NEED TO KNOW BOOK

Year 8
Autumn Term 2024

ALL SAINTS
ACADEMY PLYMOUTH

Table of Contents

Week A

Period	Monday	Tuesday	Wednesday	Thursday	Friday
Tutor					
1					
2					
3					
4					
5					
6 or Extra Curricular					

Week B

Period	Monday	Tuesday	Wednesday	Thursday	Friday
Tutor					
1					
2					
3					
4					
5					
6 or Extra Curricular					

Homework Expectations

You are expected to compete up to 1hour of Homework per night. This is split into 3 subjects at 20mins each.

	3 x 20 Minute Sessions		
	Subject 1 20 mins	Subject 2 20 mins	Subject 3 20 mins
Monday	Sparx Reader	Science	Science
Tuesday	Sparx Reader	Geography	French
Wednesday	Sparx Reader	Maths : Sparx	History
Thursday	Sparx Reader	Maths : Sparx	RE
Friday	Sparx Reader	Maths : Sparx	

Where is my homework?

Maths

You maths homework is found at www.sparxmaths.uk. You will complete your Compulsory Homework on a Monday.
If you have completed over 80% and are stuck on your last few questions, your teacher will help you on Tuesday.

Sparx Reader

Your Sparx reader homework is found at www.sparxreader.com You will complete 20 minutes of reading every day Tuesday – Friday. You can, of course, complete more if you like!

Science

Your Science homework can be found at www.educake.co.uk. You will answer a series of questions once a week. When it comes to revising, you will have the option of picking a topic, reading an overview, and taking a quiz.

English, History, French and RE

Homework for these subjects will be found in your Google Classroom in the form of a quiz. These quizzes are to test that you have learned the knowledge in your Need to Know booklet. We have high expectations of you and expect students to try their best and achieve the best possible marks. We will give rewards for excellent attainment and we will help everyone achieve by using after school interventions to make sure no one falls behind.

At All Saints, we are organised and don't make excuses for ourselves. If we know we have evening plans, we complete our homework the night before to make sure we are free to go to our planned event. We always want the best for ourselves and my teachers want the same.

Reflection Sheet

Name: Tutor: Year:

Use this reflection sheet to track your progress and attitude to learning score after each progress check. This sheet will be used in your parent evening meetings with your teachers to discuss your areas of strengths, weaknesses and ways to improve. If your average attitude score is below a certain average your parents will be called in for a meeting with your Head of house and SLT member.

ATL SCORES	What will I get at GCSE?
0-1	Students who achieve an average of 1 or below usually leave school with no GCSEs.
1-2	Students who achieve an average of 1-2 usually leave with 1s or 2s (E or F) at GCSE
2-3	Students who achieve an average of 2-3 usually leave with 2s or 3s (D or E) at GCSE
3-4	Students who achieve an average of 3-4 usually leave with 3/4/5s (C or D) at GCSE
4-5	Students who achieve an average of 4-5 usually leave with 6/7/8s at GCSE

Average attitude to learning score	Term 1	Term 2	Term 3	Term 4

Subject rank	***Subject*** *Maths*	***Subject*** *English*	***Subject*** *Science*	***Subject***	***Subject***	***Subject***	***Subject***	***Subject***	***Subject***	***Subject***
Term 1	/	/	/	/	/	/	/	/	/	/
Term 2										
Term 3										

Term 1 - Reflection (Answer the questions by filling in the boxes in blue or black pen)

Are you happy with your rank scores and ATL?	What subjects do you need to improve?	How will you get there?

Reflection Sheet

Term 2 - Reflection

Has your rank scores and ATL improved from term 1? If no, why not?	What subjects do you need to improve in?	How will you get there?

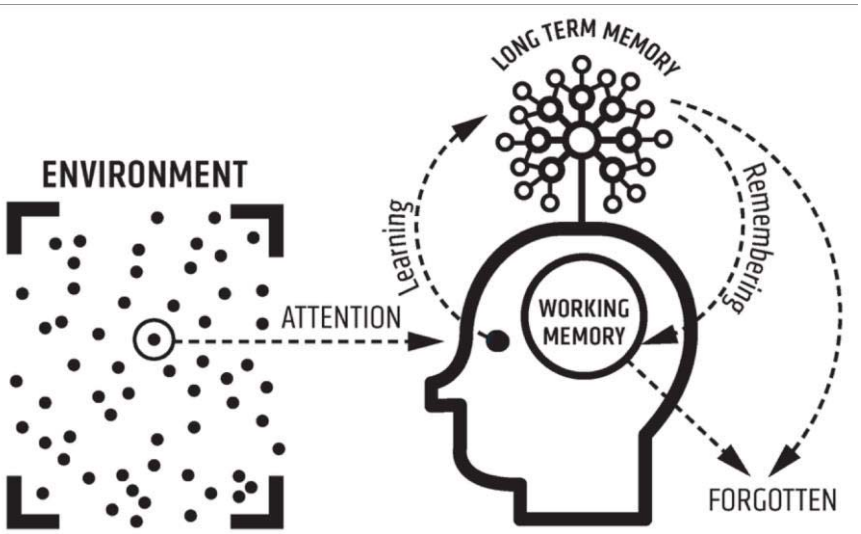
Term 3- Reflection

Has your rank scores and ATL improved from term 2? If no, why not?	What subjects do you need to improve in?	How will you get there?

Signed_____ Tutor
signature_____

Memory

Your memory is split into two parts: the working-memory and the long-term memory. Everybody's working-memory is limited, and can therefore become easily overwhelmed. Your long-term memory, on the other hand, is effectively limitless.



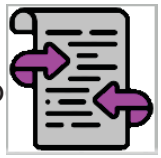
You can support your working memory by storing key facts and processes in long-term memory. These facts and processes can then be **retrieved** to stop your working memory becoming overloaded.

Need to know booklets are a key way to help you learn. Each booklet has the key information that needs to be memorised to help you master your subject and be successful in lessons.

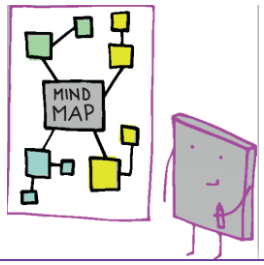
There is strong scientific evidence from cognitive psychology that shows the benefits of **self-quizzing** in promoting **retrieval strength**. This is your ability to quickly recall key facts related to your subject or topic

How should I self-quiz and how often?

There are lots of different ways to learn the material in your need to know b

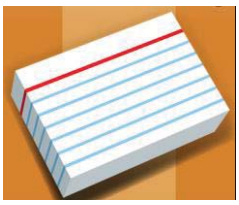


You could:



Draw a mind map, jotting down everything that you can remember from the need to know booklet.

Cover up one section of the need to know booklet and try and write out as much as you can from memory.



Make flash cards based on the need to know booklet and ask someone to quiz you.

SENTENCES.
HAND
ARTICULATE.
PROJECT
Eye contact

Make up mnemonics to help you remember key facts, then write these out from memory.

Making revision notes and self-quizzing will help you be a more successful learner.

Post 16 pathways of Plymouth — Sixth forms — Apprenticeships — Employment — Resources

Support — Opportunities — Choosing a career — Parents guide —Writing a CV— Employability skills

Year 8: Mixed Media Insects

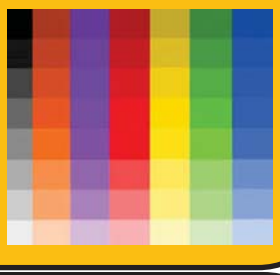
The Formal Elements: The Formal Elements of Art are the parts used to make a piece of art work. It is impossible to create a piece of art, even if it is only a doodle, without using some or all of them. The art elements are Line, shape, form, tone, texture, pattern, colour and composition. They are often used together and how they are organised in a piece of art determines what the finished piece

Line

A line is a path, left by a moving point. E.G. a pencil, or a paintbrush dipped in paint. A line can take on many forms. E.G. Horizontal, diagonal or curved. A line can be used

Tone

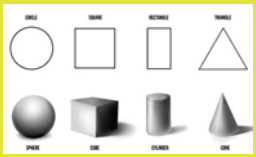
Tone means the lightness and darkness of something. This could be a shape and/or how dark or light a colour appears.



Shape & Form

A shape is an area enclosed by a line. It could be just an outline or it could be shaded in.

Form is a three dimensional shape such as a sphere, a cube or a cone.



Texture

Texture is the surface quality of something, the way something feels or looks like it feels. There are two types of texture, actual texture and visual texture.

Actual Texture: really exists so you can feel it or touch it.

Visual Texture: Created by using different marks to create the impression

Colour

There are three primary colours:

Red, Yellow, Blue

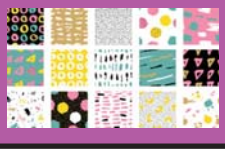
By mixing any two primary colours together, you get secondary colours.

Orange, Green and Purple

Pattern

Pattern is a design that is create by repeating lines, shapes and tones or colours.

Patterns can be manmade such as a design on fabric or natural like the print on animal fur.



Observational Drawing

Observational drawing is drawing what you see. It's as simple and as complicated as that. It can be a flower, a person, a still life, a landscape, whatever. But it's **drawing** what you see in front of you, as realistically and as true to life as possible. The more you practise it, the better you will become.

To do this successfully, we need to use the following formal elements accurately. Its is important to get the form accurate before adding any further detail. Sometimes step by step instructions can help with this.

