

# KNOWLEDGE ORGANISER



## YEAR 8

### CYCLE 2

Name: .....

Tutor group: .....



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



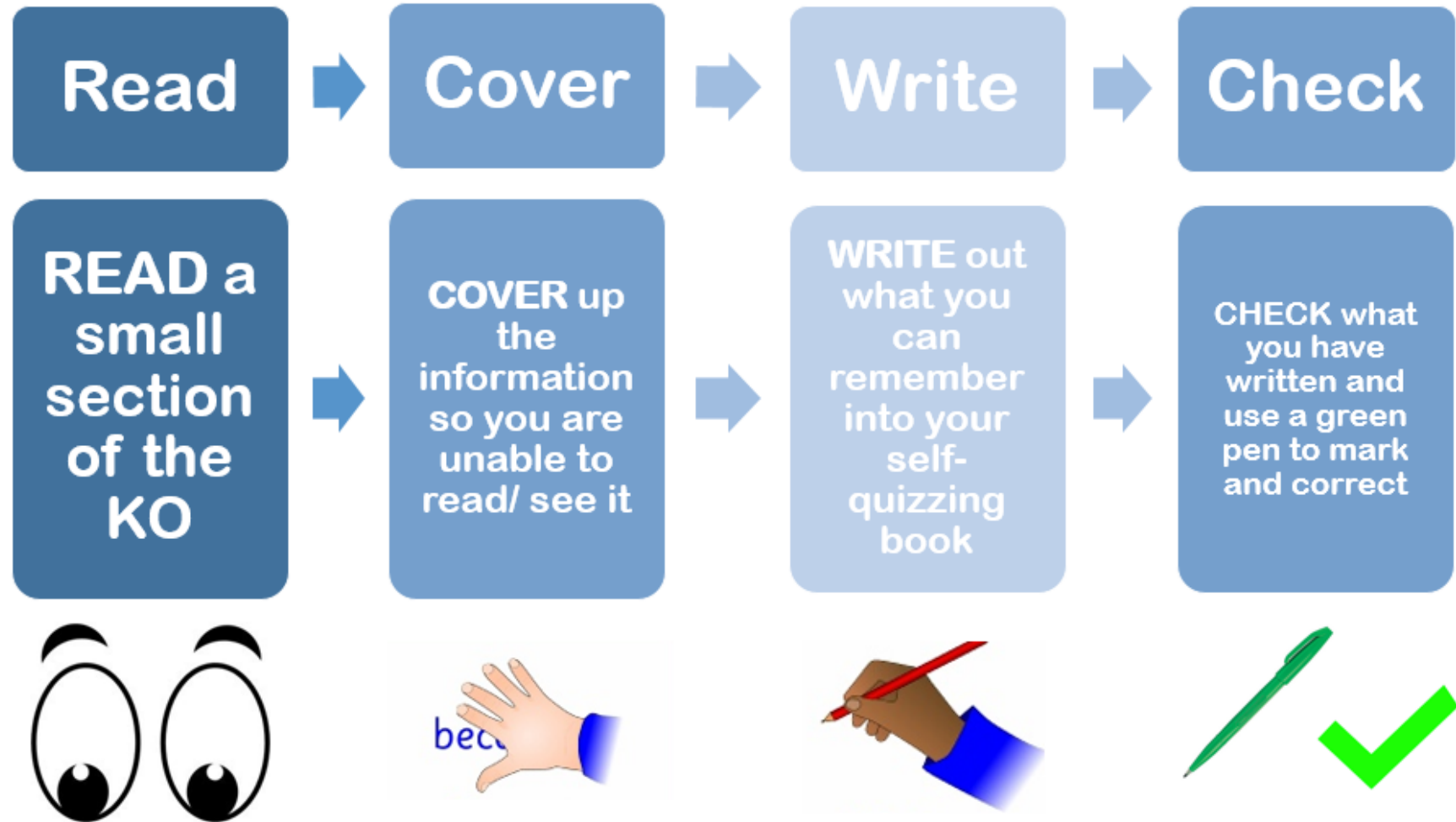
# YOUR KNOWLEDGE ORGANISER

- 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



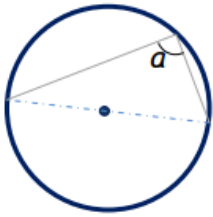

# USING YOUR KNOWLEDGE ORGANISER FOR REVISION

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

You can use your 100% book to create flashcards.

These should be:

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

<u>Circles</u>	<u>Circles</u>
<ol style="list-style-type: none"> <li>1. What is the size of angle <math>a</math>?</li> <li>2. State the rule.</li> </ol>	<ol style="list-style-type: none"> <li>1. What do you know about the angles <math>x</math> and <math>y</math>?</li> <li>2. State the rule.</li> </ol>
	

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

<b>Full Stop</b>  Used at the end of a sentence	<b>Question Mark</b>  Used at the end of an interrogative sentence to form a question	<b>Exclamation Mark</b>  Used at the end of an interrogative sentence to form a question	<b>Comma</b>  Use to separate clauses in a sentence
<b>Speech Mark</b>  Used to show when a character speaks	<b>Colon</b>  Used to separate two independent clauses when the second explains or illustrates the first	<b>Semi-Colon</b>  Used to separate two independent clauses that about the same topic	<b>Apostrophe</b>  Used in 3 ways to show contraction, plural or possession
<b>Hyphen</b>  Can take the place of commas, parentheses, or colons – in each case, to slightly different effect	<b>Slash</b>  Used to separate numbers, letters or words	<b>Ellipsis</b>  Use in non-fiction to show omission. In fiction, shows hesitancy or long pause	<b>Parenthesis</b>  Used to add extra information in a sentence

## 3. Sentence Types

Simple	Consists for one independent clause. (An independent clause contains a subject and verb and expresses a complete thought. Examples: <ul style="list-style-type: none"> <li>I like coffee.</li> <li>Mary likes tea.</li> </ul>
Compound	Is two (or more independent clauses joined by a conjunction or semi-colon. Each of these clauses could form a sentence alone. <ul style="list-style-type: none"> <li>I like coffee and Mary likes tea.</li> <li>Mary went to work but John went to the party.</li> <li>Our car broke down; we came last.</li> </ul>
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. <ul style="list-style-type: none"> <li>We missed our plane because we were late.</li> <li>Our dog barks when she hears a noise.</li> </ul>
Minor	Consists of a fragment, or incomplete clause that still conveys meaning. <ul style="list-style-type: none"> <li>Hello.</li> <li>The more, the merrier.</li> </ul>

## 2. Apostrophe Rules

### To show contraction:

Used to show when letters are omitted from words.

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

### To show possession:

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

- The cat's tail was fluffy.

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

- Charles's cat was naughty.

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

- The brothers' feet were muddy.

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

- The children's toys were broken.

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

## 4. Word Types

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



# THE REGIS SCHOOL SPELLING LIST

## Year 8 – Spring 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 practise your weekly spellings. First, look carefully at the word. Study its shape and the order of the letters. Then, cover the spelling; try to see it in your mind's eye. Attempt to write the spelling out. Check your work: have you missed a letter? Got letters mixed up or jumbled? Try again. Even if you get it right first time, practise makes perfect. Fill in the grid to ensure you are ready for your test in tutor time.*

Week 1 – vowel combinations	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Alliteration				
Author				
Because				
Erosion				
Mosque				
Neat				
Piano				
Poetry				
Retail				
Teeth				
<b>Challenge Words:</b>				
Biodiversity				
Onomatopoeia				

Week 3 – Double Letters	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Addition				
Business				
Current				
Express				
Letter				
Loose				
Messiah				
Narrator				
Pollution				
Sudden				
<b>Challenge Words:</b>				
Accommodate				
Questionnaire				

Week 2 – ‘Y’	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Analysis				
Annoy				
Body				
Enzyme				
Hydrate				
Myself				
Rhythm				
Style				
Year				
Yesterday				
<b>Challenge Words:</b>				
Carbohydrate				
Synthetic				

Week 4 – ‘tion’	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Action				
Attrition				
Convection				
Emotion				
Extinction				
Fraction				
Operation				
Ration				
Reflection				
Refraction				
<b>Challenge Words:</b>				
Abolition				
Syncopation				



Week 5 – ‘it’	Attempt 1	Attempt 2	Attempt 3	Attempt 4
City				
Competition				
Deposit				
Despite				
Fitness				
Flexibility				
Intensity				
Legit				
Repetition				
Trinity				
<b>Challenge Words:</b>				
Alliteration				
Christianity				

Week 6 – ‘ic’	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Asthmatic				
Chick				
Dynamic				
Fanatic				
Fantastic				
Picked				
Sickly				
Symmetric				
Synthetic				
Tickle				
<b>Challenge Words:</b>				
Hydraulic				
Islamophobic				

Week 7 – ‘p’	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Packed				
Pear				
Peer				
People				
Perspective				
Population				
Practise				
Pretty				
Promote				
Pronoun				
<b>Challenge Words:</b>				
Parallelogram				
Psychology				

Week 8 – ‘gh’	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Delight				
Eight				
Fright				
Highest				
Laugh				
Lightning				
Might				
Sigh				
Tightness				
Weight				
<b>Challenge Words:</b>				
Daughter				
Straightforward				

Week 9 – 'ra'	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Algebra				
Central				
Craft				
Frail				
Natural				
Radical				
Rage				
Rain				
Rather				
Tramp				
<b>Challenge Words:</b>				
Program				
Several				

Week 10 – v-c-v	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Catalyst				
Estimate				
Final				
Galaxies				
Hate				
Incident				
Lovely				
Product				
Theme				
Volcano				
<b>Challenge Words:</b>				
Grotesque				
Homophones				

Week 11 – Recap	Attempt 1	Attempt 2	Attempt 3	Attempt 4
Algebra				
Central				
Competition				
Enzyme				
Fraction				
Hydrate				
Lovely				
Operation				
Product				
Rhythm				
<b>Challenge Words:</b>				
Carbohydrate				
Straightforward				

# MATHS CORE KNOWLEDGE

Article 29: 'Education must develop every child's personality, talents and abilities to the full.' Article 30: 'Every child has the right to learn and use their language.' Article 28: 'Every child has the right to an education.' The Rights of the Child.



<http://hegartymaths.com>

## Maths Lesson Essentials!

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

## NUMBER and ALGEBRA

Ascending  
Descending  
Denominator  
Numerator  
Solve

Solution  
Decimal  
Percentages  
Binary  
Integer

## DATA

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

## SHAPE

### Names 3D

Sphere  
Cylinder  
Tetrahedron  
Prism  
Cone  
Pyramid

## SHAPE

### Names 2D

#### Quadrilaterals

Parallelogram  
Trapezium  
Rectangle  
Rhombus

#### Triangles

Equilateral  
Right-angle  
Isosceles  
Scalene

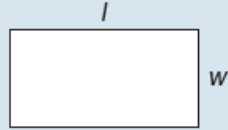
### Keywords

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

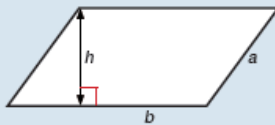
# MATHS CORE KNOWLEDGE

## Areas

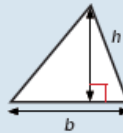
Rectangle =  $l \times w$



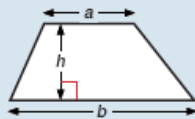
Parallelogram =  $b \times h$



Triangle =  $\frac{1}{2} b \times h$

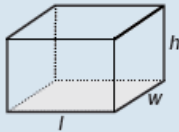


Trapezium =  $\frac{1}{2} (a + b)h$

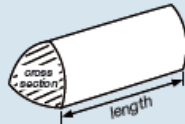


## Volumes

Cuboid =  $l \times w \times h$



Prism = area of cross section  $\times$  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

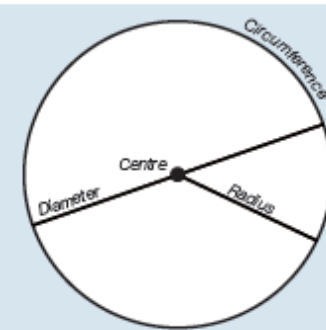
$$\text{density} = \frac{\text{mass}}{\text{volume}}$$

## Circles

Circumference =  $\pi \times \text{diameter}$ ,  $C = \pi d$

Circumference =  $2 \times \pi \times \text{radius}$ ,  $C = 2\pi r$

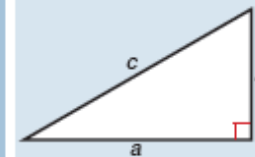
Area of a circle =  $\pi \times \text{radius squared}$   $A = \pi r^2$



