KNOWLEDGE ORGANISER

YEAR 7

CYCLE 1

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

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

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

September 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

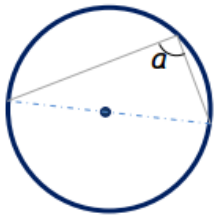
USING YOUR KNOWLEDGE ORGANISER FOR REVISION

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 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 3 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 was 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 belongs 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 – Autumn Term

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 practice 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 – 'IDE'	Attempt 1	Attempt 2	Attempt 3
Collide			
Abide			
Decide			
Suicide			
Identity			
Coincide			
Evidence			
Considerate			
Residential			
Accidentally			
Challenge Words			
Inconsiderate			
Evidential			

Week 2- 'TOR'	Attempt 1	Attempt 2	Attempt 3
Actor			
Storm			
History			
Sculptor			
Directory			
Inspector			
Restoration			
Conductor			
Applicator			
Explanatory			
Challenge Words			
Victorious			
Mandatory			

Week 3 – 'ANCE'	Attempt 1	Attempt 2	Attempt 3
Chance			
Glance			
Trance			
Romance			
Finance			
Entrance			
Reliance			
Brilliance			
Cancellation			
Circumstance			
Challenge Words			
Ancestor			
Nuisance			

Week 4 – 'ANT'	Attempt 1	Attempt 2	Attempt 3
Fragrant			
Vigilant			
Advantage			
Buoyant			
Significant			
Warrantee			
Incantation			
Antiperspirant			
Immigrant			
Circumstantial			
Challenge Words			
Philanthropy			
Quantitative			

Week 5 – Extra Letters	Attempt 1	Attempt 2	Attempt 3
Medicine			
Occasion			
Rhythmic			
Miniature			
Illuminate			
Incidentally			
Persuade			
Irresistible			
Occurrence			
Necessary			
Challenge Words			
Mischievous			
Indispensable			

Week 6 – Double Letters	Attempt 1	Attempt 2	Attempt 3
Pattern			
Attack			
Needle			
Generally			
Happening			
Accuracy			
Committee			
Communicate			
Exaggerate			
Possession			
Challenge Words			
Millennium			
Bookkeeper			

Week 7 – Vowel Combinations	Attempt 1	Attempt 2	Attempt 3
Poison			
Opaque			
Colour			
Mosaic			
Biased			
Algebra			
Approach			
Mountain			
Medieval			
Rejoice			
Challenge Words			
Turquoise			
Onomatopoeia			

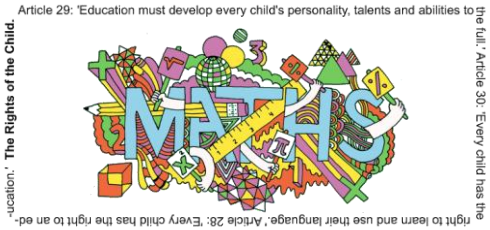
Week 8 – Connectives	Attempt 1	Attempt 2	Attempt 3
Finally			
Besides			
Although			
Therefore			
However			
Moreover			
Previously			
Furthermore			
Eventually			
Meanwhile			
Challenge Words			
Consequently			
Alternatively			

Week 9 – 'er'	Attempt 1	Attempt 2	Attempt 3
Average			
Sincerely			
Soldier			
Interfere			
Determined			
Remember			
Masterpiece			
Preserve			
Advertise			
Encounter			
Challenge Words			
Treacherous			
Counterfeit			

Week 10 – 'ful'	Attempt 1	Attempt 2	Attempt 3
Careful			
Tactful			
Cheerful			
Ruefully			
Mournful			
Disdainful			
Bountifully			
Fruitfulness			
Ghastful			
Lawfulness			
Challenge Words			
Awfulness			
Fulfilment			

Week 11 - Recap	Attempt 1	Attempt 2	Attempt 3
Rhythmic			
Opaque			
Sincerely			
Mosaic			
Sculptor			
Buoyant			
Medieval			
Conductor			
Antiperspirant			
Ghastful			
Challenge Words			
Treacherous			
Inconsiderate			

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 & 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

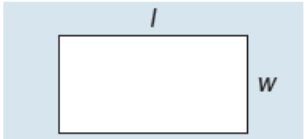
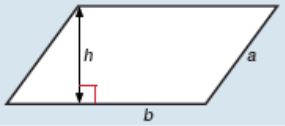
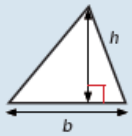
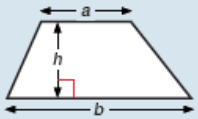
Triangles
Equilateral
Right-angle
Isosceles
Scalene

Keywords

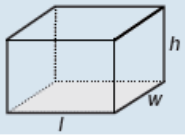
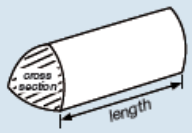
Circle
Polygon
Interior angles
Exterior angles
Acute angle
Right angle
Obtuse angle
Reflex angle
Vertically opposite angles
Corresponding angles
Alternate angles
Co-interior angles
Pythagoras
Trigonometry
Parallel
Perpendicular

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

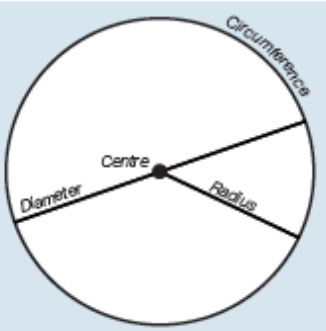
$$\text{density} = \frac{\text{mass}}{\text{volume}}$$

Circles

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

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

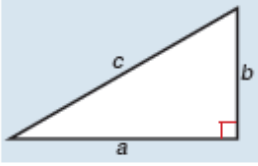
Area of a circle = π x radius squared $A = \pi r^2$



Pythagoras

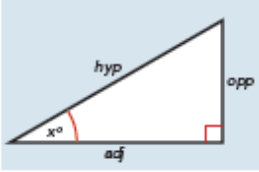
Pythagoras' Theorem

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

hegartymaths

SCIENCE CORE KNOWLEDGE

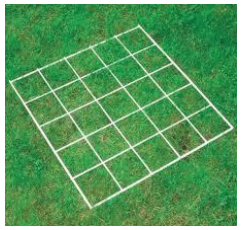
1. How Science Works Keywords

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 onto the ground.

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

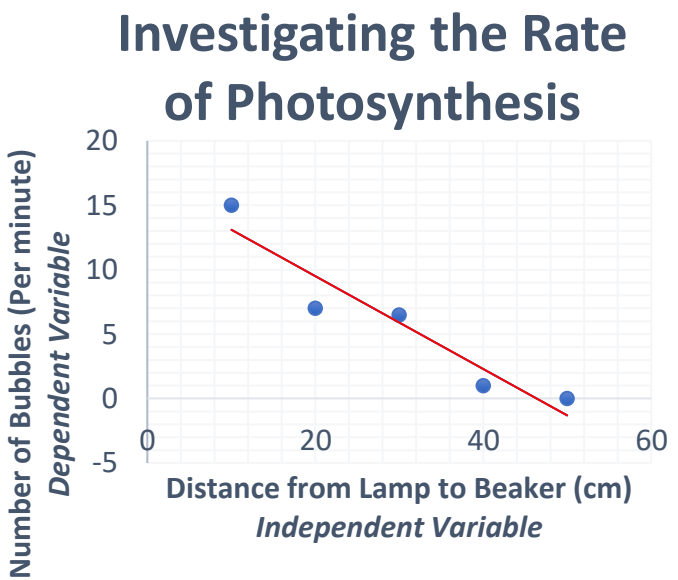
Measuring tape – used in sampling alongside the quadrat. Placed onto the ground to make a transect line to measure against.

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 focusing 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, focusing on the actual shape.

2. Complete some 'blind contour' drawings.
https://www.bing.com/videos/search?q=blind+coltour+drawing&&view=detail&mid=645E010C9DA18F675865645E010C9DA18F675865&&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+museum+african+art&view=detail&mid=2AEAAA6B885C5075FC092AEAAA6B885C5075FC09&FORM=VIRE

ARTISTS

Find out about the following artists

- Van Gogh
- Matisse
- Paul Klee
- Picasso

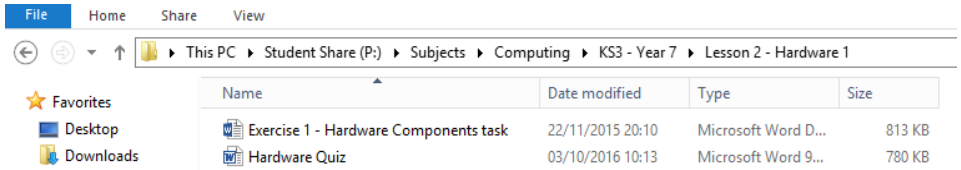
COMPUTING

SAVING WORK:

File Naming: File names should be sensible and describe what the document is to make it easy to find again in the future.

Folder Structure: Like file names, folders must be sensibly named with a logical structure to make locating work easy.

Frequency: Ensure you save your work at the start to avoid losing it, so Autosave saves it constantly.



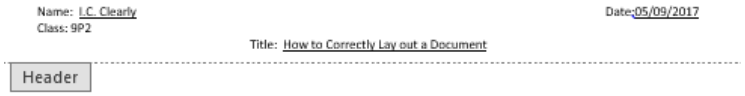
DOCUMENT STRUCTURE HEADER

Name: Your name must be on the top left.

Class: Your Class must be under your name.

Date: In the short form dd/mm/yy on the top right.

Title: An appropriate title describing the work should be in the centre.



DOCUMENT STRUCTURE : FOOTER

Filepath: On the bottom left you should place the filepath showing where it is saved.

Page Number: In the bottom centre, you need the page number and number of pages/

ACCOUNTS (complete in pencil)

Account	Site	Login	P/W hint
Login	20SurnameInitial		
OneDrive/Email	http://outlook.office365.com/owa/theregisschool.co.uk	@theregisschool.co.uk	
Homework – iDEA	https://idea.org.uk	School Email	
Classcharts	https://www.classcharts.com		
Keywords practice	Https://quizlet.com/join/ND2wMdMxX TRS CLASS OF 2025	School Email	

COMPUTING

KEYWORD	DEFINITION
Password	A string of characters that allows access to a computer, interface or system.
Special Character	The characters other than letters and numbers such as % & “ ? *
Complexity	The state or quality of being intricate or complicated to make it hard to crack.
Cyberbullying	The use of electronic communication to bully a person, typically by sending messages of an intimidating or threatening nature.
Trusted Adult	Adults in a position of responsibility and trust, such as teachers, youth leaders, police officers and family members.
Bystander	A person who is present at an event or incident but does not take part.
Grooming	When someone builds an emotional connection with a child to gain their trust for the purposes of sexual abuse, exploitation or trafficking.
Victim	A person harmed, injured, abused or killed as a result of a crime or a person feeling helpless in the face of ill-treatment.
CEOP	Child Exploitation and Online Protection. This is the organisation you can report concerns to who will investigate and take police action.