LINE
SHAPE
FORM
SHADE
TONE

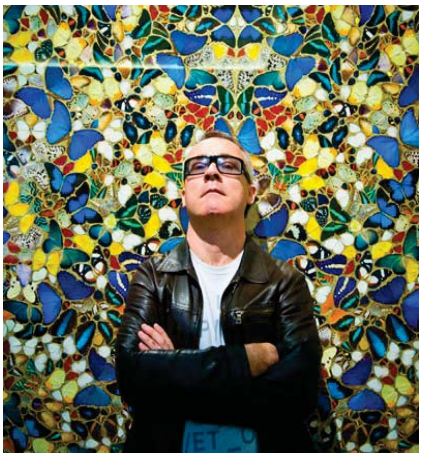
Poul Beckman

Beckmann was born in Copenhagen in 1949. He moved to Canada with his family, first living in Novia Scotia and later in Ontario. He studied commercial and fine art graphics. Beckman was fascinated with characteristics of beetles, their almost machine-like structure combined with infinite varieties of surface patterning were instantly appealing to me. I use macro photography to reveal an exotic hidden world, not readily observable because of size.

Damien Hirst

Damien Hirst is a British contemporary artist, entrepreneur, and art collector. He is one of the Young British Artists who dominated the art scene in the UK during the 1990s. He is reportedly the United Kingdom's richest living artist, with his wealth estimated at $384 million in the 2020 Sunday Times Rich List. His artwork explores the complex relationships between art, religion, science, life and death.

This is an image of one of Damian Hirst kaleidoscope paintings made with real butterfly wings. They have been compared to looking through a kaleidoscope or a stained class window in a church. Often his work is considered to be controversial.



Key Vocabulary	
Composition	The position and layout of shapes on the paper
Line	Defines shape, the outer edges of something.
Tone	How dark or light a shape is.
Shape	The outline of objects.
Form	Appearing three-dimensional.
Pattern	A repeated shape or line.
Controversial	is used to describe someone or something that causes people to get upset and argue.
Mixed Media	is an artwork in which more than one **medium** or **material** has been used.
Contrast	It is one of the principles of art which refers **to the striking difference between two elements**. For example, there is a strong contrast when you place a vivid red next to a dull green, or a rough texture next to a smooth texture, or a hard edge next to a soft edge, and so on.
Proportions	are the relationships, or **ratios**, between the heights, widths and depths of a subject. In order to **draw** a believable likeness of any subject, no matter what or who it is, we must **draw** the proportional relationships as they appear on that specific subject.
Observational drawing	**A drawing of** what you see in front of you as realistically and as true to life as possible.
Refine	To develop and improve a piece of work to perfect it further.
Primary Source	Drawing something first hand. For example looking at a shell and drawing it.
Secondary Source	Drawing from a source. This could be from a picture/photograph or something off the internet.
Installation	The term installation art is used to describe **large-scale, mixed-media constructions**, often designed for a specific place or for a temporary period of time.

Art and Design Assessment Objectives:							
	DEVELOP	Artist Research. Explore Ideas. Be Inspired. Personal comments and opinions.	EXPERIMENT	Explore different materials Explore different techniques Refine your work	RECORD	Observational drawings Collecting image Taking photos Annotating your work	PRESENT	Produce a final piece Link to prep work from project.

Week	I will need to know:	So that I can:
1 Design Brief	A designer or engineer will begin every project with a ***design brief***. This is either created with the ***client*** or given to the designer by the client. The client is the person or company requiring the design of the new product. A design brief will include important details about the requirements of the product to be designed. After receiving the design brief, the designer will begin ***market research*** in order to learn more about the target market and similar products already out there.	Respond to a design brief effectively.
2 Design specification	After the research phase, designers and engineers will write a ***design specification***. This is a list of detailed and ***measurable criteria for the success of the product***. It will take account of all that has been learnt in the research and state clearly what the product must be like. This includes, cost, materials, manufacture, features, ergonomics and aesthetics as well as other things too. This will then be used while designing to ensure that the designer is keeping on the right track.	Create and follow a design specification and design successful products as a result.
3 Generating design ideas	Designers will use many techniques to create a wide variety of designs. As the designer will want to find the best possible solution, they will produce a ***great many quick sketch ideas*** at the start. This allows them to narrow down to the best ideas often with the help of the client. Techniques include ***biomimicry*** (finding inspiration in natural forms) and ***user centred design*** (thoroughly investigating the user and their requirements while designing accordingly)	Create a variety of appropriate design ideas in response to a design brief.
4 User requirements	The ***user*** is the person that will buy or use the product. We talk about the ***target market*** when we are considering what type of people these are. Designers will investigate the user in order to hope to solve the issues they raise with the product. To find out what the requirements of the user are designers often carry out a ***focus group*** where they make a group of their target market and ask them questions. Sometimes ***product observations*** are useful where the designer will observe a product being used and then ask the user questions in order to improve the design.	Design products that meet the needs and wants of the user.
5 Product Analysis	Designers will investigate similar or competitor products to ensure that the product they design will be competitive and to learn from all the design decisions that have taken place in the design of the product. Often ***ACCESSFM*** is used, this is where the designer will analyse a product in terms of Aesthetics, Customer, Cost, Environment, Size, Safety, Function, Materials and Manufacture.	Create products that are effective and competitive.
6 Sustainable products	Products that are better for the environment are called sustainable products. A product can be sustainable in many ways. A re-usable plastic bottle will prevent hundreds of disposable plastic bottles being needed. An electric vehicle will produce less harmful emissions and use less fossil fuels. Products which have spare parts available can be repaired and made to last longer therefore not needing to be replaced. Some products are made to be ***biodegradable***.	Be responsible and protect our planet through my design decisions.
7 The 6 Rs	These should be considered when designing any product and will help the designer create a ***more sustainable product***. Recycle (can materials be recycled?), Re-use (can parts be used again?), Reduce (can less material or energy be used?), Re-think (can the design be changed), Refuse (refuse to use harmful materials or processes), Repair (spare parts? Easy to fix?)	Be responsible and protect our planet through my design decisions.
8 Quality Control	When manufacturing products, it is important that ***quality control checks*** are in place. These checks will ensure that the components or products are not faulty. These will take place at the ned of manufacturer but also after each of the main stages of manufacture. The earlier mistakes are spotted the less likely an expensive problem will occur.	Make quality products that are consistent.
9 Testing and evaluating a prototype	***Prototypes*** are models of a design , these are created so that a concept can be tested. Prototypes are carefully tested to see if they function as intended, look appealing to the target market, fit with other components, are strong enough and more. ***Evaluating*** prototypes takes account of these tests and looks at ways the design can be improved further.	Develop products to their best possible outcome.

Topic	I will need to know:	So that I can:
1 Wood types	Wood types include **hardwood, softwood, and manufactured board**. **Hardwood,** from deciduous trees like oak and maple, is dense, durable, and used in high-quality furniture and flooring. **Softwood**, from coniferous trees like pine and fir, is lighter, easier to work with, and used in construction and furniture. **Manufactured board**, such as plywood and MDF, is made by binding wood fibres with adhesives, offering strength and stability. It is versatile and economical, suitable for furniture, flooring, and industrial applications.	Understand the properties of the material that I am using to manufacture a product.
2 Sustainability & the 6 Rs	Sustainability is about using resources wisely to protect our planet. The 6 Rs are: **Reduce** (use less), **Reuse** (use things again), **Recycle** (turn old items into new ones), **Repair** (fix things instead of throwing them away), **Refuse** (say no to unnecessary items), and **Rethink** (consider how our actions affect the environment). Practicing the 6 Rs helps make our world a better place for everyone.	Design and make products that are sustainable.
3 Soldering safely	Soldering is where you join two metal pieces using melted solder. It's used in electronics to connect wires and components. Safety is crucial: always wear **safety goggles** to protect your eyes from hot solder and fumes. Work in a well-ventilated area to avoid inhaling fumes. **Never touch the soldering iron tip**—it's extremely hot and can cause burns. Always turn off and unplug the soldering iron when not in use. **Long hair needs to be tied up**!	Keep myself and others safe!
4 3D Drawing techniques	Isometric, oblique, and perspective are drawing techniques used in design. **Isometric** drawings show three sides equally, creating a 3D effect. **Oblique** drawings show the front face in true shape, with the other sides at an angle. **Perspective** drawings mimic how the eye sees, with objects appearing smaller as they get further away. These methods help designers visualize and communicate ideas clearly and accurately.	Communicate my ideas effectively.
5 CAD	CAD, or **Computer-Aided Design**, is software used to create precise drawings and models of products. It's important because it allows designers to visualise and test their ideas before building anything. CAD helps make **accurate designs**, **reduces mistakes**, and **saves time**. It also allows for easy modifications and improves communication among team members, making the design process more efficient and effective.	Understand how technology can aid in the design of new products.
6 CAM	CAM, or **Computer-Aided Manufacturing**, uses software to control machinery and tools in making products. It's important because it ensures high precision and consistency, reducing human error. CAM **streamlines the manufacturing process**, making it **faster and more efficient**. It allows for complex designs to be produced accurately and repeatedly, improving product quality and reducing waste. CAM is essential in modern manufacturing for creating reliable and high-quality products.	Understand how technology can aid in the manufacturing of products,
7 Electronics	Understanding electronics involves learning how electric circuits work, which is essential for designing and making products. Circuits are pathways for electricity and include components such as **batteries** (power source), **resistors** (control current), and **LEDs** (produce light). In a simple circuit, these components are connected with wires, allowing current to flow and make things function.	Create successful circuits in electronics.

Text Summary:

The Woman in Black is a ghost story by Susan Hill. Arthur Kipps retells his haunting experiences at Eel Marsh House.
The tale begins on Christmas Eve, when Arthur's step-children invite him to tell a ghost story. Arthur is too disturbed by his memories to share his story aloud, so he writes it down.
In his story, a young Arthur Kipps, a junior solicitor, is sent to settle the affairs of Alice Drablow. He sees a woman dressed in black at her funeral, though apparently no one else does. At Eel Marsh House, Arthur is haunted by noises and sightings of the woman. Eventually a local man, Sam Daily, reveals the full story of how Alice Drablow's sister, Jennet, haunts the house. He explains that a child dies each time the woman in black is seen. At the end of the story, Arthur sees the woman in black again.