## 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>

# 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.

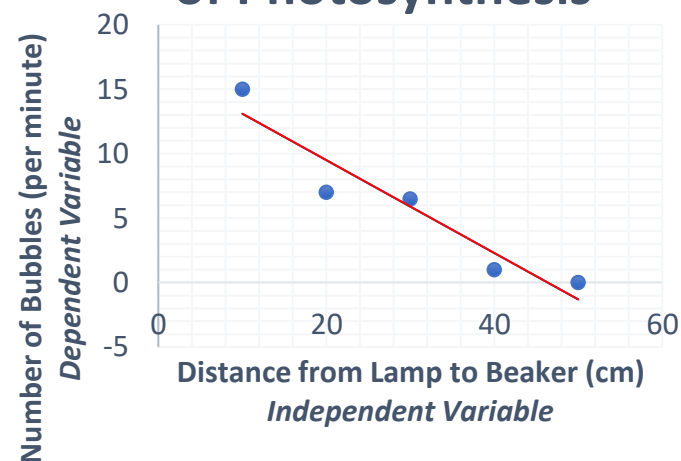
# SCIENCE CORE KNOWLEDGE

## 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: $\text{Trial 1} + \text{Trial 2} + \text{Trial 3} \div 3$ $15 + 14 + 15 \div 3$ $= 14.6$
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

## Investigating the Rate of Photosynthesis



## Practical Skills Visited

### Skills

#### Colour

- Complementary colours
- Colour and light
- Tertiaries – greys/browns
- Perspective through colour

#### Drawing

- Directional mark making/shading to create form
- Measuring with a pencil, basic foreshortening
- Proportions of the figure
- Line and stylisation
- Drawing with a pen

#### Painting

- Colour mixing and variety of colours to create light and shade.
- Brushstrokes to create texture, form and movement

#### Printing

Printing for pattern Batik or repeat block printing

#### 3D

Sculpture – small scale

#### Photography

Use of photography to record images to work from in a more independent way – e.g. own landscape images.

Editing images to create contrast/interesting colour ways

#### Literacy

Ability to compare and contrast two artists' works

## Vocabulary

**Complementary colours** – colours that are opposite each other on the colour wheel

**Tertiary colours** – the 'in between' colours e.g. yellow mixed with orange. Purple mixed with red

**Motif** – a symbol or image used throughout a particular art work or art style, e.g. the whiplash motif in Art Nouveau

**Monet** – 'The father of Impressionism'

**Impressionism** – an art movement that at the time was considered shocking. From the 19<sup>th</sup> Century, focusing on loose brushstrokes, colour and depicting light

**Henry Moore** – British sculptor famous for large scale semi abstract figures and also drawing of the underground during WW2

**Giacometti** – sculptor known for his textured ghost like sculptures

**Sculpture/Sculptor** – a 3D art work, an artist who creates sculptures

**Maquette** – a small try out of a 3D art work

## Stretch / Further Reading

### Drawing

1. Complete drawings of figures from real life using line only – try to use continuous line.
2. Draw a sky using colour only without doing outlines first – paint if you can.
3. Draw insects in detail – look at botanical drawings of insects to help you.
4. Find out about Indian Art and pattern.
5. Find out about the Impressionists and the Post Impressionists. If possible visit the National Gallery in London to see some of their work.

Also, the Courtauld Gallery is fabulous for Impressionism.

## Artists

The Impressionists and Post Impressionists:

- **Monet**
- **Henry Moore**
- **Giacometti**

# COMPUTING (DATABASES)

Database Keywords	Definition
Data	Values, typically letters or numbers; 'text' – writing; 'date/time' – date or time; 'currency' – euro, pound, dollar; 'autonumber' – number increases by one each time; 'yes/no' – only yes or no can be entered
Fields	A category of data in a database, e.g. First Name or Date of Birth
Mail merge	A method of creating lots of documents customised with data from a database, e.g. one letter sent to multiple people. The address of each person is read from and stored in a database
Query	A search or question performed inside a database
Table	Consists of related records, e.g. Students
Primary Key	A field that contains data that is unique for each record
Record	Consists of related fields, e.g. Paul Smith who is 1.8 m, achieved a grade 9 and is in the basketball team

## Homework Checklist for the First Term

1	Get Ahead	<a href="https://www.bbc.com/bitesize/guides/zswnb9q/revision/1">https://www.bbc.com/bitesize/guides/zswnb9q/revision/1</a>
2	Homework – Idea Badges	Problem Solving, What Is The Cloud? Teamwork Internet & Web Automation Internet of Things (look on class charts for others to do).
3	Keywords	You could also use Quizlet to practise.
4	Extension work	Research, what are the advantages of an online database?

Using Query Operators		
Query Operator	Meaning	Example
<	Less than	<1.65
<=	Less than or equal to	<=40
>	Greater than	>1.9
>=	Greater than or equal to	>=30
=	Equal to	= "M"
BETWEEN	Tests for a range of values	BETWEEN 18 AND 25
AND	All criteria must be satisfied	>13 AND Female
OR	At least one of the criteria must be satisfied	"medium" OR "overweight"
NOT	All criteria are satisfied except for the ones specified	NOT "bald" AND NOT "fair"



# PERFORMANCE (DRAMA AND DANCE)

## Drama Skills and Techniques

1 **Gesture:** Hand actions to emphasise your character's feelings or show what they are doing, e.g. a point or a wave. Sometimes gestures are symbolic.

2 **Facial expression:** Changing or adapting your facial features to show your character's emotions, such as frowning by furrowing your eyebrows to show that your character feels cross!

3 **Posture:** How you stand to show what your character is like, e.g. a straight and upright posture or a hunched and slouched posture.

4 **Stock character characterisation:** Stock characters are: heroes, villains, damsels etc. and specific gestures, posture, physicality and facial expressions create characterisation of these characters.

5 **Mime:** Silent movement and gestures to make it look as though you are doing something but without props.

## Drama Skills and Techniques

1 **Slapstick Comedy:** An over exaggerated style of physical comedy, usually involving a character falling or getting 'hurt' – but never too badly! The trick is making it look like pain has been inflicted while keeping the actor completely safe and unhurt!

2 **The comedy rule of 3:** Repeat an action or movement 3 times but something different should happen the third time!



## Dance: Mental Skills

1 **Systematic rehearsal:** Repeating something in an arranged or ordered way.

2 **Response to feedback:** Using peer, self and teacher feedback to improve your dance performance.

3 **Capacity to improve:** The ability and desire to improve your performance.



## Dance: Physical and Expressive Skills

1 **Alignment:** Correct placement of body parts in relation to each other.

2 **Isolation:** An independent movement of part of the body.

3 **Mobility:** The range of movement in a joint; the ability to move fluently from action to action.

4 **Extension:** Lengthening one or more muscles or limbs.

5 **Facial expression:** Use of the face to show mood, feeling or character.

6 **Sensitivity to other dancers:** Awareness of and connection to other dancers.

7 **Communication of choreographic intent:** The aim of the dance; what the choreographer aims to communicate.

8 **Interrelationship between constituent features of dance works:** How costume, music, set design and action content relate to each other.

## 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 5 of Frankenstein, the writer creates an atmosphere of jubilation but also of horror. Frankenstein is elated that his monster lives but devastated by the reality.*

### 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, 'these luxuriances only formed a more horrid contrast with his watery eyes' the noun 'luxuriances' suggests that the monster has lots of positive features, but this contrasts with the adjectives 'horrid' and 'watery'.*

### 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 ...

*The writer wants to create a feeling of joy and achievement for Frankenstein's character; however, they also want to show his revulsion at the monster he has created. Additionally, it may suggest that the character of Frankenstein did not realise the reality of his experiment and this reality has shocked and disgusted him.*

## 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'.

**Plosive:** sound effect created using one or more of the six plosive consonants p, t, k, b, d, g.

**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.

**Sibilance:** repetition of the 's' sound.

### 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:** 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> person

**Chronological structure:** arranged in order of time.

**Tense:** past, present, future

**Dialogue:** the speech of a character indicated by speech marks.

# ENGLISH (WRITING)

## 1. FICTION WRITING

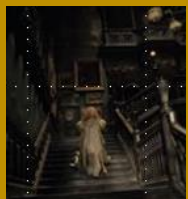
### 1a. Literary Terminology

1 <sup>st</sup> 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.
allegory	A story that can be interpreted to reveal a hidden meaning, usually a political or moral one.
oxymoron	A figure of speech in which apparently contradictory terms appear in conjunction.
personification	The attribution of a personal nature or human characteristics to something non-human.
antithesis	Character or ideas that are the complete opposite of each other.
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.
sarcasm	The use of irony to mock or convey contempt.
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

<u>Plan 1</u>	<u>Plan 2</u>
Introduction outlining your point of view/argument Point 1 (your 1 <sup>st</sup> reason for or against) Point 2 (your 2 <sup>nd</sup> reason for or against) Point 3 (your 3 <sup>rd</sup> 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 (DYSTOPIAN FICTION)

## 1. CONTEXT

**Author:** Ray Bradbury (1920–2012)

**Nationality:** American

**Short stories:** *The Pedestrian*, *Sound of Thunder*

**Other notable works:** *Fahrenheit 451*, *The Martian Chronicles*, *Something Wicked This Way Comes*.

**Genres:** Dystopian, Science Fiction, Fantasy

**Era:** 20<sup>th</sup> Century

### Author biography

- Born August 22<sup>nd</sup>, 1920 to a Swedish mother and a father with English heritage.
- Inspired in his early years by his aunt who read short stories to him.
- Grew up in Arizona until the age of fourteen when his family moved and settled in L.A.
- Throughout his childhood he was an avid reader and writer. Wrote his first short story during the Great Depression in 1931 at the age of eleven.
- Started to write traditional horror stories at the age of twelve.
- In 1950, published his first major work, *The Martian Chronicles*.
- In 1953, his best-known novel *Fahrenheit 451* was published.
- Published more than 30 books, approximately 600 short stories and numerous poems, essays, screenplays and plays.
- Defined himself as an American fantasy and horror author. He rejected being labelled as a science fiction author, as his work was based on the fantastical and unreal.
- Won the Pulitzer Prize for Literature in 2004 and received a special citation from the Pulitzer board in 2007.
- Died on June 5th 2012, aged 91, in Los Angeles

### Social, Historical & Literary context

#### Literary Context: Dystopian Fiction

- The word 'dystopia' is well-known as the opposite, or antonym of 'utopia'.
- 'Utopia' was first coined by Sir Thomas More (1478–1535) in his 1516 work *Utopia*.
- Utopia* comes from the Greek *u-topos* ('no place') and *eu-topos* ('good place').
- Dystopia comes from the Greek *dys* ('bad') and *topia* ('bad place')
- If 'utopia' represents an ideal or dream society, 'dystopia' is the word used to refer to an imagined nightmare world, which is usually the world of the future.
- The noun 'dystopia' is defined as 'an imaginary place or condition in which everything is as bad as possible'.
- In a dystopian story, society itself is typically the antagonist as society is actively working against the protagonist's aims and desires.
- The worlds depicted are often controlled by a totalitarian or authoritarian government.
- Dystopian fiction often explores issues such as the loss of civil liberties, living under constant surveillance, laws controlling a woman's reproductive freedom and denial of the right to an education.
- Dystopias are often thought to be 'cautionary tales' but are also used to explore the ideas of what is to be human.

## 2. KEY TERMINOLOGY

<b>Dystopian fiction</b>	Refers to a genre of writing that explores the loss of civil liberties, living under constant surveillance, laws controlling a woman's reproductive freedom and denial of the right to education.
<b>literary Conventions</b>	Defining features of particular literary genres, such as novel, short story, ballad, sonnet and play.
<b>antagonist</b>	A person who actively opposes or is hostile to someone or something; an adversary.
<b>setting</b>	The time and place in which the story takes place in a piece of literature. Setting can establish the mood or atmosphere of a scene or story.
<b>mood</b>	The feelings or atmosphere perceived by a reader in a piece of literature.
<b>motif</b>	A dominant or recurring idea.
<b>symbolism</b>	The use of symbols to express ideas or qualities.
<b>foreshadowing</b>	A literary device in which a writer gives an advance hint of what is to come later in the story.
<b>characterisation</b>	A literary device in which in an author builds up a character in a narrative.
<b>exposition</b>	Refers to part of the story used to introduce background information about events, settings, characters etc. to the reader.
<b>rising action</b>	A related series of incidents in a literary plot that build toward the point of greatest excitement/interest.
<b>climax</b>	The point of highest tension in a narrative.
<b>falling action</b>	Occurs immediately after the climax, when the main problem of the story has been resolved.

