



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

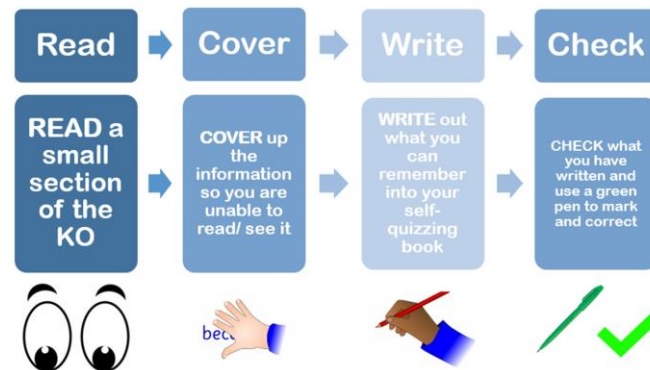


Year 7

Knowledge Organiser: Cycle 3

Name: _____

Tutor group: _____



Article 29:

Education must develop every child's personality, talents and abilities to the full. **UNCRC**

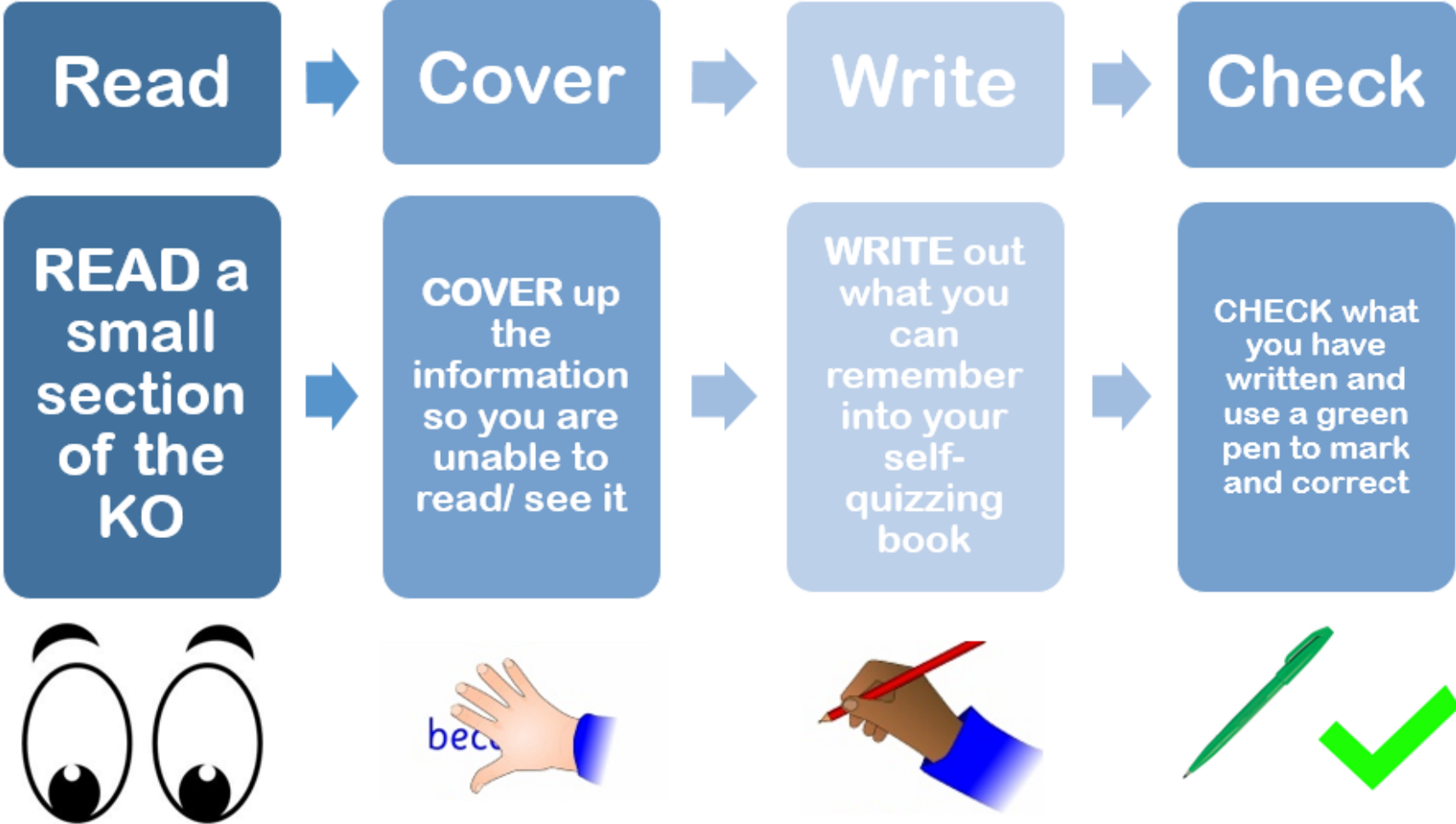
Your Knowledge Organiser

- 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 Your 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



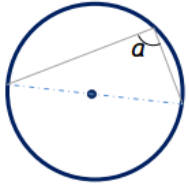
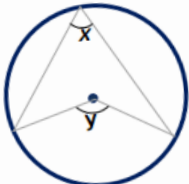
Using Your Knowledge Organiser for Revision

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

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

Feedback

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

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

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

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

The Literacy Mat

Connectives

Adding Ideas

Furthermore, in addition, similarly, also, and, too.

Showing Difference

But, however, on the other hand, although, whereas, alternatively, arguably.

Evaluating

Consequently, surprisingly, significantly, interestingly, unexpectedly.

Listing

Firstly, secondly, last, then, next, finally.

Common Mistakes

Correct Capital Letters

To start EVERY sentence.

For 'I' (as in 'I went').

For ALL names.

Film/book names.

NeVeR To be uSed

RanDomLy!

Would HAVE' vs 'Would OF'

NEVER use 'of' after a modal verb:

'Would have' NOT 'would of'

'Could have' NOT 'could of'

'May have' NOT 'may of'

'Should have' NOT 'should of'

'Might have' NOT 'might of'

Great Big Nevers!

Gonna - going to

Ain't - am not

We/they was - we were

Gotta - have got to

Innit - isn't it

Gotten - got

Coz/cause - because

Homophones

To/too - I went to school (towards).

I ate too much (more than enough).

I am happy too (also).

Their/there/they're - They're (they are) over there (that place) reading their (belonging to them) books.

Your/you're - Your work is great (belonging to you). You're awesome (you are).

Correct Sentences

Simple Sentence - must contain a verb and a subject.

subject verb
Matt was very cold today.
subject verb
I always eat breakfast in the morning

Compound Sentence - two simple sentences joined by a connective.

connective
I tried to speak slowly **but** I was far too excited.

connective
Dan is very organised and he always helps others.

Complex Sentence - contains a simple sentence and one or more 'subordinate clauses' (extra information!).

subordinate clause comma
When he handed in the homework, the teacher knew he had worked hard on it.
comma comma
She told a joke, **which was hilarious,** to her friends. subordinate clause

Proof Reading

Follow this checklist when proof-reading or editing your work, especially assessments!

1. Check your presentation: Underline your date, title and any subtitles. Check that your work is laid out in paragraphs.
2. Skim read: Make sure capital letters and full stops are 100% accurate.
3. Skim read again: Check that your complex sentences have accurate commas.
4. Skim read again: Check the spelling of words you are not sure about (neighbour/dictionary/teacher/literacy mat).
5. Read a final time but carefully: Do ALL of your sentences make sense? Is there a better, clearer way of explaining/describing something?

Apostrophe Rules

1. Contractions

The apostrophe is put in the place of missing/omitted letters:
I will becomes I'll / should not becomes shouldn't etc.

2. Possession

If something belongs to someone, we put an apostrophe, then an 'S':
Toby's football / The dog's collar / The door's handle.
But if the name already ends in an 'S', you just put an apostrophe:
Chris' guitar / Jess' book / Mr Jones' classroom.

3. Plural Possession

If something belongs to a group, we just put an apostrophe at the end.
The class' whiteboard / The boys' shoes.

4. It's vs Its

'It's' should ONLY have an apostrophe if it is being shortened from 'it is'.
NEVER for possession: Its legs were long and hairy.

