



KINGS'
SCHOOL · WINCHESTER

KNOWLEDGE ORGANISER 2024
YEAR 9 | SUMMER





PUPIL DETAILS

Name	
Tutor Group	
Tutor Room	
House	
Library No.	
Locker No.	
At Kings', there are people that I can go to if anything is worrying me.	My Trusted Adults are: 1. _____ 2. _____

What I need for PE:	
---------------------	--

My Passwords	
Platform	Password

TIMETABLE

	Monday	Tuesday	Wednesday	Thursday	Friday
1					
2					
3					
Lunch					
4					
5					
After School					



KINGS'

SCHOOL • WINCHESTER

OUR SCHOOL VALUES

At Kings' our Values are at the heart of our school culture. They underpin our mission that we are **Working Together to Achieve Inspiring Futures, Exceptional Character, and Academic Excellence.**

We are reminded of our mission by our motto, Una Laborantes (Working Together), and our core values – developed and agreed by the Kings' community of pupils, staff, parents, and carers – help to guide every child, employee, and volunteer towards attaining that goal.

These values act as our inspiration and navigation in our learning, our work, and our life at school as we work together so that you achieve personal growth and future academic success.

Our school values are to:

DISCOVER
BRILLIANCE IN
EVERYONE

HAVE
UNLIMITED
AMBITION

EARN SUCCESS

BE KIND,
BE HUMBLE,
AND HAVE
INTEGRITY

MAKE A
DIFFERENCE

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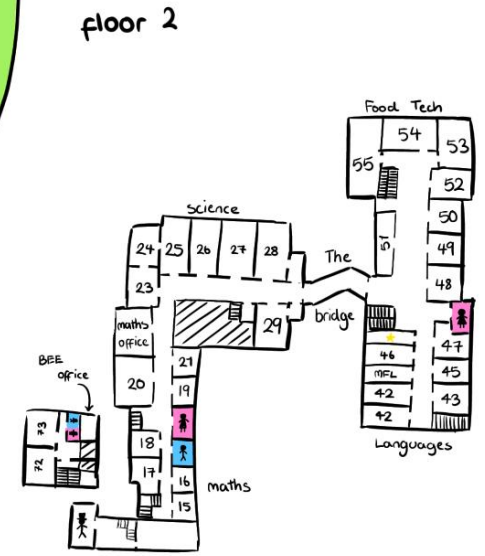




- stairs
- no floor
- path
- grass
- food
- girls toilets
- boys toilets
- changing rooms
- year office



By Chloe Beard



THE (VERY ACCURATE)
MAP OF
KINGS' SCHOOL



HOURS OF ATTENDANCE

Pupils must arrive at school by **8.45 a.m.** and although some pupils may arrive at school earlier than this, parents are advised that there will be no staff supervising pupils before 8.30 a.m.

Pupils are considered late if they have not registered by 8.45 a.m. (unless they are late with good reason e.g.: school bus was late.) Punctuality to lessons is important. Repeated lateness is sanctioned.

If for any reason pupils are late for school, or need to leave school early, they must bring a note signed by a parent/carer. They should then 'sign in/out' at Reception.

Time	Movement
08.45 - 09.10	Tutor Time
	Movement
09.15 - 10.15	Lesson 1
	Movement
10.20 - 11.20	Lesson 2
	Movement
11.25 - 12.25	Lesson 3
12.25 - 13.05	Lunch
	Movement
13.10 - 14.10	Lesson 4
	Movement
14.15 - 15.15	Lesson 5

BULLYING HAS NO PLACE AT KINGS'

At Kings, we firmly believe in fostering an inclusive and supportive environment for every individual within our community. Bullying in any form is completely unacceptable. Our school must be a safe space where everyone is able to thrive.