## 3. KEY VOCABULARY

	Definition
<b>dystopia</b>	An imagined place or state in which everything is unpleasant or bad, typically a totalitarian or environmentally damaged one.
<b>utopia</b>	An imagined place or state of things in which everything is perfect.
<b>totalitarian</b>	A system of government that is centralised and dictatorial and requires its people to obey the government or state without questions.
<b>fatalistic</b>	Relating to or characteristic of the belief that all events are predetermined and therefore inevitable.
<b>nihilistic</b>	Rejecting all religious and moral principles in the belief that life is meaningless.
<b>repressed</b>	Oppressed or restrained.
<b>tyranny</b>	Cruel, unreasonable and oppressive rule or government.
<b>dehumanise</b>	To deprive some one of positive human qualities.
<b>rebellion</b>	The action or process of resisting authority, control or convention.
<b>paranoia</b>	Unjustified suspicion or mistrust of people.
<b>propaganda</b>	Using biased or misleading information to promote a political cause or point of view.
<b>ebbing</b>	To gradually decrease.
<b>interminably</b>	Endless or continuing too long.
<b>perfunctory</b>	Carrying out an action without real interest, feeling or effort.
<b>paradox</b>	A person or thing that combines contradictory features or qualities.
<b>stagnating</b>	Existing in a unchanging situation.
<b>futuristic</b>	Having or involving very modern technology or design.
<b>oppressive</b>	Something or someone that limits freedom of thought or action.
<b>bureaucratic</b>	Inflexible rules, procedures and regulations.
<b>societal norm</b>	The unwritten rules of behavior that are considered acceptable in a group or society.
<b>dictatorship</b>	A government or a social situation where one person / system makes all the rules and decisions without allowing input from anyone else.

# ENGLISH (SHAKESPEARE, *Much Ado About Nothing*)

## 1. Context

**Playwright:** Shakespeare (April 23<sup>rd</sup> 1564–April 23<sup>rd</sup> 1616)

**Dates:** written around 1598–1599.

**Published:** in *'The First Folio'* 1623

**Era:** Renaissance (1500-1600)

**Genre:** Comedy

**Set:** Messina, Italy

**Structure:** Five Act Play

### Biography of Shakespeare

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

### Notable works

Shakespeare's plays can be categorised into three genres.

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

### Social, Historical and Literary Context

#### Messina

- The play is set in Messina, a port in north-eastern Sicily, which is in modern day Italy.
- It is a domesticated city-state, which was viewed as a safe haven from war.
- The House of Aragon had ruled Sicily since the 13th Century. This Spanish rule undermined the local aristocracy, creating a backwards feudal society.
- There was a strict code of male honour and female subordination.
- The Elizabethan stereotype of the Italians as scheming, cowardly, underhand and hot-headed.

#### Women

- Messina is a patriarchal society where strict rules govern what women can and can't do.
- Leonato is quick to disown Hero when her honour is questioned.
- Benedict is characterised as a notorious womaniser who will never be tempted into marriage.

## 2. Key Characters

**Beatrice:** Leonato's niece and Hero's cousin.

**Benedict:** An aristocratic soldier who has recently been fighting under Don Pedro, and a friend of Don Pedro and Claudio.

**Hero:** The beautiful young daughter of Leonato and the cousin of Beatrice.

**Claudio:** A young soldier who has won great acclaim fighting under Don Pedro during the recent wars.

**Don Pedro:** An important nobleman from Aragon, sometimes referred to as "Prince." Don Pedro is a long time friend of Leonato.

**Don John:** The illegitimate brother of Don Pedro; sometimes called "the Bastard."

**Leonato:** Governor of Messina, father to Hero, uncle to Beatrice.

**Margaret:** Hero's serving woman

**Barachio:** An associate of Don John.

**Conrad:** One of Don John's more intimate associates, entirely devoted to Don John.

**Dogberry:** The constable in charge of the Watch, or chief policeman, of Messina.

**Verges:** The deputy to Dogberry, chief policeman of Messina.

**Antonio:** Leonato's elderly brother and Hero's uncle. He is Beatrice's father.

## 3. Key Terminology

<b>Comedy play</b>	A style of play that has a happy ending, usually involving marriages between the unmarried characters, and a tone and style that is more light-hearted than Shakespeare's other plays.
<b>Literary Conventions</b>	Defining features of particular literary genres, such as novel, short story, ballad, sonnet and play.
<b>Soliloquy</b>	A speech or passage in a drama when a character on stage speaks to himself /herself or the audience, expressing their inner thoughts and feelings.
<b>Dramatic irony</b>	When the development of the plot allows the audience to possess more information about what is happening than the characters themselves have.
<b>aside</b>	A remark or passage in a play that is intended to be heard by the audience, but is supposed to be unheard by the other characters on the stage.
<b>blank verse</b>	Unrhymed lines written in a poetic meter and usually written in iambic pentameter ( <i>see below</i> ).
<b>rhyming couplets</b>	Two successive lines of verse of which the final words rhyme with another.
<b>iambic pentameter</b>	A line of verse with five metrical feet, each consisting of one short (or unstressed) syllable followed by one long (or stressed) syllable, with the accent (or emphasis) placed on the second syllable.
<b>antithesis</b>	Which literally means "opposite", it is a rhetorical device in which two opposite ideas are put together in a sentence to achieve a contrasting effect.

## 4. Key Vocabulary

	Definition
villainous	wicked or criminal behaviour
treacherous	Guilty of, or involving betrayal or deception
Love	a strong feeling of deep affection for somebody/something, especially a member of your family or a friend
Honour	something that you are very pleased or proud to do because people are showing you great respect
Deception	the act of deliberately making somebody believe something that is not true (= of deceiving them)
protagonist	the main character in a play or novel
villain	the main bad character in a story
bastard	a person whose parents were not married to each other when he or she was born
melodrama	a story, play or novel that is full of exciting events and in which the characters and emotions seem too exaggerated to be real
pathos	moments that provoke strong feelings of pity and sorrow
patriarchal	ruled or controlled by men; giving power and importance only to men
patriarchy	a society, system or country that is ruled or controlled by men
archetypal	having all the important qualities that make somebody/something a typical example of a particular kind of person or thing
subordination	the act of treating somebody/something as less important than somebody/something else
accusation	a statement saying that you think a person is guilty of doing something wrong, especially of committing a crime; the fact of accusing somebody
satire	a way of criticising a person, an idea or an institution in which you use humour to show their faults or weaknesses; a piece of writing that uses this type of criticism
irony	the use of words that say the opposite of what you really mean, often as a joke and with a tone of voice that shows this

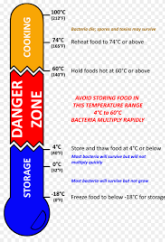


# FOOD PREPARATION AND NUTRITION

## 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 crust 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!!!!

## Vocab Set 1 – people and places

1) En Espagne	To/in Spain
2) En Pologne	To/in Poland
3) En Allemagne	To/in Germany
4) Au Mexique	To/in Mexico
5) Aux Pays-bas	To the Netherlands
6) Aux Etats-unis	To the United States
7) Mes amis	My friends
8) Mes copains	My friends
9) Mon meilleur ami	My best friend
10) Mon collège	My school

## Vocab Set 2 – activities

1) Faire de la rando	to do some hiking
2) Faire de la voile	to do some sailing
3) Faire de la planche à voile	to do some windsurfing
4) Faire de la natation	to do some swimming
5) Faire de l'équitation	to do some horseriding
6) nager	to swim
7) Se bronzer	to get a tan
8) Acheter des souvenirs	to buy souvenirs
9) sortir	to go out
10) Faire la fête	to party

## Vocab Set 3 – (revision) places in town and transport

1) En avion	by plane
2) En bateau	by boat
3) En voiture	by car
4) À vélo	on a bike
5) À pied	on foot
6) Au stade	to/at the stadium
7) Au marché	to/at the market
8) À la plage	to/at the beach
9) À la piscine	to/at the pool
10) Aux magasins	to/at the shops

## Model Answer – describe your typical holidays, where you went last year and where you would like to go in the future

D'habitude j'aime passer les vacances à Paris avec ma famille	Usually I like to spend the holidays in Paris with my family
pour qu'on puisse faire de la rando et prendre des photos	So that we can do some hiking and take some photos.
Je vais à Paris car il y a beaucoup de magasins et musées	I go to Paris because there are lots of shops and museums
et on peut y aller en avion donc c'est rapide.	And you can get there by plane so it's fast.
L'année dernière nous sommes allés en Espagne	Last year we went to Spain
et nous sommes restés dans une auberge de jeunesse.	And we stayed in a youth hostel.
Nous avons lu des magazines et regardé la télé.	We read some magazines and watched the TV.
Un jour, je voudrais aller en Pologne	One day, I would like to go to Poland
pour que je puisse faire du VTT.	So that I can do some mountain biking.
Il serait chouette !	It would be awesome!
Je voudrais trouver une ville où on peut faire de la planche à voile.	I would like to find a town where you can do some windsurfing.

## Vocab Set 4 – adjectives and places to stay

1) nous sommes restés	We stayed
2) Dans une auberge de jeunesse	in a youth hostel
3) Dans un gîte	in a holiday cottage
4) Dans une tente	in a tent
5) Dans un hôtel cinq étoiles	in a 5 star hotel
6) En colo	at a holiday camp
7) Formidable	terrific
8) Tellement sale	so dirty
9) Trop bruyant	too noisy
10) Très tranquille	very calm

## Vocab Set 5 – past tense activities

1) Nous avons regardé	We watched
2) Nous avons visité	We visited
3) Nous avons mangé	We ate
4) Nous avons lu	We read
5) Nous avons vu	We saw
6) Nous avons bu	We drank
7) Nous avons fait	We did
8) j'ai fait	I did
9) J'ai vu	I saw
10) c'était	It was

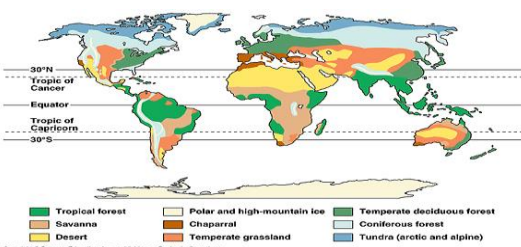
## AIM HIGH PHRASES

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



# GEOGRAPHY

## Global distribution of biomes



**Tundra:** Found in **northern Europe, Alaska, and northern Canada**. They are found at **high latitudes** above 60 degrees north of the equator. Winters are very cold and there is little rainfall. Few trees are found here and the main **vegetation is mosses, grasses and low shrubs**. Layers of permanently frozen ground called **permafrost** makes building difficult

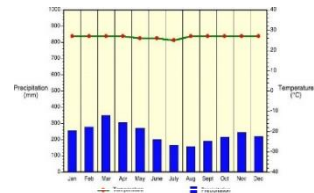
**Tropical Rainforests:** This is a **hot, humid and wet** ecosystem, located on or around the **Equator**. These forests have the greatest variety of plant and animal life in the world. Rainforests have **12 hours of sunlight and darkness, they do not have seasons**.

**Hot Deserts:** Found between 15 and 35 degrees north and south of the equator. They are **very hot** and also very, very **dry (little rainfall)**, it is cold at night as little cloud cover allows warm air to escape. This means there is a big **diurnal range** (difference in temperature between night and day). The Sahara is the largest desert in the world and is found in northern Africa. Deserts do have seasons.

**Temperate Deciduous Forest:** Found at **mid latitude** where there are four seasons. This is the main **biome for the UK, eastern north America and western Europe**. **Summers are warm, winters are mild** and there is rainfall all year round. Deciduous trees lose leaves in winter.

**Grassland:** There are **two types** of Grassland. **Savannah grasslands** are found **between the tropics**. They have a dry and wet season, although annual rainfall is low, most of the **vegetation is grasses with a few scattered trees**. **Temperate grasslands** are found in **higher latitudes**. The temperature varies more here, but rainfall is less. They have **no trees just grasses**.

**Rainforest climate:** The graph shows that the climate in the Rainforest is very different to a desert and Tundra areas. The temperature remains fairly constant all year, at around **27 °C**. This is because the **sun is always overhead**. Rainfall is much higher throughout the year, with around **350 mm of rain** falling in March – as mentioned before, this is due to convectional rainfall.



## Rainforest biodiversity:

Rainforests contain **50% of the world's plants and animals**.

Most trees are **evergreen**.