Never use an apostrophe for plurals! Carrot's / Ball's / CD's

The Literacy Mat: Common Spellings

<p> accommodation actually alcohol although analyse/analysis argument assessment atmosphere audible audience autumn beautiful beginning believe beneath buried business caught chocolate climb column concentration conclusion conscience conscious consequence continuous creation </p>	<p> daughter decide/decision definite design development diamond diary disappear disappoint embarrass energy engagement enquire environment evaluation evidence explanation February fierce forty fulfil furthermore guard happened health height imaginary </p>	<p> improvise industrial interesting interrupt issue jealous knowledge listening lonely lovely marriage material meanwhile miscellaneous mischief modern moreover murmur necessary nervous original outrageous parallel participation pattern peaceful people </p>	<p> performance permanent persuade/persuasion physical possession potential preparation prioritise process proportion proposition questionnaire queue reaction receive reference relief remember research resources safety Saturday secondary separate sequence shoulder sincerely </p>	<p> soldier stomach straight strategy strength success surely surprise survey technique technology texture tomorrow unfortunately Wednesday weight weird women </p>
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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 an education.' The Rights of the Child.

right to learn and use their language.' Article 28: 'Every child has the right to an education.'



<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	Solution
Descending	Decimal
Denominator	Percentages
Numerator	Binary
Solve	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

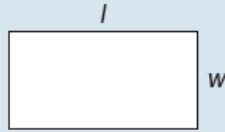
Keywords

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

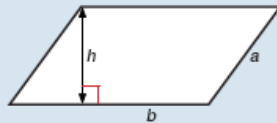
Maths Core Knowledge

Areas

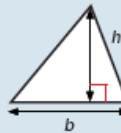
Rectangle = $l \times w$



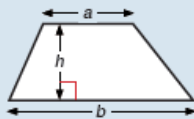
Parallelogram = $b \times h$



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

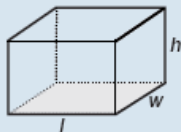


Trapezium = $\frac{1}{2}(a + b)h$

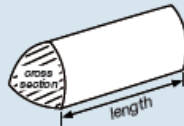


Volumes

Cuboid = $l \times w \times h$



Prism = area of cross section
x 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

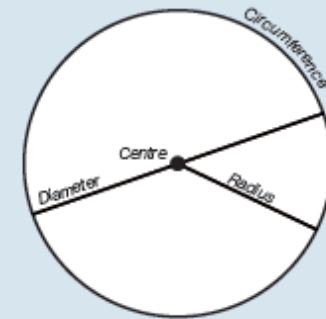
$$\text{density} = \frac{\text{mass}}{\text{volume}}$$

Circles

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

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

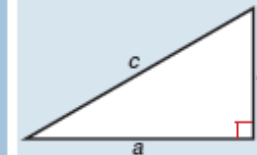
Area of a circle =
 $\pi \times \text{radius squared } A = \pi r^2$



Pythagoras

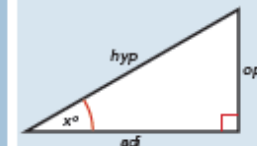
Pythagoras' Theorem

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

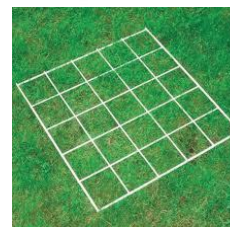


Measuring cylinders – 10 ml cylinders will allow measurement to the nearest 0.1 ml.

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.

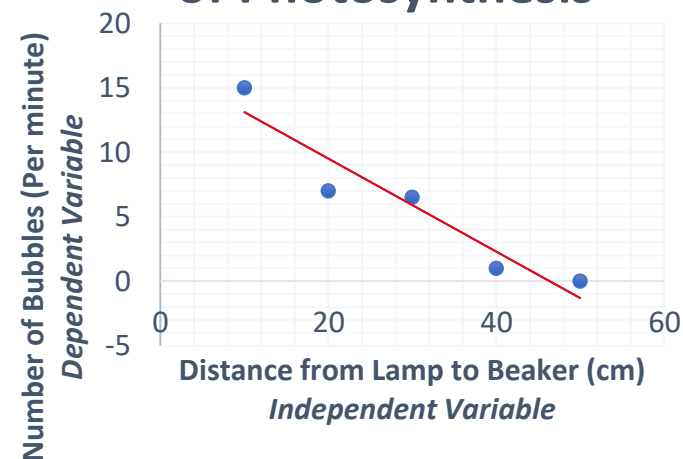
Science Core Knowledge

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

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

Drawing

Mark-making

Basic shapes/accuracy of outline shapes

Tone – shading from dark to light and directional shading

Portrait basic – proportions

Painting

Colour mixing, blending, directional brushstrokes.

Printing

Mono – printing

3D

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

Photography

Photography for recording ideas – basic editing on phones

Literacy

To be able to explain ideas, and reflect on your own work.

To be able to write about an artwork, describing it in detail using the model 'form, content, process, mood.'

Vocabulary

Colour

Tone – Darks and lights and everything in between

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

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

Portrait – An artwork focussing on a person's face.

Proportion – The size things are in comparison to each other

Blending – Mixing colours or tones together

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

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

Form – The 3D shape of something

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

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

Stretch/Further Reading

Drawing

1. Complete drawings of anything from real life each week, focussing on the actual shape.
2. Complete some 'blind contour' drawings.

<https://www.bing.com/videos/search?q=blind+contour+drawing&&view=detail&mid=645E010C9DA18F675865645E010C9DA18F675865&&FORM=VDRVRV>

3. See how many different tones/shaded you can get out of an HB pencil.

4. Find out about traditional African Art:
 - a. How is Moroccan Art different from the Art of Kenya?

- b. How was Picasso influenced by African Art?

5. If possible visit the British Museum in London

<https://www.bing.com/videos/search?q=british+museum+african+art&view=detail&mid=2AEAAA6B885C5075FC092AEAAA6B885C5075FC09&FORM=VIRE>

Artists

Find out about the following artists:

- **Van Gogh**
- **Matisse**
- **Paul Klee**
- **Picasso**

Computing – Web Design / HTML

Start Tag	End Tag	HTML Example	Resulting Text
<code></code>	<code></code>	Defines <code>bold</code> text.	Defines bold text.
<code><i></code>	<code></i></code>	Defines <code><i>italicized</i></code> text.	Defines <i>italicized</i> text.
<code><u></code>	<code></u></code>	Defines <code><u>underlined</u></code> text.	Defines <u>underlined</u> text.
<code><sub></code>	<code></sub></code>	Defines subscripted text (i.e. O <code><sub>2</sub></code>)	Defines subscripted text (i.e. O ₂)
<code><sup></code>	<code></sup></code>	Defines superscripted text (i.e. E=mc <code><sup>2</sup></code>)	Defines superscripted text (i.e. E = mc ²)
<code>
</code>		Defines a <code>
</code> New line	Defines a New line
<code></code>	<code></code>	<code>Change the font color</code> Note: The # provided is the RGB number for the desired font color.	Change the font color
<code></code>	<code></code>	<code>Bullet point list</code> <code>Item1Item2Item3</code>	Bullet point list:
<code></code>	<code></code>	Note: The <code></code> tags indicate a bullet point list, and each list item is identified by the <code></code> tags.	<ul style="list-style-type: none"> • Item1 • Item2 • Item3

Homework Checklist

1	More info	Collect pictures and save them in your One Drive
2	Homework – Idea Badges	Junior Web Designer, Making Websites, Graphic Design
3	Keywords from KO	You could also use Quizlet to practice
4	Extension work	https://www.ictlounge.com/html/year_8/webdesign_main.htm

Drama Techniques

- 1 **Narration:** This is vocal storytelling to the audience. Sometimes narration is directly addressed to the audience.
- 2 **Staying in role:** This means keeping/maintaining your character or role and not breaking this by laughing or coming out of character.
- 3 **Scripted drama:** Drama that has been pre-written and planned in a script and intended to be performed on stage.
- 4 **Devised drama:** Drama work that is original and has been made up and not come from a script.
- 5 **Improvised drama:** Drama that is spontaneous and made up on the spot.

Drama Techniques

- 1 **Staging and blocking:** This is about planning out where people will be or where they will move to.
- 2 **Facing and spacing:** This is about making sure that the actors face the audience and use the space well.