Our values of kindness, humility and integrity mean that we tackle negative behaviour proactively:

- Recognise the signs:** It's important to be able to identify bullying behaviours. Bullying can manifest in various forms, such as physical, verbal, social, or online. Look out for signs like repeated teasing, name-calling, exclusion, spreading rumours, physical aggression, or cyberbullying.
- Report:** Don't face bullying alone. Reach out to your trusted adult, trusted friends, family members, or other teachers who can provide guidance and support. This can be done face to face or on the safeguarding tile.

Remember, nobody deserves to be bullied, and you have the right to feel safe and respected. If you witness bullying, ensure that you report it so that we can keep every member of our school community safe.



Safeguarding Concern



HOMework

Homework at Kings' is central to our mission of helping you have an inspiring future and building your exceptional character and achieving academic excellence.

It also embodies our values:

- **Earn Success:** Homework reinforces learning, and a strong work ethic.
- **Discovering Brilliance:** Homework encourages critical thinking and problem-solving, helping students discover their brilliance and unique abilities.
- **Unlimited Ambition:** Engaging in homework fuels intellectual curiosity and a desire for lifelong learning, going beyond the boundaries of formal education.

Homework should enable you to learn, or practise what you have been taught in school. To consolidate your learning, you can also practise learning from your knowledge organiser.

Key Stage 3	For how long?	Set	Type of homework
Core			
Science	30 minutes	Once a week	Educake Knowledge Organiser
Maths	30 minutes	Once a week	Sparx
English	30 minutes	Once a week	Variable
Languages	20 minutes	Once a week	Variable
Innovation Subjects			
Tech	20 minutes	Once a week	Variable
Computing	20 minutes	Once a week	Variable
Humanities			
Geography	20 minutes	Once a week	Variable
History	20 minutes	Once a week	Variable
RE	20 minutes	Once a week	Variable
Creative Arts			
Drama	20 minutes	Once a week	Variable
Music	20 minutes	Once a week	Variable
Art	20 minutes	Once a week	Variable
Reading	20 minutes	Every day	

Have you learned it?

Your Knowledge Organiser contains the core knowledge that you need to know and learn.

Use your Knowledge Organiser to see if you can complete the following activities. If you can do these things, you know something well. How many can you do?

1. Answer a question about it, under a time pressure.
2. Explain it in your own words.
3. Teach it to someone else.
4. Apply what you know in a new context.
5. Remember it a week, a month or a year later?

Some things that may help you remember information:

1. Well-designed flashcards that you have made with key information.
2. Mnemonics, such as *“Richard of York Gave Battle In Vain”* (visible light spectrum – the rainbow)
3. Mind maps (keep the paper landscape)
4. Timelines (dates of key events, in order)
5. A grid of key quotes according to characters and themes.
6. Creating a story that includes all the information.
7. Answering practice questions
8. Re-create a section of your Knowledge Organiser from memory.



Name _____
 Subject _____
 Class/Group _____
 Classroom _____



Pupils must keep all of their equipment in a clear plastic pencil case, suitable for exam use.

The minimum stationery needed is on the back cover of this Knowledge Organiser.

Date	
<u>Presentation Guidelines</u>	
	Neat presentation of your work is important. It shows that you care about your learning.
1.	The lesson title should be written and underlined with a ruler.
2.	The date should be written on the top, right-hand side of the page and underlined.
3.	Pupils should write in blue or black ink. Key words can be highlighted or underlined.
4.	Pencils should be used for drawings, diagrams and graphs.
5.	All underlining must be done using a ruler.
6.	All loose sheets must be stuck into exercise books.
7.	Feedback work should be clearly indicated – green (or another coloured) pen should be used for all improvement tasks.
8.	A line should be used to rule off after every piece of work.



KINGS'

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HOW TO USE YOUR KNOWLEDGE ORGANISER

You are given a Knowledge Organiser at the beginning of the term. You are responsible for it and need to take care of it. Please do not lose it, or doodle on it. We will ask you to replace any lost/defaced Knowledge Organisers, as they are a tool that you and your teachers will use in lessons and for homework.