HOMEWORK CHECKLIST FOR FIRST TERM

1	‘All About Me’ PowerPoint	Complete the sections from the template. See the template for extension opportunities.
2	Idea Badges	• E-Safety & Online Etiquette, Safe Online • Digital Ethics, Social Media Ethics, GDPR
3	Keywords from KO	You could also use Quizlet to practice.
4	Extension work	Add your school email to your Outlook at home.

e-SAFETY KEY POINTS

1. Protect your personal information online, do not post: your address, telephone number, email, date of birth, bank details.
2. On social media use the highest privacy settings to make sure only your friends and family can see your pages.
3. Use a nickname online, not your real name.
4. Be careful about what photos you share online. If they show your home, work, school or places you regularly go to, you can be easily traced.
5. Think about the suitability of what you post, images and text, would you want your granny to see it? Are you revealing too much?
6. Remember once you post it online you cannot get it back. It could be shared and downloaded around the world.
7. If you are concerned report it straight away.
8. Tell trusted adults if you are worried: Teachers, Parents, Youth Workers, Police Officers.
9. Know where to get more help: CEOP; NSPCC https://www.nspcc.org.uk/; Childline – Call 0800 1111

PERFORMANCE STUDIES - DRAMA AND DANCE

DRAMA develops the following important life skills:

1	**Confidence:** Belief in your own ability, skills and experience.
2	**Creativity:** The ability to use your imagination to explore ideas, make decisions and express yourself.
3	**Communication** The ability to convey or share ideas and feelings effectively.
4	**Collaboration/Teamwork** The ability to work well with others to achieve a shared goal by communicating well, listening carefully and being responsible, supportive and honest.
5	**Imagination:** to come up with new and creative ideas.
6	**Problem solving** the process of finding solutions to something that needs to change

DRAMA - Vocabulary

1	**Freeze frame:** A still frozen/image of actors on stage.
2	**Facial expressions:** Changing your facial features to show your character's emotions.
3	**Gestures:** Hand actions to emphasise your character's feelings or show what they are doing.
4	**Body language:** the posture and shape of the actor's body to represent a character and their emotion
5	**Levels:** Positioning the actors at different heights
6	**Body as Prop:** Using your body to create an object.
7	**Mime:** When actor performs without props but suggests that they are there by pretending to interact with them.
8	**Thought track:** A way to speak aloud the thoughts or feelings of a character in a freeze-frame.
9	**Narration:** A **narrator** is like a storyteller informing the audience about the plot. They can also add a spoken commentary for the audience about the action onstage.
10	**Role:** The part some one plays in the work. For example playing a character or the Narrator.
11	**Choral movement:** When the two or more characters do the same movement at the same time
12	**Choral voice**: When the two or more characters say the same line at the same time
13	**Group role:** When more than one actor represents one character
14	**Moral:** A story that has a lesson
15	**Exaggeration:** To make something bigger/larger than it actually is
16	**Repetition:** To repeat something more than once
17	**Ensemble:** This is a French word for group. Working as an ensemble means working or moving or talking together as a chorus.

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.

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.

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 write 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 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 - INTRODUCTION TO ANALYSIS

1. CONTEXT

Author: Anthony Horowitz
Nationality: British
Short story: *'Man with the Yellow Face'*
Other notable works: The Alex Rider series, The Diamond Brothers series, The Power of Five series.
Era: Modern
Biography
- He currently lives in central London.

Author: Alice Walker
Nationality: American
Short story: *'The Flowers'*
Other notable works: The Colour Purple, The Third Life of George Copeland.
Era: 1950s to modern day.
Biography
- After meeting Martin Luther King Jr. she became a key figure in the Civil Rights movement of the 1960s.

Author: Guy de Maupassant
Nationality: French
Short story: *'The Vendetta'*
Other notable works: Bel Ami (1885), Notre Coeur (1890)
Era: Victorian
Biography
- born on 5 August 1850, near Dieppe, France

Author: O'Henry (real name William Sidney Porter)
Nationality: American
Short story: *'Hearts and Hands'*
Other notable works: The Gift of the Magi, The Cop and the Anthem
Era: Early 20th Century
Biography
- born on September 11, 1862, in Greensboro, North Carolina.

Author: Roald Dahl
Nationality: British
Short story: *'Hearts and Hands'*
Other notable works: The BFG, The Twits, James and the Giant Peach
Era: Modern
Biography
- British novelist, short-story writer, poet, screenwriter, and wartime fighter pilot.

2. KEY TERMINOLOGY

alliteration	The repetition of the same consonant sound, often at the beginning of words.
allusion	An expression designed to call something to mind without mentioning it explicitly.
climax	The point of highest tension in a narrative.
emotive language	Word choice which is used to evoke emotion in the reader
exposition	Refers to part of the story used to introduce background information about events, settings, characters etc. to the reader.
extended metaphor	A metaphor that is developed throughout a poem.
falling action	Occurs immediately after the climax, when the main problem of the story has been resolved.
imagery	A literary device used to create a particular image to convey the key ideas/messages of themes in a text.
juxtaposition	When two or more ideas, images, words etc. are placed side by side to develop comparisons and contrasts.
metaphor	A comparison in which one thing is said to be another.
onomatopoeia	The use of a word that sounds like its meaning.
personification	The attribution of human feelings, emotions, or sensations to an inanimate object.
repetition	A literary device which repeats the same word or phrase a few times to make it memorable
rhetorical question	A question asked for dramatic effect or to make a point rather than to receive an answer.
rising action	A related series of incidents in a literary plot that build toward the point of greatest excitement/ interest.
simile	A comparison that uses 'like' or 'as'.
structure	The way a text is organised.
symbolism	The use of symbols to express ideas or qualities.

3. KEY VOCABULARY

ambiguous	that can be understood in more than one way; having different meanings
genre	a particular type or style of literature, art, film or music that you can recognize because of its special features
mystery	something that is difficult to understand or to explain
suspense	a feeling of worry or excitement that you have when you feel that something is going to happen
characterisation	the way that a writer makes characters in a book or play seem real
atmosphere	the feeling or mood that you have in a particular place or situation; a feeling between two people or in a group of people
smokehouse	a place where food is preserved using smoke from wood fires
tremors	a slight shaking movement in a part of your body caused, for example, by cold or fear
sharecropper	a farmer who gives part of his or her crop as rent to the owner of the land
desolate	(of a place) empty and without people, making you feel sad or frightened
isolated	(of buildings and places) far away from any others
Sardinia	a large island off the coast of Italy. It is part of the country Italy.
avenged	to punish or hurt somebody in return for something bad or wrong that they have done to you, your family or friends
vendetta	a long period of violence between two families or groups, in which people are murdered in return for previous murders
vindictive	showing a strong and unreasonable desire to harm or upset somebody because you think that they have harmed you
savage	aggressive and violent; causing great harm

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 practised.
- 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 office 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 which 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

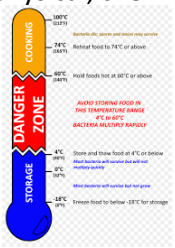
stock characters	A fictional character based on a common stereotypes. Stock characters rely heavily on cultural types or names for their personality, manner of speech, and other characteristics.
archetype	A typical character, an action, or a situation that seems to represent universal patterns of human 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 which 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 toward the point of greatest excitement/interest.
climax	The point of highest tension in a narrative.

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

- Provide 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, they will be turned 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!!!!

1. Tu es comment?

Bonne question!	Good question!
Je dirais que	I would say that
je suis *assez* fidèle	I am *quite* loyal
et *très* drôle	and *very* funny
Mais ma mère dit que	But my mum says that
Je suis *vraiment* bavard	I am *really* chatty
Par exemple je rigole avec mes amis en cours	For example, I laugh with my friends in lessons
C'est du n'importe quoi!	It's nonsense!
Ma mère est agaçante quelquefois!	My mum is annoying sometimes!
Elle est polonaise	She is Polish
Mais elle parle anglaise	But she speaks English
Elle a les cheveux blonds	She has blond hair

2. C'est quoi un bon ami?

À mon avis,	In my opinion,
Un bon ami serait…	A good friend would be
poli **ou** sage	Polite **or** well-behaved
Mais aussi travailleur	**But also** hard-working
Comme moi	Like me
Cependant, selon moi,	**However**, according to me,
Un bon ami n'est pas	A good friend is not
Pessimiste	pessimistic
Aussi, il me ferait rire	**Also** he would make me laugh

3. Tu t'entends bien avec ta famille?

Ça depend!	That depends!
Je me dispute souvent avec mon frère	I often argue with my brother
On partage une chamber et il ronfle	We share a room and he snores
Donc on se chamaille tous les soirs	So we squabble every evening
Mais je m'entends bien avec ma soeur	But I get on well with my sister
Cependant, elle habite avec mon père	However she lives with my dad
Alors, on ne se voit pas souvent	So we don't see each other often
Elle porte des lunettes	She wears glasses
Et elle a les yeux bleus	And she has blue eyes
Elle est grande	She is tall
Et le Samedi matin on va à la patinoire ensemble	And on Saturday mornings we go to the ice rink together

4. Qui est ton modèle?

La personne que j'admire est	The person who I admire is
un élève qui s'appelle Malala Yousafzai.	a student who is called Malala Yousafzai.
Elle est née au Pakistan en 1997	She was born in Pakistan in 1997
Elle est courageuse et forte	She is brave and strong
elle a lutté pour le droit des jeunes filles à l'education dans son pays.	she fought for the rights of young girls to an education in her country.
Elle a gagné le prix Nobel de la paix à l'âge de dix-sept ans.	She won the Nobel Peace Prize at the age of 17.
Elle m'inspire !	She inspires me !

5. Tu aimerais être comme qui un jour?

À l'avenir,	In the future…
J'aimerais bien être comme Pogba	I would really like to be like Pogba
Il est footballeur français	He's a French footballer
Non seulement est il un bon sportif,	Not only is he a great sportsperson
Mais il travaille en collaboration avec l'UNICEF	But he works in collaboration with Unicef
Je rêve d'être travailleur et généreux comme Pogba	I dream of being hard-working and generous like Pogba
j'aimerais avoir beaucoup d'argent pour aider les autres un jour!	I would like to have lots of money to help others one day!