Dance: Creating and Developing a Motif

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



Dance

Physical and Expressive Skills

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

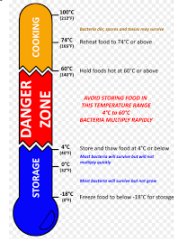
English

Keywords		Language Devices		Parts of Speech			
Evidence	the use of information to prove a point that you are making	Simile	Comparing two objects using 'as' or 'like' to create imagery	Noun	People, place things		
Quotation	a selection of words or phrases taken, word for word, from a text	Metaphor	Comparing one thing to another by saying it is something else	Adjective	Describes a noun		
Fiction	writing that describes imaginary events and people, e.g. <i>Private Peaceful</i>	Personification	Giving inanimate objects human properties	Adverb	Tells you how, when, where or why something is being done		
Non-fiction	writing that describes people's opinions or information on facts and reality, e.g. a newspaper	Pathetic fallacy	When you give human emotions to nature (specifically the weather) to create atmosphere	Verb	Describes an action		
Identify	to pick out a specific piece of information from a text	Alliteration	Words in a passage / sentence that begin with the same sound.	Pronoun	Works as a noun and indicates other people in the discussion		
Inference (noun)	a thought or opinion about a text that is formed by looking at the evidence	Onomatopoeia	Words that sound like the sounds they are describing	Connective	A word used to connect clauses or ideas together		
Infer (verb)	to have a thought or opinion about a text, formed by looking at the evidence	Semantic field	A group of words that suggest a theme / topic	Preposition	Usually used in front of nouns or pronouns and they show the relationship between the noun or pronoun and other words in a sentence		
Explicit	obvious, specific or clear	Structural Devices		Rhetorical Devices			
Implicit	suggested, not openly stated, an educated guess						
Analysis (noun)	the close examination of a text	Sequence	the order of events in a text (opening, middle, end)			Rhetorical question	Asking a question that gets the reader to consider or do something. Used to emphasise a key point.
Narrator	the person telling the story	Flashback / flash-forward	an interruption of the story to describe a past or future event			Direct address	Directing a statement clearly to the reader / audience using the pronoun 'you'.
Perspective	the views and opinions of the writer	Past and present tense	identifying whether the events are happening now, or if they have already happened			Tripartite sequence	When you list three actions or descriptions in a sentence.
		Narrative viewpoint	writing in the first person ('I'), second person ('you'), or third person (he, she, it, names)			Inclusive pronouns	Use of 'us' / 'our' etc. to make the audience feel included and therefore more likely to agree.
		Foreshadowing	hints about what might happen later in the speech			Hyperbole	Exaggerated or over the top language.
						Facts / statistics	A statement that is known or proven to be true.
						Opinions	A view or judgement of something that someone could disagree with.
						Repetition	Words or phrases repeated across a text for emphasis.

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



Macronutrients

Macronutrients are needed by the body in large amounts.

Carbohydrates

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

Fats

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

Protein

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



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



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

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 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 & 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



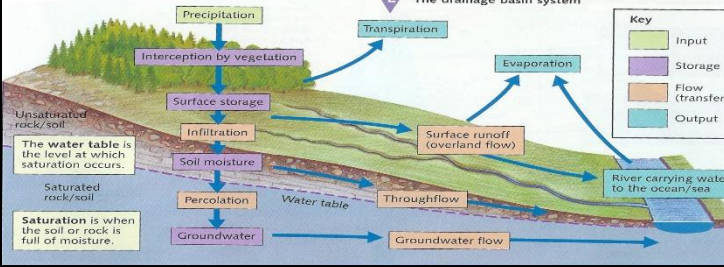
ALWAYS REMEMBER A CONTAINER TO TAKE YOUR FOOD PRODUCTS HOME!!!!

Time Expressions		Verb Phrases (present tense)		Activities (present tense)	
après le collège,	After school	Dans notre collège, il y a...	In our school, there is...	Je mange à la cantine	I eat in the canteen
À huit heures et demie,	At 8:30	Notre collège s'appelle... je vais au collège...	Our school is called... I go to school...	Je vais à un club	I go to a club
Le vendredi,	On Fridays	Il faut (porter)...	You must (wear)...	Je vais à la bibliothèque	I go to the library
Ce soir	This evening	Au collège, on peut...	At school you can...	Je lis mes textos	I read my texts
Pendant la pause,	At break-time	Le soir, on peut...	In the evening you can...	J'écris des textos	I write texts
Les matières = School Subjects		On a	We have...	Je fais mes devoirs	I do my homework
J'apprends...	I learn...	Verb Phrases (future tense)		Je joue au loup	I play tag
Ma matière préférée est...	My favourite subject is...	Je voudrais...	I would like to...	Verb Phrases (Infinitives)	
Je suis fort(e) en...	I am good at...	Je vais...	I'm going to...	étudier	study
Je suis faible en...	I'm weak at	Il sera....	It will be...	Faire un échange scolaire	do a school exchange...
Le français	French	L'uniforme scolaire		Faire une excursion	go on a trip
Le dessin	Art	Un pantalon (noir)	(black) trousers	Se détendre	relax
La géographie	Geography	Un pull	a jumper	faire les devoirs	do your homework
La musique	Music	Un collant	tights	Mes profs = My Teachers	
L'espagnol	Spanish	Une jupe	a skirt	Je pense que ...	I think that...
L'allemand	German	Une cravate	a tie	Je trouve que...	I find that...
L'EPS	P.E.	Une chemise	a shirt	Les profs sont...	The teachers are...
Les sciences	Science	Des chaussures (noires)	(white) shoes	Bien organisé(e)s	well organised
Opinions		C'est chic	It's smart	sévères	strict
À mon avis,	In my opinion,	C'est inconfortable	It's uncomfortable	aimables	helpful
franchement	Honestly,	Le transport		Fous / folles	crazy
Je me passionne pour...	I'm passionate about...	À pied	On foot	Mon collège (My School = Appearance)	
J'en ai marre de...	I've had enough of...	À vélo	By bike	Le bâtiment est...	The building is...
Parce que / car...	Because...	En voiture	By car	Tout(e) neuf(ve)	brand new
C'est facile	It's easy	Core Questions		Vieux / vieille	old
C'est fascinant	It's fascinating	1) Décris ton collègue.	Describe your school.	Impressionnant(e)	impressive
C'est utile	It's useful	2) Quelle est ta matière préférée? Pourquoi?	What is your favourite subject? Why?	Coloré(es)	colourful
C'est incroyable	It's incredible	3) Qu'est-ce qu'on peut faire à ton collège?	What can you do in your school?	Lumineux/ lumineuse	bright
		4) Qu'est-ce que tu vas faire après l'école aujourd'hui?	What are you going to do after school today?	Places in School	
				Les salles (sont)	The classrooms (are)
				Un terrain de foot	a football pitch
				Un centre de sport	a sports centre
				Les couloirs	the corridors

Geography

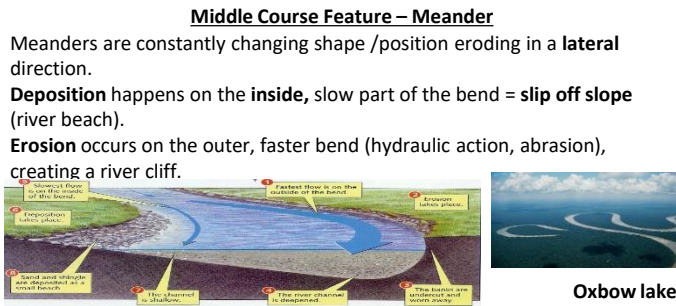
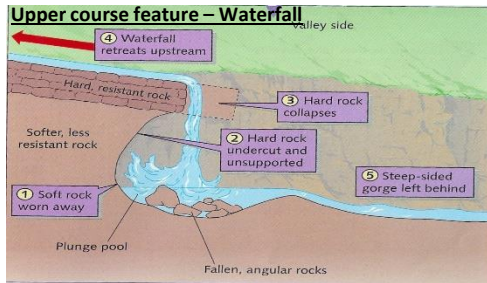
- Drainage Basin:** An area of land drained by a river and its tributaries.
- Watershed:** The dividing line between two drainage basins.
- Source:** Where a river begins (high altitude).
- Mouth:** Where the river enters the sea.
- Tributary:** A river or stream flowing into a larger river or lake.
- Meander:** A bend in a river.
- Confluence:** Where a smaller river meets another river.