Your teachers have created Knowledge Organisers to support each unit of learning across Key Stage 3. These are then compiled into a booklet for you. Knowledge Organisers are a simple tool that provides the foundational knowledge required for each particular unit across each subject. These are called your **Knowledge Base**. They are not the whole curriculum – you will be taught much more than this, but they do outline the basic knowledge that every pupil should know.

Your teachers will tell you how often you will need to learn from your knowledge organiser when it is set as homework. Working with a knowledge organiser every day helps to establish routines in home learning, developing a confident use of vocabulary and independent study skills. You will be tested on the information that you have learned from the knowledge organisers in your lessons. There are many effective ways of learning from a Knowledge Organiser. One way that your teachers may use is called: Look, Cover, Write, Check. Please do not be tempted to just copy from the Knowledge Organiser – studies have shown that this is not effective.

Subjects have also added other information for you – this is indicated in a section called a **Knowledge Builder**. This may be extension tasks, or further study that may interest you.

Please scan the QR below to watch the video for more information on what Knowledge Organisers are, and how to use them:





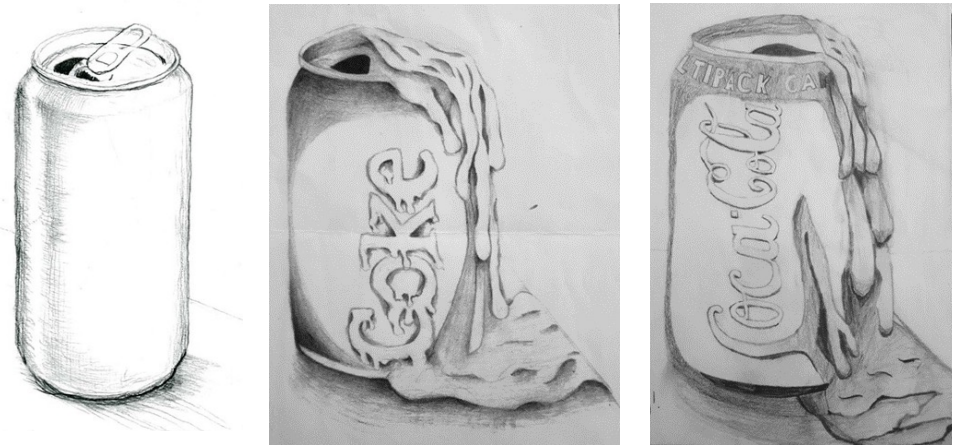
1. Surrealism		
1.1	Surrealism	Beyond reality – dreamlike. Something that looks realistic but cannot be real.
1.2	Salvador Dali	Spanish Surrealist Artist.
1.3	Rene Magritte	Belgian Surrealist Artist.
1.4	realism	Art that portrays the world as it really is.
1.5	abstract art	Art that does not represent real world things. It uses shapes, colours, forms, textures and lines.
1.6	composition	The arrangements of elements within a work of art.
1.7	Painting techniques	How to apply paint in different ways.
1.8	Perspective	Creating depth in a composition.

2. Artist information - Salvador Dali		
2.1	Nationality	Spanish
2.2	Style of art	Surrealist – renowned for his technical skill, precise draftsmanship, and the striking, bizarre images in his work.
2.3	Inspiration	Dreams and the unconscious mind. Symbolism. Food and eating.
2.4	Most notable work	The Persistence of Memory
2.5	Famous for painting;	Melting clocks

3. Artist information – Rene Magritte		
3.1	Nationality	Belgian
3.2	Style of art	Surrealist – Depicting familiar objects in unfamiliar or unexpected contexts
3.3	Inspiration	The relationship between reality and illusion.
3.4	Most notable work	The Son of Man
3.5	Famous for painting;	Bowler hats