Gothic Genre

Gothic writing is a **genre** of writing.
This means that it includes some specific **conventions**. In gothic writing there are 7 conventions that are included.

1. Supernatural
2. Tension or fear
3. Aspects of the past
4. Sense of being isolated
5. Spooky uninhabited settings
6. Gloomy, dark atmosphere
7. Mystery

'The Woman in Black' is set in the early-1900s. In the early 1900s, King **Edward** VII was on the throne. This was **Edwardian** England. The time is called the Edwardian **era**. Edwardian daily life was quite different to ours. For example, there was very little of the technology we have today: landline telephones had been invented, but were still rare; there was no TV, no computers, no internet! most of the travelling is done by steam train, bicycle or pony and trap.

Key themes: Isolation Gothic Horror The Past Trauma

Key Words	Definition
Tension	The feeling that something it about to happen.
Suspense	A feeling of excitement or uncertainty about what is going to happen.
Sinister	Cruel treatment by authorities.
Foreboding	The feeling that something bad is going to happen.
Foreshadowing	A hint or suggestion that something will happen later on.
Supernatural	Something that cannot be explained by science
Genre	A style of literature, film, music or art that follows certain rules.

Health, Safety and Hygiene

Health, safety and hygiene.

- Always listen to the teacher and follow instructions.
- Do not run in the food room.
- Do not leave bags and blazers where they can get in the way and cause a tripping hazard.
- Walk sensibly around the room when carrying equipment especially knives.
- Always return equipment once its finished with and cleaned especially knives. These will be counted in at the end of every lesson.
- Always listen carefully when the teacher is demonstrating how to use equipment. Make sure you ask questions if you do not understand.
- Take your blazers off and roll up your sleeves when doing a practical lesson.
- Tie your hair back.
- Always wash your hands thoroughly when preparing foods.
- Always use hot soapy water to wash your equipment.
- Make sure all spillages are cleaned up immediately.
- **Always** use an oven cloth when taking food from the oven.

The Eatwell Guide

Fruits and vegetables.

Eat at least 5 portions of a variety of fruits and vegetables a day.

Drinks.

6-8 glasses a day. Water, lower fat milk, sugar free drinks including tea and coffee count.

Potatoes, bread, rice, pasta and other starchy carbohydrates.

Choose wholegrain or higher fibre versions with less added salt, sugar and fat.

Beans, pulses, fish, eggs meat and alternatives (protein).

Eat more beans and pulses, 2 portions of sustainably sourced fish per week, one of which is oily. Eat less red and processed meat.

Dairy and alternatives.

Choose lower fat and lower sugar options.

Oils and spreads (fats).

Choose unsaturated oils and use in small amounts.

Foods high in fats and sugars.

Eat less often and in small amounts.

Preparation Skills and Techniques

Chopping, Slicing, Dicing and Peeling Skills

Bridge Hold

Claw Hold

Peeling

A

B

C

What could happen?

Cake and Pastry Making Methods

Rubbing -in Method

Used for pastry and cakes that **do not have a large amount of fat** compared to flour

- Fat is **cut into chunks** (block margarine is best)
- Air is trapped when sieving the flour and by lightly **rubbing the fat in to the flour**
- Any optional ingredients (e.g. sultanas) are **added before the liquid or egg** that binds the

Creaming Method

Used for cakes containing **more fat and sugar** compared to flour

- The fat and sugar are **creamed together** using a **wooden or plastic spoon**. Air is **trapped** by **creaming** the sugar and fat together
- Soft margarine is better as it is **easier to cream**
- **Caster sugar** has **smaller crystals** than **granulated** so it **traps more air** and mixes better
- **Self raising flour** is used to make the cakes **rise**

Melting Method

-Fat is melted with the sugars and syrup

-Dry ingredients added

-Liquids bind all ingredients together

Year 8 French - Cycle 1

	French	English
Week 1	J'ai la télé. Comment dit-on '*l'ordinateur' en anglais?*	I have the TV. How do you say '*l'ordinateur' in English?*
Week 2	Je pars tôt, mais à l'avenir, je vais revenir en retard.	I leave early, but in the future, I am going to come back late.
Week 3	Demain, je vais en Allemagne en avion.	Tomorrow, I am going to Germany by plane.
Week 4	Ma mère va devenir avocate bientôt.	My mother is going to become a lawyer soon.
Week 5	La directrice est ambitieuse et le facteur est travailleur.	The Headteacher is ambitious and the postman is hard-working.
Week 6	On célèbre l'événement le vingt juin.	We are celebrating the event on the 20th June.
Week 7	On organise la fête d'anniversaire le quinze août.	We are organising the birthday party on the 15th August.
Week 8	Le 14 juillet, la France célèbre sa fête nationale.	On the 14th July, France celebrates its national holiday.
Week 10	Hier, j'ai fait la cuisine. Maintenant, je travaille à l'ordinateur.	Yesterday, I did the cooking. Now, I work on the computer.

Each week you will need to practise and learn your **Sentence of the Week** as well as your **Vocabulary of the Week**. For your **Vocabulary of the Week** also pay attention to which type of words they are:

Verbs are in **VIOLET**
Feminine nouns are in **PINK**
Masculine nouns are in **BLUE**
Adjectives are in **AMBER**

Week 1		Week 2		Week 3		Week 4		Week 5	
Comment dit-on?	How do you say?	devenir	to become/becoming	l'avion (m)	aeroplane	un avocat	a lawyer (m)	ambitieux	ambitious (m)
Comment ça s'écrit?	How do you spell?	revenir	to come back/coming back	différent	different (m)	une avocate	a lawyer (f)	ambitieuse	ambitious (f)
le chien	dog	partir	to leave/leaving	différente	different (f)	le bureau	desk/office	beau	handsome/good-looking (m)
la télé	TV	je pars	I leave/am leaving	l'allemand (m)	German	un directeur	a Headteacher (m)	belle	beautiful/good-looking (f)
le vélo	bike	tu pars	you leave/are leaving	l'Allemagne (f)	Germany	une directrice	a Headteacher (f)	heureux	happy (m)
le cadeau	present/gift	il part	he leaves/is leaving	la lettre	letter	un facteur	a postman	heureuse	happy (f)
la chemise	shirt	elle part	she leaves/is leaving	prochain	next (m)	une factrice	a postwoman	prudent	careful (m)
la porte	door	encore	again	prochaine	next (f)	l'emploi	job	prudente	careful (f)
la règle	ruler	tôt	early	bientôt	soon	un secrétaire	a secretary (m)	travailleur	hard-working (m)
la femme	woman	l'avenir (m)	the future	demain	tomorrow	une secrétaire	a secretary (f)	travailleuse	hard-working (f)
l'homme	man	à l'avenir	in the future					vieux	old (m)
le portable	mobile phone	en retard	late					vieille	old (f)
le livre	book	le match	match					assez	quite
la voiture	car	madame	Mrs, Miss, Ms						
l'ordinateur (m)	computer	monsieur	Sir, Mr						
les vêtements (m)	clothes								

Week 6		Week 7		Week 8		Week 9	Week 10	
célébrer	to celebrate/celebrating	organiser	to organise/organising	général	general (m)	Revision of all vocab learned this cycle	apporter	to bring/bringing
préférer	to prefer/preferring	chacun	each person	générale	general (f)		dit	said
on	everyone/you/one	l'anniversaire (f)	birthday	national	national (m)		fait	did/made
la date	date	juillet (m)	July	nationale	national (f)		envoyer	to send/sending
l'événement (m)	event	août (m)	August	partout	everywhere		utiliser	to use/using
la tradition	tradition	septembre (m)	September	son	his, her, its (m)		maintenant	now
premier	first (m)	octobre (m)	October	sa	his, her, its, (f)		hier	yesterday
première	first (f)	novembre (m)	November	ses	his, her, its (pl)		l'appartement (m)	apartment, flat
treize	thirteen	décembre (m)	December	notre	our		la banque	bank
quatorze	fourteen			nos	our (pl)		le marché	market
quinze	fifteen						le passé	past
vingt	twenty							
trente	thirty							
janvier (m)	January							
février (m)	February							
mars (m)	March							
avril (m)	April							
mai (m)	May							
juin (m)	June							

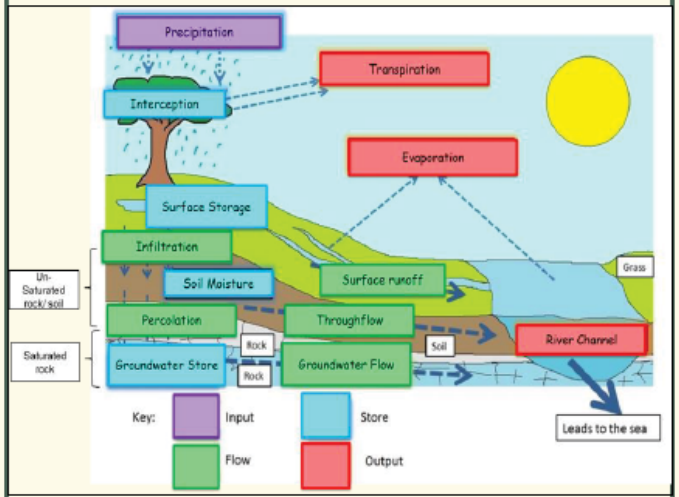
Year 8 - Geography- Cycle 1

Key vocabulary

- **Weather:** the day to day conditions of the atmosphere (e.g. temperature, wind, rainfall).
- **Climate:** the average weather conditions over time, usually over a 30-year period.
- **Water cycle:** the cycle of water between the oceans, atmosphere and land.
- **Precipitation:** water droplets in clouds are too heavy and fall as rain, sleet, snow, hail.
- **Condensation:** water vapour is cooled and turns back to water droplets .
- **Evaporation:** water changing from a liquid into a gas (water vapour).
- **Transpiration:** water released from plant leaves into the atmosphere.