The Water (Hydrological) Cycle



Cross Profile

Course	Channel shape	Valley shape	Cross Profile
Upper	Narrow, shallow	V shaped, steep gradient, narrow valley, river takes up valley floor	
Middle	Wider deeper channel	U shaped, gentle sloping valley sides, valley is wider	
Lower	Very wide and deep channel	Open U shaped, almost flat, river only takes up a small proportion of the channel	

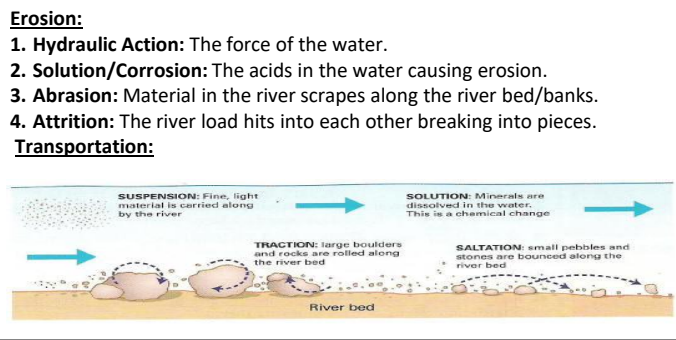
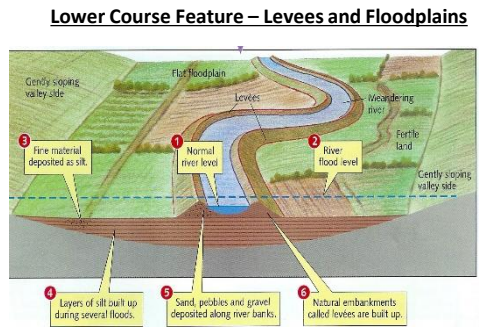


Town of Boscastle, Cornwall, south west of the UK, HIC. 16 August 2004

Causes
Physical factors: A massive downpour of rain (1.4 million litres of rain) in 2 hours. The soil was already saturated (previous rain) which meant increased surface run off. Gradient was steep at Bodmin Moor and it contains impermeable rock. Confluence of the River Jordan and Valency.
Human factors: Building on flood plains, Boscastle has some deforestation. Narrow span bridge across causing bottle neck for debris and river flow.

South Asia, Bangladesh, LIC July and August 2007

Physical factors: Heaviest rain in 50 years – 900 mm in July. This saturated the soils. **Snow melt** from glaciers of the Himalayas. **Low lying country** – 80% lies on floodplains and is 1m below sea level.
Human factors: Building on flood plains, deforestation to use wood for fuel and to build houses for the increasing population in areas such as Nepal. This reduced interception and caused more surface runoff.



Effects

Social: Nobody died, 6 injured, 58 properties damaged – stayed in caravans for 6 months during repairs.
Economic: 25 businesses flooded costing £25 million. Four bridges destroyed – decline in tourism and negative impacts for business.
Environmental: 75 cars washed into the river, causing fuel to leak into both the river and sea, damaging habitats.

Social: 2000 deaths, 25 million homeless.
Economic: Many farms flooded, losing jobs and income. 44 schools destroyed, roads destroyed.
Environmental: 60% of country was under water – leading to farm land being contaminated with sewage.
Secondary Effects: Flood water left mud and raw sewage, as a result 10,000 people caught water borne diseases like cholera. Unemployment, children lost out of schooling. Flooded fields meant a reduced production of rice and so rice prices (rice staple diet) rose considerably.

The river **floods** and water covers the flood plain. The transported material, **silt**, is deposited. Material transported as **solution and suspension** will travel further out increasing soil **fertility**. Heavier material carried by **traction**, is dropped on the river bank, and form a **Levee**.

Causes of Flooding:

Physical – Steep slopes, impermeable rock, saturated ground, snow melt, heavier than average rainfall, meanders, low lying ground.
Human – Deforestation, impermeable surfaces, e.g. tarmac / concrete, urbanisation, storm drains, bridges and pinch points, climate change leading to changes in intensity of rainfall and rising sea levels.

Flood defences – Hard engineering methods:

Dams and reservoirs – control the flow of the river.
Widening and deepening the river – so it can hold more water.
Embankments (levees) – raise the height of the river banks so it can hold more water.
Overflow channels – take excess water away from populated areas.
Straightening the channel – to allow the river to move more quickly past certain locations.

Flood defences – Soft engineering methods:

Afforestation – planting trees to increase interception.
Flood zonation – placing certain buildings in particular flood return periods.
Flood warnings – sirens and messages that warn people to evacuate

Responses

Immediate Responses
 Seven helicopters were scrambled from various counties in the south. Community centre used for evacuation for local people and tourists.
Long term responses
 Rivers were artificially widened and deepened. Rivers were straightened.
 Car park rebuilt on higher ground.
 Bridge spans made wider.
 Culvert built for flood relief.

Immediate

No warning system.
 Many people didn't evacuate areas flooded, as they wanted to stay with their belongings. Destroyed roads slowed down people trying to evacuate. International charities distributed food, water and medical aid.
Long term
 International charities have funded the re-building homes. Some homes and flood shelters rebuilt on stilts.
 Some embankments built along rivers – didn't really work. Provision of flood shelters for people, crops and animals.
 Flood warning system through speakers in villages.

Schulfächer = School Subjects

Deutsch	German
Englisch	English
Erdkunde	geography
Geschichte	history
Informatik	ICT
Kunst	art
Mathe	maths
Musik	music
Naturwissenschaften	science
Sport	PE
Technik	technology
Theater	drama

Opinions
 Mein Lieblingsfach ist = **my favourite subject is**
 Mein Horrorfach ist.. = **my worst subject is...**
 Ich mag... = **I like**
 Ich liebe... = **I love**
 Ich mag... nicht = **I don't like**
 Ich hasse = **I hate**
 Ich finde es.... = **I find it**
 Irre = super
 gut = good
 oll = great
 furchtbar = awful
 einfach= easy
 schwierig = difficult
 Interessant = interesting
 langweilig = boring
 nützlich = useful
 nutzlos = useless
 faszinierend = fascinating
 nervig = irritating
 supercool = really cool
 stinklangweilig = dead boring

Word Order with weil (Because)

Weil is a preposition which changes the word order. It sends the verb to the end of the sentence.
 Always use a comma before **weil** to separate the clauses:
 Eg: ich mag Deutsch, **weil** es toll **ist**

Putting the Verb Second

The **verb** is usually the second idea in a sentence.
 Ich **habe** Deutsch am Mittwoch
 Am Mittwoch **habe** ich Deutsch
 *******und** (and) **aber** (but) **oder** (or) do not change the word order*****

Using the Future Tense

The future tense is made up of 2 parts:
 The correct form of **werden** and the **infinitive**.
 The infinitive goes at the end of the sentence.
 Ich werde **Fussball spielen** = I will play football
 Ich werde **ins Kino gehen** = I will go to the cinema
 Ich werde **Musik hören** = I will listen to music
 Ich werde **fernsehen** = I will watch TV

Die Zeit = Time

Um.....Uhr = at O'clock
 Wie viel Uhr ist es? = what time is it?
 Es ist = it is
 In der ersten Stunde = in the first lesson
 In der dritten Stunde = in the third lesson
 In der Mittagspause = at lunchtime

Meine Freizeit = My Free Time

Ich **spiele** gern **Fussball**
 Ich **fahre** gern **rad**
 Ich **gehe** gern **ins Kino**
 Ich **tanze** nicht gern
 Ich **gehe** nicht gern **einkaufen**
 Ich **höre** nicht gern **Musik**
 einmal **pro Woche**
 jeden **Tag**
 manchmal
 immer
 nie
 am **Wochenende**
 am **Abend**
 heute
 morgen

I **like** playing **football**
 I **like** **cycling**
 I **like** **going to the cinema**
 I **don't** like **dancing**
 I **don't** like **going shopping**
 I **don't** like **listening to music**
 once a **week**
 every **day**
 sometimes
 always
 never
 at the **weekend**
 in the **evening**
 today
 tomorrow

Describing a Photo

Auf dem Foto gibt es **viele Kinder**
 Sie sind **in der Schule**
 Sie lernen **Deutsch**
 Sie sind **glücklich**



Mein Haus = My House

Ich **wohne** in einem **Haus** in **Süde**ngland
 Ich **wohne** in einer **Wohnung**
 In meinem **Haus** gibt es..
 eine **Küche** / ein **Wohnzimmer** /
 ein **Esszimmer** / ein **Badezimmer**
 / **drei Schlafzimmer**
 In meinem **Zimmer** gibt es...
 ein **Bett** / einen **Schrank** / einen
Tisch

I **live** in a house in **south** **England**
 I **live** in a **flat**
 In my house there is a **kitchen**
 / a **lounge**/ a **dining room** / a
bathroom / **3 bedrooms**
 In my room there is a **bed** / a
cupboard / a **table**

History – Medieval Society

Keywords	
Demesne	Land kept by a lord, which peasants had to farm.
Duel	A fight, often to the death, between two people that is used to settle an argument.
Ducking stool	A wooden chair attached to a lever used to submerge a criminal under water.
Squire	The personal servant to a knight aged between 14 and 21 years.
Stocks	A punishment for petty criminals, where wooden boards locked a criminal in place.
Strip farming	The division of fields into many narrow strips worked by different peasants.
Superstition	The belief in supernatural powers.
Trebuchet	An advanced form of catapult using a counterweight and sling.
Trial by jury	A trial where 12 people consider the evidence and decide on the verdict.