Melting Can study

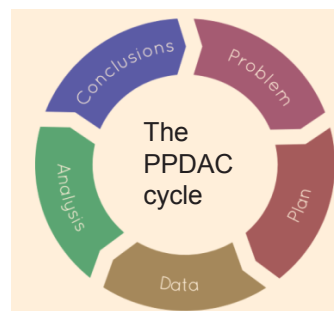
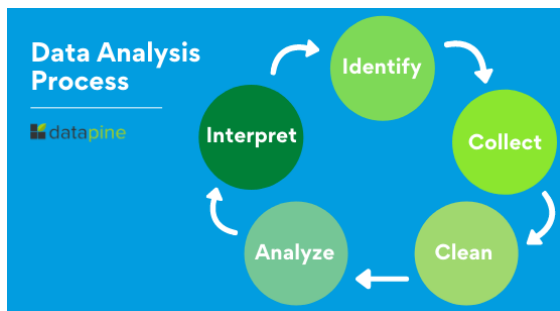
<https://www.youtube.com/embed/71-gRG0fJx4>





1. Data Science		
1.1	data science	Is extracting meaning from large data sets in order to gain insights to support decision making.
1.2	data visualisations	Are visual representation of data intended to help an audience process the information more easily and get a clear idea about the data at a glance.
1.3	infographics	Are visual representations of data, often involving pictures that reflects patterns and help tell a story.
1.4	The investigative (PPDAC) cycle	Is a framework for us to follow when asking and answering real-world problems using data.
1.5	data collection	Is the process of gathering and measuring information on targeted variables in an established system, which then enables one to answer relevant questions and evaluate outcomes.
1.6	data analysis	Is a process of inspecting, cleansing, transforming, and modelling data with the goal of discovering useful information, informing conclusions, and supporting decision-making.

2. Mobile App Development – App Shed		
2.1	mobile application	Most commonly called an app, is a type of application software designed to run on a mobile device, such as a smartphone or tablet computer.
2.2	App Shed	Is a block or text based programming language. This allows creation and sharing of apps.
2.3	decomposing	This involves breaking down the task into smaller more manageable parts to start with.
2.4	Graphical User Interface (GUI)	The GUI needs careful design consideration so that the user experience is a positive one so they want to continue to use it.
2.5	debugging	Enables errors to be corrected and improvements to be made.
2.6	WYSIWYG (What you see is what you get)	Is a system in which editing software allows content to be edited in a form that resembles its appearance when printed or displayed as a finished product.
2.7	web app	Is application software that runs in a web browser.
2.8	native app	Are those that were designed to run on a particular operating system.
2.9	home screen	The introductory visual interface displayed on a device or computer program, from which a user is able to access particular functions.
2.10	iframe	It essentially puts another webpage within the parent page.





