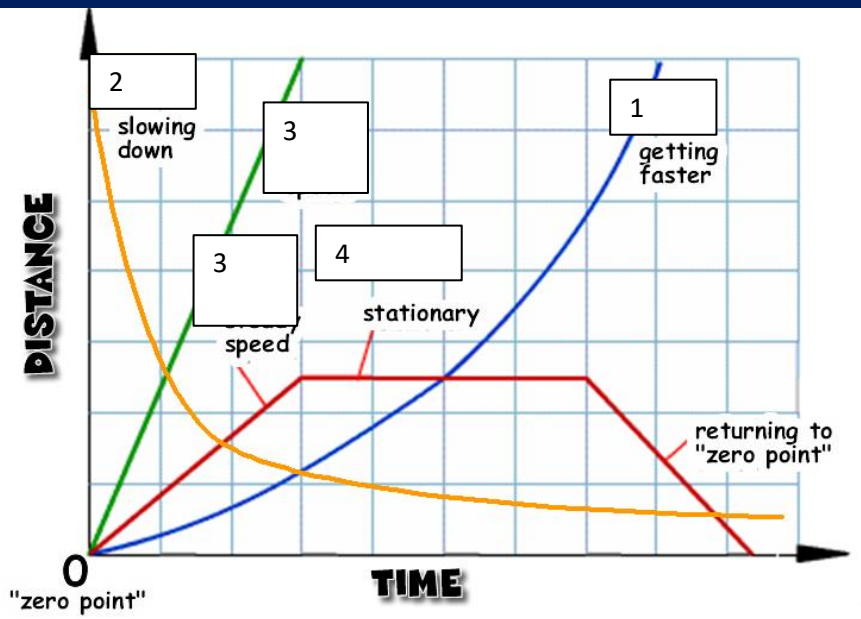




2. Types of Force

Force	Between	Contact or non-contact	Example
Friction	Two moving surfaces	Contact	Brakes
Upthrust	An object and water	Contact	Boat
Reaction	Two stationary objects	Contact	Book on shelf
Air resistance	A moving object and air	Contact	Plane
Gravity	Two masses	Non-contact	You and the Earth
Magnetic	Magnets and magnetic materials	Non-contact	Magnet picking up a nail

SCIENCE (7PF PHYSICS – FORCES AND MOTION)

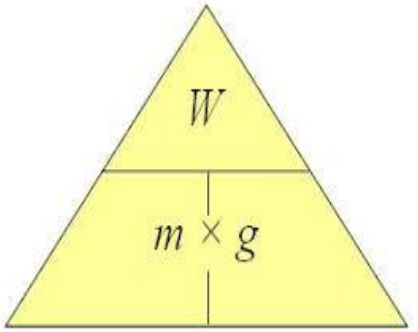


3. Motion Keywords

Keyword	Meaning	Position on distance time graph
Accelerate	Speeding up	1
Decelerate	Slowing down	2
Constant speed	Staying the same speed	3
Stationary	Not moving	4
Speed	Distance covered in a certain time	The steepness of the line

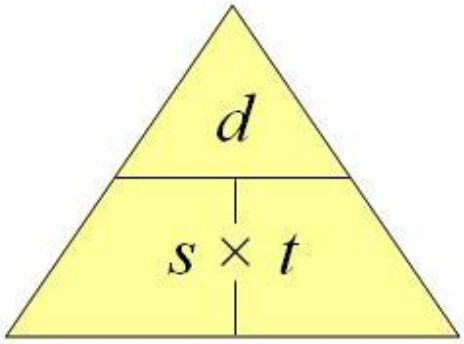
4. Calculating Weight

Symbol	Name	Calculated by…
W	weight (N)	= mass × gravity
m	mass (kg)	= weight ÷ gravity
g	gravitational field strength	= weight ÷ mass
On Earth g = 10 N/kg		



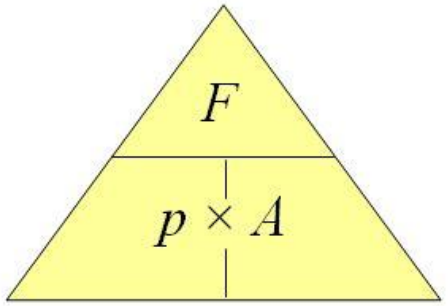
5. Calculating Speed

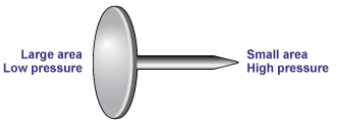
Symbol	Name	Calculated by…
d	distance (m)	= speed × time
s	speed (m/s)	= distance ÷ time
t	time (s)	= distance ÷ speed