The **forest floor** has **nutrients** on its **surface** due to the decomposition of leaves and dead animals. However, the **soil has little fertility** due to the darkness of the forest floor.

## Rainforest importance

The vegetation is important in the fight against **global warming**. Trees take in carbon dioxide and turn this into oxygen.

Many **undiscovered medicines** lay within the forest. Currently, three-quarters of anti-cancer medication comes from the forest. Periwinkle was one of the most recent discoveries, which helps treat child leukaemia.

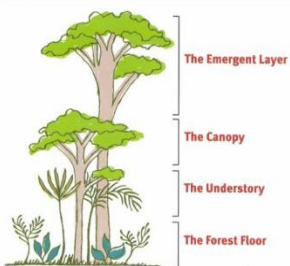
## Why is the forest being deforested?

- 1. Population pressure** – clear land for new settlements.
- 2. Mineral extraction** – gold and iron are mined to make money and to meet the demand. The photograph is of the Carajas mine in the Amazon, it is so large it can be seen from space.
- 3. Energy Development** – building hydroelectric power to generate energy from the vast amount of rivers in the Rainforest.
- 4. Commercial logging** – trees are felled to make money. Made worse by larger, wider roads needed to transport machinery in and out, resulting in more deforestation.
- 5. Commercial farming** – Rainforest is cleared for cattle ranching, palm oil and soya plantations.
- 6. Subsistent farming** – Rainforest is cleared for farmers to grow food for themselves and their families. Made worse by population growth.
- 7. Slash and burn** – Indigenous people clear the forest to settle, they then burn the deforested trees. They burn the fallen trees as ash provides nutrients so crops can be grown.

## What are the impacts of this deforestation?

- 1. Animal habitats** are being destroyed, resulting in animal extinction.
- Further **medical discoveries will become less frequent**, as there will be a reduction in the variety of vegetation.
- The **indigenous tribes**, such as the Amazonian Indians are losing their land and way of life. This is resulting in drastic changes to their culture.
- 4. Desertification increases** as the trees no longer soak up the rainfall, resulting in a reduction in evapotranspiration, and therefore less rainfall in the area.
- 5. Soil erosion is increasing**, as the protective canopy has been removed, this means that the heavy rainfall washes away the top soil of the forest floor, meaning a reduction in nutrients.

## Layers of the forest



Is made up of four layers. The forest floor is very dark and receives little sunlight. The understory shrub layer is not and damp and its plants have long waxy leaves. The canopy layer is where the most trees are.

## Plant adaptations in the rainforest:

Trees have **buttress roots**, these wide roots give the trees **stability**, but also allow the trees to take the **nutrients** from the surface layer of the forest floor. Trees have **drip tips**, these allow the rain to run off the leaves, stopping the trees from becoming too heavy and falling. Trees have **few branches** lower down as they race to get to the canopy and the sunlight.

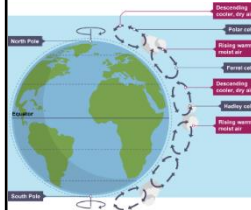
**Lianas** grow up other trees, to steal nutrients on their journey to the sunlight.

The pitcher plant fills with water and has **slippery sides** to drown insects in to feed on their **nutrients**.

The touch me not shrivels up to look less **appealing** to eat when touched.

Epiphytes grow on other taller trees to take advantage of their **height and sunlight**.

## Global atmospheric circulation



## Why is the rainforest found there?

They are found on the **equator** because it sits in line with the sun all year round. Higher **temperatures** lead to high rates of **evaporation** and rainfall on the equator.

**Rainforests:** At the equator the sun warms the earth, which transfers heat to the air above, **causing it to rise**. This air cools and condenses to form clouds and later rainfall. This is called **convectional rainfall**. This process means it rains each day in the rainforest.

## Animal adaptations in the rainforest:

### The sloth:

Has **long claws** to help it to cling to trees when climbing.

**Moves slowly** to make it harder for predators to spot them.

Brown fur to help **camouflage**.

### The spider monkey:

Long **strong limbs** to help it climb through the rainforest.

**Long tail** to help with balance when moving through trees.

# GEOGRAPHY (ECOSYSTEMS)

Background:	
1.	An ecosystem is a community of things that are linked together to make up a type of environment. <b>(A, B)</b>
2.	An ecosystem contains biotic (living) and abiotic (non-living) parts. <b>(B)</b>
3.	The climate of an ecosystem is very important as it influences what you will find there. <b>(C)</b>
4.	The main world biomes can be found in specific parts of the world, they have very different climatic conditions and features. <b>(C, D)</b>
5.	The rainforest biome has some distinctive features. <b>(F)</b>
6.	However, deforestation is a major challenge facing rainforests world-wide. <b>(E)</b>
7.	The deserts world-wide also have some key characteristics. <b>(G)</b>
8.	The Sahara desert is a place with opportunities for people, but there are also challenges that need to be overcome. <b>(H)</b>

A.	Classification of ecosystem (4)
Ecosystem	A community of things linked together in an environment.
Biome	An ecosystem on a large scale that covers parts of continents and whole countries.
Habitat	A place where plants and animals live. Examples: a pond, or hedgerow.
Biodiversity	The amount of variety of life there is in a place.

B.	Features of an ecosystem (3)
Biotic	The living parts of an ecosystem. Examples: plants, animals, humans.
Abiotic	The non-living parts of an ecosystem. Examples: soil, climate, river.
Food chain	A diagram that shows what is eating what in an ecosystem.

C.	Climatic features (4)
Climate graph	A graph showing rainfall and temperature in a place over a whole year.
Precipitation	Any form of water falling from the sky.
Convictional rainfall	Rain that is produced when warm air rises, cools and condenses, forming clouds and then rainfall.
High pressure	Areas where air is sinking, this air has little moisture, thus condensation cannot happen.

D.	Major global biomes (4)
Tundra (2)	1. Found at the far north and south of the planet. 2. A cold ecosystem, little rainfall.
Hot desert (2)	1. Found along the Tropic of Cancer and the Tropic of Capricorn. 2. Hot environments with little rain.
Tropical rainforest (2)	1. Found in places along the Equator. 2. Hot and humid environments with huge amounts of rainfall.
Temperate forest (2)	1. The main biome of the UK and other places along the same lines of latitude. 2. Warm summers, mild winters. No extremes of temperature, rainfall.

H.	Opportunities and challenges for development in the Sahara desert	
Where	The Sahara is found in Northern Africa.	
Opportunities (2)		Challenges (2)
1. In Algeria, oil extraction accounts for 60% of the GDP. 2. Farming in Egypt happens because the Aswan Dam provides water all year round to grow crops and providing an income for farmers.		1. Extreme temperatures can cause illness or death because of dehydration. 2. Water is scarce and so farming can be unreliable meaning an unreliable income for farmers.

E.	Deforestation in the rainforest (6)
Deforestation	The cutting down and removal of forest. This happens due to many factors.
Logging	Cutting down trees to sell the wood for a profit, sometimes this is done illegally.
Cattle ranching	Removing trees from a large part of the rainforest and keeping cows on the land. These are sold for meat.
Slash and burn	A type of farming where you cut down a small area of trees, burn the vegetation and then grow crops on this land.
Soil erosion	When the soil in an area loses its minerals (water or wind erosion) so that it becomes difficult to grow crops there.
Indigenous tribes	A group of people who live traditional lives in places (like the rainforest).

F.	Rainforest features (3)
Rainforest layers	Forest floor, understorey, canopy, emergent layer.
Nutrient cycle	Nutrients move from living things to litter and the soil in a continuous cycle, keeping both plants and soil healthy.
Drip tip leaves	A plant adaptation that lets excess water drip off leaves quickly.

G.	Desert characteristics (4)
Diurnal range	Differences between the highest day and lowest night time temperature.
Nocturnal	Animals only come out at night.
Cactus	Long root systems to get as much water as possible from dry ground.
Camel	Webbed feet to help walk in sand.

# HISTORY (ENGLISH CIVIL WAR AND THE SLAVE TRADE)

## TIMELINE

1603	James I becomes King of England
1605	The Gunpowder Plot almost destroys Parliament
1625	Charles I becomes King of England
1629	The start of the 'eleven-years tyranny'
1642	Start of the English Civil War
1648	Parliament wins the Second Civil War
1649	Trial and execution of Charles I; England declared a Commonwealth
1653	Oliver Cromwell becomes 'Lord Protector'
1658	Death of Oliver Cromwell
1660	Restoration of the monarchy with Charles II
1607-1732	British colonies established in North America. Britain became dominant European trader of slaves throughout the 17th-19th century
1789	Olaudah Equiano wrote the story of his life.
1791	Haitian/ St Domingue rebellion led by Toussaint L'Ouverture. Led to Haiti declaring independence.
1797	William Wilberforce joined 12 opponents of slavery including Thomas Clarkson. He made speeches in parliament.
1807	The Slave Trade was abolished by parliament.
1833	Slavery was abolished in the British Empire

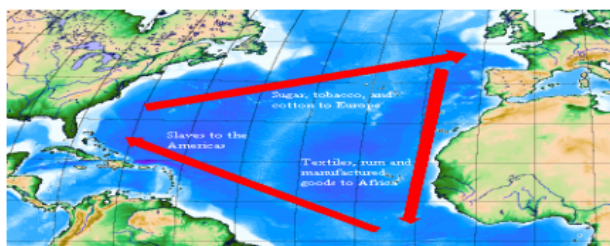
## KEY PEOPLE

James I of England (James VI Of Scotland)	King of England from 1603-1625. He succeeded Elizabeth changing the English royal house from Tudor to Stuart.
Charles I	King of England from 1625-1649 he was the second Stuart king and was executed by Parliament in 1648 following the English Civil War.
Charles II	King of England from 1660-1685 he was nicknamed the 'merry monarch' as he liked to have parties.
Oliver Cromwell	Parliamentary general who led the Parliamentarians to win the English Civil War. Later became Lord Protector of the Commonwealth in 1653
William Wilberforce	A Member of Parliament. He fought a twenty year battle to make the Slave Trade illegal. He successfully won his cause in 1807.
Olaudah Equiano	Olaudah Equiano was a freed slave who wrote an autobiography about his life. In it he describes how he was kidnapped with his sister at around the age of 11, sold by local slave traders and shipped across the Atlantic to Barbados and then Virginia. The Interesting Narrative of the Life of Olaudah Equiano or Gustavus Vassa, the African'. He travelled widely promoting the book, which became immensely popular, helped the abolitionist cause, and made Equiano a wealthy man. It is one of the earliest books published by a black African writer.

## DIAGRAMS

### The Trade Triangle

The trade triangle is the name given to the three-legged journey which was undertaken by European powers in the 16—19th centuries. (1) British enslavers sailed from ports including Glasgow, Liverpool and Bristol to West Africa. It was there that West Africans were exchanged for trade goods such as brandy and guns. (2) Those enslaved people were then taken via the 'Middle Passage' across the Atlantic for sale in the West Indies and North America. As many as 2 million enslaved people died during the journey via the Middle Passage due to the terrible conditions on board the ships. (3) British enslavers sold the enslaved people in the West Indies and North America. They brought a cargo of rum, sugar, and other raw or goods back to England to sell. Over 12 million Africans were taken from Africa and transported to the Americas in the years 1532-1832.



## THE ABOLISHMENT OF SLAVERY

### Role of Individuals

- William Wilberforce was born on 24 August 1759 in Hull, the son of a wealthy merchant. He was an English politician who became the voice of the abolition movement in Parliament. He believed that he has been called by God to end the Slave Trade and worked tirelessly for 20 years to win enough votes. Even though he lost the first debate by 163 votes to 88, he never gave up and in 1807 the Slave Trade Abolition Act was passed with only 16 MP's voting against it.
- Granville Sharp was born on 10 November 1735 in Durham. He was one of eight children and his father was a clergyman. His interest in slavery began in 1765 after he befriended Jonathan Strong, a slave who had been badly beaten by his master. When Strong's former owner attempted to sell him back into slavery in the Caribbean, Sharp took a successful case to the lord mayor and Strong was freed. He also famously argued that instead of the 'loss of cargo' regarding the deaths of the slaves on board the slave ship *Zong* should be treated as murder.
- Thomas Clarkson was born in Wisbech, Cambridgeshire in 1760, the eldest of 3 children of the local headmaster. He became instrumental in the abolition of slavery movement by collecting evidence which showed the brutality of slavery (shackles/ models of trading ships). This evidence helped visualise the horrors of slavery and were able to change public opinion.