Bite size – Data Representation



App Lab – Code.org creating your own app



Careers in App Development



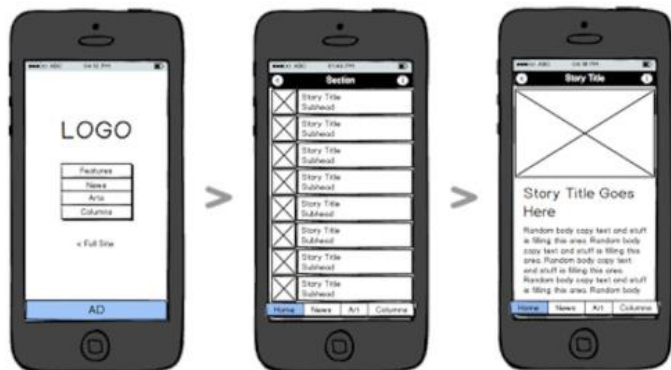
Code.Org



Careers in App Development



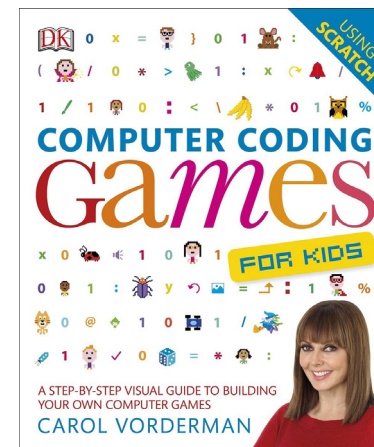
How to become an App developer



App Shed Example

2. Key Words		
2.1	abstraction	Identify the important aspects to start with.
2.2	algorithm	Precise sequence of instructions.
2.3	computational thinking	Solving problems with or without a computer.
2.4	blocks	Scratch bricks that we can use to code algorithms.
2.5	execute	A computer precisely runs through the instructions.
2.6	iteration	Doing the same thing more than once.
2.7	selection	Making choices.
2.8	sequence	Running instructions in order.
2.9	variable	Data being stored by the computer.

Books in the library





1. Perform very Successfully			
Physical	1.1	body language	Communication by movement or position, expressions, gestures and proxemics.
	1.2	gesture	A defined movement which clearly communicates meaning.
	1.3	facial expression	The physical and facial demonstration of a character's emotions.
Vocal	1.4	pitch	How high or low an actor delivers their lines to convey meaning.
	1.5	tone	How hard or soft an actor's voice is when delivering lines to convey meaning e.g. a hard tone to communicate frustration or anger.
	1.6	pace	The speed at which lines are delivered. Speed of speech conveys how a character is feeling.
Spatial	1.7	proxemics	The way space/distance between characters on stage is used to represent the relationship between them..
	1.8	eye contact	When two people look directly into one another's eyes, or at a fixed position.
	1.9	facings	The direction in which an actor faces to communicate their relationships with other characters/their own emotion.

2. Core Knowledge			
1.10	T1	audience	A group of people observing a performance event.
1.11	T1	character	A person with a set of characteristics within a play.
1.12	T1	communication	How a performer imparts information to an audience.
1.13	T2	genre	A style of performance.
1.14	T2	narrative	The story within a performance.
1.15	T2	context	The circumstances that form and create a story or key moment within a story.
1.16	T3	dramatic intention	The way an actor deliberately creates thoughts and/or feelings within an audience.
1.17	T2	interaction	The way an actor communicates directly with other actors or the audience.
1.18	T3	performance written description	A written account of what something is like or how something happened.
1.19	T3	performance analysis	Looking at the description and breaking it down to identify the main points and dramatic intention.
1.20	T3	performance evaluation	To make a personal judgement on a performance using available evidence.

3. Unit Context	
Michael Morpurgo's 'War Horse' performed at The National Theatre	Nick Stafford adapted the original story for the stage. At the outbreak of World War One, Joey, young Albert's beloved horse, is sold to the Cavalry and shipped to France. He's soon caught up in enemy fire, and fate takes him on an extraordinary journey. Albert, who remained on his parents' Devon farm, cannot forget Joey. Though still not old enough to enlist he embarks on a treacherous mission to find him and bring him home.

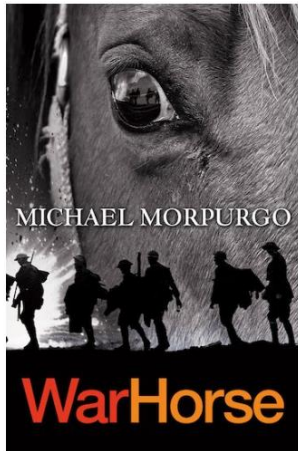


1. Perform very Successfully			
Physical	1.1	exaggeration	When an actor overemphasises a movement/s, lines or actions to emphasise or entertain for dramatic effect.
	1.2	eye contact	When two people look directly into one another's eye, or at a fixed position.
	1.3	stance	The position or attitude the actor's body is in.
Vocal	1.4	volume	How loud or quietly dialogue is delivered.
	1.5	pause	When a moment is held or stopped for a short time to create dramatic tension.
	1.6	expression	Conveys an emotion that tells us about the character and the way they react to the situation.
Spatial	1.7	stage position	The position of the actor/set on stage taken from the actor's point of view.
	1.8	physical contact	To break through the personal space of another character to communicate meaning.
	1.9	stage presence	The energy, or charisma and appeal, that an artist has whilst performing.