Useful links:

<https://www.johndclare.net/KS3/1-6-2.htm>

<https://www.bbc.com/bitesize/guides/zm4mn39/revision/3>

A Day in the Life of a Medieval Lord

Dawn	Hear Mass, followed by a breakfast of white bread and wine.
Morning	The lord would speak with his reeve, the general manager for his manor. His lady would perhaps do embroidery. Knights and pages would practise fighting.
10am	Lunch was normally half-a-dozen simple dishes, but if the lord was entertaining guests there would be many more dishes as well as entertainments such as jesters, fools and jugglers.
Afternoon	Hunting or hawking, or chess and backgammon if the weather was bad.
Late afternoon	Prayers, then a meal. If there were guests, this would be magnificent.
After supper	Listen to the news and stories brought by a travelling minstrel, or just sit and talk.
Bedtime	When the lord decided he wished to go to bed, the household would have a light supper, say prayers and go to sleep.

A Day in the Life of a Medieval Town

4 am	The bell rang to announce the first Mass of the day and the end of the night watchman's duty.
6 am	Shops and market stalls opened.
8 am	Foreign merchants were allowed to start trading.
9 am	Breakfast.
3 pm	Most shops and market stalls closed.
8 pm	Curfew Bell. Town gates closed, houses shut up, the night watch began.

Angles

Angles on a straight line sum to 180°

$$a + b + c = 180^\circ$$

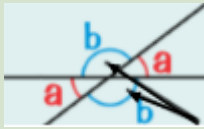


Angles around a point sum to 360°

$$a + b + c + d = 360^\circ$$



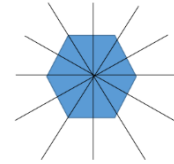
Vertically opposite angles are equal



Symmetry

Line symmetry:

A shape has line symmetry if a line can be drawn through the shape and the image each side of this line is exactly the same. The line is the line of symmetry.

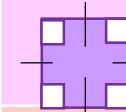


Lines of symmetry = 6

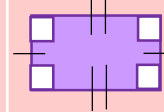
The Quadrilateral Family

Angles in quadrilaterals sum to 360°

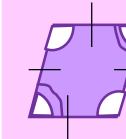
Square
Equal side lengths
Equal angles (all 90°)



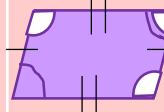
Rectangle
Opposite equal sides
Equal angles (all 90°)



Rhombus
All sides equal
Diagonally opposite angles are equal



Parallelogram
Opposite sides equal
Diagonally opposite angles are equal



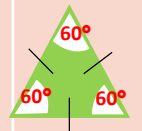
The Triangle Family

Angles in triangles sum to 180°

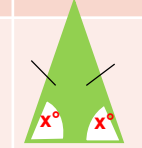
Right-angled Triangle



Equilateral Triangle
Equal side lengths
Equal angles (all 60°)











Isosceles Triangle
Two side lengths equal
Base angles equal





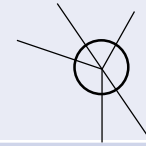
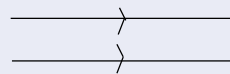
Scalene Triangle
No equal sides or angles



Polygons

Triangle	3 sided polygon	
Quadrilateral	4 sided polygon	
Pentagon	5 sided polygon	
Hexagon	6 sided polygon	
Heptagon	7 sided polygon	
Octagon	8 sided polygon	
Nonagon	9 sided polygon	
Decagon	10 sided polygon	

Key Vocabulary

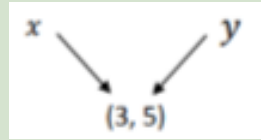
Acute Angle	An angle below 90°
Right Angle	A 90° angle shown with a square 
Obtuse Angle	An angle greater than 90° but smaller than 180°
Straight Line	An 180° angle 
Reflex Angle	An angle greater than 180° but smaller than 360°
Angles around a point	Add up to 360° . 360° are in a circle. As shown: 
Polygon	A 2D shape made from straight lines
Perpendicular	At right angles (90°)
Perpendicular Lines	Lines that meet or intersect at 90°
Parallel Lines	Lines that are equidistant – they will never meet. Shown with arrows: 

Hey diddle diddle,
The **median's** the **middle**,
You **add and divide** for the **mean**.
The **mode** is the one, that you see **the most**,
And the **range** is the **difference between**. **YEAH!**

Maths

Coordinates

Each coordinate has an x -value and a y -value. This allows us to plot them on a graph. The x -coordinate is plotted on the horizontal (x) axis and the y -coordinate is plotted on the vertical (y) axis



Remember!

Always plot the x -coordinate first – think along the corridor, up the stairs.

Key Vocabulary

Axis	A reference line drawn on a graph (you can measure from it to find values). You will be working with graphs that have an x -axis and a y -axis.
Coordinates	A point on a graph described by its x coordinate and y coordinate
Qualitative Data	Descriptive information
Quantitative Data	Numerical information (numbers!)
Discrete Data	Can only take certain values
Continuous Data	Can take any value within a certain range
Average	A single number representative of a set of values – often used to refer to the mean.

Averages and Range

Median	The middle value when the values are in numerical order If there are an even number of pieces of data, then the median will be the midpoint of the two middle pieces of data.	1, 2, 2, 3, 3 , 3, 5, 7, 9 The median is 3 2, 3, 5, 7 , 9, 10 Midpoint of 5 and 7 = 6
Mode	The most frequent piece of unique data. You can have more than one mode.	1, 2, 2, 3, 3, 3 , 5, 7, 9 The mode is 3
Mean	Sum of data \div total pieces of data	$(5 + 3 + 9 + 1 + 3 + 2 + 7 + 2 + 3) \div 9 = \underline{3.9}$ (to 1dp)
Range	(Not actually an average!) The difference between the biggest and smallest piece of data	$9 - 1 = \underline{8}$

Stretch and Challenge

Reverse mean problems:
Can you work out the missing values from the data sets given the mean?

- 1) 4, 5, 9, 2, ?
Mean = 6
- 2) 21, 18, ?, 30
Mean = 25
- 3) 2, 7, 5, 11, 8, ?
Mean = 6

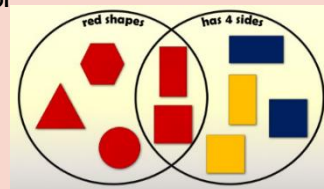
Seven numbers have a range of 10, a median of 8, a mode of 5 and a mean of 8.
What could the seven numbers be?

Two Way Tables and Venn Diagrams



Two way tables are used to compare two types of information for one population. This two way table shows us what subjects a group of pupils prefer, as well as their gender:

	English	Maths	Sci	Total
Girls	20	13	17	50
Boys	18	15	13	46
Total	38	28	30	96

Venn diagrams are essentially ways of **sorting items into groups based on certain criteria**. Differences remain separate entities whilst shared or commonalities are allocated to the **intersection** (the overlap).



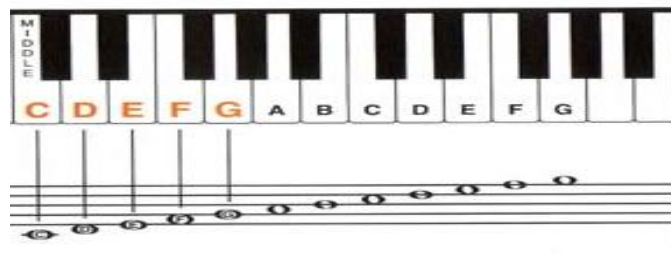
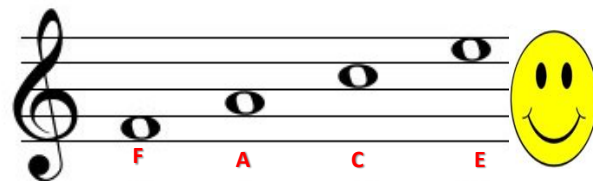
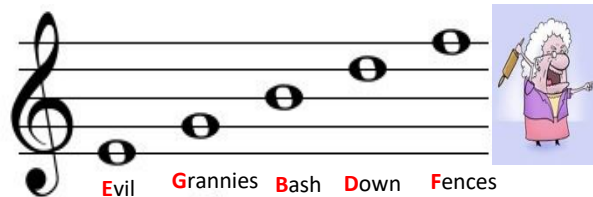
Keywords