AIM HIGH PHRASES

1) Qui s'appelle…	Who is called…
2) Il faut que je sois honnête,	Truth be told,
3) Pour que je puisse être…	So that I can be…
4) Il serait mieux si j'étais…	It would be better if I was…
5) Après avoir joué,	After having played,

GEOGRAPHY – TOPIC 1 - DEVELOPMENT

Background information:

1. Across the world the standard of living and quality of life can be very different.
2. Countries therefore have different classifications (categories/groups), based on the quality of life within them. ***(A)***
3. How developed a country is can be measured in different ways. ***(B)***
4. There are many reasons why some countries are more developed than others, both physical and human influenced. ***(A, C)***
5. World-wide, a number of strategies have been put in place to help improve the quality of life in some of the poorer nations; such as aid and Fairtrade. ***(D, E, F)***
6. Aid strategies can have much success. ***(G)***

A. Country classification

Development	How rich or poor a country is compared with others.
Developed country	Normally has lots of money, many services and a high standard of living. E.g. UK/USA
Emerging country	A country that is undergoing rapid industrialisation and economic growth. As a result, the quality of life is improving. E.g. China/ India
Developing country	Often quite poor compared to others, fewer services and a lower standard of living.
The Brandt line	An imaginary line which divides countries into the developed (rich) north (e.g. USA) and the developing (poor) south (E.g. Uganda).

B. Measuring development

Gross Domestic Product per capita (GDP per capita)	Total number of goods and services sold by a country, divided by it's population.
Infant mortality	The number of babies that die per 1000 before their 1st birthday.
Life expectancy	The average age you are expected to live to in a country.
Literacy rate	The % of people that can read and write.
People per doctor	The number of people to one doctor.
Human Development Index	Combines GDP, lit rate, life expectancy.
Quality of life	The standard of health, comfort, and happiness experienced by an individual/group.

C. Factors which encourage development:

1. A strong and stable government (usually a democracy).
2. A large coastline for trade (importing and exporting goods).
3. Availability of natural resources e.g. oil, coal, fertile soil etc.
4. A pleasant climate, ideal for growing crops.

Factors which hinder development:

1. An unstable or corrupt government, meaning money is not invested properly in the country.
2. The country is landlocked, making trade difficult.
3. Few natural resources to power industry.
4. A harsh climate, so can not grow crops reliably.

D. What is aid?

Donor	A country that gives aid to another country.
Recipient	A country which receives aid.
Bilateral	International aid given by one country to another.
Multi-lateral	Aid given by NGOs (Non-Governmental Organisations) like the Red Cross or Oxfam.
Short term aid	Aid given to support a country following a crisis e.g. after an earthquake.
Long term aid	Aid given over a prolonged period of time to support a country's development e.g. teaching farmers different farming techniques.

E. Aid - advantages/ disadvantages

Advantages +	1. People learn new skills e.g. improved farming techniques; so become independent 2. Can save lives after a natural disaster e.g. supplying clean water, food and medicines. 3. Simple technology e.g. water pumps, are easy for the locals to maintain.
Disadvantages −	1. Countries can become dependent upon aid, causing problems if it is removed. 2. Corrupt governments can sell the aid on, so it does not reach those in need. 3. The recipient can end up in debt if loans or deals are made.

F. Fairtrade

What it is: Trade which involves giving producers in developing countries a fair price for their goods.

Examples of Fairtrade goods:

Chocolate, coffee, tea, fruit, wine, flowers, cotton, nuts.

Advantages +	Disadvantages −
1. Farmers receive a fair and decent price. 2. Ensures good working conditions for farmers.	1. Non-Fairtrade farmers may lose out. 2. Sales can often be low as the price of Fairtrade goods can be high.

G. Case study: Tree aid

Background	A British organisation set up In countries along the Sahel across northern Africa e.g. Mali.
Reasons why the aid is needed:	They are cutting down their trees which is causing less moisture to stay in the area, causing more **droughts**, and less food and water. **Population pressure (an increasingly growing population)** and little money means trees are exploited and sold or used as a fuel.

Features	Success
1. Tree seeds given, so people can develop tree nurseries for food production, this has created 7.2 million trees and helped over 450,000 people 2. Bikes and donkey carts given so that products can be taken to market to sell 3. People are taught how to look after the trees so that they can become self sufficient	1. Reliable food source e.g. cashew and shea nuts. 2. Money made from the sale of cashew nuts can be used to send children to school improving literacy rates. 3. Tree roots stop soil erosion meaning that more crops can be grown, increasing profit for farmers 4. Trees also hold moisture in the area meaning less drought.

GEOGRAPHY – TOPIC 2 – WORLD OF WORK

Background information:

1. The world of work can be classified into four different employment sectors. ***(B)***
2. Many factors influence the type of employment sector which will be found within a particular country. ***(C)***
3. Industrial (business) location is influenced by some key factors, which are more important for some industries in comparison to others. ***(D)***
4. Employment structure within countries varies based upon the level of development. ***(E)***
5. However, employment structures are not fixed, just like in the UK they can change overtime. ***(F)***
6. Tourism is a rapidly growing tertiary industry world-wide. ***(G)***
7. Tourism can bring both positive and negative impacts for the host country (country being visited). ***(H)***

A.	**Classifications of employment**
Employment	When people are in work, receiving a wage and paying tax.
Unemployment	When people are not in work, therefore do not receive a wage and do not pay tax.

B.	**Different employment sectors**
Primary sector	Industries which collect raw materials such as; farming, logging, oil rigging, mining, quarrying etc.
Secondary sector	Industries which manufacture goods into products such as; car manufacturers, food processing plants, toy assembly plants, builders etc.
Tertiary sector	Industries which provide a service such as; teaching, accounting, health care, sales assistants etc.
Quaternary sector	Defined as hi-tech, research and design. They include hardware and software engineers and pharmaceutical companies.

C.	**Influences on employment structure**
Imports	Goods brought into a country.
Exports	Sending goods to another country for sale.
Industrialisation	When a country begins to move from primary employment to secondary employment, with a rise in manufacturing.
Mechanisation	When machinery begins to do the jobs which once required humans.
Disposable income	The money a person has left to spend after they have paid all of their bills.

D.	**Factors which influence the location of industry**
Raw materials	Natural resources that are used to make things (e.g. cotton, copper)
Transport links	The links which allow goods and workers to be transported in and out of industries.
Labour	Workers/employed people.
Market	A place where raw materials or goods are sold.
Footloose	Industries which are not tied to a location due to natural resources or transport links.

E.	**Employment structure differences *(3)***
Developing countries	Large primary sector, growing secondary sector and a moderate tertiary sector.
Emerging countries	They have a large secondary sector, rapidly falling primary sector and growing tertiary sector.
Developed countries	A large tertiary sector, a growing quaternary sector, both secondary and primary employment is low.

F.	**Employment structure change in developed countries such as the UK and USA.**
Falling primary and secondary sector	1. Cheaper to import from other countries, such as China, also known as outsourcing. 2. Mechanisation has taken jobs. 3. Raw materials have been exhausted in certain areas (no more left).
Growing tertiary sector	1. Disposable income has increased, so a greater demand for services (restaurants, shops, cinemas etc). 2. A large public sector e.g. health and education, due to a high tax revenue.

G.	**Features of tourism**
Tourist	A person who is visiting a place for pleasure. Domestic= travels within their country/ International= travels abroad to another country.
Positive multiplier effect	The introduction of a new industry in an area also encourages growth in other industrial sectors, leading to further growth.
Butler model	Shows how tourist resorts go through six stages, from discovery, growth, success, stagnation to rejuvenation or decline.
Ecotourism	Ecotourism is a form of environmentally friendly tourism which involves people visiting fragile, unspoilt areas that are usually protected. Ecotourism is designed to be low impact and small scale.
Mass tourism	When large numbers of people visit the same place at any one time.

Causes of mass tourism:

1.Increasing ease and cost of travel by road, rail and air travel (budget airlines).
2.Purpose built resorts/holiday camps as well as cheap package deals.
3.Increase in paid time off work, following the 1871 Bank Holiday Act.
4.Enhanced standard of living and more disposable income.

H.	**Tourism in Kenya**
Where?	Kenya is a country located on the East coast of Africa Our named example is The Maasai Mara National Reserve located in southern Kenya.

Positive: +	**Negative: –**
1. Tourism provides 11% of Kenya's GDP. 2. The National Reserve is protected, saving many animals e.g. cheetahs. 3. Large infrastructure projects have been funded by overseas companies e.g. new road networks.	1. Mini-buses are driving across the Savanah. 2. Shadows from hot air balloons are scaring the wildlife. 3. Only 2% of the profit stays with the local people, much is lost to tour companies. 4. Animals are being fed by tourists, which is stopping them from hunting, impacting the food chain.

HISTORY – How did the Normans conquer and control England

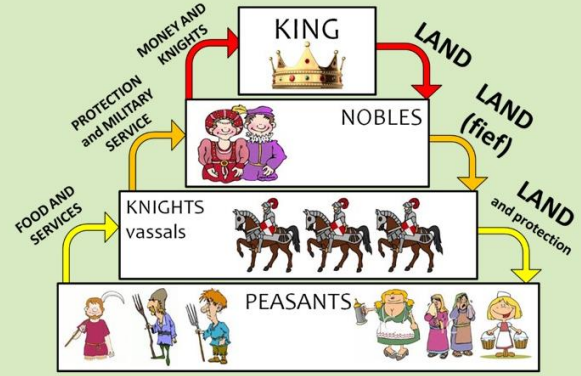
Timeline

5 January 1066	The King of England, Edward the Confessor, dies after a series of strokes. He has no children to take the throne.
6 January 1066	Harold Godwinson is named King of England by the Witan.
20 September 1066	Harald Hardrada arrives in England with around 10,000 men.
25 September 1066	The Battle of Stamford bridge is fought. Harald Hardrada and Tostig are defeated by Godwinson and his Saxon army.
28 September 1066	William of Normandy invades England and orders the creation of a Motte and Bailey castle at Pevensey, East Sussex.
14th October 1066	William of Normandy beats Harold Godwinson at the Battle of Hastings.
1069-70	After a rebellion in the North. William orders villagers to be destroyed. 100,000 people die in what became known as the Harrying of the North.
1086	William commissions the Domesday Book.

Key people

Edward the Confessor	Edward the Confessor was the King of England between 1042-1066. Edward had no sons or daughters which meant there was no clear heir to the throne. This led to a crisis.
Harold Godwinson	Harold Godwinson was a powerful and rich English nobleman. Apparently, Edward and Godwinson as his succor on his deathbed. The day after Edward's death, the royal council known as the Witan, met and declared Godwinson King.
Harald Hardrada	Harald Hardrada was the King of Norway and a Viking warrior. Hardrada translates to 'hard ruler'. He believed he should be king based on the fact that his ancestor, king Cnut, had once ruled England. He invaded England to challenge Godwinson's rule.
Edgar the Atheling	The youngest claimant to the throne. He was the great nephew of Edward the Confessor.