Week 1 – Water Cycle

The Hydrological Cycle (Water Cycle)



Week 2 - Rainfall

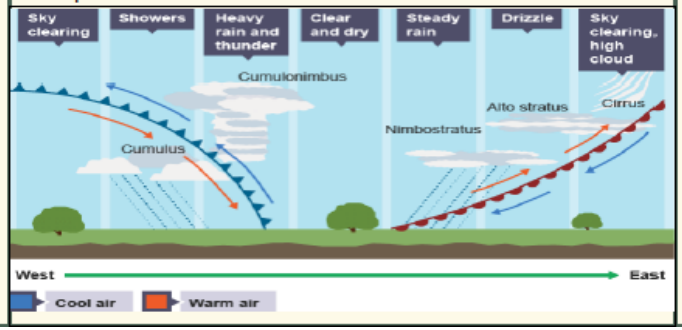
Relief rainfall: warm moist air forced to rise over mountains, cools and condenses to form clouds and rain.
Convectional rainfall: Sun heats the land, creating pockets of rapidly rising warm air. It starts to cool and condense to form clouds. This can produce thunderstorms.
Frontal rainfall: Occurs when a warm front meets a cold front. Heavier air sinks to the ground and warm air rises above it.
Air masses: a large body of air that travels from one area to another.
Altitude: Measure of the land's height above sea level. Temperature decreases with 1°C every 100m in height.
Latitude: parallel lines on an atlas map drawn north and south of the equator.

Week 3 - Air Pressure

Air pressure: the weight of air pushing down on the Earth.
Depression: A low-pressure system which forms when warm air rises above surrounding cold air which leads to unsettled weather.
Cold front: the boundary of an advancing mass of cold air, the trailing edge of the warm sector in a low-pressure system.
Warm front: the boundary of an advancing mass of warm air, the leading edge of the warm sector of a low-pressure system.
Warm sector: the wedge of air between the warm and cold fronts of a depression.
Occluded front: weather pattern in which a cold front overtakes a warm front; associated with the formation of cyclones.

Week 4 -Anticyclones

Anticyclones: high pressure systems in the atmosphere associated with dry, settled periods of weather.
Winter anticyclones: Cold, dry days with light winds. Temperatures can decrease quickly at night due to clear skies. Fog can form.
Summer anticyclones: Long, sunny cloudless days and warm temperatures. Normally dry, although hot temperatures can cause convectional rainfall.



Week 5 – Extreme Weather

Storm Desmond (2015)

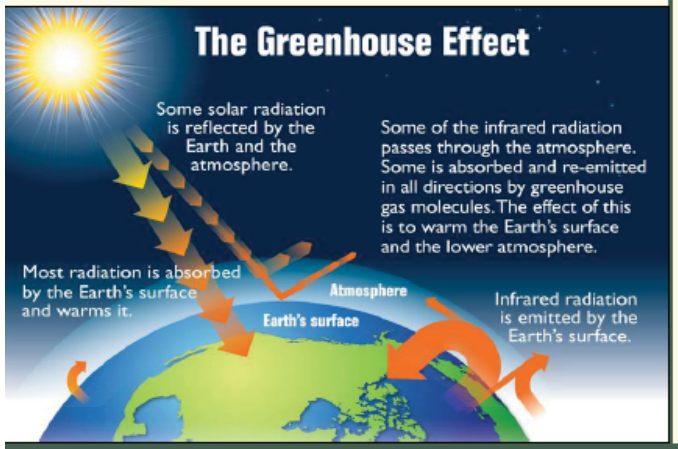
- Cumbria / NW England
- 342.4mm rainfall in 24 hours
- 1800 people evacuated
- Estimated cost of £500m
- 5200 homes affected by flooding
- One person died in Cumbria and 40 schools closed.
- Malham Cove waterfall briefly flowed again for the first time in living memory.

UK Heatwave (2018)

- 2018 became the joint hottest year since 1960.
- 38.5°C was recorded in Faversham, Kent on 25 July 2018.
- Record number of A&E admissions from heat-related illnesses.
- 700 more deaths than average
- Wildfires over moorland
- Lavender grew well.

Greenhouse Effect

Greenhouse Effect: Natural warming of the atmosphere as heat given off from the Earth is absorbed by liquids and gases, such as carbon dioxide.



Week 6 – Natural Causes of Climate Change

Climate change: a long-term change in the Earth's climate, especially a change due to an increase in the average atmospheric temperature.

Natural causes of climate change

Milankovitch cycles: Sometimes the Earth's orbit is more elliptical than circular, the Earth's tilt on its axis changes or the Earth wobbles on its axis, all influencing its global temperature.
Sunspots: The sun's output is not constant. Temperatures are greatest when there are more sunspots radiating more heat.
Volcanic eruptions: Eruptions produce ash and sulphur dioxide which can enter the upper atmosphere. Sunlight can be reflected off this blanket of ash and gas, cooling the planet.

Week 7 – Human Causes of Climate Change

Human Causes of Climate Change

Gases such as chlorofluorocarbons (CFCs) and hydrofluorocarbons (HFCs) are human-made. Human activity is increasing the natural levels of these gases and making the greenhouse 'blanket' thicker.

As the world's **population has grown** and countries have developed, they need energy to fuel industry, transport and cities. Power stations, factories, homes and cars **burn fossil fuels** such as oil or gas. These have to be extracted, or mined, from the ground, releasing carbon dioxide into our atmosphere.

The world's forests naturally absorb greenhouse gases, but people are **cutting down forests** and often burning them, which releases further carbon dioxide.

Week 8 – Impacts of Climate Change

UK impacts of climate change

The UK's ten warmest years on record have all occurred since 2002.

Heatwaves are now 30 times more likely to happen. Parts of the UK would be in danger of flooding with low-lying and coastal cities at risk.

There are 240,000 homes currently in flood risk areas. Hotter weather may make growing some crops easier or allow us to grow new ones, such as oranges.

Climate change likely to increase the likelihood of new diseases such as malaria.

Week 9 – Impacts of Climate Change

Worldwide impacts of climate change

Small islands in the Pacific are losing ground to erosion.

Half of the Great Barrier Reef – one of the biosphere's brightest jewels - is dying due to coral bleaching.
In 2019, Greenland lost 600 billion tonnes of ice raising sea levels by 2mm in two months.

Bangladesh could lose 20% of its land, leaving 40 million people homeless.

Climate change will worsen the uneven distribution of water resources in China.

It would cost $12 billion to defend the Netherlands from sea level rise.

Week 10 – Managing Climate Change

Mitigation: Reducing emissions of and stabilising the levels of heat-trapping greenhouse gases in the atmosphere.

Adaptation: Adapting to the climate change already in the pipeline; adjusting to actual or expected future climate.

International agreements: Paris agreement in 2015, first legally-binding agreement signed by 190 parties. Goal to keep an increase in global average temperature below 2°C. **Carbon capture:** removal of CO_2 from power stations and storing it underground. **Water supply:** water transfer schemes could be used to take water from an area of surplus to an area of shortage. **Reducing risk from sea level rise:** areas at risk may need sea defences to protect valuable land from increased coastal erosion.

"Religion was the only cause of conflict in Tudor England." How far do you agree?

How did the Tudor family end the Wars of the Roses?

- When Henry Tudor took over the throne of England, the country had been at war with itself for 30 years. The civil war known as the "Wars of the Roses" had ended with Henry's clever marriage to Elizabeth of York.
- Their son, Henry VIII, had Lancastrian and Yorkist blood and it was hoped he would unite the kingdom and make England powerful again.

Was Henry VIII sexist? Explain your answer.

- Henry VIII wanted to make sure his family name continued; this meant he had to have a son, as women could not inherit without problems.
- Unfortunately Henry's marriage to Catherine of Aragon wasn't producing any healthy male babies.
- The Pope wouldn't allow Henry to divorce Catherine, so Henry VIII decided to set up his own Church in 1534. This meant Henry could marry whomever he wanted (and he did five more times) and he finally got the son he wanted.

What problems did Edward VI face as King of England?

- Edward VI was brought up a Protestant and he made the Church of England more Protestant than his father had done.
- Edward's England was threatened by both Scotland and France from outside, and a rebellion in 1549 from inside the kingdom.

How did Mary I change England?

- When Mary I became queen she removed all the changes that her brother and father made and she made England a Catholic country again.
- Mary married the Spanish King Phillip II to keep England safe and she hoped a child would secure her changes for the future. Unfortunately she died in 1558 childless and her half sister became queen.

Why did Phillip II Spain hate Elizabeth and England?

- Elizabeth I was a Protestant but she knew how dangerous religion could be so she tried to balance her Church of England between the Protestant ideas and Catholic beliefs.
- Elizabeth's England suffered from hunger and poverty due to a growing population but there was also great exploration of the world during her reign. Sir Francis Drake challenged the Spanish control of the Americas when he sailed around the world in 1577-80.
- Phillip II of Spain hated England's queen, her religion, and her challenge to his control of American trade. In 1588 Spain tried to invade England with the Spanish Armada. Its failure led to growing confidence in England and the incredible plays of Shakespeare marked a new age.