2. Unit Key Vocabulary			
1.10	T1	split screen	When two scenes are taking place in different time zones, in the same or different locations.
1.11	T1	narration	Providing the audience with background information or commentary on the action of the play.
1.12	T2	verbatim	Is a type of documentary theatre constructed from the words of real people responding to a particular theme or a real event.
1.13	T2	monologue	A speech given by one character giving more information about their role. This could be emotional or factual information and can be spoken directly or indirectly to the audience.
1.14	T2	direct address	Speaking directly to the audience.
1.15	T3	flashback	A moment that interrupts the scene to show an audience a moment that occurred in the past.
1.16	T3	parody	An imitation of a particular style or writer, that is exaggerated for comic effect.
1.17	T3	conscience alley	The exploration of multiple sides of a characters choice within a specific dilemma.
1.18	T2	conventions	A set of rules or techniques linked to a specific style of performance.

3. Unit Context			
The Supernatural	The term supernatural refers to any phenomena or entity that exists beyond the laws of nature. This could be in many forms including ghosts, mythical creatures and extra-terrestrial life. This unit explores real life accounts of individual experiences with the supernatural and how they can be combined with key dramatic devices to create practical performance.		Alecky Blythe Award winning British playwright and actor. Blythe set up Recorded Delivery (a Verbatim Theatre Company). The term 'recorded delivery' has now become synonymous with the verbatim technique she employs within her own work.

READ



WATCH



Learn more about how the puppets are manipulated within 'War Horse' to create a realistic performance.



Watch the trailer for 'War Horse' performed at The National Theatre.



Scan the QR code above to learn more about how to write and structure your review of live theatre from BBC Bitesize.



Watch this scene between Albert and a young Joey as their relationship begins to form.

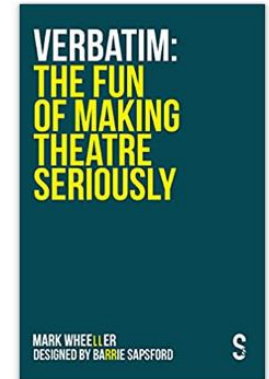


WATCH



Watch and listen to the interview with the cast of '2:22 A Ghost Story' and learn how they create specific effects within the play.

READ



An interview with Alecky Blythe about how she created her most recent production 'Our Generation'.



An introduction to Verbatim Theatre presented by The National Theatre.



1. Tone (For non-fiction writing)		
1.1	sarcastic (sarcasm)	The use of words that mean the opposite of what you really want to say. Used to insult someone, or to show irritation, or just to be funny.
1.2	cynical (cynicism)	A critical tone with an intention to question morals and ethics of somebody or something.
1.3	satirical (satire)	The use of humour and sarcasm to criticise and ridicule someone or something. Often used in political pieces.
1.4	emotional	Writing created to evoke an emotional response from a reader, perhaps aiming to shape their opinion or make them want to act upon their feelings.
1.5	aggressive	A hostile style of writing, used to heavily criticise someone or something that the writer disagrees with.
1.6	comedic	A humorous piece of writing, perhaps without the more serious underlying message of a satirical piece. Light-hearted.
1.7	motivational	Writing designed to inspire an action from the reader.
1.8	cathartic	Written to vent feelings. To 'get something off the writer's chest'.

2. Vocabulary		
2.1	media	The main means of mass communication (broadcasting, publishing, and the internet) regarded collectively.
2.2	data	Facts and statistics collected for reference or analysis. This now includes our personal data charting our online usage.
2.3	user	An individual who uses a service; in this case an online site or application.
2.4	clickbait	Content posted online with the purpose of generating 'clicks' and attention. Often misleading or purposefully controversial.
2.5	influencer	A person with the ability to influence potential buyers of a product or service by promoting or recommending the items on social media.
2.6	trend/trending	A popular and widely discussed topic or video. On YouTube, for example, if a video is trending, it appears on the home page. Trending will result in a large increase in views and interactions.