### Economics

- Adam Smith was an influential economist who argued in his pioneering work *The Wealth of Nations* that it was more profitable for slaves to be freed.
- On plantations, many enslaved Africans tried to slow down the pace of work by pretending to be ill, causing fires, 'accidentally' breaking tools. Whenever possible, enslaved Africans ran away. This made slavery less profitable. In essence Smith argued that Slavery created an inefficient market in that slave owners were forced to purchase and maintain slaves.
- He argued it would be cheaper to pay blacks a low wage and not provide them with food, housing, or clothing than to continually buy new slaves and provide for them.

### Role of the slaves themselves

- An ex slave, Olaudah Equiano wrote the story of his life as a slave. His book dispelled many misconceptions about the perceived intellectual inferiority of black people and convinced many that slavery was wrong.
- During the late 18th and early 19th century, slave revolts few bigger. Slaves made it clear that, if they were not set free, they would soon free themselves. In the Caribbean they averaged at least two rebellions a year during the period 1789-1815.
- A slave rebellion led by Toussaint L'Ouverture on the French island of St Dominique in the 1790's was successful and led to the French government declaring slavery illegal in all of its territories.



# HISTORY (ENGLISH CIVIL WAR AND THE SLAVE TRADE)

## Key Terms :

<b>Absolutist</b>	A ruler who has supreme authority and power.
<b>Abolition</b>	The act off officially ending or stopping something, e.g. slavery.
<b>The Abolitionists</b>	The leading campaigners against slavery.
<b>Boycott</b>	To stop buying and/ or using goods or a service as a form of protest.
<b>Campaign</b>	To work in an organised way towards a common goal, usually a political or social one.
<b>Divine Right of Kings</b>	The belief that Kings gained their authority from God and no earthly authority can hold them accountable.
<b>Parliament</b>	A collection of people representing all parts of England, who approve or reject laws.
<b>Plantation</b>	A large estate on which crops such as coffee, sugar, tobacco and cotton are grown.
<b>Regicide</b>	The deliberate killing of a monarch, or the person responsible for doing so.
<b>Resistance</b>	Refusing to accept something and challenging it within their means e.g. cultural resistance.
<b>Restoration</b>	The return of the monarch to England with Charles II's coronation in May 1660.
<b>Ship Money</b>	A tax imposed on coastal towns to pay for their defence from naval attack during a war.
<b>Trade Triangle</b>	A three-point trade process, from the transportation of commodities to West Africa, enslaved Africans to The Americas and raw materials (sugar, tobacco, coffee and cotton) to Britain.
<b>Transatlantic Slave Trade</b>	The transportation by slave traders of enslaved African people, to the Americas, from the 16th to the 19th centuries.

## Knowledge Outcomes:

1.Which royal dynasty began with James I?	The Stuarts	15.What was transported on the first leg of the Trade Triangle and where from and to?	Commodities like weapons and fabric from Britain to Africa.
2.Why were Catholics angry with James I's religious policy?	It was a continuation of Elizabeth's and was intolerant of Catholics.	16.Who rounded up Africans and imprisoned them to trade with Europeans?	African war tribes, such as the Ashante tribe evolved to round up Africans and march them to the coast.
3. What did the gunpowder plotters hope to achieve?	To blow up the houses of Parliament, killing the king and replacing him with his daughter.	17.What was the name of the second leg of the trade triangle?	The Middle Passage.
4.Why were people suspicious of Charles I's marriage?	The monarch should be Protestant but he had married a French Catholic so many believed he was secretly Catholic.	18.What was the ship called where slaves were thrown overboard in 1781 and then won insurance on grounds of 'damaged product'?	The Zong.
5.Why was the period for 1629 known as the 'eleven-years tyranny'?	Charles dissolved parliament in 1629 and ruled alone, collecting taxed without parliament's permission.	19. Which products were usually grown on West Indies plantations?	Tobacco, sugar, coffee and cotton
6.Which tax did Charles collect in 1634 and again in 1635?	Ship Tax	20.What is an example of punishment for attempting to run away?	Mutilation; flogging; being kept in irons.
7.What group of radical Protestants was becoming more powerful in parliament?	Puritans	21.When did Wilberforce propose the abolition bill?	Every year between 1890 and 1806.
8.What was Charles tried for in 1648?	Treason and for being a tyrant and a public enemy responsible for all the death and destruction of the Civil War.	22.What did Thomas Clarkson do in his campaign?	Travelled the northern cities telling hem about the horrific truth of slavery and proposing petitions for ordinary workers to sign.
9. What was the name of Cromwell's new army?	The New Model Army	23.What was the religious group who supported abolition?	The Quakers.
10. What was the nickname of the Parliamentarian army?	The Roundheads	24.Which black abolitionist wrote a best selling narrative account based on his own life in 18789?	Olaudah Equiano.
11. What was the nickname of the royalist army?	The Cavaliers	25.How did slaves resist their treatment?	Cultural resistance; working slowly; rebellions.
12. Who became Lord Protector of the Commonwealth?	Oliver Cromwell	26. In what year was slavery made illegal throughout the British Empire?	1833 The Slavery Abolition Act.
13. What country was Oliver Cromwell particular ruthless with?	Ireland		
14. What two interpretations are there with Oliver Cromwell?	Hero/Villain		

### Units of Measure

#### Metric units of length

Kilometres  $\xrightarrow{\times 1000}$  Metres  
 $\xleftarrow{\div 1000}$

Metres  $\xrightarrow{\times 100}$  Centimetres  
 $\xleftarrow{\div 100}$

Centimetres  $\xrightarrow{\times 10}$  Millimetres  
 $\xleftarrow{\div 10}$

#### Metric units of mass

Tonne  $\xrightarrow{\times 1000}$  Kilograms  
 $\xleftarrow{\div 1000}$

Kilograms  $\xrightarrow{\times 1000}$  Grams  
 $\xleftarrow{\div 1000}$

Grams  $\xrightarrow{\times 1000}$  Milligrams  
 $\xleftarrow{\div 1000}$

#### Metric units of volume

Centilitres  $\xrightarrow{\times 100}$  Litres  
 $\xleftarrow{\div 100}$

Litres  $\xrightarrow{\times 1000}$  Millilitres  
 $\xleftarrow{\div 1000}$

#### Units of time

Hours  $\xrightarrow{\times 60}$  Minutes  
 $\xleftarrow{\div 60}$

Minutes  $\xrightarrow{\times 60}$  Seconds  
 $\xleftarrow{\div 60}$

### Key Vocabulary

Parallel lines	Lines that are <b>equidistant</b> (of equal distance) and will never meet
Angles	A measure of a turn
Acute angle	Less than $90^\circ$
Obtuse angle	Greater than $90^\circ$ and less than $180^\circ$
Right angle	Exactly $90^\circ$
Reflex angle	Greater than $180^\circ$ and less than $360^\circ$
Straight line	Angles = $180^\circ$
Angles around a point	= $360^\circ$
Regular polygon	A polygon with equal side lengths and equal angles

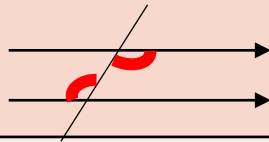
### Angles in Polygons

Angles in a triangle	Sum to $180^\circ$	
Angles in a quadrilateral	Sum to $360^\circ$	
Sum of interior angles in a polygon	$(n - 2) \times 180$	Where $n$ = the number of sides
Exterior angles	Sum to $360^\circ$	Where $n$ = the number of sides
Interior angles + Exterior angles = $180^\circ$		
For regular polygons only: exterior angle = $360 \div n$		

# MATHS

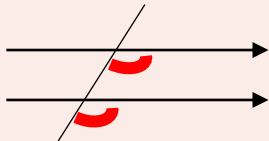
## Angles in Parallel Lines

### Alternate Angles



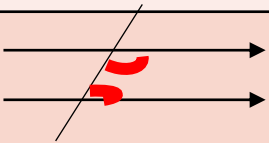
Alternate angles are equal

### Corresponding Angles



Corresponding angles are equal

### Co-interior Angles



Co-interior angles sum to  $180^\circ$

## Key Vocabulary

### Fraction

A mathematical expression representing the **division** of one integer by another.

### Decimal

A decimal number is often used to mean a number that uses a decimal point followed by digits that show a value smaller than 1.

### Percentage

Percent means "per 100". 1% means 1 per 100.

### Recurring decimal

A decimal in which a number or group of numbers is repeated indefinitely; e.g.  $0.33333333\ldots$  we show this as  $0.\dot{3}$ .

### Terminating decimal

A decimal number that contains a finite number of digits after the decimal point.

Fraction	Decimal	Percentage
$\frac{1}{2}$	0.5	50%
$\frac{1}{4}$	0.25	25%
$\frac{3}{4}$	0.75	75%
$\frac{1}{5}$	0.2	20%
$\frac{1}{10}$	0.1	10%
$\frac{1}{3}$	$0.\dot{3}$	$33.\dot{3}\%$

## Ratio

Ratios are used to show how things are shared.  
For example, for every 3 red marbles there are 2 blue marbles.  
The ratio of red to blue marbles is 3:2



### Simplifying a ratio

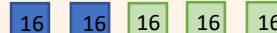
Ratios can be simplified just like fractions. Keep them **equivalent** by dividing **all** parts of the ratio by the same number. Simplify fully by dividing by the highest common factor.

$$\begin{array}{ccc} 54:36 & & \\ \div 18 & \leftarrow & \div 18 \\ 3:2 & & \end{array}$$

### Sharing into a ratio

You can share into a ratio by dividing the amount you are sharing by the total number of parts.

For example, share £80 into the ratio 2:3.

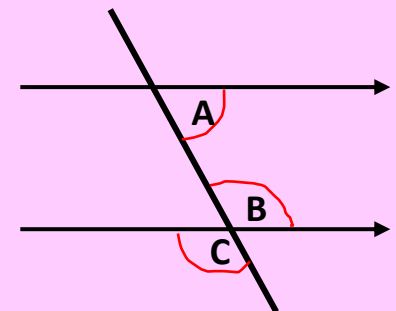


- 1) Represent the parts of the ratio as boxes
- 2) There are 5 boxes in total, so divide your total by 5 ( $80 \div 5 = 16$ )
- 3) This means that 16 goes in each box. Total the parts of the ratio.

## Stretch and Challenge

The ratio of angle A to angle B is 4:5.

Calculate the size of angle C.



# MUSIC

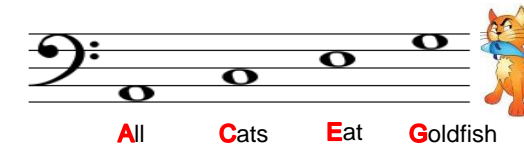
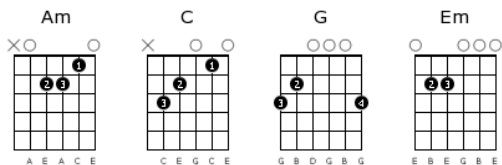
## Keywords

Dynamics	Symbol	Definition
Fortissimo	<i>ff</i>	Very Loud
Forte	<i>f</i>	Loud
Mezzoforte	<i>mf</i>	Moderately loud
Mezzopiano	<i>mp</i>	Moderately quiet
Piano	<i>p</i>	Quiet
Pianissimo	<i>pp</i>	Very quiet
Crescendo	$\text{>}$	Becoming gradually louder
Decrescendo	$\text{<}$	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

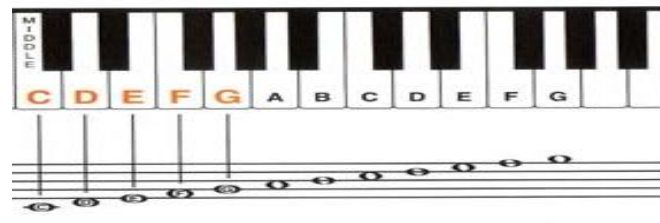
## Stretch and Challenge

Can you play these chords on a guitar?



## Common Chord Guide

<b>A</b>	A C# E	<b>D</b>	D F# A
<b>Am</b>	A C E	<b>E</b>	E G# B
<b>Bb</b>	Bb D F	<b>Em</b>	E G B
<b>B</b>	B D# F#	<b>F</b>	F A C
<b>Bm</b>	B D F#	<b>Fm</b>	F Ab C
<b>C</b>	C E G	<b>G</b>	G B D
<b>Cm</b>	C Eb G	<b>Gm</b>	G Bb D



Intro

- Sets the scene of the song.
- Builds up, catchy.

Verse

- Tells a story.
- Dynamics are quieter from the instruments to allow the voice to be heard.
- Different lyrics each time.