Diagrams



The Feudal System

The feudal system was a system of government that William put in place after 1066. The King gave land to his nobles in return for loyalty, taxes and protection. The majority of Anglo Saxons were at the bottom of the social hierarchy . They would get some land and protection in return they would provide those above with

The Bayeux Tapestry

The Bayeux Tapestry depicts William's invasion, battle and coronation as King of England. The embroidered cloth is **70 meters long and was commissioned by Bishop Odo (William's half brother) to account the events of 1066. The cloth was probably woven by Saxon women and then taken to Bayeux, Normandy to decorate the cathedral there. Today it is exhibited at the Musée de la Tapisserie de Bayeux ,**

Key Events

The Battle of Stamford Bridge—25th September 1066

- 300 Vikings long boats carried Harald Hardrada's army from Norway. They attacked and took over York by 24th September.
- Godwinson's army marched quickly north to meet the Viking army. They travelled 300km in just 5 days.
- The two armies met at Stamford Bridge. Godwinson's Saxon army had surprised Hardrada who did not think he would get up to the north in such a short space of time. Hardrada's Viking army is defeated.

The Battle of Hastings —14th October 1066

- William of Normandy and 10,000 solider arrived at Pevensey on 28th September.
- Godwinson's Saxon army march all the way south to oppose the Normans. They take their position on top Senlac Hill. They use a shield wall formation.
- At 9am William's troops charge up the hill. However, the Saxon army's shield wall was holding strong. William pretends to retreat, encouraging Saxons to run down the hill giving up their advantage. Harold Godwinson is then killed. On 25th December 1066, William of Normandy is crowned King of England.

Motte and Bailey Castles

- Motte and Bailey castles were wooden structures built into two parts: a high tower (motte) and a large yard surrounded by a wooden palisade (bailey)
- William built 500 of them as king. They were cheap and easy to build, giving the defender a strategic advantage. However, they could be problematic due to fire and rot.

The Feudal System

- A system of government based on land. This hierarchy helped William control England
- Land was given to 200 barons and 4000 knights. And farmed by 1.5 million peasants.

Violence

- Ain 1069-70 William crushed a rebellion in the north of England. 75% of land was destroyed and 100,,000 people died. This scared the Saxons into submitted to Norman Rule.
- William commissions the Domesday Book in 1086. It is a survey to see how much tax and soldiers he can raise.

HISTORY – How did the Normans conquer and control England

Key Terms :

AD	Anno Domini, the years before Christ was born
Anglo-Saxons	Tribes that invaded England from 400 AD
Bayeux Tapestry	A cloth depicting William's conquest.
BC	Before Christ, the years before Christ was born.
Cathedral	A large and impressive church in which a bishop is based.
Cavalry	Group of soldiers who fought on horseback
Chronology	The order that past events happened in
Claimant	One of three challengers to the throne in 1066.
Coronation	A ceremony where the king is officially crowned.
Domesday Book	A book ordered by William detailing the possessions of every village and town in England.
Feudal System	The structure of medieval society based on ownership of land.
Fyrd	Anglo-Saxon part-time soldier.
Housecarls	Professional Anglo-Saxon soldiers .
Heir	A person allowed, by law, to take the title of property of somebody after death.
Monarch	A king or queen.
Motte and Bailey Castle	A simple castle with a man-made hill surrounded by a clear defensive area.
Normans	William's nobles brought over from Normandy.
Oath	A sacred promise witnessed by God.
Peasant	The majority of Englishmen, at the bottom of the Feudal System, who had to work the land for their lord.
Relic	A part of a deceased holy person's body or belongings kept as an object of respect.
Revolt	To fight in a violent manner against a ruler
Shield Wall	A barrier created by soldiers with their shields. It was used by Harold Godwinson on Senlac Hill
Succession	A new monarch taking over the throne from the last monarch
Survey	To examine or investigate somewhere
Tactic	A carefully planned strategy in battle.
Viking	Seafaring warriors and invaders from Scandinavia
Wessex	The Royal House of Edward the Confessor.
Witan	Collection of Anglo-Saxon noblemen who advised the king

Knowledge Outcomes:

1. Which Anglo-Saxon king died in 1066 leaving no clear heir?	Edward the Confessor
2. Which Anglo-Saxon earl was crowned by the Witan following the death of the king?	Harold Godwinson
3. Which Viking warrior king also claimed the English throne?	Harald Hardrada
4. What suddenly changed in September and allowed William to sail the Channel and invade?	The wind
5. What was Harold's force of 3,000 professional soldiers called	Housecarls
6. What battle did Harold's army fight in the north?	Battle of Stamford Bridge
7. What is the 70m long embroidered cloth depicting William's victory?	Bayeux Tapestry
8. What tactic did William use to get the Saxons off from the top of the hill?	A false retreat
9. When was William crowned king of England?	Christmas day 1066
10. What did William and his nobles build across England?	Motte and Bailey castles
11. What happened in 1069, following a revolt in Durham?	The Harrying of the North
12. What was the primary reason William commissioned the Domesday Book?	Taxation
13. What do historians use to understand what happened in the past?	Evidence
14. What are the three main elements of judging a source provenance?	Nature, origin, purpose

MATHS

1. PLACE VALUE AND NUMBER SENSE

Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Units	•	Tenths	Hundredths	Thousandths	Ten thousandths	Hundred thousandths
100 000	10 000	1000	100	10	1	•	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$	$\frac{1}{10\,000}$	$\frac{1}{100\,000}$

Order the following numbers, starting with the smallest:
12 808, 1 082, 1 208, 81 430

1. List the numbers, lining up the place value columns.
2. Compare the value of each column, starting with the largest place value.

TT	T	H	T	U	
1	2	8	0	8	(3)
	1	0	8	2	(1)
	1	2	0	8	(2)
8	1	4	3	0	(4)

1082, 1208, 12 808, 81 430

Order the following numbers, starting with the smallest:
0.16, 0.106, 0.1, 0.6

1. List the numbers, lining up the place value columns.
2. Compare the value of each column, starting with the largest place value.

U	•	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$	
0	.	1	6	0	(3)
0	.	1	0	6	(2)
0	.	1	0	0	(1)
0	.	6	0	0	(4)

0.1, 0.106, 0.16, 0.6

You can also use symbols to compare numbers:

$a < b$ a is less than b
$a > b$ a is greater than b
$a = b$ a is equal to b
$a \neq b$ a is not equal to b
$a \leq b$ a is less than or equal to b
$a \geq b$ a is greater than or equal to b

For example:
34.5 < 38.0 8.6 > 8.15 12.2 = 12.20

2. ADDITION AND SUBTRACTION

Addition: Line up your numbers in their correct place value columns.
Add the digits in each column.
Example: Calculate 4563 + 578

	T	H	T	U
	4	5	6	3
+		5	7	8
	5	1	4	1
	1	1	1	

Subtraction: Line up your numbers in their correct place value columns.
Subtract the digits in each column.
Example: Calculate 534 + 217

	H	T	U
	5	2 3	1 4
-	2	1	7
	3	1	7

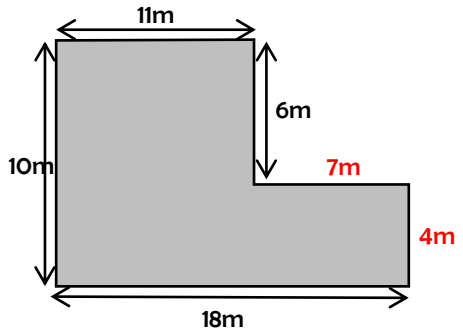
3. PERIMETER

The total distance around the outside of a 2D shape.
The sum of all side lengths of a 2D shape.

Example: Vertical lengths = 10 + 6 + 4
= 10 + 10
= 20 m

Horizontal lengths = 18 + 11 + 7
= 18 + 18
= 36 m

Total perimeter = 20 + 36
= 56 m



KEY VOCABULARY

place value, addition, sum, subtract, difference, product, divide, units, perimeter, area, factor, multiple

hegartymaths
http://www.hegartymaths.com

4. TIMES TABLES

1 x 3 = 3	1 x 4 = 4	1 x 5 = 5
2 x 3 = 6	2 x 4 = 8	2 x 5 = 10
3 x 3 = 9	3 x 4 = 12	3 x 5 = 15
4 x 3 = 12	4 x 4 = 16	4 x 5 = 20
5 x 3 = 15	5 x 4 = 20	5 x 5 = 25
6 x 3 = 18	6 x 4 = 24	6 x 5 = 30
7 x 3 = 21	7 x 4 = 28	7 x 5 = 35
8 x 3 = 24	8 x 4 = 32	8 x 5 = 40
9 x 3 = 27	9 x 4 = 36	9 x 5 = 45
10 x 3 = 30	10 x 4 = 40	10 x 5 = 50
11 x 3 = 33	11 x 4 = 44	11 x 5 = 55
12 x 3 = 36	12 x 4 = 48	12 x 5 = 60
13 x 3 = 39	13 x 4 = 52	13 x 5 = 65
14 x 3 = 42	14 x 4 = 56	14 x 5 = 70
15 x 3 = 45	15 x 4 = 60	15 x 5 = 75
1 x 6 = 6	1 x 7 = 7	1 x 8 = 8
2 x 6 = 12	2 x 7 = 14	2 x 8 = 16
3 x 6 = 18	3 x 7 = 21	3 x 8 = 24
4 x 6 = 24	4 x 7 = 28	4 x 8 = 32
5 x 6 = 30	5 x 7 = 35	5 x 8 = 40
6 x 6 = 36	6 x 7 = 42	6 x 8 = 48
7 x 6 = 42	7 x 7 = 49	7 x 8 = 56
8 x 6 = 48	8 x 7 = 56	8 x 8 = 64
9 x 6 = 54	9 x 7 = 63	9 x 8 = 72
10 x 6 = 60	10 x 7 = 70	10 x 8 = 80
11 x 6 = 66	11 x 7 = 77	11 x 8 = 88
12 x 6 = 72	12 x 7 = 84	12 x 8 = 96
13 x 6 = 78	13 x 7 = 91	13 x 8 = 104
14 x 6 = 84	14 x 7 = 98	14 x 8 = 112
15 x 6 = 90	15 x 7 = 105	15 x 8 = 120

5. MULTIPLICATION AND DIVISION

Multiplication:
Use the written long multiplication method to complete multiplications that you cannot complete in your head.

1. Line up your numbers in their place value columns.
2. Break the calculation into 2 parts: 372 × 4 and 272 × 20

Be careful when multiplying by 20 – insert a 0 into the 'ones' column to represent a multiplication by 10, then multiply all the digits by 2.

Example: 372 × 24

	H	T	U
	3	7	2
x		2	4
	2	8	8
7	4	4	0
7	7	2	8

Division:
Use the written short division method or 'bus stop method' to complete divisions that you cannot complete in your head.