3. Discourse Markers – to be used in opinion writing		
3.1	consequently	Introducing something that has happened because of the previously mentioned point.
3.2	conversely	Introducing an idea that juxtaposes or opposes the previous point.
3.3	furthermore	To build and add weight to the point you are making.
3.4	however	Introducing an idea that contrasts one previously made.
3.5	Nevertheless/nonetheless	Despite an opposing point, an argument remains valid.

4. Types of Media Outlet		
4.1	newspaper	A printed publication covering major events.
4.2	website	An online source for news and information.
4.3	blog	A regularly updated website, usually run by an individual, written in a conversational style..
4.4	vlog	Like a blog but using video rather than written text. Became hugely popular with the success of YouTube.
4.5	online forum	A social media site with a discussion-based structure, e.g; Reddit. Can be public or private.

5. Social Media Outlets – Wider Context		
5.1	MySpace	Launched on August 1, 2003, the site was the first social network to reach a global audience, and influenced technology & pop culture.
5.2	Facebook (Meta)	The most successful social media site of all time, with 2.96 billion users and an annual revenue of \$118bn (2022).
5.3	Twitter	Launched in 2006. Over 100 million daily users and over 500 million tweets sent daily. Bought by Elon Musk for \$44bn.
5.4	Instagram	A site & app based on the sharing of personal photos and videos. Bought by Facebook for \$1bn in 2012. Now worth \$33bn (2022).
5.5	TikTok	An app that allows users to create and share videos on any topic.



1. Texts and writers		
1.1	Dulce et Decorum est	Wilfred Owen: An English poet and soldier. He was one of the leading poets of the First World War.
1.2	Regeneration	Pat Barker: An English writer and novelist. Her work centres on themes of memory, trauma, survival and recovery.
1.3	Charlotte Gray	Sebastian Faulkes: A British novelist, journalist and broadcaster. He is best known for his historical novels set in France.
1.4	The Things They Carried	Tim O'Brien: an American novelist.
1.5	What Were They Like?	Denise Levertov: a famous British-born American poet.
1.6	Lament for Syria	Amineh Abou Kerech: Syrian refugee and poet, left her war-torn country at the age of seven.
1.7	The Right Word	Imtiaz Dharker: Pakistan-born British poet, artist, and video film maker.

2. Vocabulary		
2.1	fatigue	Extreme tiredness resulting from mental or physical exertion or illness.
2.2	bombardment	A continuous attack with bombs, shells, or other missiles.
2.3	lament	A passionate expression of grief or sorrow.
2.4	catastrophe	An event causing great and usually sudden damage or suffering; a disaster.
2.5	resurgence	An increase or revival after a period of little activity, popularity, or occurrence.
2.6	gratitude	The quality of being thankful; readiness to show appreciation for and to return kindness.
2.7	regret	The emotion of wishing one had made a different decision in the past.

3. Locations		
3.1	Vietnam	A Southeast Asian country, the capital is Hanoi.
3.2	Northern Ireland	A part of the United Kingdom that is in the northeast of the island of Ireland.
3.3	Syria	A country located on the east coast of the Mediterranean Sea in southwestern Asia.
3.4	India	Officially named the Republic of India; a country in South Asia.
3.5	The Arctic	The Arctic is a polar region located at the northernmost part of Earth.
3.6	Soviet Union	A Communist state that spanned much of Eurasia from 1922 to 1991.

4. Techniques		
4.1	imagery	Visually descriptive or figurative language, especially in a literary work.
4.2	figurative language	Figures of speech (such as similes, metaphors) to suggest new pictures or images.
4.3	emotive language	Word choices that are intended to get an emotional reaction.
4.4	structure	How a text is organised and how its parts fit together.
4.5	rhetorical questions	A question asked in order to create a dramatic effect or to make a point rather than to get an answer.