Chorus

- Very catchy (sing along).
- Repeats throughout the song (the same each time).
- Loudest part of the song.

Solo

- Lead instrument usually guitar plays a melody (based on the vocal melody).
- No vocals.

bridge

- New musical idea that you will probably only hear once, usually after the second chorus.

Pre-Chorus

- A section that links two sections together (usually verse-chorus-solo).

Fade out

- A song gradually gets quieter while repeating the chorus.

Outro

- Section on the end of the song that completes the chorus.

# PHYSICAL EDUCATION

## Components of Fitness

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

## What KPIs will I be assessed in?

1	Fluency of Skills	6	Reflection of Personal Goals
2	Understanding Simple/Complex Tactics	7	Personal Fitness
3	Evaluate Performance	8	Components of Fitness
4	Leadership	9	Mental/Social/Physical Wellbeing
5	Implementing 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.



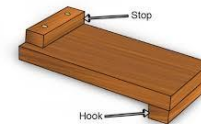
**Bevel Edge Chisel** for removing wood. Always chisel away from yourself. Use only for cutting wood – they must be razor sharp!



**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.



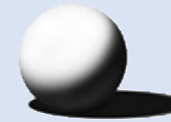
**Machine Tools** You must not use these unless you have been shown how to by a teacher and you understand! Always ask if you are unsure.

**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

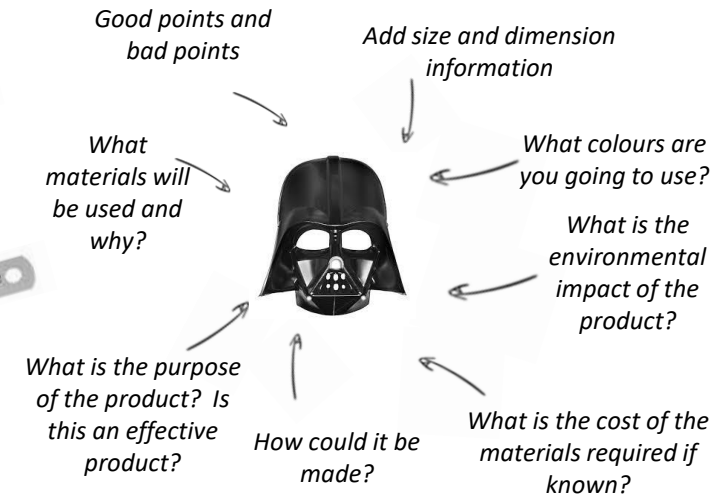
We use this for drilling vertical holes in material. Almost always you will clamp your work down first. Wear glasses, use the guard and know how to turn it off in an emergency. Do not use if you are unsure – ask!



## 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.

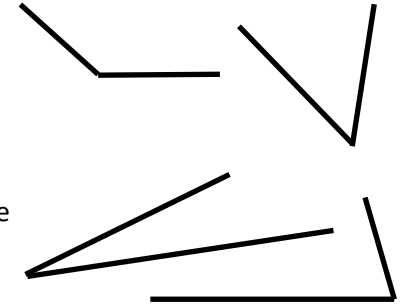
Angles: measured using a protractor and using degrees. A right angle =  $90^\circ$ . There are  $360^\circ$  in a circle.

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

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

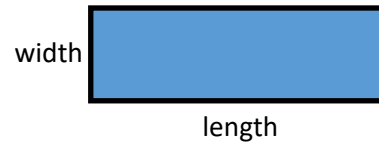
Examples:

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  $\text{cm}^2$  or  $\text{m}^2$  for larger problems.

Area of a rectangle = width  $\times$  length



Examples – rectangle area

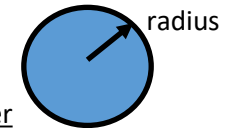
- 1) If the width of a piece of fabric is 10 cm and its length is 15 cm, what is its area in  $\text{cm}^2$ ?
- 2) Width = 12 cm, length = 32 cm, what is the area?
- 3) Width = 3 m, length = 8 m, what is the area in  $\text{m}^2$ ?

Answers below.

Area of a circle =  $\pi r^2$

$\pi = 3.142$

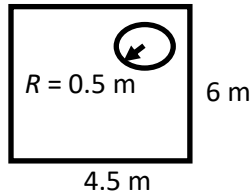
The radius is half the diameter



Examples – circle area

- 1) If the radius of a piece of metal is 5 cm what is its area in  $\text{cm}^2$ ?
- 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  $\text{m}^2$ , 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)  $150 \text{ cm}^2$ , 2)  $384 \text{ cm}^2$ , 3)  $24 \text{ m}^2$   
 Circle area: 1)  $78.57 \text{ cm}^2$ , 2)  $28.2 \text{ cm}^2$ , 3)  $283.6 \text{ m}^2$ , 4)  $452.4 \text{ cm}^2$   
 Harder question: rectangular area  $27 \text{ m}^2$ ; circle area  $.78 \text{ m}^2$ ; total area =  $26.21 \text{ m}^2$ ; carpet cost = £314.55

# RELIGIOUS EDUCATION (ISLAMIC BELIEFS AND PRACTICES)

Keyword	Definition	Prophets	Explanation
Hijrah	Departure or exit. Muslims often use this term to refer to emigration of Muhammad* from Makkah to Yathrib.	Adam	This prophet was the first of human race. He is thought to be the first prophet by Muslims. He was also the first man whom Almighty Allah had created from the elements of clay. Allah taught this prophet the names of all things.
Madinah	The city that Muhammad* emigrated to. Madinah means ‘the city of the messenger’.	Ibrahim (Abraham)	This prophet was born into to a polytheistic family. He rejected polytheism and believe in one God. He was instructed to build the Kab’ah in Makkah that was the first place where one God was worshipped without idols. His faith was also tested by Allah as he was told to sacrifice his son. But eventually Allah told him not to.
Makkah	The city where the Prophet Muhammad* was born.		
Monotheist	A person who believes in one God.	Musa (Moses)	This prophet was born a Jew but brought up by Pharaoh's daughter. He killed an Egyptian and fled to Madyan where Allah called him to lead the slaves out of slavery in Egypt and into Allah’s promised land. He was given the word of God in the Tawrut (Torah) but the people often rejected and distorted his message.
Prophet	Inspired teacher or proclaimed of God.		
Qur’an	The Qur’an is the Islamic holy book. Muslims believe that the words of the Qur’an are the words of Allah. Before the Qur'an can be touched, wudu must be performed; this is ceremonial washing.	Isa (Jesus)	This prophet was the son of Maryum. He was conceived by power of God. Jewish authorities wanted to crucify Him but God would not allow it to happen. Muslims believe that this prophet did not die but was taken up by Allah to heaven. Muslim tradition asserts that he will return before the end of the world and gather all true Muslims together.
Revelation	Allah revealed his nature to people.		
Shi’a Muslims	Shi’a Muslims believe that Muhammad* was the last prophet, the Qur’an was the word of God and that there is one single God. However, they also believed that after Muhammad**’s death, Muhammad**’s cousin, Ali should have been the successor.	*Muhammad	Muhammad was born in 570 CE and when his parents died he was young, so he was bought up by his uncle. Muhammad went to work for a lady called Khadijah as a market trader when he was old enough. He eventually married her. He was not happy with the world around him and often went to pray in a cave. One day, an angel appeared to him in the cave and, suddenly, he could read and the angel gave him the first words of the Qur'an. He came out from the cave and told everyone about Allah and how they were meant to live. It took Muhammad a long time to establish Islam. He fought many battles and people tried to assassinate him.
Submission	Complete obedience to God.		
Sunni Muslims	Sunni Muslims believe that Muhammad* was the last prophet, the Qur’an was the word of God and that there is one single God. However, they also believed that after Muhammad**’s death, Abu Bakr should have been the successor.		
Tawhid	Absolute oneness.	<b>CHALLENGE</b> Go to the links below and extend your knowledge on Muslim beliefs and practices. <ul style="list-style-type: none"><li>• <a href="http://www.bbc.co.uk/religion/religions/islam/">http://www.bbc.co.uk/religion/religions/islam/</a></li><li>• <a href="https://www.bbc.com/bitesize/topics/zdprkqt">https://www.bbc.com/bitesize/topics/zdprkqt</a></li></ul>	
Ummah	The single community of Muslims.		
Yathrib	The city that Muhammad* emigrated to, which on Muhammad**’s arrival changed its name to Madinah.		

# RELIGIOUS EDUCATION (ISLAMIC BELIEFS AND PRACTICES)

Beliefs	Explanation
<b>The Six Articles of Faith</b>	<p>The Six Articles of Faith are the six main beliefs held by Muslims today:</p> <ol style="list-style-type: none"> <li>1. Belief in one God</li> <li>2. Belief in angels</li> <li>3. Beliefs in holy texts</li> <li>4. Belief in prophets</li> <li>5. Belief in judgement day</li> <li>6. Belief in God's authority</li> </ol>
<b>The Night of Power</b>	<ul style="list-style-type: none"> <li>• Muhammad* was born in 570 CE.</li> <li>• His parents died when he was young so he was bought up by his uncle.</li> <li>• Muhammad* went to work for a lady called Khadijah as a market trader when he was old enough. He eventually married her.</li> <li>• He was not happy with the world around him and often went to pray in a cave.</li> <li>• One day an angel appeared to him in the cave and suddenly he could read. The angel gave him the first words of the Qur'an.</li> <li>• He came out of the cave and told everyone about Allah and how they were meant to live.</li> <li>• It took Muhammad* a long time to establish Islam. He fought many battles and people tried to assassinate him.</li> </ul>
<b>Why is Muhammad* so important to Muslims today?</b>	<ul style="list-style-type: none"> <li>• Muhammad* could not read but an angel visited him when he was praying in a cave. The angel said that he was Allah's messenger. These words became the first words of the Quran.</li> <li>• Makkah is where Muhammad* set up the first Muslim community and it is now a very important town, where all Muslims try to visit it at least once in their lifetime.</li> <li>• He is often regarded as the founder of Islam. He was the last prophet to be sent by Allah.</li> </ul>

Practices	Explanation
<b>The Five Pillars</b>	<p>These are five rules or principles that a Sunni Muslim must follow. The Five Pillars of Islam help a Sunni Muslim to worship Allah and guide his daily life.</p> <ol style="list-style-type: none"> <li>1. Shahadah – the statement of faith. This is said at birth, death and prayer. "There is no God but God (Allah), and Muhammad* is his messenger."</li> <li>2. Salah – prayer. Sunni Muslims pray five times a day either at home or in a mosque. Before they pray they must perform wudu (a washing ritual).</li> <li>3. Zakah – Muslims believe that all wealth belongs to God and therefore it should be shared out fairly and equally. They give 2.5% of their savings to charity each year.</li> <li>4. Sawm – fasting. Muslims fast during the month of Ramadan because they believe that it teaches them to have patience and not to just give up when things become difficult.</li> <li>5. Hajj – pilgrimage. All Muslims are expected to make the pilgrimage to Makkah at least once during their lifetime. It lasts five days and there are lots of different rituals they must perform during this time.</li> </ol>
<b>Ramadan</b>	<p>During Ramadan, Muslims celebrate the time when the verses of the Qur'an were revealed to the Prophet Muhammad*. Ramadan is a time of worship and contemplation. A time to strengthen family and community ties.</p> <p>Eid-ul-Fitr (Id-ul-Fitr)- The festival for the first day after Ramadan. This marks the breaking of the fast for Muslims at the end of Ramadan. Lasting three days, it is a time for family and friends to get together, for celebrating with good food and presents for children and giving to charity.</p>
<b>Islamic Relief</b>	<p>Islamic Relief Worldwide is an international humanitarian organisation that provides development programs and humanitarian relief around the globe, regardless of race, political affiliation, gender or belief. Islamic Relief believe that together we will inspire and enable people to respond rapidly to disasters and fight poverty through our Islamic values, expertise and global reach.</p>

# SCIENCE (8CM EARTH MATERIALS CHEMISTRY)

## Section 1: Rock Properties

Which rocks are these features common in?