HISTORIAN SKILLS

Knowledge
Explanation
Using Sources
Interpretation

KEYWORDS

Alliance = united group
Armada = large group of ships
Catholic = type of Christian
Divorce = marriage ended
Invasion = attack from outside
Pope = leader of Catholics
Protestant = type of Christian

IMPORTANT DATES

1485 = Henry VII becomes king
1502 = Prince Arthur dies
1509 June = Henry marries his dead brother's wife Catherine of Aragon
1509 April = Henry VIII becomes king
1527 = Henry asks the Pope for a divorce
1533 May = Henry divorces Catherine
1533 June = Henry marries Anne Boleyn
1534 = Henry creates the Church of England
1537 = Prince Edward born to Jane Seymour
1547 = Edward VI becomes king
1553 = Mary I becomes queen
1554 = Mary I marries Philip II of Spain
1558 = Elizabeth I becomes queen
1559 = Religious settlement
1588 = Spanish Armada

FAMOUS SOURCE

Nature = a painting called "Edward VI and the Pope"
Origin = unknown artist in c1575
Purpose = to show Edward VI as the rightful King of England

The painting shows a sick and dying Henry VIII pointing to his son as the next King of England. Edward's councillors and advisors sit in his court and the English Bible crushes the Pope. Outside the window, Edward's soldiers are tearing down any Catholic images and statues in churches.

Did the English Civil War give power to the people?

By the 17th century, the kings of England were able to call and close Parliament. They needed Parliament to agree to all taxes and new laws. However, the king was rich from custom duties and their land that made lots of money. Kings believed they were chosen by God to rule the country and that no man could question them.

1.What powers did the king have and how did they make money?

King Charles of England believed that no one could question him except God. Charles married a French Catholic and he raised taxes, spent lots on his rich lifestyle, and made the Church of England more Catholic. The people were angry and Parliament tried to criticise the king. The king stormed into Parliament and tried to arrest some MPs—this was the start of a conflict that would last 7 years.

2.Why did the King and Parliament start fighting each other?

The country divided into those people that supported the King, they were called "monarchists" and "cavaliers". On the other side were Parliament's supporters, known as "parliamentarians" and "roundheads". Families, villages, towns, and cities had to decide if they wanted the king or parliament to rule England. The Civil War began in 1642.

3.Who were the two sides in the English Civil War?

Parliament started badly, the king had the best soldiers; but eventually the parliamentarians created the "New Model Army" which was well-trained and well-paid. They started to win battles and finally defeated the king with pikes, muskets, cannons, and cavalry.

4.How did Parliament win the civil war?

While the war was being fought, radical groups appeared in England such as the Levellers, Diggers, and Fifth Monarchists. They wanted new freedoms such as voting for all men, sharing the land, and new types of Christian worship.

5.What groups appeared in England during the war and what did they want?

Parliament tried the king, found him guilty of treason, and executed him in 1649. Oliver Cromwell took over the country as the leader of the New Model Army. Parliament didn't change laws fast enough for Cromwell, so he went into the chamber and closed it down. Cromwell put a group of soldiers and religious people in Parliament and they made radical changes to England, including closing pubs and cancelling Christmas Day. Cromwell took the New Model Army to Ireland and ended a rebellion there by killing everyone in a town (Drogheda).

6.What did Oliver Cromwell do once he became the leader of England?

When Cromwell died, his son briefly took over the country, but the MPs and the Army got sick of him. They invited the king's son, Charles II to return to England and take back the throne. The new king cancelled all the laws passed during Cromwell's time in charge.

7.What happened after Oliver Cromwell died?

HISTORIAN SKILLS

- Knowledge
- Explanation
- Using Sources
- Interpretation

KEYWORDS

Civil War = conflict inside a country
Democracy = voting for leaders
Dictatorship = when one person runs a country and makes laws on their own.
Liberty= freedom
New Model Army = The army of Parliament
Parliament = group that agreed laws and taxes

IMPORTANT DATES

1625 = Charles I becomes king
1637 = King Charles introduces a new Prayer Book to Scotland—riots begin
1639 = people refuse to pay their taxes to the king
1642 = English Civil War begins
1649 = King Charles found guilty of treason by a Parliament court. He is executed.
1649 = Cromwell crushes the Irish rebellion at Drogheda.
1649 = The New Model Army defeats the Levellers.
1653 = Oliver Cromwell closes Parliament and is made Lord Protector of England.
1655 = Cromwell divides England into 11 areas, each controlled by a military Major General.
1657 = Cromwell is asked to become king but refuses.
1658 = Oliver Cromwell dies. His son Richard becomes Lord Protector.
1660 = Charles II invited by the army and MPs to come back to England as the king.

FAMOUS SOURCE

Nature = a pamphlet called "The World Turned Upside Down"
Origin = printed in1646 during the English Civil War
Purpose = to ridicule what was happening in the country at the time (satire)

The pamphlet shows a figure surrounded by strange objects, all of which are "upside down" or backwards in some way. It was meant to make fun of how strange the country seemed during the Civil War.

Purposes of digital media

Topic of Learning	I will need to know:	So that I can:
Purposes of digital media	Digital media feature in many areas of our lives and play an important part in today's world. The digital media sector relies heavily on using visual stimulants within products it produces to communicate messages effectively to a target audience. Digital media can be printed or used online and can be used for many different purposes, including to entertain, to advertise, to promote, to inform, to educate and instruct.	Design and create effective digital graphics to ensure it meets a given purpose.
Digital media and target audience	Digital media content creators create digital graphics and media for a range of different uses, including on magazine covers, CD/DVD covers, online and printed adverts, multimedia products and computer games. Before the media product is created, the target audience must be identified so that the final design is suitable and meets the intended purpose.	Understand the requirements of a client brief and target audience to ensure the final design of a digital graphic is appropriate.
Digital media file formats	When working with digital media, there are a number of different file formats that can be used to save them. These formats include, jpg, png, gif, tiff, psd, pdf, bmp, mp4, mp3. It is important to save a digital media using the most appropriate file format so that it can be opened or used within different software applications and on different platforms. A final version of a digital media product will either be printed or used online.	Save digital graphics using the most appropriate file format depending on how the final product will be used.
Project planning techniques	When planning to create digital media there are various planning techniques that can be used during the design process. These techniques include mind maps, visualisation diagrams and mood boards. Using these planning techniques will make the production of the final product quicker and easier and will help to create a final product for the client which meets the intended purpose and target audience.	Use appropriate planning techniques to help plan the design, layout and content of a digital graphic.
Desk-top publishing	Desktop publishing is the use of computer software to produce content in various formats for publishing on different platforms – online and offline. Traditionally, DTP software was used to create layouts combining text and images for print publications such as newspapers, magazines, books, brochures and leaflets. However, DTP software has developed significantly and is now commonly used to create layouts for online content. This ranges from web and app design to interactive pdfs and traditional magazine layouts.	Use a wide range of DTP tools in order to create effective digital graphics.

ICT and the way we communicate:

There was a time when people had limited options for communicating with one another. Face to face, letters and telephones were the main methods. Developments in ICT have given us limitless ways to communicate with others. Texting, skyping, social media, email, apps, instant messaging and virtual platforms are just some of these options.


ICT in Education:

The impact of ICT on how we learn has been significant. Learning has become more personal, knowledge, skills and talents can be shared with others in a fun and creative way. computers for learning provides us with an interactive audio-visual tool. Animation and presentation software along with projectors, screens, microphones and speakers can be combined to create effective and engaging teaching and learning tools. Remote learning tools enable learning to take place outside a classroom.

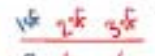

ICT and Entertainment:

ICT has changed the way we access entertainment. The news can be read via the internet, we can read books by downloading e-books using e-readers. Our ability to download files onto our personal devices mean we have access to a vast range of music and films. Gamers can experience the very latest in AR and VR technology giving them a very immersive gaming experience.



ICT and the way we shop:

The way we shop has changed significantly in the past few years. We no longer have to physically go into a shop to buy the goods we want. The evolution of e-commerce enables us to shop online using a vast number of online shops 24/7 from the comfort of our own home. We can view products up close, watch videos of the product and read reviews to help us make decisions. Shops collect our data in order to make our shopping experience more personal.


Word	Used in context	Definition	Example
Integer	*Round 24.6 to the nearest **integer**.*	A whole number.	3, 15, −4, 0, −323
(Rounding to) Significant Figures (Sig. Fig.)	*Round 24.6 to one **significant figure***	Rounding to the most meaningful digits.	24.6 to 1 sig. fig. is 20 
(Rounding to) Decimal Places (d.p.)	*Round 24.638 to one **decimal place.***	Rounding to a certain number of digits after the decimal place.	24.638 to 1 d.p. is 24.6 
Estimate	***Estimate** the value of 63 + 27*	To find a value that is close to the right answer, usually by rounding numbers to 1 sig. fig. first.	63 + 27 ≈ 60 + 30 = 90
Prime	*Which of the following numbers are **prime**?*	A number with exactly two *different* factors; one and itself.	2: 1, 2; 3: 1, 3; 5: 1, 5
Factor	*1, 2, 3, and 6 are all the **factors** of 6.*	Any integer (whole number) that divides exactly into another number,	4: 1, 4, 2, 3; 20: 1, 20, 2, 10, 4, 5
Multiple	*List the first five **multiples** of 4.*	Any integer (whole number) in the times table of another number.	Multiples of 4: 4, 8, 12, 16, 20
Lowest Common Multiple (LCM)	*Find the **lowest common multiple** of 6 and 9.*	If you list the multiples of these numbers, the lowest common multiple is the smallest number that can be found in both lists.	6, 12, 18, 24, 30, 36; 9, 18, 27, 36; LCM (6,9) = 18
Highest Common Factor (HCF)	*Find the **highest common factor** of 15 and 33.*	If you list the factors of these numbers, the highest common factor is the largest number that can be found in both lists.	15: 1, 15, 3, 5; 33: 1, 33, 3, 11; HCF (15,33) = 3
Prime factor decomposition **Product of prime factors**	*The **prime factor decomposition** of 52 is:* *2 x 2 x 13* *Write 52 as a **product of its prime factors**.*	Each number has a unique prime factor decomposition, just like a signature. Multiply prime numbers only to make the number.	52 = 2 × 26 = 2 × 2 × 13
Indices (pl.) / Index (sing.)	*Express 3 × 3 × 3 × 3 in **index** form.*	A number which shows how many times a number or letter has been multiplied by itself.	$3 \times 3 \times 3 \times 3 = 3^4$