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

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

Musical Instrument Families

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



Semi-breve – 4 beats



Minim – 2 Beats



Crotchet – 1 beat



Quaver – ½ Beat



Semi-quaver – ¼ Beat



Spellings to Learn in Music

Rhythm
Rehearsal
Guitar

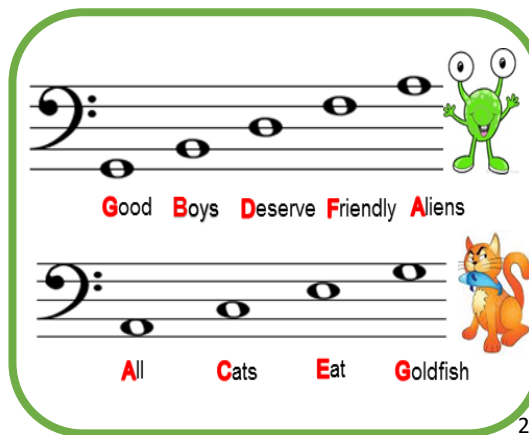
Stretch and Challenge

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

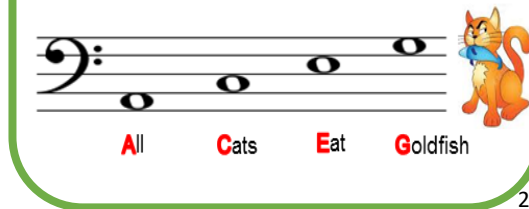
Peter and the Wolf by Prokofiev

<https://www.youtube.com/watch?v=9u>

[eGfjBKbiE](https://www.youtube.com/watch?v=9ueGfjBKbiE)





Good Boys Deserve Friendly Aliens



All Cats Eat Goldfish

Physical Education

Sports	Key Skills	Components of Fitness
<p><u>Invasion</u> Netball Handball Basketball Football Rugby Hockey</p>	 <p>Passing Shooting Dribbling Tackling Catching Throwing Kicking</p> 	<p>Balance – the ability to maintain centre of mass over a base of support. There are two types of balance: static balance and dynamic balance. A gymnast uses static balance when performing a headstand and dynamic balance when performing a cartwheel.</p> <p>Coordination – the smooth flow of movement needed to perform a motor task efficiently and accurately.</p> <p>Reaction Time – the time taken for a sports performer to respond to a stimulus and the initiation of their response.</p> <p>Agility – the ability of a sports performer to quickly and precisely move or change direction without losing balance or time.</p> <p>Power – the product of strength and speed. Expressed as the work done over a unit of time.</p> <p>Muscular Endurance – the ability of the muscular system to work efficiently, where a muscle can continue contracting over a period of time against a light to moderate fixed resistance load.</p> <p>Muscular Strength – the maximum force (in kg or N) that can be generated by a muscle or muscle group.</p> <p>Aerobic Endurance – the ability of the cardiorespiratory system to work efficiently, supplying nutrients and oxygen to working muscles during sustained physical activity.</p> <p>Flexibility – having an adequate range of motion in all joints of the body; the ability to move a joint fluidly through its complete range of movement.</p> <p>Speed – distance divided by the time taken. Speed is measured in metres per second (m/s). The faster an athlete runs over a given distance, the greater their speed.</p>
<p><u>Artistic</u> Gymnastics Trampolining</p>	 <p>Balancing Travel Vaulting Landing Rotation</p> 	<p>Muscular Endurance – the ability of the muscular system to work efficiently, where a muscle can continue contracting over a period of time against a light to moderate fixed resistance load.</p> <p>Muscular Strength – the maximum force (in kg or N) that can be generated by a muscle or muscle group.</p> <p>Aerobic Endurance – the ability of the cardiorespiratory system to work efficiently, supplying nutrients and oxygen to working muscles during sustained physical activity.</p> <p>Flexibility – having an adequate range of motion in all joints of the body; the ability to move a joint fluidly through its complete range of movement.</p> <p>Speed – distance divided by the time taken. Speed is measured in metres per second (m/s). The faster an athlete runs over a given distance, the greater their speed.</p>
<p><u>Striking and Fielding</u> Stoolball Rounders Cricket Softball Tennis</p>	 <p>Striking Hitting Catching Throwing Stopping</p> 	<p>Muscular Endurance – the ability of the muscular system to work efficiently, where a muscle can continue contracting over a period of time against a light to moderate fixed resistance load.</p> <p>Muscular Strength – the maximum force (in kg or N) that can be generated by a muscle or muscle group.</p> <p>Aerobic Endurance – the ability of the cardiorespiratory system to work efficiently, supplying nutrients and oxygen to working muscles during sustained physical activity.</p> <p>Flexibility – having an adequate range of motion in all joints of the body; the ability to move a joint fluidly through its complete range of movement.</p> <p>Speed – distance divided by the time taken. Speed is measured in metres per second (m/s). The faster an athlete runs over a given distance, the greater their speed.</p>
<p><u>Athletics</u> Track events Field events</p>	 <p>Sprinting Jumping Throwing Pacing</p> 	<p>Muscular Endurance – the ability of the muscular system to work efficiently, where a muscle can continue contracting over a period of time against a light to moderate fixed resistance load.</p> <p>Muscular Strength – the maximum force (in kg or N) that can be generated by a muscle or muscle group.</p> <p>Aerobic Endurance – the ability of the cardiorespiratory system to work efficiently, supplying nutrients and oxygen to working muscles during sustained physical activity.</p> <p>Flexibility – having an adequate range of motion in all joints of the body; the ability to move a joint fluidly through its complete range of movement.</p> <p>Speed – distance divided by the time taken. Speed is measured in metres per second (m/s). The faster an athlete runs over a given distance, the greater their speed.</p>
<p><u>Swimming</u> Strokes Life Saving</p>	 <p>Body Legs Arms Breathing Timing</p> 	<p style="text-align: center;"><u>STRETCH AND CHALLENGE</u></p> <p>Leadership within PE lessons:</p> <ul style="list-style-type: none"> ▪ Are you able to identify the correct technique for a particular skill? ▪ Are you able to demonstrate this to your peers? ▪ Are you able to identify a WWW and EBI for someone else's performance? ▪ How can you use your experience in a specific sport to coach someone else safely and correctly? ▪ Do you know how to communicate effectively with others? ▪ Can you demonstrate resilience (R6), determination (R5), confidence, teamwork, respect, independence (R8), enthusiasm and creativity (R7)?

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.



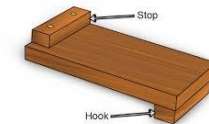
Bevel Edge Chisel for removing wood. Always chisel away from yourself. Use only for cutting wood – they must be razor sharp!



Steel Rule for 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.

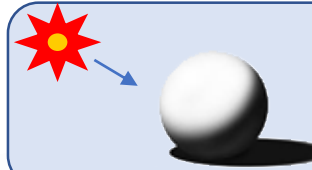


Pillar Drill

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!

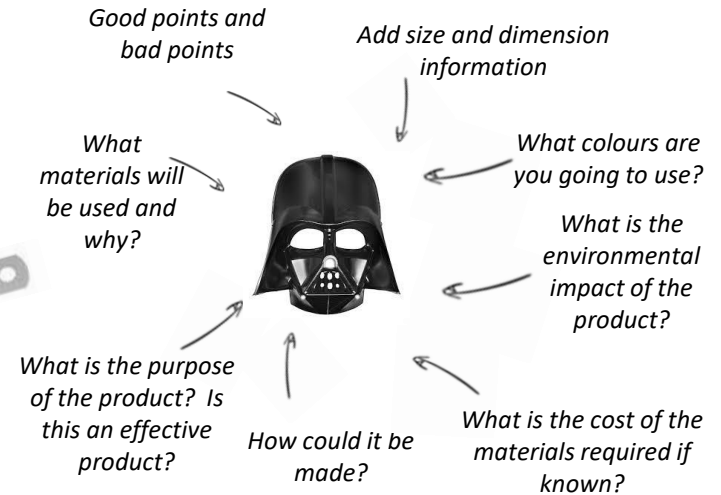


Rendering



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

Measuring

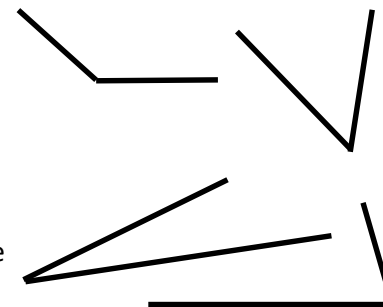
Length: measured using a steel rule or ruler. For small measurements we use mm then cm and m for larger ones.