Example: 1526 ÷ 7

1. Start from the highest place value column then move to the left.
2. Ask yourself "how many 7s go into 1?" the answer is 0 with a remainder of 1.
3. Carry this over to the 5 and ask "how many 7s go into 15?" etc.

$$7 \overline{)1526} = 218$$

6. FACTORS AND MULTIPLES

$3 \times 8 = 24$

Factors: 3 is a factor of 24; 8 is a factor of 24

Multiple: 24 is a multiple of 3 and 8

$4 \times 5 = 20$

Factors: 3 is a factor of 24; 8 is a factor of 24

Multiple: 24 is a multiple of 3 and 8

Factors are integers that we multiply together to get another number.
You will sometimes to be asked to list all the factors of a number e.g. list all the factors of 24: 1, 2, 3, 4, 6, 8, 12, 24
You could also be asked to find the Highest Common Factor (HCF) of two or more numbers. You do this by listing all the factors of both numbers and stating the biggest number that appears in both lists. e.g.:
Find the HCF of 12 and 32: Factors of 12: 1, 2, 3, 4, 6, 12
Factors of 32: 1, 2, 4, 8, 16, 32
} The HCF of 12 and 32 is 4

Multiples are the result of multiplying integers together.
You will sometimes be asked to list the multiples of a number e.g. list the first 6 multiples of 8: 8, 16, 24, 32, 40, 48
You could also be asked to find the Lowest Common Multiple (LCM) of two or more numbers. You do this by listing the times tables of both numbers until you reach the first number that appears in both lists. e.g.:
Find the LCM of 6 and 8: Multiples of 8: 8, 16, 24, 32, 40...
Multiples of 6: 6, 12, 18, 24, 30...
} The LCM of 6 and 8 is 24

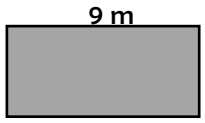
7. AREA

The 2D space a shape covers.
As you are measuring an area your units of measurement will always be squared. For example: mm^2 , cm^2 , m^2... etc.

Square/Rectangle

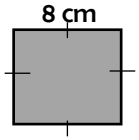
Area = length × width

Rectangle:



Area = length × width
= 9 × 5
= 45 m^2

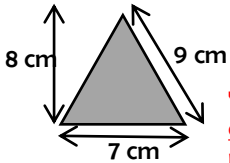
Square:



Area = length × width
= 8 × 8
= 64 cm^2

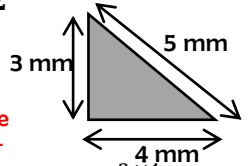
Triangle

$$\text{Area} = \frac{\text{base} \times \text{height}}{2}$$



Area = $\frac{7 \times 8}{2}$
= $\frac{56}{2}$
= 28 cm^2

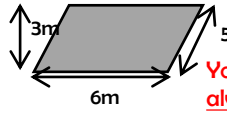
You must always use the perpendicular height – ignore the slanted length.



Area = $\frac{3 \times 4}{2}$
= $\frac{12}{2}$
= 6 mm^2

Parallelogram

Area = base × height



Area = 3 × 6
= 18 m^2

You must always use the perpendicular height – ignore the slanted length.

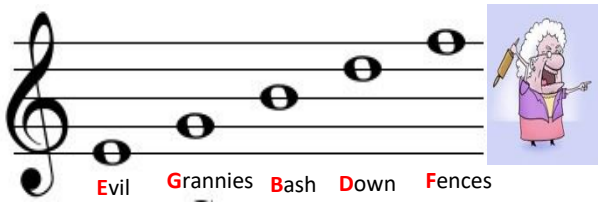
MUSIC

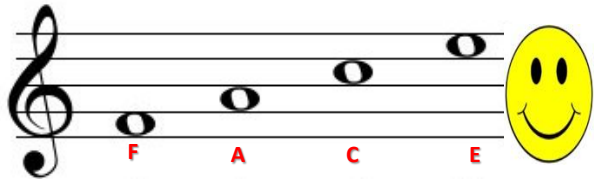
Keywords		
Dynamics	Symbol	Definition
Fortissimo	*ff*	Very Loud
Forte	*f*	Loud
Mezzoforte	*mf*	Moderately Loud
Mezzopiano	*mp*	Moderately Quiet
Piano	*p*	Quiet
Pianissimo	*pp*	Very Quiet
Crescendo		Becoming gradually louder
Decrescendo		Becoming gradually quieter

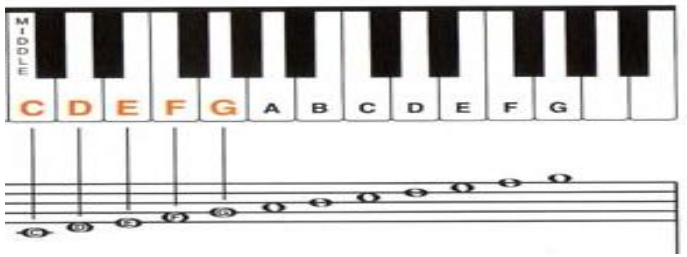
Tempo	Definition
Lento	Slowly
Largo	Slow and stately
Adagio	Leisurely
Andante	At a walking pace
Allegro	Fast
Vivace	Lively
Presto	Very Quickly

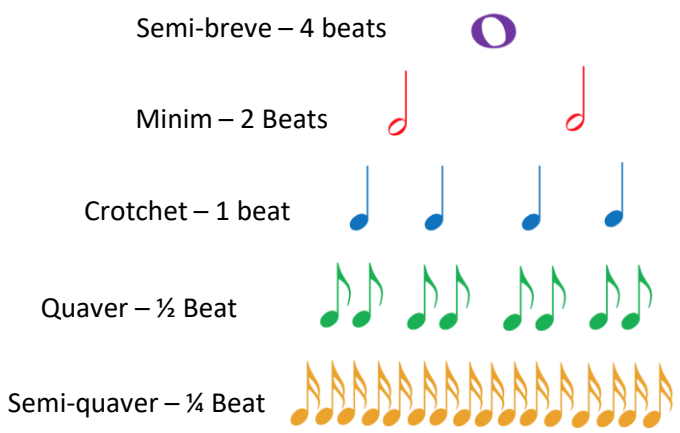
Musical Instrument Families

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







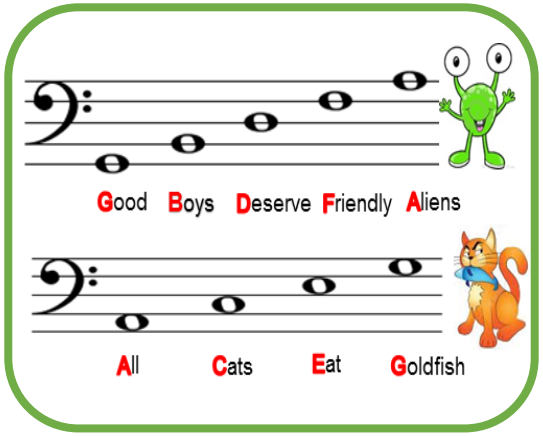


Spellings to Learn in Music

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 KPI's 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!

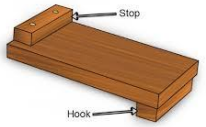
Coping Saw for cutting **curved** lines in **thin** material with a thin blade. The blade can be rotated by undoing the handle first.

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!

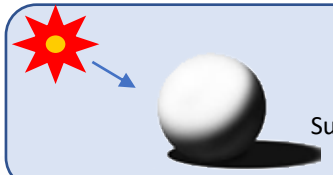
Soldering Iron These are used to join electrical items such as wire, remember to take care because these are very hot, be sensible, use a stand. Apply heat to the whole area to be soldered before putting the solder wire onto the joint.

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!

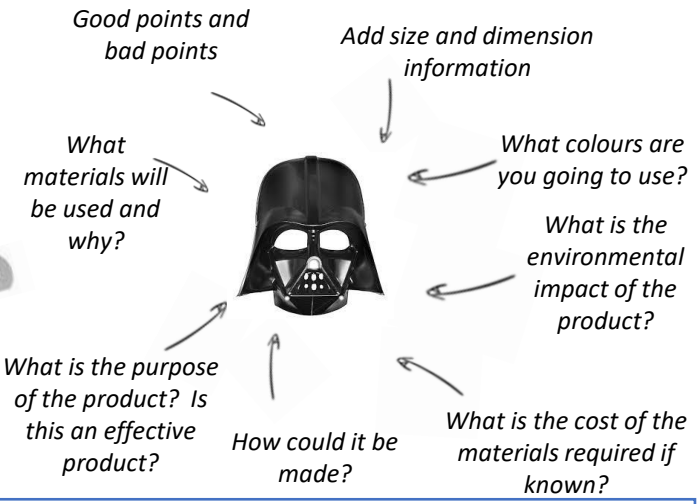
Rendering



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.

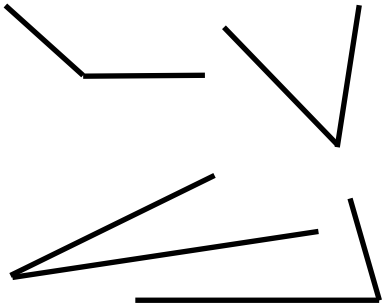
Angles: measured using a protractor and using degrees. A right angle = 90°. There are 360° in a circle.

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

1)

2)

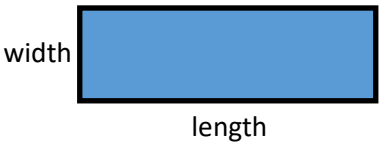
3).



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.

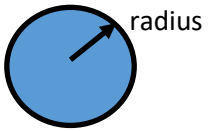
Area of a rectangle = width × length



Area of a circle = πi^2

π = 3.142

The radius is half the diameter

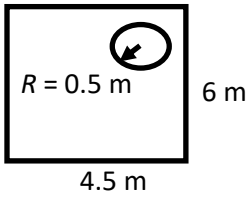


Examples – rectangle area

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:

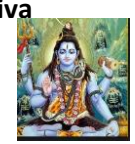
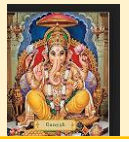
Rectangle area: 1) 150 cm^2. 2) 384 cm^2. 3) 24 m^2

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

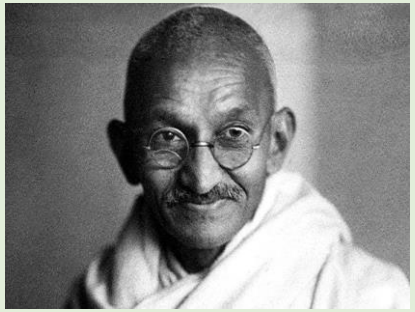
Harder question: rectangular area 27 m^2; circle area .78 m^2; total area = 26.21 m^2; carpet cost = £314.55

Hindu Beliefs and Practices

Keyword	Definition
Atman	The Hindu understanding of the soul
Moksha	The belief that we can escape the cycle of life and be at one with God
Karma	An action. Good actions result in good karma and bad actions result in bad karma.
Samsara	The cycle of life and death
Reincarnation	The belief that people can be reborn into a new body
Prejudice	To think of something unfair of someone
Caste system	An unfair way of categorising people
Dharma	Refers to a Hindu's duty
Ahimsa	Belief in non-violence
Mandir	A Hindu temple, place of worship
Murti	Images of deities that form the focus of worship, in the form of statues and pictures
Omnipotent	God is all-powerful
Shrine	A place regarded as holy because of its association with divinity or a sacred holy person
Puja	The popular ritual of showing devotion to images of the divine
Arti tray	An ancient and popular means of connecting with the divine in puja. Each artefact represents an element (air, fire, water, earth)
Ritual	A religious ceremony observed by believers
Deity	Supernatural or divine being or god
Avatar	An incarnation or manifestation of deity
Ethics	The beliefs about right and wrong
Vedas	Several texts originating from ancient India written in Vedic Sanskrit and include Hindu scriptures

Deity	Description
Brahman	The one God in Hinduism
Brahma 	Manifestation of Brahman in the Trimurti – the creator
Vishnu 	Manifestation of Brahman in the Trimurti – the preserver
Shiva 	Manifestation of Brahman in the Trimurti – the destroyer
Trimurti 	The great triad of gods, consisting of Brahma, Vishnu and Shiva
Hanuman 	Hanuman is a very powerful and strong god. Hanuman's image shows him as a strong man with the face of a monkey. He also has a tail.
Ganesh 	The elephant-headed god in Hinduism. Ganesh is one of the most worshipped God in Hinduism. Hindu tradition states that Ganesh is a god of wisdom, success and good luck.
Rama 	Rama is the seventh avatar of the Hindu god Vishnu. His wife is Sita. Their story forms the basis of the celebration of the Diwali festival.