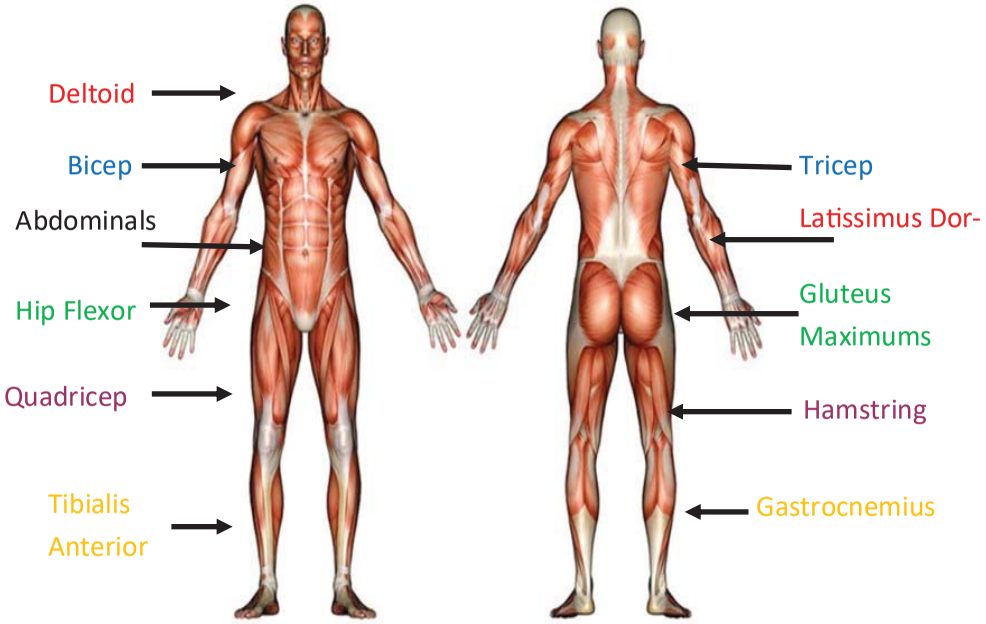
Word	Used in context	Definition	Example
Origin	*Draw a line that goes through the **origin**.*	The origin is the co-ordinate (0,0).	
Gradient	*The line has a positive **gradient** and that **gradient** is 3.*	The measure of how steep a line is. Represented by an 'm' in the general form $y = mx + c$	$gradient = \frac{change\ in\ y}{change\ in\ x}$
y-intercept	*Find the **y-intercept** of the graph.*	Where a straight line graph crosses the y-axis. Represented by 'c' in the general form $y = mx + c$	
Term	*In the expression $4x - 7$, $4x$ is the **x-term** and 7 is the **number term**.*	A single number or variable (letter).	$4x$ -7 x^2 $-xy^2$
Collect like terms	***Collect** the **like terms** in the expression $2x + 5 + 7x + 2$*	Collecting together terms whose variables are the same.	$2x + 5 + 7x + 2 \rightarrow 9x + 7$
Co-efficient	*The **co-efficient** of $5x^2$ is 5.*	A number used to multiply a variable. Variables with no number have a co-efficient of 1.	$7x$ -> The co-efficient is 7
Expression	*$5x - 3y + 2$ is an **expression**.*	Numbers, symbols and operators (such as + and × grouped together.	
Expand	***Expand** the bracket $2(x + 5)$.*	To remove a bracket by multiplying terms.	$2(x+5) = 2x + 10$
Factorise	***Factorise** the expression $2x + 10$*	Finding what to multiply together to get an expression.	$2x + 10 = 2(x+5)$
Substitute	***Substitute** the value $x = 2$ into the expression $5x - 1$*	Replacing the variables (letters) with numbers.	$3x$, $x = 2$, $3 \times 2 = 6$
Linear Sequence	*The sequence 4, 7, 10, 13, 16 is a **linear sequence**.*	A number pattern which increases (or decreases) by the same amount each time.	10, 9, 8, 7, 6,... -2, 1, 4, 7, 10,...
Term (in a sequence)	*In the sequence, 2, 4, 6, 8, the number 4 is the second **term**.*	Each number in a sequence is called a term.	
Term-to-term	*In the sequence 1, 3, 5, 7, 9, the **term-to-term** rule is to add 2 to the previous term.*	A rule used to allow you to find the next number in a sequence if you know the previous term or terms.	
n^{th} term	*Then **nth term** rule for a sequence is $3n + 1$.*	A position-to-term rule that works out a term based in its position in the sequence.	4, 7, 10, 13 (+3, +3, +3) $4 - 3 = 1$, n^{th} term $= 3n + 1$

Muscular System

TASK 1– Draw and label the muscular system.

TASK 2– Look, cover, write, check to recall the location of the muscles.

TASK 3 (Antagonistic Pairs)– Look at the colour coding for muscles that work together to produce movement. **Identify when** the pairs are used in sporting movement.



Muscles and Movement

TASK 4– Learn the key facts and terms related to how muscles move.

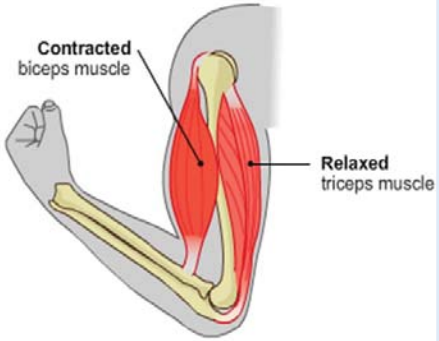
Muscles work in **antagonistic pairs** (Agonist and Antagonist).

Muscles can only pull.

Muscles pull on the bone to produce movement.

Agonist- The muscle that contracts to produce movement. The prime mover.

Antagonist- The muscle that relaxes to allow movement to take place.



When one muscle contracts to produce movement the other muscle relaxes.

In this example, when bending (flexion) the elbow the bicep contracts meaning it is the agonist and tricep is the antagonist as it relaxes. The opposite would take place when the elbow is straightening (extension).

TASK– 5 Straighten (extend) your leg (kicking action). Write a short sentence to describe what is happening.

TASK 6– Perform the movements below, **1.** Identify the main muscles used. **2.** Which muscle is the agonist? **3.** Which is the antagonist?

Basketball Chest Pass	Football– Kicking a ball	Upward phase of Calf Raise	Lateral Raise

1: How powerful is the media?

The media is a means of mass communication, audiences can consume media texts in many different formats on a range of platforms. Examples of **'traditional media'** would include; newspapers, TV etc. Examples of **'new media'** would include; websites, blogs etc.

Approximately **28.5 million** homes in the UK have a television.
More than **13.3 million** homes have a subscription view-on-demand service e.g. Netflix.
Over **15 million** households in the UK have more than one TV, while just **1.37million** don't have a TV at all.

Enquiry Task: think of a advert you recently saw on TV describe that advert and explain why you found it powerful.

How is God portrayed in the media?

Christians base their beliefs about the nature of God on known sources of wisdom and authority e.g. The Bible, Church teachings, personal experience etc.

God is believed to be:

Benevolent: all-loving
Eternal: has no beginning of end
Immanent: present/active in the world
Omnipotent: all-powerful
Omniscient: all-knowing
Transcendent: beyond time and space

Some Christians **were offended** by the portrayal of God in the film Bruce almighty that felt it was inaccurate**.** However, some Christians argued that it **was great** to have film that might encourage people to think about God.

Enquiry Task: Explain Christian beliefs about the nature of God [4]

3: Religion for entertainment funny or disrespectful?

For all Muslims Prophet Muhammad (pbuh) is a messenger of God. **Muslims do not make images of God or Prophets.** Unfortunately individuals and organisations all around the world have not only depicted Prophet Muhammad but have done so in a way that vilifies and pokes fun **e.g. The Charlie Hebdo Magazine**

The magazine has been **the target of two terrorist attacks**, in 2011 and 2015. Both were presumed to be in response to a number of controversial Muhammad cartoons it published.

Recently the Bible has been translated, into different dialects you can now purchase a **scouse and cockney Bible**. Some Christians believe this has been done **solely for entertainment and is therefore wrong.**

Enquiry Task: In your opinion should the press be able to write/ draw/present what they wish? Give reasons for your answer.

Week 5: Stereotypes in the media helpful or dangerous?

Stereotyping means labelling a group of people with the same characteristics as if all people in the group were exactly the same **e.g. 'all old people are grumpy'.** Television stereotypes are used as a form of **short hand** and for **comic effect**. However others would argue that some stereotypes are **highly offensive** and **dangerous** as they increase **prejudice** and **discrimination** in society.

Enquiry Task: Make a list of characters you have seen on TV or read about that you consider to be stereotypical.

4: Should we be exposed to violence in the media?

In 2019 it was reported that **9/10 children aged 5-15 years use a device to go online.**
On average, children aged 5-15 **spend 9 hours 30 minutes a week playing online games**.

Research evidence indicates that media violence can contribute to aggressive behaviour and **desensitisation to violence.** However, others believe there is no connection between the two.

The Bible teaches violence is wrong "*The Lord examines the righteous, but the wicked, those who love violence, he hates with a passion"*

Enquiry Task: Find and record two additional Bible quotations on violence. Link to a online Bible

https://www.biblegateway.com/

6: Islamophobia; is the press responsible?

Almost a **quarter of the world's population are Muslim** and in the **UK** that is about **1 in 20** people. Islamophobia is the **unreasonable dislike or fear of, and prejudice against Muslims or Islam.** It is believed Islamophobia is created when a person doesn't properly understand what Muslims do or believe. Islamophobia can result in Muslims being targeted, whether in person or online. They can be **badly treated**, **insulted or even physically hurt**. Lancaster University found that for every 1 moderate term used to describe Muslims in the press, there are 21 negative or extreme references.