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

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

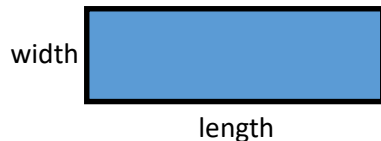
- 1) _____
- 2) _____
- 3) _____

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



Area – the two-dimensional space taken up by something; for example, the area of a sheet of material like card. Measured in either cm² or m² for larger problems.

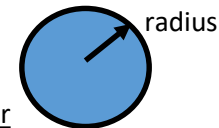
Area of a rectangle = width × length



Area of a circle = πr^2

$\pi = 3.142$

The radius is half the diameter

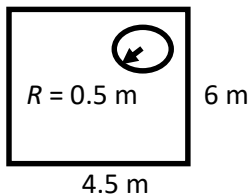


Examples: rectangle area

- 1) If the width of a piece of fabric is 10 cm and its length is 15 cm, what is its area in cm²?
 - 2) Width = 12 cm, length = 32 cm, what is the area?
 - 3) Width = 3 m, length = 8 m, what is the area in m²?
- Answers below.

Examples: circle area

- 1) If the radius of a piece of metal is 5 cm, what is its area in cm²?
 - 2) Radius is 3 cm, what is the area?
 - 3) Radius = 9.5 cm, what is the area?
 - 4) Diameter = 12 cm, what is the radius?
- Answers below.



Harder Example – Combined Area Problem

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

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

Answers below

Harder question: rectangular area 27 m²; circle area 0.78 m²; total area = 26.21 m²; carpet cost = £314.55

Circle area: 1) 78.57 cm²; 2) 28.2 cm²; 3) 283.6 cm²; 4) 452.4 cm²

Rectangle area: 1) 150 cm²; 2) 384 cm²; 3) 24 m²

Answers:

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

Religious Education – Holocaust

Keyword	Definition	Problems Related to the Holocaust	Explanation
Anti-Semitic	Prejudiced or hostile towards Jews.	Nazis' Laws Against Jewish People in Germany (1933–1939)	1938 Jews can no longer own shops. Jewish children have to leave school. 1935 Jews are banned from going to public places such as theatres. Jews lose their rights as citizens. 1939 Jewish doctors are banned and all Jews lose their jobs. 1933 Hitler becomes Chancellor of Germany. A boycott of Jewish shops is Carried out (a boycott is the refusal to buy goods from a person or persons). 1937 Jews have to carry identity cards.
Scapegoat	Someone who is blamed for other people's problems.		
Genocide	Mass killing to exterminate a whole race of people.	Kristallnacht	<i>Why did Kristallnacht happen?</i> Kristallnacht happened after a young Jewish man whose parents had been beaten up by Nazis, shot a high-ranking Nazi. This upset a lot of German people who were already anti-Jewish. In fact, German propaganda minister Joseph Goebbels and other Nazis carefully organised the attacks. <i>What happened as a result of Kristallnacht?</i> As a result of Kristallnacht, Jewish people lost more rights, were arrested and sent to 'concentration camps'. Ultimately, Kristallnacht was 'spark that ignited the Holocaust'.
Ghetto	A place in a city where one group of people are forced to live. Often a slum.		
Adolf Hitler	Leader of the Nazi party and Furher of Germany.	Live in the Ghetto	World War Two started in September 1939 when Hitler's army invaded Poland. By the early 1940s, Hitler had conquered a large part of Europe. Anti-Jewish policies were enforced in those countries the Nazis conquered. Jews were forced to leave their homes and belongings. They were moved to walled-off areas known as 'ghettos', to separate them from the non-Jewish population in towns and cities. Living conditions in the ghettos were terrible. There was little sanitation, fresh water, fuel or food and the overcrowding was unbearable. Thousands died in the ghettos from starvation and disease. Everyone was afraid.
Kristallnacht	The 'night of broken glass', when Jewish homes, shops and places of worship were destroyed.		
Synagogue	Jewish place of worship.	Concentration Camps	In 1942, it was decided to move European Jews into special camps. Those who were fit would be worked to death. Those who were old and unfit, and young children would be sent immediately to huge gas chambers where they would be killed. The Nazis planned to exterminate eleven million Jews, gypsies and other 'inferior' people. This became know as the 'Final Solution'.
Final Solution	This was when the Nazis planned to exterminate eleven million Jews and other 'inferior' people.		
Nazi	Members of extreme German political party.	Remembering the Holocaust	Approximately six million Jews died during the Holocaust. Of these, 1.5 million were children. A further 5.5 million other people also died. Those who died and those who survived such horror must be remembered by us to pay respect. The Holocaust also has lessons for us today so it will never happen again.
Nazis' Laws Against Jews	Laws that was introduced by Nazis to separate and control Jews in Germany.		
CHALLENGE			
Go to the links below and extend your knowledge on The Holocaust: https://www.youtube.com/watch?v=Gl35CvS6Ha0 ,			

Religious Education – Buddhist Beliefs and Practices

Keyword	Definition	Themes	Explanation
The Four Noble Truths	The Four Noble Truths are moral truths regarding human suffering. 1. Suffering happens all the time because people always want more or something better than what we have. 2. We suffer because we do not have what we want we suffer and feel upset. We desire more. 3. If we accept what we have and stop wanting more we will become happy. This is enlightenment. 4. If we follow the middle way through the eight-fold path, suffering will stop.	The life of Prince Siddhartha	Siddhartha was born 2500 years ago in Nepal. His parents were told before he was born that he would either be a great leader or a great ruler. It would depend on whether he saw suffering or not. To ensure he would become a great ruler Siddhartha's father kept him in the palace. One day, Siddhartha left the palace and went into the city. He saw four sights that changed his life. He saw an old person, an ill person, a holy person and a corpse. He went to live in the forest with five holy men and starved himself in the hope of finding enlightenment. Here, he found enlightenment and became known as the Buddha; the teacher of Enlightenment, founder of Buddhism, as he had awoken.
The three poisons	Buddhist believe that there are three poisons of mind, greed, ignorance and hatred, which cause suffering in the world.	The eightfold path	The eight-fold path is a way to achieve spiritual enlightenment and cease suffering. The eight-fold path consists of right view, right intention, right speech, right action, right livelihood, right effort, right concentration and right mindfulness.
Prince Siddhartha	The founder of Buddhism who became known as the Buddha.	The middle way	The middle way is living a life that is not extreme. It lies between luxury and self-denial. To avoid extremes: poverty and richness. Buddhists often believe you should follow the middle way in order to avoid the extremes that lead to suffering.
Buddha	Teacher of Enlightenment, founder of Buddhism. "He who is awake".	Why might greed be the cause of suffering?	It could be argued that greed is the greatest cause of suffering as the rich often take from the poor. Greed causes people to be selfish and self-centred, leading to a society that does not share and the poor just get poorer.
Four sights	The sights that Prince Siddhartha saw when he left the palace: a sick man, an old man, a dead man and a holy man.	What might be some other causes of suffering?	It could be argued that there are other multiple causes of suffering; for example, when people are ignorant. Ignorance is the lack of knowledge and understanding that can often lead to discrimination including racism, sexism and Islamophobia. Some might argue that suffering is also caused by loss in life, e.g. loss of a parent or friend. Others might argue that suffering is caused through hatred as this often leads to an unfair and unjust society.
Middle way	Path to enlightenment between poverty and luxury.		
Enlightenment	Uncovering the truth of nirvana and finding the answer to suffering.		

THE EIGHTFOLD PATH



CHALLENGE

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

- <http://www.bbc.co.uk/religion/religions/buddhism/>
- <http://www.bbc.co.uk/schools/religion/buddhism/>

There is no new content taught in Cycle 3, so the information needed can be found in your Cycle 1 and 2 Knowledge Organisers.

The best ways to revise using your Knowledge Organisers are:

- Look / cover / write / check on all keywords.
- Cover the labels to a diagram and write out those labels.
- Make flash cards with a question on one side and an answer on the other.
- Make a quiz and swap with your friend.