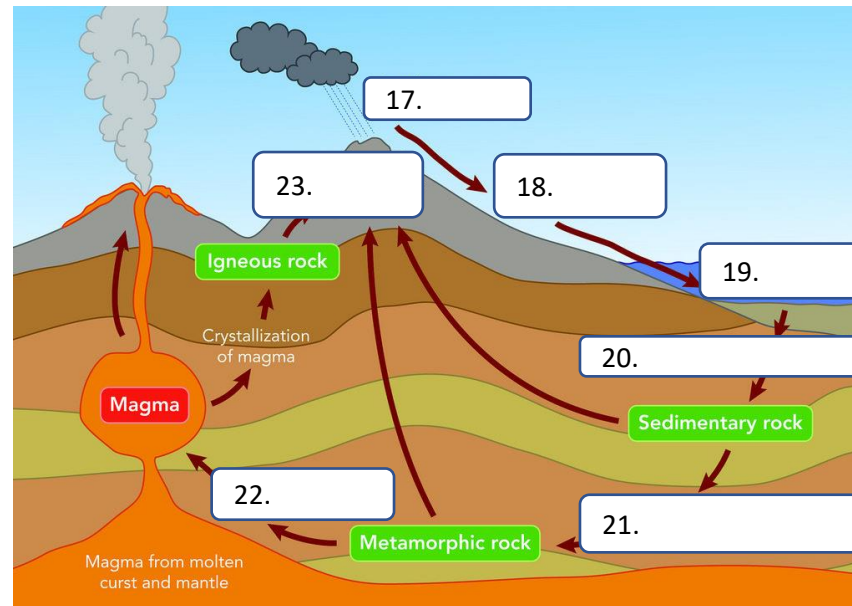
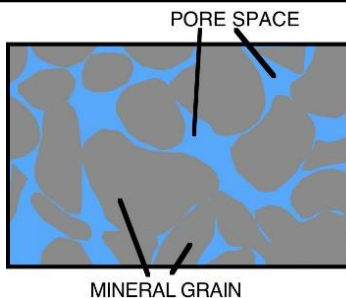
Keyword	Meaning and example	Sedimentary rocks	Metamorphic rocks	Igneous rocks
1. Rock	A substance made of <b>minerals</b>	ALL	ALL	ALL
2. Porosity	Holes within a rock, such as pumice	Y		
3. Permeability	The ability of water to flow through a porous rock	Y		Only pumice
4. Texture	i.e. crumbly (sandstone), brittle (slate)	Y		
5. Density	i.e. high density (granite), low density (pumice)	LOW	MEDIUM	HIGH
6. Layers	Sediment grains are deposited in layers	Y		
7. Layers of Crystals	When a rock experiences heat and pressure		Y	
8. Small Crystals	Formed by extrusive magma, cooled fast			Y
9. Large Crystals	Formed by intrusive magma, cooled slow			Y

## Section 2: Weathering and Erosion

Keyword	How the process works:
10. Weathering	The act of weather conditions breaking down rocks, either by <b>physical</b> , <b>biological</b> or <b>chemical</b> weathering
11. Erosion	The gradual destruction by wind, water or other natural agents
12. Freeze-Thaw	Hot-cold climates (i.e. desert): water enters rock, freezes, expands then melts. This repeats until a rock breaks
13. Onion Skin	Hot-cold climates (i.e. desert): rock surface expands during hot days, contracts during colder night until outer 'layers' break off
14. Abrasion	The <b>removal of rock edges</b> by friction/movement
15. Transportation	Rocks can be moved by <b>water, wind</b> and <b>ice</b>
16. Deposition	Rocks are dropped off after being transported

## Section 3: The Rock Cycle

17.	Weathering and erosion
18.	Transportation and deposition
19.	Sedimentation
20.	Compaction and cementation
21.	High temperature and high pressure
22.	Melting
23.	Uplift to surface

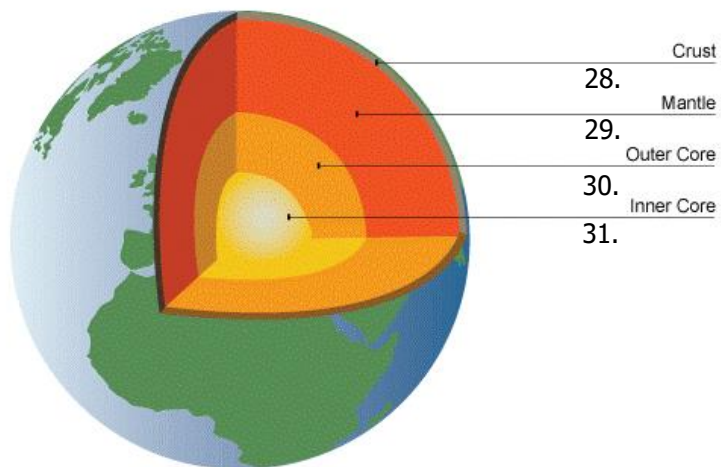


## Section 4: Rock Types

24. Sedimentary rocks	Layers of sediment are deposited, pressure forces the water out of the voids between grains, cementing the rock and making it hard. <b>LAYERS FORM, CAN CONTAIN FOSSILS</b>
25. Metamorphic rocks	Rocks are buried by later layers. The rocks at the bottom are subjected to <b>HEAT</b> and <b>PRESSURE</b> . Minerals are forced out forming crystals. <b>LAYERS DISTORTED, CRYSTALS MAY APPEAR,</b>
26. Igneous rocks	Molten rock (lava = above ground, magma = below ground) cools and hardens, forming crystals. Usually producing very hard and dense rocks. <b>NO FOSSILS, SMALL or LARGE CRYSTALS</b>

## Section 5: Structure of the Earth

Layer	Composition
<b>27. Atmosphere</b>	79% nitrogen, 20% oxygen and 1% other
<b>28. Crust</b>	thin, rocky, outer layer
<b>29. Mantle</b>	molten rock
<b>30. Outer Core</b>	liquid nickel and iron
<b>31. Inner Core</b>	solid iron



## Section 6. Carbon Compounds as Fuels and Feedstock

Hydrocarbon	A chemical made of only carbon and hydrogen
Crude oil	A mixture of hydrocarbons found in rock
Alkanes	Saturated hydrocarbons (without double bond)

## Section 7. Alkanes

General formula	$C_nH_{2n+2}$	
Name	Molecular formula	Displayed formula
Methane	$CH_4$	$\begin{array}{c} H \\   \\ H-C-H \\   \\ H \end{array}$
Ethane	$C_2H_6$	$\begin{array}{c} H & H \\   &   \\ H-C & -C-H \\   &   \\ H & H \end{array}$
Propane	$C_3H_8$	$\begin{array}{c} H & H & H \\   &   &   \\ H-C & -C & -C-H \\   &   &   \\ H & H & H \end{array}$
Butane	$C_4H_{10}$	$\begin{array}{c} H & H & H & H \\   &   &   &   \\ H-C & -C & -C & -C-H \\   &   &   &   \\ H & H & H & H \end{array}$

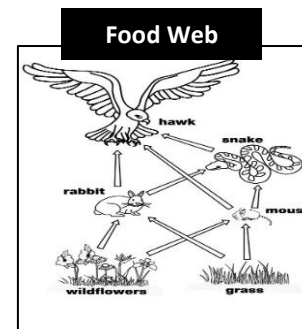
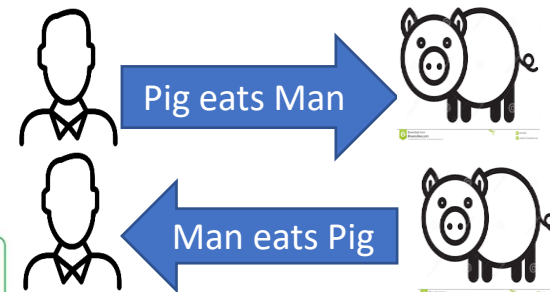
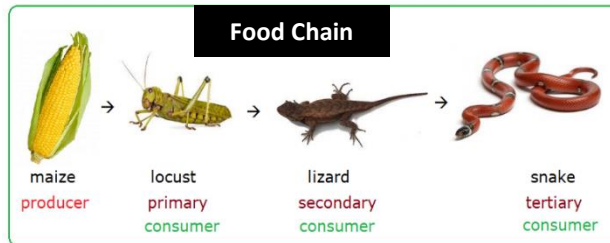


# SCIENCE (8BE ECOLOGICAL RELATIONSHIPS AND CLASSIFICATION)

A. Keywords	Meaning
1. Adaptations	The features that plants and animals have to help them live in a particular place.
2. Community	All the plants and animals that live in a habitat.
3. Distribution	The places where an organism can be found in a habitat.
4. Environment	The conditions around a certain organism caused by physical environmental factors.
5. Habitat	The place an organism lives in (e.g. woodland).
6. Physical environmental factors	The non-living conditions in the environment of an organism (e.g. temperature, light).
7. Quadrat	A square frame, thrown randomly on the ground, which is used to sample plants in an area.
8. Food chain	A way of showing what eats what in a habitat.
9. Food web	Many food chains linked together.
10. Producer	Organism, usually a plant, that makes its own food through photosynthesis.
11. Consumer	Organism that eats producers or other consumers.
12. Carnivore	Organism that only eats other consumers (always at least a 2 <sup>nd</sup> consumer).
13. Herbivore	Organism that eats only producers (always a 1 <sup>st</sup> consumer).
14. Omnivore	Organism that eats both producers and consumers.
15. Predator	Organism that hunts and eats other animals.
16. Prey	Organism that is hunted and eaten by a predator.
17. Decay	The process where dead organisms are broken down into small nutrients to be recycled.

## B. Food chains and webs

Food chains and Food Webs show who eats what in an ecosystem.  
Arrows in a food chain show the flow of energy....

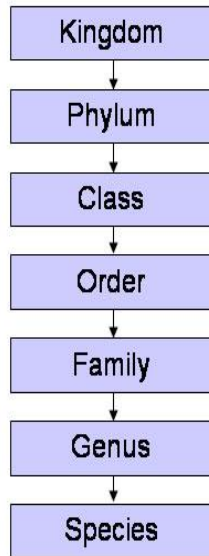


## C. Natural selection and evolution

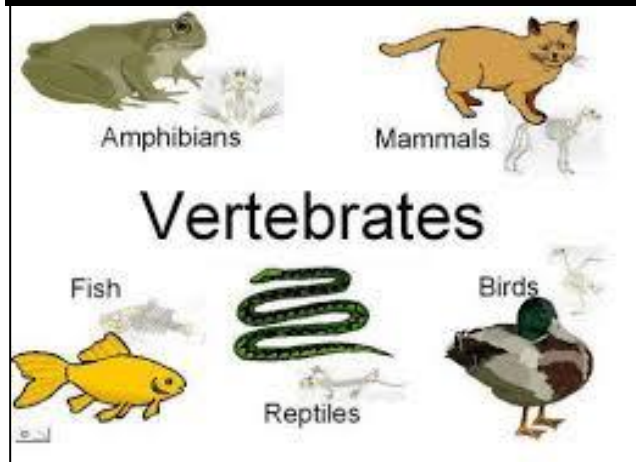
Biodiversity	The total different number of species in an ecosystem. More biodiversity is a good thing.
Natural selection	"The survival of the fittest" The organisms that is best adapted will survive longer and pass on their genes to the next generation.
Evolution	Natural selection over long periods of time leads to permanent adaptations.
Fossils	These provide evidence of evolution.
Extinction	When every single organism of a species dies. Often cause by environmental disaster, disease or predator.