Enquiry Task: Explain the meaning, origin and consequences of Islamophobia [4]

7 (Part 1): Should religion be broadcasted or kept private?

Some religious programmes have a regular slot on television or the radio. **The Songs of Praise** is a popular BBC television programme on Sundays, with real-life stories, interviews and live music, bringing the Christian community together across the nation. **The Big Questions** is a television show that discusses problems within society. The show shares the opinions of religious and non-religious people, which can benefit religion, as their beliefs and ideas are being expressed and understood and common concerns are recognised.
Popular British **soap operas** include; **EastEnders,** Coronation Street etc. all of which **tackle many ethical and religious issues.** EastEnders demonstrated **great practice and worked alongside Muslim Youth Helpline to challenge preconceptions and prejudices** about the role of faith in young people's lives in writing a recent storyline.

Enquiry Task: Explain why it was good practice for EastEnders to work with Muslim Youth helpline.

7 (Part 2) : Does censorship comprise our freedom?

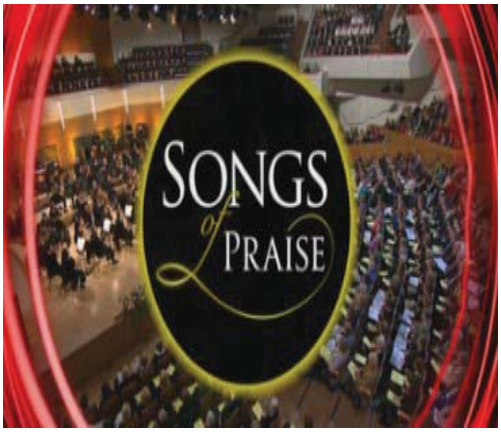
The UK has a relatively free media, although it is regulated in various ways to protect decency, truth and privacy. **Censorship is the examination of different forms of media and removing parts considered unacceptable** e.g. too violent, sexually explicit or use of bad language.

Arguments for and against censorship

Enquiry Task:

People have a right not to be offended whilst watching media or surfing the internet.	Who should decide what is to be kept secret or censored? How can we trust their judgement? Who checks on them?
Where do you draw the line? What will be censored next? Peoples' tastes change. Censorship would lead to dull and unrealistic media.	People are entitled to freedom of expression and choice it is a human right. Censorship would interfere with these freedoms.
Vulnerable children have a right to be protected from adult material, which might influence their behaviour.	Censorship would stop people being exploited in order to make violent and sexually explicit material.

1. Identify which of the above arguments are for/against censorship



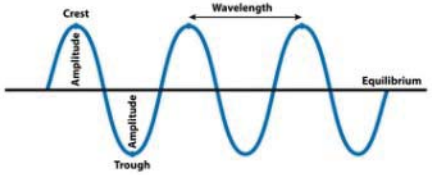
Year 8 - Combined Science - Cycle 1

Key vocabulary/content/ideas

- **Amplitude:** maximum distance of a point on a wave from its rest position.
- **Cell membrane:** a thin barrier surrounding the cell, that controls what enters and leaves.
- **Concentration**: mass of a substance in a given volume.
- **Eukaryote**: An organism composed of cells which contain a true nucleus.
- **Frequency, f:** number of waves passing a point each second, measured in Hertz, Hz.
- **Period:** time taken for a wave to pass a point.
- **Refraction:** A change in direction as a wave moves from one transparent material to another.
- **Reflection:** the change in direction of a wave when it meets a surface.
- **Wavelength:** distance (m) from one point on a wave to the same point on the next wave.

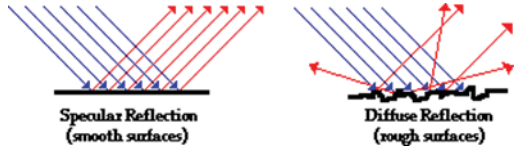
Week 1 - Describing waves

- **Waves** transfer energy without transferring matter. They can be either:
- **Mechanical** - they need a medium to travel through e.g. sound waves or seismic waves.
- **Electromagnetic** – disturbances in electric and magnetic fields E.g. Light or X-rays.
- **Waves** can be described in terms of their Amplitude, Wavelength, Frequency and Period.
- **Transverse waves**: the direction of energy transfer is perpendicular (at right angles) to the direction the particles oscillate.
- **Longitudinal waves**: the direction of energy transfer is parallel to (in line with) the direction the particles oscillate.



Week 2 - Wave speed

- When waves meet they can combine in a process called **superposition**.
- If the peaks of 2 waves line up, it will produce a wave with a greater amplitude.
- If a peak and trough line up, it will produce a wave with a smaller amplitude.
- Waves will **reflect** of a solid surface. Reflection can be **Specular** or **Diffuse** depending on the surface.



- Wave speed, v, can be calculated as:

$$\text{v (m/s)} = \frac{\text{distance travelled by wave (m)}}{\text{time taken (s)}}$$

v (m/s) = wavelength, λ (m) x frequency, f (Hz)

- We can investigate the properties of a wave using a **ripple tank**.

Week 3- Sound waves

- **Sound waves** are caused by vibrating objects.
- The greater the **amplitude** of a sound **wave**, the greater **volume** of the sound.
- The greater the **frequency** of a sound wave, the higher the **pitch** of the sound.
- The range of human hearing is 20 Hz to 20 000 Hz. Frequencies above this range are called **Ultrasound**.
- Sound waves travel at different speeds depending on the medium. The **speed of sound** in air is **343 m/s.**
- **Refraction** is a change in direction of the path of a light ray.
- It occurs at the **boundary** between two mediums of different density as waves change speed.

Week 4 - Light waves

- Light is a form of wave that can transfer energy.
- It travels at **300 million m/s - the speed of light**.
- Light interacts with materials in different ways depending if the surface is:
- **Transparent** - all light will pass through.
- **Translucent** - some light will pass through. **Opaque** - no light will pass through.
- **White light** is made up of all the colours of the **visible spectrum**. It can be split using a **prism**.
- Different colours of light have different wavelengths and frequencies.
- Light can be focused using lenses, such as those in cameras and your eyes.
- Ray diagrams are used to show the path of light rays.

Week 5 - Cell transport

- Most **Eukaryotic** cells have the same **organelles**: nucleus, cytoplasm, cell membrane, mitochondria and ribosomes. Plant cells also have thick cell walls, chloroplasts and a permanent vacuole.
- Cells have a **partially permeable membrane** that allows some substances through it but not others.
- Dissolved substances move into and out of cells by **diffusion**.
- Substances will diffuse from an area of high concentration to an area of low concentration.
- A difference between two concentrations forms a **concentration gradient**.
- The greater the concentration gradient, the higher the rate of diffusion.
- Water moves in and out of cells by osmosis.
- During **osmosis,** water molecules move from where there are more of them (a higher concentration) to where there are fewer of them (a lower concentration).

Key vocabulary/content/ideas

●**Field:** An area around an object where it can exert o force on another object.

●**Magnetism:** a **non-contact force** which can affect certain metals.

●**Non-contact force:** a force that acts on an object with no physical contact.

●**Nucleus:** small, dense region consisting of protons and neutrons at the centre of an atom.

●**Particle:** the smallest unit of matter that all materials are made up from.

●**Periodic table:** a chart in which the elements are arranged in order of increasing atomic number.

●**Physical Property:** Melting/boiling point, conductor/insulator, brittle/flexible.

●**Proton:** a positively charged particle found in the nucleus of an atom.

●**Reactivity**: a measure of how much a substance chemically reacts when it is mixed with another substance.

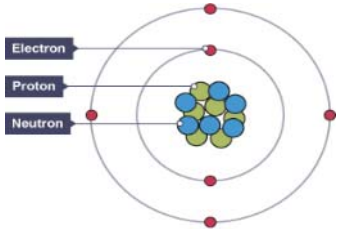
Week 6 - Atoms, elements and compounds

●All substances are made up of **atoms**. Different substances are made up of different types of atom.

●A substance composed of only one type of atom is known as an **element**. E.g. oxygen, carbon, iron, gold. ●Elements are found on the **periodic table of elements** and are represented by symbols. E.g. Carbon = C.

●A substance made up of 2 or more elements chemically combined is known as a **compound**. E.g. magnesium oxide is composed of magnesium and oxygen atoms.

●Atoms are made up of three smaller parts (called **subatomic particles**) : **protons**, **neutrons** and **electrons.**



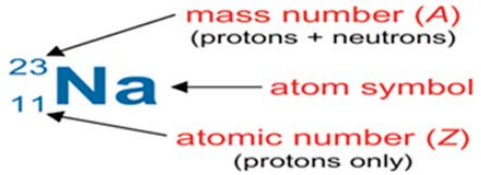
Week 7 - Atomic structure

●You can use a **periodic table** to find the number of **subatomic particles** each element has.

●The **atomic mass number** = the number of **protons** and **neutrons**.

●To find the **number of neutrons** in an atom subtract the atomic number from the atomic mass.

●The **atomic number** = the number of protons and is also the same as the number of electrons. This is because all atoms have **no overall charge**.



●Electrons are arranged in **shells** or **orbits** around the nucleus.

●Each shell can hold a certain number of electrons.

Week 8 - Reactivity Series

●The **reactivity series** shows metals in order of their reactivity.

potassium
sodium
calcium
magnesium
aluminium
carbon
zinc
iron
tin
lead
hydrogen
copper
silver
gold
platinum

●**Displacement reactions** are when a more reactive element takes the place of a less reactive element in a compound

Week 9 - Extracting Metals

●Metals can be extracted from **ores** (compounds) found in the Earth's **crust**. Depending on their reactivity we can extract them in different ways.

●Metals that are **less reactive** than aluminium are extracted by heating them with carbon as a **displacement reaction**. This means the metal is removed from the compound and replaced with carbon.