Las asignaturas = School Subjects

el español	Spanish
el inglés	English
la geografía	geography
la historia	history
la informática	ICT
el dibujo	art
las matemáticas	maths
la música	music
las ciencias	science
la educación física	PE
la tecnología	technology
el teatro	drama

las opiniones = Opinions

Mi asignatura favorita es... = my favourite subject is
 La asignatura que odio es... = my worst subject is...
 Me gusta + el or la / me gustan + las... = I like
 Me encanta + el or la / me encantan + las ... = I love
 No me gusta + el or la / no me gustan + las... = I don't like
 Odio = I hate
 Creo que es / son.... = I think it's / they're.....
 excelente(s) = great
 bueno / buenos / buena / buenas = good
 terrible(s) = awful
 fácil(es) = easy
 difícil(es) = difficult
 interesante(s) = interesting
 aburrido / aburridos / aburrida / aburridas = boring
 útil(es) = useful
 inútil(es) = useless
 fascinante(s) = fascinating
 molesto / molestos / molesta / molestas = annoying
 divertido / divertidos / divertida / divertidas = funny
 importante(s) = important

El tiempo = Time

a las ... = at ... O'clock
 ¿Qué hora es? = what time is it?
 Son las.... = it is
 Durante la primera clase = in the first lesson
 Durante la tercera clase = in the third lesson
 Durante la hora de comer = at lunchtime
 después del colegio = after school

Verb Phrases (present tense)

En mi insti, hay...	In our school, there is...
Voy al insti...	I go to school...
Tenemos que (llevar)...	We have to (wear)...
Soy miembro de...	I'm a member of the...

Verb Phrases (future tense)

Voy a	I'm going...
Me gustaría ...	I would like...
Va a ser....	It's going to be...

Le transport

A pie	on foot
En bici	by bike
En coche	by car

Core Questions

1) ¿Cómo es tu insti?	Describe your school.
2) ¿Qué asignaturas prefieres? ¿Por qué?	What is your favourite subject? Why?
3) ¿Qué hay en tu colegio?	What is there in your school?
4) ¿Qué vas a hacer hoy después del colegio?	What are you going to do after school today?

Mon temps libre = My Free Time

(Me gusta) jugar al fútbol	(I like) to play football
(Me gusta) el ciclismo	(I like) to go cycling
(Me gusta) ir al cine	(I like) to go to the cinema
(No me gusta) bailar	(I don't like) to dance
(No me gusta) ir de compras	(I don't like) to go shopping
(No me gusta) escuchar música	(I don't like) to listen to music
Club del teatro	drama club
Club de lectores	reading club
una vez por semana	once a week
todos los días	every day
a veces	sometimes
siempre	always
nunca	never
el fin de semana	at the weekend
por la tarde	in the evening
hoy	today
Mañana	tomorrow

Mi Insti = My School

Mi instituto es...	My school is...
mixto	mixed
El edificio es...	The building is...
Nuevo	new
Moderno	modern
Amplio	spacious
El uniforme es...	The uniform is...
Elegante	smart
Incómodo	uncomfortable
Mi profe es...	My teacher is...
Severo / a	strict
Gracioso / a	funny

Conjunctions

pero = but
 entonces = so
 después = so
 también = also
 sin embargo = however
 Puis = then

Places in School

Un patio = a playground
 Una biblioteca = a library
 Unas clases = some classrooms
 Una piscine = a swimming pool

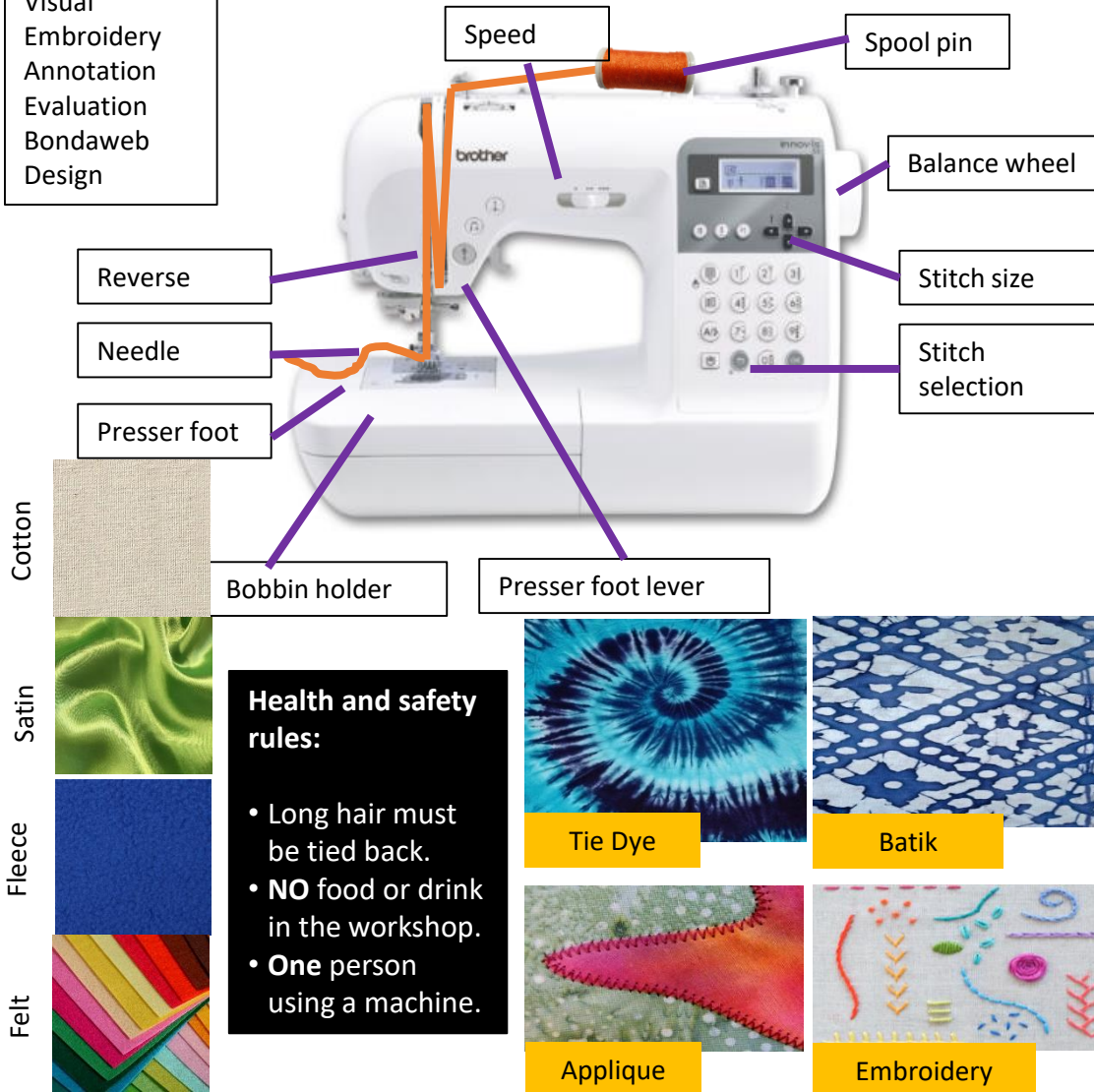
Textiles

Keywords

Interpret
Inspiration
Applique
Visual
Embroidery
Annotation
Evaluation
Bondaweb
Design

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

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



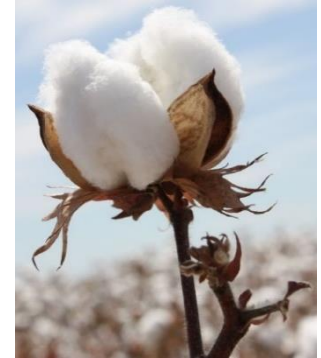
Health and safety rules:

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

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



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.



NUMERACY IN DESIGN



'Maths behind the design':



+

=



Alexander McQueen
S/S 10' Dress

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

NUMERACY IN MANUFACTURE



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



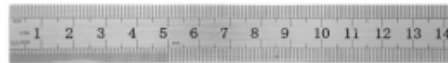
Marking Gauge
Scribes a parallel cutting line



Plastic Ruler
 $10cm=100mm$

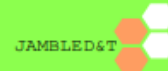


Steel Rule
 $1cm=10mm$



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

NUMERACY IN EVALUATION



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

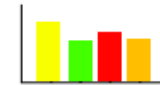
£



%

cm

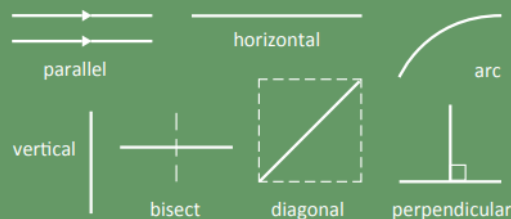
mm



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

LINES

What do each of following lines mean



SHAPES

How to measure different shapes