Hindu Beliefs and Practices

Theme	Explanation
Brahman	Hindus are monotheists as they believe in supernatural or divine being or god, referred to as Brahman. Brahman has different qualities and manifestations of himself in other gods and deities.
Worship 	Hindus may worship anywhere – in mandir, at home or in the workplace. Hindus worship to express the value of God Brahman. They may worship in temple, called mandir, at home or the workplace. The act of worship is called puja. Hindus use murtis (images of gods) to represent the divine in the shape of gods or goddesses. Hindu worship may be very noisy and colourful to awaken Brahman.
Gandhi 	Gandhi was a famous Indian political and religious leader. He was from a wealthy background and pursued a career as a lawyer. He believed in equality and spoke out against the abuse of the 'untouchables'. He named them 'Children of God'. Gandhi said "You must be the change you wish to see in the world", which means that if we want to see any change for better in the world, we should start with ourselves. **CHALLENGE** Go to this website for further research on Hinduism: http://www.bbc.co.uk/religion/religions/hinduism/ Go to this website, watch the videos and complete the quizzes: https://www.bbc.com/bitesize/topics/z73d7ty

Practice	Explanation
Worship in the mandir	The mandir is the home of God and visiting one is similar to visiting God. Hindus use all their senses to direct themselves towards God and raise spirituality. Hindus worship the one God, Brahman and use the statues and idols to connect with God. These statues are called murtis. Each ritual in mandir reminds Hindus of god.
Puja	The most popular form of worship is puja, which usually involves adoration of images of the divine, mantras (prayers) and food offerings. Puja uses all the five senses of a human to worship god. Puja is a daily routine for Hindus. It is performed at least once a day, usually in the morning. At the end of puja, any food offered to the god is shared out amongst the worshippers. Food offerings are given called prashad (holy food).
How is puja performed?	When a Hindu rings a bell its reveals to God that they are worshipping. A Hindu bends down and travels around clockwise around the deity (on right hand side). During puja, water is used to signify purity. A Hindu offers flowers and fruit to show gratitude. Puja provides Hindus with a close relationship with God, blessings and good karma. The images, statues and music help a Hindu focus only on God. The statues remind a worshipper of the different qualities and aspects of God.
The puja tray	The puja tray contains different items that Hindus might use to awaken their senses, as all of a Hindu's senses should be awoken in worship. 

SCIENCE – 7BC Biology - Cells

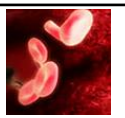
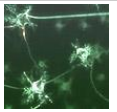
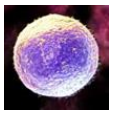
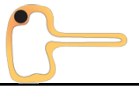
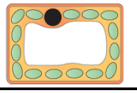
1. Keywords

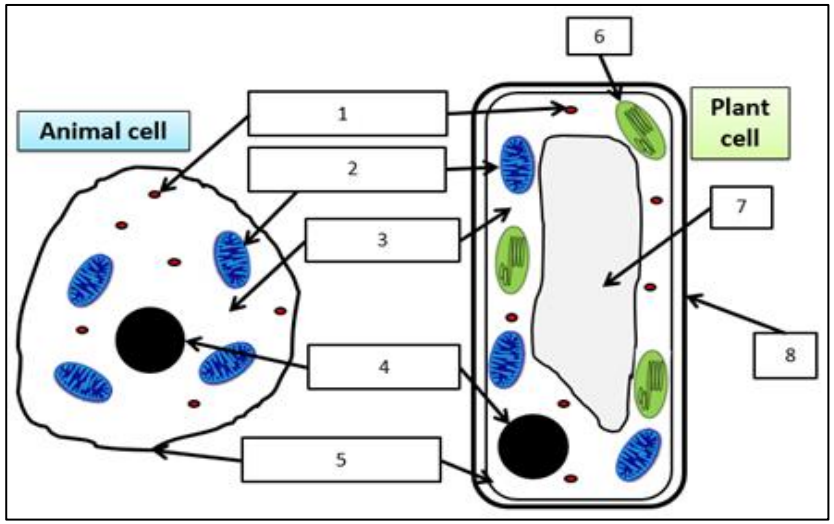
Cells:	The building blocks of all living things
Organelle	A cell structure that has a specific function
Unicellular	Simple organisms made up of just one cell
Diffusion	The random movement of a substance from an area of high concentration to an area of low concentration
Specialised Cells	Where a cell has adapted in order to carry out a specialised job
Microscope	An instrument that magnifies objects, enabling visibility of 1000 times or more than what can be seen by the naked human eye

2. Cell Organelles

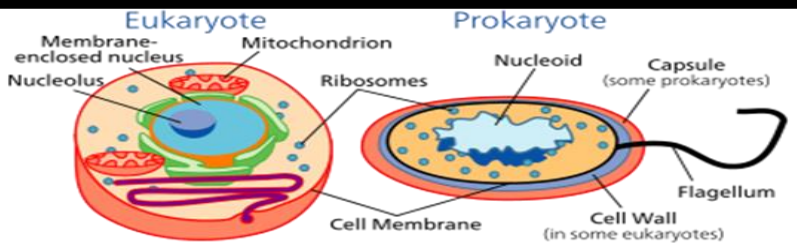
No.	Structure	Function
1	**Ribosomes**	Where proteins are made from amino acids
2	**Mitochondria**	Where respiration occurs and energy is produced
3	**Cytoplasm**	Where chemical reactions occur
4	**Nucleus**	Contains genetic material
5	**Cell Membrane**	Controls the movement substances into and out of the cell
Only in plant cells		
6	**Chloroplasts**	Absorb light for photosynthesis
7	**Vacuole**	Keeps the cell turgid to support the plant
8	**Cell Wall**	Strengthens the cell

3. Specialised Cells

Cell	Function
	Red Blood Cells – carry oxygen
	Nerve Cells – carry nerve impulses
	Egg Cells – meet up with male sperm cells, then produce food for new cells being formed
	Sperm Cells – meet up with female egg cells
	Root Hair Cells – to absorb water and minerals
	Leaf Cells – to absorb sunlight for photosynthesis



4. Unicellular Organisms



Eukaryotes	Prokaryotes
Have their DNA in a nucleus	Have free DNA (not in a nucleus)
Membrane-bound organelles	No membrane-bound organelles, only ribosomes

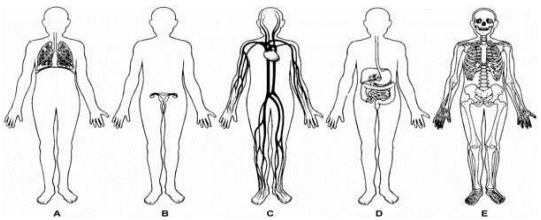
SCIENCE – 7BC Biology - Cells

5. The Organisation of Living Things

Cell	The structural, function and biological unit of all organisms
Tissue	Made from a group of cells with a similar structure and function, which all work together to do a particular job
Organ	Made from a group of different tissues, which all work together to do a particular job
Organ System	Made from a group of different organs, which all work together to do a particular job

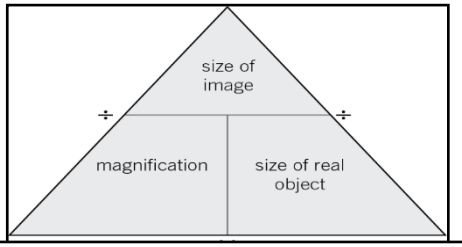
Cell → Tissue → Organ → Organ system

6. Human Organ Systems



	Organ system	Main function	Key organs
A	Respiratory	To get oxygen into the blood and carbon dioxide out of the blood	Lungs, diaphragm ribs
B	Reproductive	The reproduce	Ovaries, uterus (female) Penis, testes (male)
C	Circulatory	The pump blood around the body to deliver oxygen and glucose	Heart, arteries, veins
D	Digestive	Break down and absorption of food	Stomach, liver, small intestine, large intestine, pancreas
E	Skeletal	Support and help you move	Bones

7. Calculations and Using Formulas

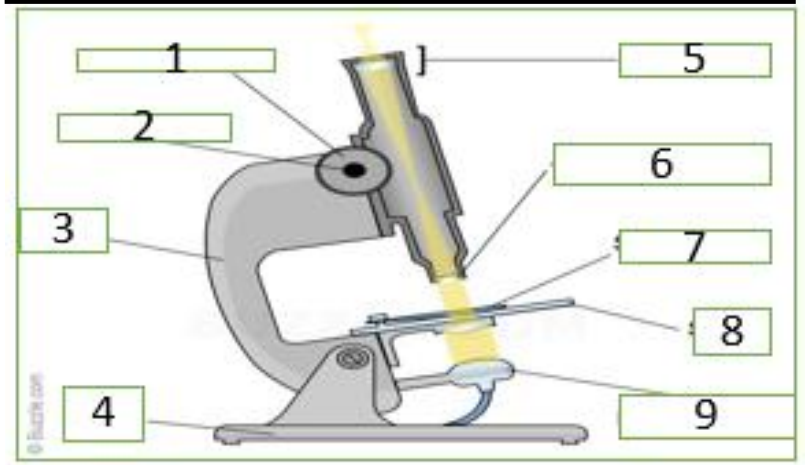


$$\text{magnification} = \frac{\text{size of image}}{\text{size of real object}}$$

$$\text{size of image} = \text{magnification} \times \text{size of real object}$$

$$\text{size of real object} = \frac{\text{size of image}}{\text{magnification}}$$