# SCIENCE (8BE ECOLOGICAL RELATIONSHIPS AND CLASSIFICATION)

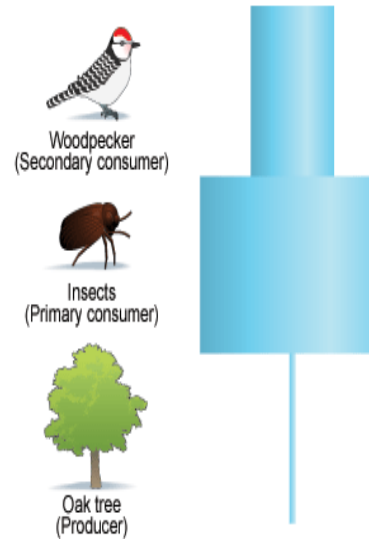
## D. Linnaeus Classification



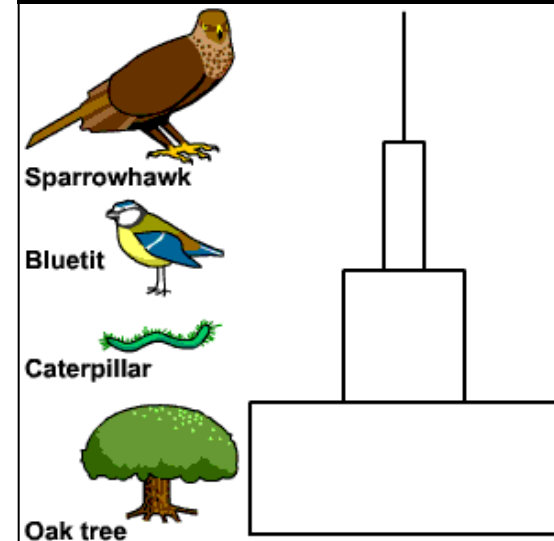
## E. Chordates



## F. Pyramid of Number (not always pyramid shaped)

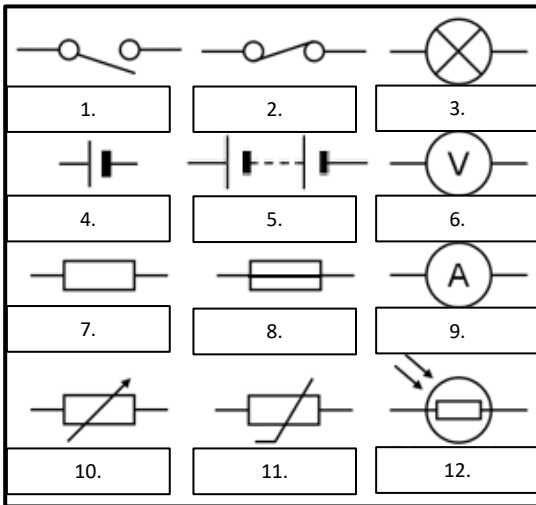


## G. Pyramid of Biomass (always pyramid shaped)



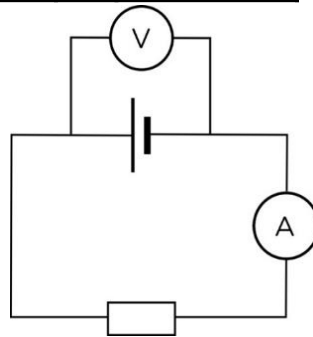


# SCIENCE (8PE ELECTRICITY AND MAGNETISM)



1	Open switch	7	Resistor
2	Closed switch	8	Fuse
3	Bulb	9	Ammeter
4	Cell	10	Variable Resistor
5	Battery	11	Thermistor
6	Voltmeter	12	Light Dependent Resistor

	Series	Parallel
Components	connected on one loop	connected by separate loops
Current	same everywhere on circuit	shared evenly between loops
Voltage	shared between components	same everywhere



Property	Unit	Unit Symbol
Voltage or Potential Difference (V or p.d)	Volts	V
Current (I)	Amps (Amperes)	A
Resistance (R)	Ohms	$\Omega$



**Conductor:** allows charge to flow through it. Does not hold charge, e.g. ALL metals and graphite.  
**Insulator:** does not allow current to flow. Holds charge, e.g. wood, plastic, glass, rubber.

4

<b>Keywords</b>	
Poles	The ends of the magnets (South/North)
Charge	Positive or negative (+ / -)

Magnetic field lines:  
Lines with arrows that move from North to South.

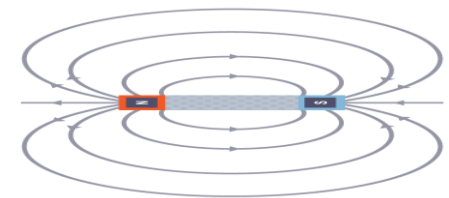
Electromagnet:  
A magnetic field caused by current flowing through a conductor.

To increase the strength of an electromagnet you can do the following:

1. Increase the turns of the coil
2. Increase the current
3. Use a soft iron core

Similarities between magnets and charges:

Poles/Charges	<b>Like/same</b>	<b>repel</b>	each other
	<b>Opposites</b>	<b>attract</b>	each other



## Vocab Set 1 – people and places

1) España	Spain
2) Polonia	To/in Poland
3) Alemania	To/in Germany
4) México	To/in Mexico
5) los Países Bajos	To the Netherlands
6) los Estados Unidos	To the United States
7) Mis amigos	My friends
8) Mi familia	My family
9) Mi mejor amigo	My best friend
10) Mi instituto	My school

## Vocab Set 2 – activities

1) Hacer senderismo	to do some hiking
2) Hacer navegacion	to do some sailing
3) Sacar fotos	to take photos
4) Hacer la natación / nadar	to do some swimming
5) Hacer la equitación / montar a caballo	to do some horseriding
6) Descansar	to relax
7) Tomar el sol	to sunbathe
8) Comprar recuerdos	to buy souvenirs
9) Salir	to go out
10) Ir de fiesta	to party

## Vocab Set 3 – (revision) places in town and transport

1) En avion	by plane
2) En barco	by boat
3) En coche	by car
4) En bicicleta	on a bike
5) A pie	on foot
6) Al estadio	to the stadium
7) Al mercado	to the market
8) A la playa	to the beach
9) A la piscina	to the pool
10) A las tiendas	to the shops

**Model Answer – describe your typical holidays, where you went last year and where you would like to go in the future**

Normalmente, me gusta pasar las vacaciones en Madrid con mi familia.

Normally I like to spend the holidays in Madrid with my family

para que pueda hacer senderismo y sacar fotos.

So that I can do hiking and take photos.

Voy a Madrid porque hay muchas tiendas y museos.

I go to Madrid because there are lots of shops and museums.

También, se puede ir en avión así que es rápido.

Also, you can get there by plane so it's fast.

El año pasado fuimos a España

Last year we went to Spain

y quedamos en un hostel.

And we stayed in a hostel.

Leímos unas revistas y vimos la tele.

We read some magazines and watched the TV.

Un día, me gustaría ir a Polonia

One day, I would like to go to Poland

para que pueda visitar las ruinas famosos.

So that I can do visit the famous ruins.

¡Sería la leche!

It would be awesome!

Me gustaría encontrar un pueblo donde se puede nadar en el mar.

I would like to find a town where you can do some windsurfing.

## Vocab Set 4 – adjectives and places to stay

1) Quedamos	We stayed...
2) En un hostel	in a hostel
3) En una cabaña	in a cabin/cottage
4) En una tienda (de campaña)	in a tent
5) En un hotel de cinco estrellas	in a 5 star hotel
6) En un campamento	on a campsite
7) Estupendo	terrific
8) Tan sucio	so dirty
9) Demasiado ruidoso	too noisy
10) Muy tranquilo	very calm

## Vocab Set 5 – past tense activities

1) Vimos	We watched
2) Visitamos	We visited
3) Comimos	We ate
4) Leímos	We read
5) Fuimos	We went
6) Bebimos	We drank
7) Hicimos	We did
8) Hice	I did
9) Fui	I went
10) Fue	It was

## AIM HIGH PHRASES

1) Que se llama...	Who is called...
2) Hay que ser honesto,	I have to be honest,
3) Para que pueda	So that I can...
4) Sería mejor si fuera...	It would be better if I was...
5) Después de haber comido,	After having watched...
6) Lo que más me gusta es...	What I like the most is...

# 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.



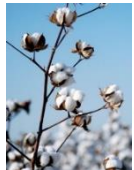
**SILK**



**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**



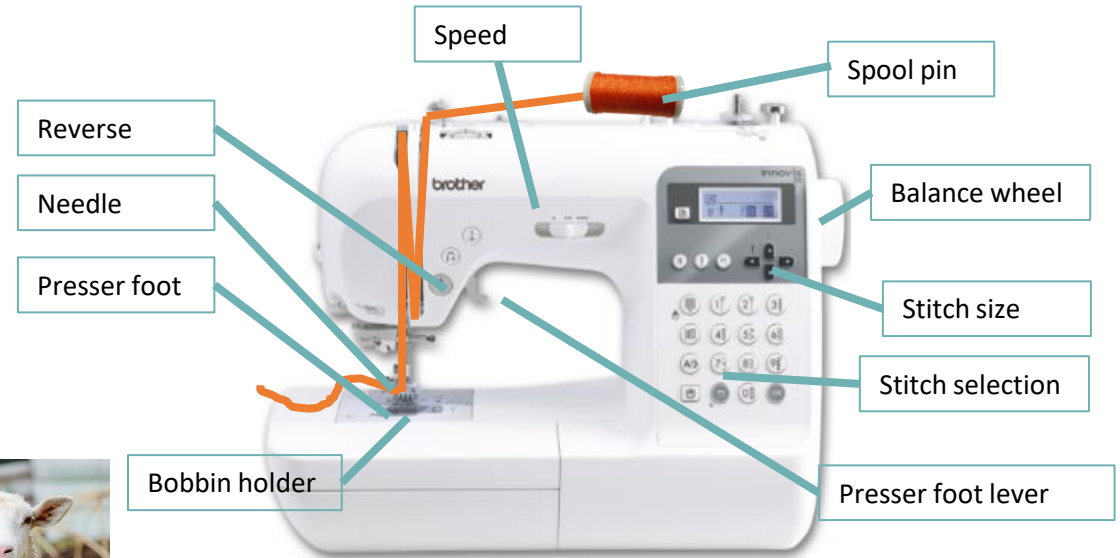
**BATIK**



**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.

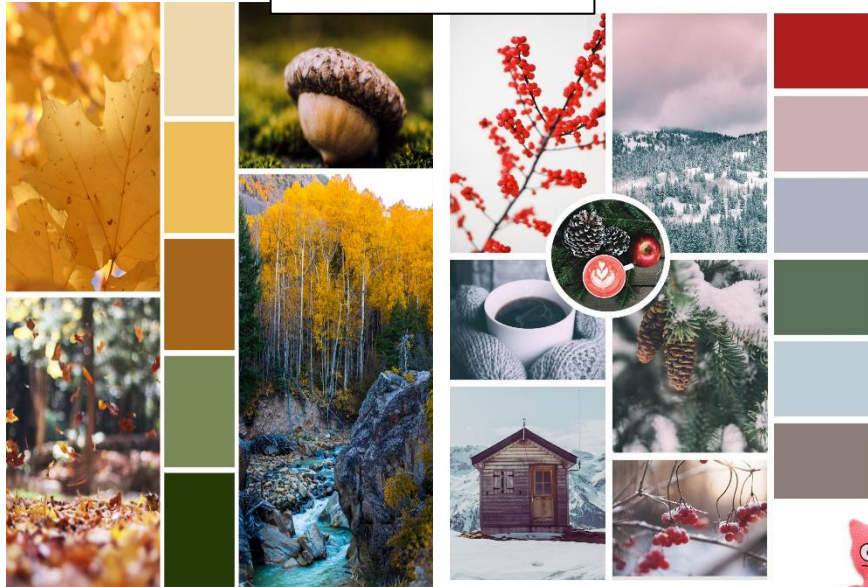




# TEXTILES



**MOOD BOARDS**

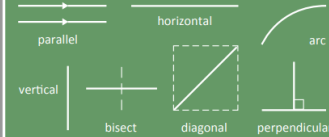


**SEASONAL MASCOTS**



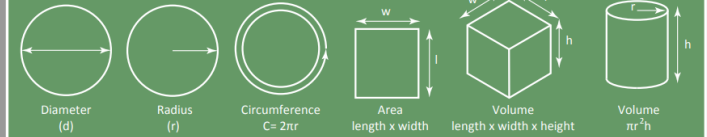
## LINES

What do each of following lines mean



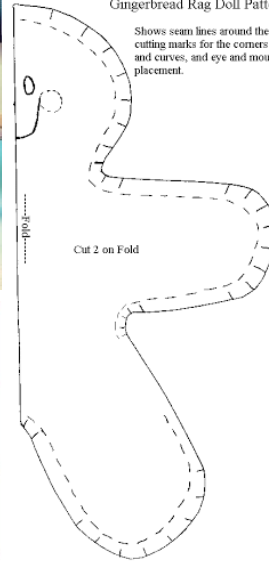
## SHAPES

How to measure different shapes



## Gingerbread Rag Doll Pattern

Shows seam lines around the doll, cutting marks for the corners and curves, and eye and mouth placement.



## PATTERN MAKING



## Fabric widths

90cm	115cm	120cm	140cm	150cm
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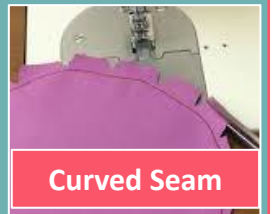


## Seam Allowance

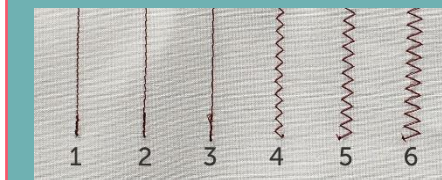
1cm small products  
1.5cm fashion items



**Straight Seam**



**Curved Seam**



## Stitch lengths and widths