6. Calculating Pressure

Symbol	Name	Calculated by…
F	force (N)	= pressure × area
p	pressure (N/cm^2)	= force ÷ area
a	area (cm^2)	= force ÷ pressure





Vocab Set 1 – describing your school

1) grande	big
2) pequeño	small
3) nuevo	new
4) antiguo	old
5) feo	ugly
6) atractivo	attractive
7) moderno	modern
8) limpio	clean
9) sucio	dirty
10) impresionante	impressive

Vocab Set 2 – school subjects

1) el dibujo	art
2) la historia	history
3) el español	Spanish
4) el inglés	English
5) la tecnología	technology
6) la informática	computer science
7) la educación física	PE
8) las ciencias	sciences
9) las matemáticas	maths
10) Aprendo	I learn / I am learning

Vocab Set 3 – opinions and reasons

1) Mi asignatura favorita es...	My favourite subject is...
2) Me encanta estudiar	I love studying
3) Odio estudiar	I hate studying
4) porque es	because it is
5) creativo	creative
6) prático	practical
7) fácil	easy
8) dificil	difficult
9) útil	useful
10) inútil	useless

Model Answer – describe your school, what do you think of the subjects that you study?, what is your uniform like?

Mi instituo, que se llama The Regis School, es grande y moderno.	My school, which is called The Regis School, is big and modern.
Estudio muchas asignaturas.	I study a lot of subjects.
Pero lo mejor es la educación física	But the best one is PE.
Me encanta la educación física porque es práctico	I love studying PE because I am practical.
Pero odio las matemáticas porque son dificiles.	But I hate learning maths because it is difficult.
En mi opinión, me encanta el uniforme porque es muy elegante.	In my opinion, I love the uniform because it's very smart.
Llevamos una chaqueta negra, una camisa blanca y unos pantalones negros.	We wear a black blazer, a white shirt and black trousers.
El edificio es nuevo	The building is new.
Hay muchas aulas y un campo de fútbol impresionante	There are a lot of classrooms and an impressive football pitch.
Además, hay una gran biblioteca.	Moreover, there is a big library.
pero, ísería mejor si hubiera una piscina al aire libre!	But it would be better if there was an outdoor swimming pool!
¿y tú? Describe tu insti.	And you? Describe your school.

Vocab Set 4 – uniform

1) unos pantalones negros	Black trousers
2) unas medias negras	Black tights
3) una falda negra	A black skirt
4) una corbata	A tie
5) una camisa blanca	A white shirt
6) una chaqueta negra	A black jacket
7) llevo	I wear
8) llevamos	We wear
9) tengo que llevar	I have to wear
10) temenos que llevar	We have to wear

Vocab Set 5 – school facilities

1) una biblioteca	A library
2) un laboratorio	A science lab
3) los ordenadores	computers
4) una piscina	A swimming pool
5) un gimnasio	A sports hall
6) un campo de fútbol	A football pitch
7) un patio	A playground
8) unas aulas	Some classrooms
9) un comedor	A canteen
10) las instalaciones	The facilities

AIM HIGH PHRASES

1) Que se llama..	Who/that is called...
2) Hay que ser honesto/a..	I have to be honest...
3) Para que pueda..	So you can..
4) Sería mejor si hubiera...	It would be better if there was...
5) Lo que me gusta es..	What I like is...

Vocab Set 1 – (revision) describing someone	
1) Tiene	he/she has
2) el pelo	hair
3) los ojos	eyes
4) castaño	light brown
5) moreno	dark brown
6) negro	black
7) pelirojo	ginger
8) rubio	blonde
9) verdes	green
10) azules	blue
11) Il a	he has

Vocab Set 2 – adjectives	
1) Es	He/she is
2) amable	kind
3) simpática/o	nice
4) perezoso/a	lazy
5) tolerante	easy-going
6) severo/a	strict
7) hablador	chatty
8) paciente	patient
9) impaciente	impatient
10) antipático/a	mean

Vocab Set 3 – housework/pocket money	
1) Ayudo en casa	I help at home
2) cocino	I cook
3) lavo los platos	I wash the dishes
4) limpio	I clean
5) paseo al perro	I walk the dog
6) pongo la mesa	I set the table
7) quito la mesa	I clear the table
8) gano…….libras	I earn……..pounds
9) a la semana	weekly
10) íNo gano nada!	I don't earn anything!