8. The Microscope

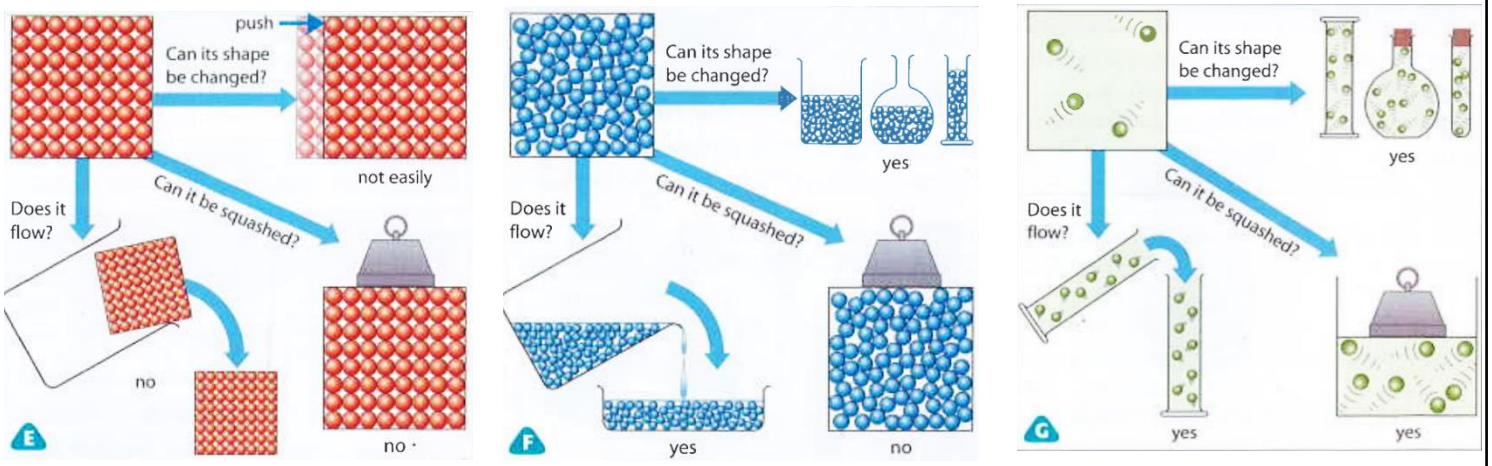


1 Coarse Focus	4 Base	7 specimen
2 Fine focus	5 Eyepiece lens	8 Stage
3 Arm/spine	6 Objective lens	9 Light/mirror

SCIENCE – 7CP – Particles and Separation

Solids	Liquids	Gases

1. Properties



3. Particle Arrangement

Solids	Liquids	Gases
Regular pattern Particles close together	Random arrangement Particles close together	Random arrangement Particles far apart

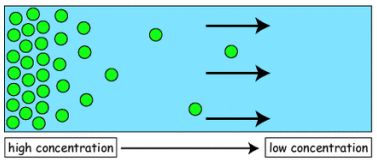
4. Particle Motion

Solids	Liquids	Gases
Particle vibrate around a fixed position	Particles are free to slide over each other	Particles are free to move in all directions

5. Keywords and Definitions

Dissolve	Becomes part of a liquid
Solvent	Liquid in which something dissolves
Solute	The solid substance to be dissolved
Solution	A solvent containing a dissolved solute
Soluble	Something that does dissolve
Mixture	A solvent containing solid particles that do not dissolve

6. Diffusion



The random movement of a substance from an area of high concentration to an area of low concentration

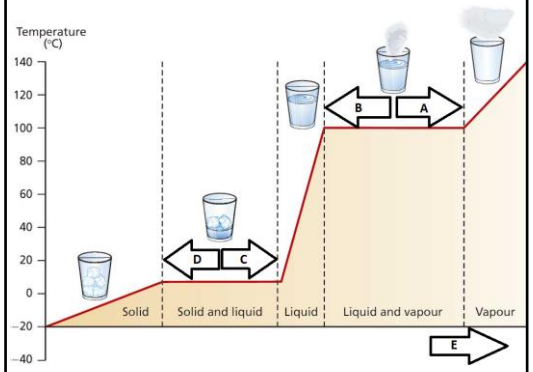
7. Separation Methods

Distillation	**Evaporation** followed by **condensation** of a **solvent** from a **solution**
Filtration	Separation of in**soluble solute** particles from a **mixture**
Chroma-tography	Separation of dissolved **solute** particles. The most **soluble solutes** travel the furthest.

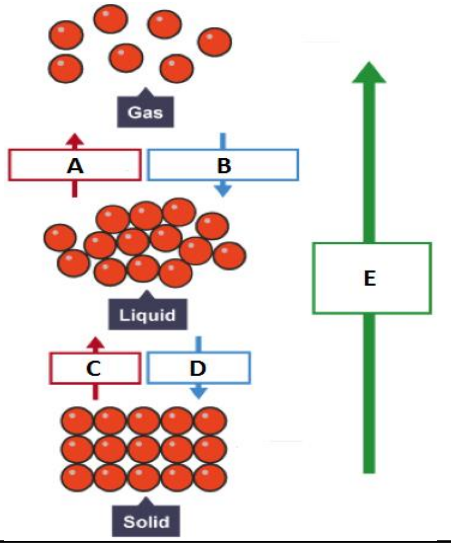
8. Water, Key Temperatures

1. Freezing/melting point:	**0°C**
2. Dew/boiling point:	**100°C**

2. Changes of State



A) Evaporation
B) Condensation
C) Melting
D) Freezing
E) Increasing internal energy



SCIENCE – 7PE - Energy

1. Energy Stores

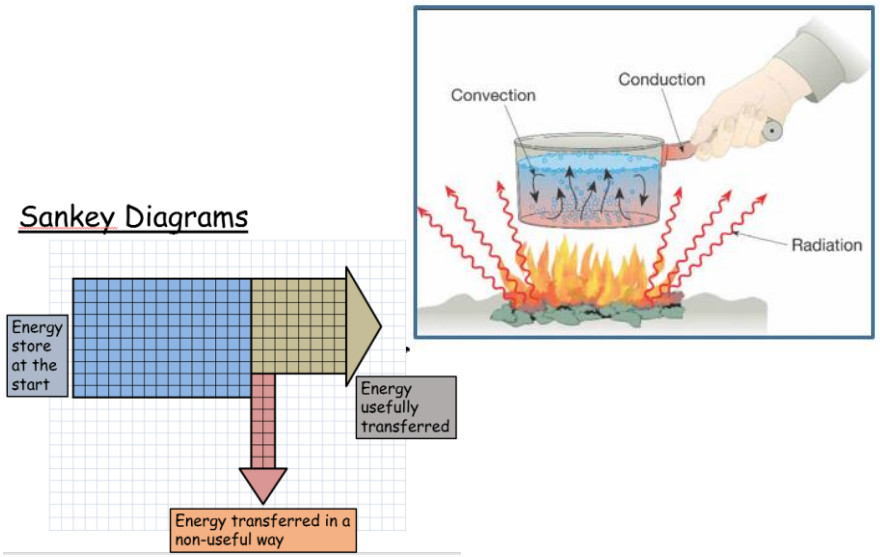
Energy Store	Definition	Example
Kinetic	Energy of a moving object	A moving car
Gravitational Potential	Energy stored by being above ground level	A diver standing on a diving board
Chemical	Energy stored in the bonds between particles	A burger and fries
Electrostatic	Energy stored in charged particles	A build up of static electricity
Thermal	Energy stored in an object that is hot	A hot cup of coffee
Elastic Potential	Energy stored in an object that is stretched or compressed	A stretched bow string
Magnetic	Energy stored in magnetic fields	A magnet
Nuclear	Energy stored in atoms	Nuclear power

2. Pathways

Heating	Mechanical Transfer	Electric Current	Radiation
Energy moves from a hot object to a cooler one.	By use of a machine or tool or by an energy wave. E.g. Sound and seismic waves	Charged particles called electrons move around a circuit	All forms of electro-magnetic waves. Such as light, infra red, ultra violet.

3. Efficiency

$$\text{Effeciency (\%)} = \frac{\text{Useful energy output (J)}}{\text{total energy input (J)}} \times 100$$



4. Ways of Transferring Thermal Energy

Method	Works in	Caused by
Conduction	Solids	particles vibrating into each other
Convection	Liquids and gases	expansion of the space between particles reducing in density
Radiation	All materials and in a vacuum	infra red (IR) radiation being emitted
Insulation	All materials and in a vacuum	stopping thermal energy being transferred

SCIENCE – 7PE - Energy

7. Energy Resources

Energy Resource	Renewable	Advantages	Disadvantages
Fossil Fuels	No	Low cost, easily transportable.	Produce large amounts of pollution.
Nuclear	No	Generates a lot of electricity.	Expensive. Produces dangerous b- products.
Solar	Yes	No fuel costs or pollution.	Expensive to set up. Doesn't work at night.
Wave	Yes	No fuel costs. Reliable and easily accessible.	Can damage marine ecosystems.
Tidal	Yes	No fuel costs or pollution. Predictable.	Can damage marine ecosystems.
Wind	Yes	No fuel costs or pollution.	Not always reliable, noisy.
Geothermal	Yes	No fuel costs or pollution.	Very few areas where it is accessible.
Biomass	Yes	Low cost, readily available.	Large scale land use requiring irrigation.
Hydro-electric	Yes	No fuel costs, reliable and easily controlled.	Environmental impact during construction.