●Metals that are **more reactive** than aluminium cannot be reacted with carbon so are extracted using **electrolysis**.
●**Unreactive metals** are found in the Earth's crust as the uncombined elements. Examples of unreactive metals are silver, gold and platinum.

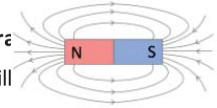
●Different materials are useful due to their **properties**:
●**Ceramics:** Hard-wearing, brittle, heat-resistant. ●**Polymers:** Light weight, strong, can be moulded. ●**Composites:** Relates to properties of components - High strength, waterproof, light weight

Week 10 Magnetism

●**Magnetic materials** include iron, cobalt and nickel.

●A **magnetic field** is an invisible force field which surrounds a magnet.

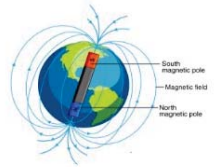
●All magnets have a **north** and **south pole**. The magnetic field is strongest at the poles of a magnet.



●Like poles (E.g. north and north) will **attra**

●Opposite poles (E.g. north and south) will

●It is possible to create a magnetic field by passing a current through a wire. This is called an **electromagnet**.
●Electromagnets are used in speakers and door locks. ●The Earth is surrounded by a magnetic field which can be used for Navigation with a **compass**.



Need to Know Dictionary: English

Word	Definition
Author	A writer of a book, article or document.
Narrative	A spoken or written account of connected events; a story.
Character	A person in a novel, play or film.
Theme	An idea that recurs in a work of art or literature.
Perspective	The viewpoint of the author.
Personification	Giving human qualities to an object.
Purpose	The author's reason for writing.
Imagery	Where the writer uses words to paint a picture to help the reader visualise what is being described.
Simile	A simile compares two things using the words, 'like' or 'as'.
Metaphor	A metaphor is a word or a phrase used to describe something as if it were something else.

Need to Know Dictionary: Maths

Word	Definition
Factor	A factor divides exactly into another number. There will be no remainder. For example, 2 is a factor of 6.
Multiple	A Multiple of a number is a number in its times tables
Prime	A Prime number has only two factors, 1 and itself.
Highest Common Factor	The highest common factor (HCF) is the largest number that is a factor of both numbers.
Lowest Common Multiple	The lowest common multiple (LCM) is the smallest number that is a multiple of both numbers.
Operation	A Mathematical process e.g. Add, Subtract, Multiply or Divide
Variable	a quantity that might change within the context of the problem
Term	a single number or variable
Coefficient	a multiplicative factor infront of a variable. e.g. 5x (5 is the coefficient, x is the variable)
Expression	a maths sentence with a minimum of two numbers and at least on math operation (no equals sign)

Need to Know Dictionary: Science

Word	Definition
Joule	The unit of energy, symbol J.
Renewable	An energy resource that can be replaced and will run out. Examples are solar, wind, waves, geothermal, and biomass.
Non-renewable	An energy resource that cannot be replaced and will be used up, such as coal, oil, or gas.
Cell	The smallest functional unit of a living organism. It contains parts to carry out life processes.
Cytoplasm	Jelly-like substance (found in cells) where most chemical processes happen.
Cell membrane	The cell component that surrounds the cell and controls movement of substances in and out.
Antagonistic muscle pair	A pair of muscles working in unison to create movement at a joint – as one muscle contracts, the other relaxes.
Diffusion	The process by which particles in liquids or gases spread out through random movement from a region where there are many particles to one where there are fewer.
Dissolve	The complete mixing of a solute with a solvent to make a solution.
Change of state	The process by which a substance changes from one state to another.

Need to Know Dictionary: Geography

Word	Definition
Ecosystem	A community of plants and animals that interact with each other and their environment
Biome	A plant and animal community that covers a large area of the Earth's surface (e.g. desert, tropical rainforest)
Adaptation	The process of change by which an organism or species becomes better suited to its environment
Deforestation	The cutting down of trees, transforming a forest into a cleared land for other uses such as a building or growing crops
Pollution	The presence in or introduction into the environment of a substance which has harmful or poisonous effects
Nutrient Cycling	Are on-going recycling of nutrients between plants and animals and their environment
Desertification	Is when the physical land in an area becomes drier and vegetation struggles to grow there
Overgrazing	Is when too many animals are allowed to eat the vegetation in an area for too long, so the vegetation cannot recover
Biodiversity	Is the wide range of plant and animal life that lives in an area or ecosystem

Need to Know Dictionary: Art

Word	Definition
Art movement	Is a tendency or style of art with a specific common philosophy or goal, followed by a group of artists during a specific period of time.
Onomatopoeia	The formation of a word from a sound associated with what is named (e.g. cuckoo, sizzle)
Formal Elements	The Formal Elements of Art are the parts used to make a piece of art work.
Refine	To develop and improve a piece of artwork.
Observational drawing	To carry out a drawing of something that you are looking at rather than something that is made up from memory.
Line	Defines shape, the outer edges of something.
Shape	The outline of objects.
Form	Appearing three-dimensional.
Tone	How dark or light a shape is.
Composition	The position and layout of shapes on the paper.

Need to Know Dictionary: History

Word	Definition
AD	Anno Domini (the years after Jesus Christ was born)
Army	Large group of soldiers
BC	Before Christ (the years before Jesus Christ was born)
Chronology	The order of events based on when they happened
Citizenship	To have rights in a country and be protected by its laws
Dictator	One person in charge, they make the rules on their own
Empire	A group of countries controlled by one government
Hierarchy	The order of people in an organisation based on power
Republic	A government elected (voted for) by the people
Tactics	Ways of doing things to win

Need to Know Dictionary: PE

Word	Definition
Tidal Volume	The amount of air inhaled or exhaled per breath.
Stroke Volume	The amount of blood pumped out of the heart per beat.
Cardiac Output	The amount of blood pumped out of the heart in one minute. Cardiac Output= Stroke Volume x Heart Rate
Fatigue	Physical fatigue is a feeling of extreme tiredness due to build up of lactic acid in the muscles or working for a long period of time.
Delayed Onset Muscle Soreness	The feeling of intense aching in your muscles after exercise.
Warm Up	Consists of a whole body exercise before physical activity to raise heart rate and body temperature, stretching to prepare muscles, ligaments and joints and practic-
Phases of Warm Up:	
1.Pulse Raiser	Gradually increase heart rate to increase blood flow and supply of oxygen to the working muscles.
2.Stretching and Joint Mobilisation	Increasing the elasticity of muscles through static or dynamic stretches. This helps to prevent injury. Movement of joints to prepare for activity.
3.Skills Practice	Performing skills or movements which are specific to your activity.
4.Mental Preparation	Focusing attention on the performance through mental strategies.

Need to Know Dictionary: Religious Studies

Word	Definition
Adaption	a process of change in which organisms or species become better suited to its environment.
Evil	the opposite of good. A force or the personification of a negative power that is seen in many traditions as destructive and against God.
Evolution	the process by which living organisms are thought to have developed and diversified from earlier life forms
Heaven	a state of eternal; happiness in the presence of God
Hell	a state of eternal suffering or state of being without God
Theodicy	a defence of God's goodness and omnipotence in the view of the existence of evil.
Purgatory	the intermediate state where souls are cleansed in order to enter heaven
Parable	a biblical story with a hidden meaning or message
Sin	any action or thought that separates humans from God
Trinity	a belief that there are three persons in One God; the Father, the Son and the Holy Spirit are separate but also as one

Need to Know Dictionary: Food Technology

Word	Definition
Combine	This refers to when ingredients are mixed together when following a method for a recipe. For example, this could be combining yeast and bread flour with water to make bread dough or to combine sugar with butter and then adding the eggs and flour to make a cake.
Knead	You knead the bread dough to make it smooth and stretchy. The palm of the hand is used to push the dough away from you then it is pulled back towards you by folding it back over from the front then it is pushed away again. This is repeated to make the dough soft and stretchy and it activates the gluten in the flour along with the yeast.
Consistency	This refers to how a food holds together or what it looks and feels like. The consistency of a sauce could be thick or runny, smooth or lumpy
Incorporated	This refers to different ingredients being mixed together to make one thing such as bread dough, pastry and cheese sauce.
Equal	This refers to quantities being the same such as cake mixture being divided into cupcake cases or equal amounts of bread dough to make into rolls.
Even	This refers to products made evenly when cut out or shaped such as scones being all the same size and height. It could also refer to the surfaces being flat and smooth.
Presentation	How something looks when it is made and then presented on a plate or dish. It could be the edges of a pie or cupcake icing that has been presented in a decorative way or the meal may have been
Management	This could refer to time management where you are planning your time when preparing a dish to ensure the dish and its accompaniments (side dishes) are ready at the same time or management within a team working in a kitchen environment.
Method	When making a dish or a product a method is followed using step by step instructions. This helps to get each ingredient combined together in the correct order and prepared correctly as well.
Independent	Where you work on your own or follow a recipe by yourself with no help from others.

Need to Know Dictionary: ICT

Word	Definition
digital footprint	the information about a person that exists on the internet as a result of their online activity
computer network	two or more computers connected together to enable the sharing of resources such as printers, software, files
email	sending messages electronically from one computer to another or lots of computers via a network
computer system	a set of integrated devices that input, output, process, and store data and information.
Input device	An input device is something you connect to a computer that sends information into the computer.
Output device	An output device is something you connect to a computer that has information sent to it.
Data storage	A computer uses two types of storage. A main store consisting of ROM and RAM, and backing stores which can be internal, e.g. hard disk, or external, e.g. a USB flash drive.
Storyboard	A visual way to present information, created in a linear way to help explain a story, a process, a set of sequential drawings to tell a story.
Storyline	The plot of a story in a comic and the way in which it develops.
Textables	Speech or thought bubbles which contain a comic character's words. Used to help tell a story.