Model Answer – describe your teachers, what do you do to help around the house, what would you like to do when you're older?	
Hay 60 profes en el insti.	There are 60 teachers at school.
Pero la mejor es Señora García.	But the best one is called Mrs García.
Tiene el pelo corto y rubio y los ojos marrones.	She has short blonde hair and brown eyes.
Es muy paciente y simpática.	She is very talented and nice.
Me inspira mucho aprender el español.	So she inspires me to learn Spanish.
En casa, ayudo a mi padre. Por ejemplo, limpio a veces	At home, I help my Dad. For example, I clean sometimes.
y cada día paseo al perro.	and every day I take the dog for a walk.
Pero, íno gano nada!	But, I don't earn anything!
Algún día, me gustaría ser	One day I would like to become …
profe de música, o médica como mi madre.	a music teacher or a doctor like my mum.
Porque soy muy inteligente y trabajador	Because I am very intelligent and hardworking.
¿y tú? ¿Qué planes tienes para el futuro?	And you? Do you have plans for the future?

Vocab Set 4 – future jobs	
1) Me gustaría ser	I would like to become a…
2) profesor/a	teacher
3) constuctor/a	builder
4) peluquero/a	hairdresser
5) abogado/a	lawyer
6) bombero/a	firefighter
7) mecánico/a	mechanic
8) médico/a	doctor
9) enfermero/a	nurse
10) azafato/a	flight attendant

Vocab Set 5 – personality for jobs	
1) Soy	I am…
2) No soy	I am not…
3) trabajador/a	hard-working
4) punctual	punctual (on time)
5) fiable	reliable
6) creativo/a	creative
7) como	like
8) Más inteligente que	more intelligent than
9) Menos perezoso/a que	less lazy than
10) Más trabajador que	more hard working than

AIM HIGH PHRASES	
1) Que se llama..	Who/that is called…
2) Hay que ser honesto/a..	I have to be honest…
3) Para que pueda..	So you can…
4) Sería mejor si hubiera…	It would be better if there was…
5) Lo que me gusta es..	What I like is…

TEXTILES

Keywords

Interpret
Inspiration
Applique
Visual
Embroidery
Annotation
Evaluation
Bondaweb
Design

Annotation: Descriptive sentences to explain WHY you have made those design decisions.

Labelling: One or two words that describe facts about your design.

Cotton

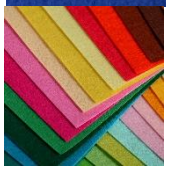
Used for making jeans, T-shirts and towels and has the following qualities:

- Cool to wear
- Very absorbent, dries slowly
- Strong
- Soft
- Good drape
- Durable / hard wearing
- Creases easily
- Can be washed and ironed
- Absorbs dye well
- Easy to cut and work with


Cotton


Satin


Fleece


Felt

Health and safety rules:

- Long hair must be tied back.
- **NO** food or drink in the workshop.
- **One** person using a machine.


Tie Dye


Batik


Applique


Embroidery

Fabric shears are used for cutting out fabric. The blades are smooth and very sharp.

A **tape measure** is used to measure fabric and the body accurately.

To hold fabric together before it is stitched you need to use some **pins**.

You need to use a **stitch unpicker** to undo any stitches that are in the wrong place.

Pinking shears have a zig zag edge. They produce a decorative edge to fabrics, which can stop them from frayin

Tailor's chalk is good for marking fabric because it can be easily rubbed off

To join fabric together permanently you need to use a **needle** and thread.

TEXTILES (+ MATHS)

NUMERACY IN DESIGN

JAMBLED&T

'Maths behind the design':

+

=

Alexander McQueen
S/S 10' Dress

Can you combine inspiration found in research to come up with a design for a product? Try the 'Maths behind the design' to demonstrate in a simple way how patterns are combined to form a solution.

NUMERACY IN MANUFACTURE

JAMBLED&T

Measuring:
Tape Measure
1m=100cm=1000mm

Marking Gauge
Scribes a parallel cutting line

Plastic Ruler
10cm=100mm

Steel Rule
1cm=10mm

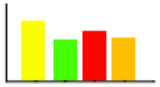
Make sure that you start at zero.
Measure in mm for better accuracy.
Add suggested sizes to initial designs and actual sizes to developments & final ideas.
Double check all measurements!
Use a sharp pencil.

NUMERACY IN EVALUATION

JAMBLED&T

Product questionnaire:
Ease of use?
Appropriate sizes?
Value for money?
Happy with product?
Anthropometrics?
Ergonomics?
Quality of finish?

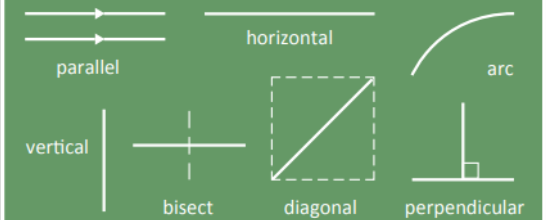
£ % cm mm



As we manufacture our products, we find that many changes take place. It is important to analyse data gathered from users of the product in order to figure how successful it is and if any further changes are necessary.

LINES

What do each of following lines mean



SHAPES

How to measure different shapes