5. Power

Power (W)	Energy ÷ Time	E ÷ t
Energy (J)	Power x Time	P x t
Time (s)	Energy ÷ Power	E ÷ P

6. Electricity Cost

$$\text{Energy (KWh)} = \text{Power (KW)} \times \text{Time (Hours)}$$

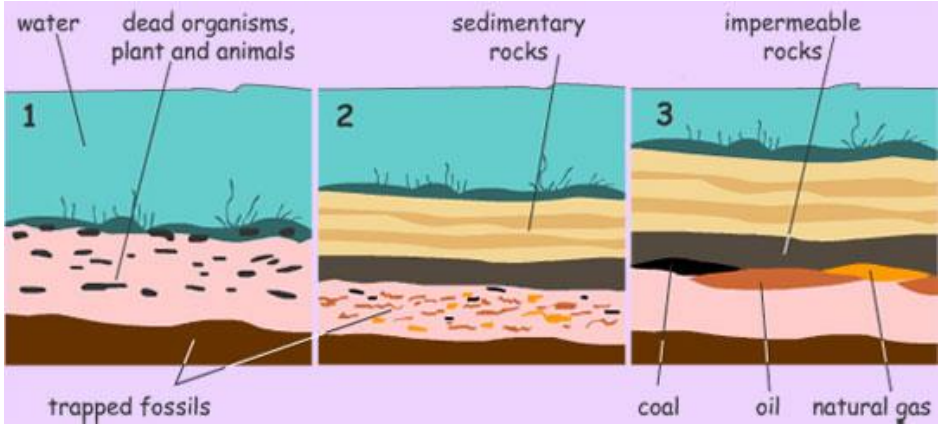
Cost (pence) = Energy used (kWh) × Price per unit (pence/kWh)

8. Keywords

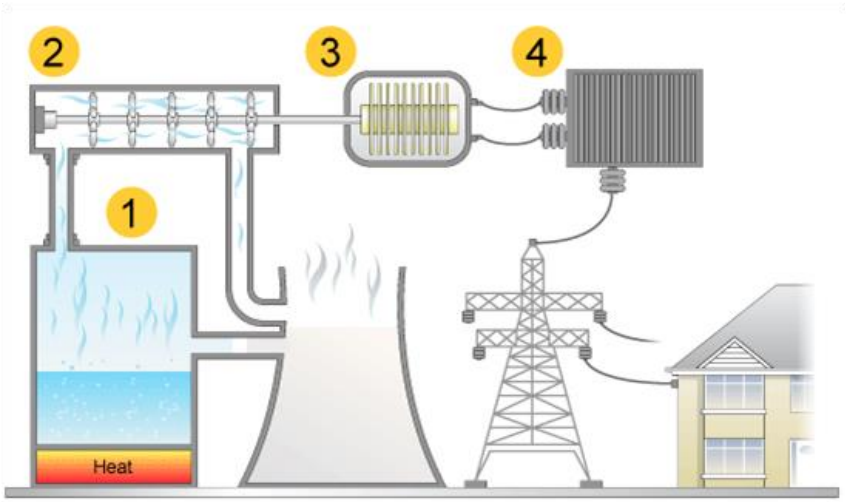
Keyword	Meaning
Power	The rate of energy transfer in joules per second (called watts).
Fuel	A substance that is burned to release the energy it contains.
Energy Resource	A source of energy that can be used to generate electricity.
Law of Conservation	Energy cannot be created or destroyed, only transformed.
Joule (J)	The unit of energy.
Watt (W)	The unit of power.

9. Fossil Fuels

Fuel	How it is made
Coal	Dead trees and plants become buried underground, over millions of years the pressure underground causes these to form coal.
Oil and Gas	When small sea animals die they become encased in sand, this all gets buried under the sea. Over millions of years the sand becomes rock and the small sea animals form crude oil and natural gas.



10. Generating Electricity



1	Energy is transferred from the chemical store in the fuel to the water.
2	The steam produces is blasted at turbines, which increases their kinetic store so that they turn.
3	The turbines run a generator to generate electricity.
4	The electricity is carried to our homes via the National Grid.

1. ¿Cómo eres?

Buena pregunta!	Good question!
Diría que	I would say that
Estoy **bastante** fiel	I am **quite** loyal
y **muy** gracioso/a	and **very** funny
Mi madre dice que	But my mum says that
Soy **muy** hablador/a	I am **very** chatty
Por ejemplo, río con mis amigos en clase	For example, I laugh with my friends in lessons
¡Qué tontería!	It's nonsense!
A veces, mi madre es molesta	**Sometimes,** my mum is annoying!
Es polaca	She is Polish
Pero habla inglés	**But** she speaks English
Tiene el pelo rubio	She has blond hair
También, es *muy* baja	**Also**, she is very short

2. ¿Cómo es un/a buen/a amigo/a?

En mi opinión	In my opinion,
Un/a buen/a amigo/a sería	A good friend would be
Optimista **o** bien educado/a	Polite **or** well-behaved
Pero también trabajador/a	**But also** hard-working
Como yo	Like me
Sin embargo, según yo	**However**, according to me,
Un/a buen/a amigo/a no es	A good friend is not
Pesimista	pessimistic
También, me hacía reír	**Also,** he/she would make me laugh

3. ¿Llevas bien con tu familia?

¡Vaya, eso depende!	Well, that depends!
Me peleo con mi hermano **(mucho)**	I argue with my brother **(a lot)**
Compartimos un dormitorio	We share a room
Y hace **demasiado** ruido y huele	And he makes **too** much noise and he smells
Me llevo bien con mi hermana	I get on well with my sister
Pero vive con mi padre	But she lives with my dad
Así que, no nos vemos tanto	**So** we don't see each other often
Lleva gafas	She wears glasses
Y tiene los ojos azules	And she has blue eyes
Es graciosa y ¡**muy** alta!	She is funny and **very** tall!
Los sábados por la mañana, jugamos al fútbol juntos	On Saturday mornings we play football together

4. ¿Quién es tu modelo a seguir?

Pues, déjame pensar.	**Well**, let me think
Mi modelo a seguir es...	My role model is..
Greta Thunberg porque..	Greta Thunberg because..
Tiene **mucha** determinación	She has **a lot of** determination
Además, es fuerte y ambiciosa	**Furthermore**, she is strong and ambitious.
Lucha contra la destrucción del medioambiente.	She fights against the destruction of the environment.
Admiro a Greta	I admire Greta
Como ha ganado **muchos** premios	**As** she has won **lots** of awards.
¡Me inspira mucho!	She really inspires me!

5. ¿Quién te gustaría ser en el futuro?

En el futuro...	In the future...
Me gustaría ser..	I would like to be..
como Cristiano Ronaldo	Like Cristiano Ronaldo
No solo es un gran fútbolista	**Not only** is he a great footballer
Sino que usa su fama para ayudar a otros	But he uses his fame to help others
También, es embajador de Unicef	He is also an ambassador for Unicef.
¡Es **muy** generoso!	He is **very** generous!

AIM HIGH PHRASES

1) Que se llama..	Who is called...
2) Hay que ser honesto	To be honest (lit. One must be honest)
3) Para ser	In order to be
4) Sería mejor si fuera	It would be better if I/he/she/it was...
5) Después de jugar	After having played
6) Lo bueno / malo es	The good / bad thing is
7) Lo mejor / peor es	The best / worst thing is
8) ¡Qué guay!	How cool!

TEXTILES

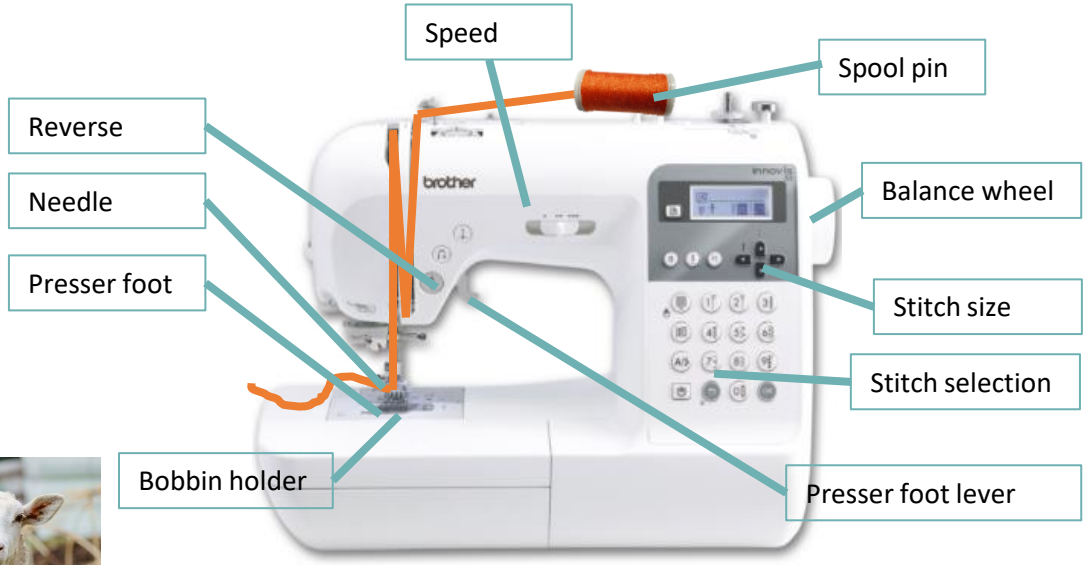
Health and safety rules:

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

Keywords
Interpret
Inspiration
Applique
Visual
Embroidery
Annotation
Evaluation
Bondaweb
Design

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

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





SILK



CAMEL



WOOL



COTTON

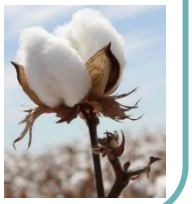


LINEN

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




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 fraying.

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

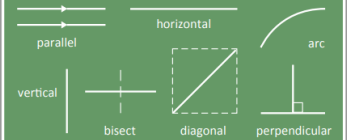
To join fabric together permanently you need to use a **needle** and thread.

TEXTILES

MOOD BOARDS

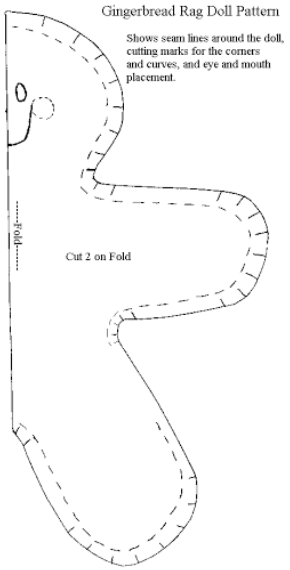
LINES

What do each of following lines mean

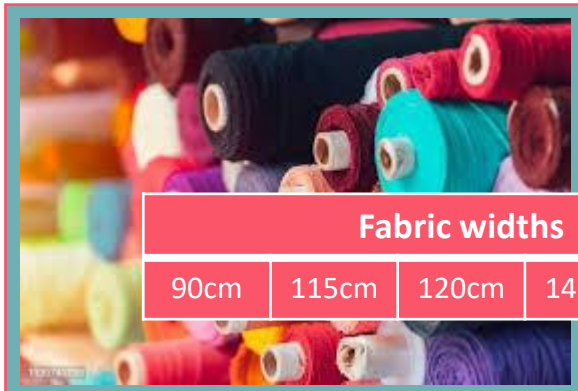


SHAPES

How to measure different shapes



PATTERN MAKING



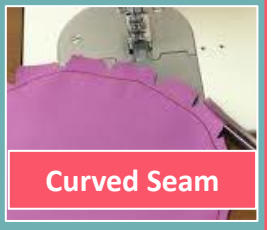
Fabric widths

90cm	115cm	120cm	140cm	150cm

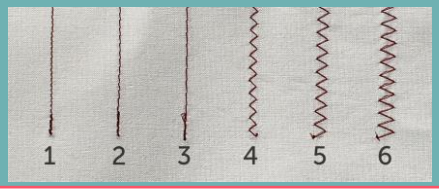
Seam Allowance

1cm small products
1.5cm fashion items

Straight Seam



Curved Seam



Stitch lengths and widths

SEASONAL MASCOTS