5. Extra		
5.1	mustard gas	Sulphur mustard is a type of chemical warfare agent that was first used during the first World War.
5.2	Luftwaffe	Component of the German armed forces tasked with the air defense of Germany.
5.3	paddy fields	A flooded field of arable land used for growing semiaquatic crops, most notably rice.
5.4	guerrilla warfare	A form of irregular warfare in which small groups of combatants, fight a larger and less-mobile traditional military.

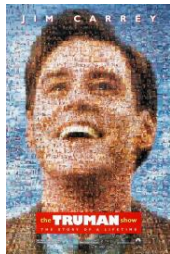
The rise and fall of MySpace – the original social media giant. An interesting insight into the realities of the online world.



The website for the 1996 movie 'Space Jam' - this website has been maintained in its original form. See what the very early internet looked like.



Films to watch:



Books to read:

Stretch your vocabulary		
1	algorithm	(In social media) a set of rules and signals that automatically ranks content on a social platform based on how likely each individual user is to view and interact with it.
2	bot	a fake user on social media, run by an algorithm. Bots are designed to perform actions that help build a large audience. Bots follow, like, and comment automatically
3	phishing	the fraudulent practice of sending emails or other messages, purporting to be from genuine companies
4	echo chamber	An environment where a person only encounters information or views that mirror and reinforce their own.
5	confirmation bias	the tendency to process information by only looking for, or interpreting, information that is consistent with one's existing beliefs.
6	editorial	a newspaper article expressing the editor's opinion on a topical issue.
7	objectivity	Presenting a neutral perspective. Unbiased information.



Greta Thunberg



David Attenborough – Climate Change

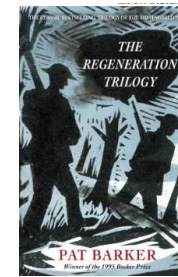


Winston Churchill: 'We Shall Fight Them on the Beaches'



Stretch your vocabulary		
1	ardent	Very enthusiastic or passionate.
2	deported	Expel someone from a country, typically on the grounds of illegal status or for having committed a crime.
3	monsoon	A seasonal prevailing wind in the region of South and SE Asia.
4	anglicised	Make English in form or character.
5	advocate	A person who publicly supports or recommends a particular cause or policy.
6	consumption	The action of using up a resource.
7	diplomatic	Having or showing an ability to deal with people in a sensitive and tactful way.

Books to read:

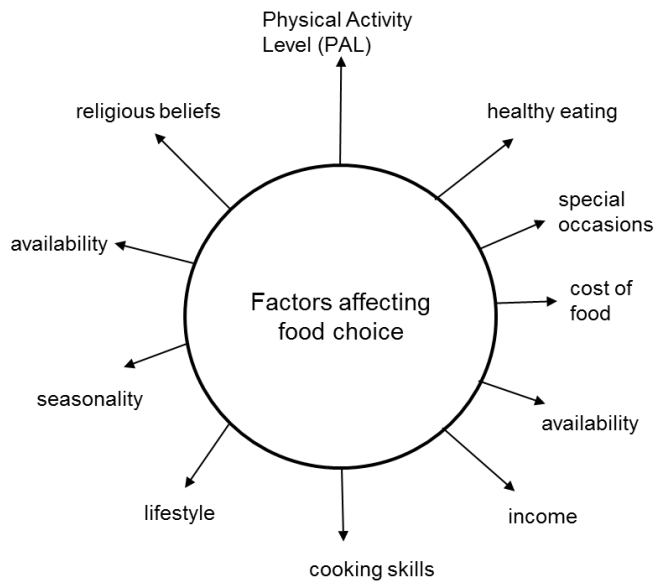


Films to watch:





1. Factors affecting food choice



3. Where food comes from

2.1	food provenance	Where food has been grown, reared or caught.
2.2	intensive farming	Farming that produces a high yield.
2.3	organic farming	Natural farming method that uses natural pesticides and fertilisers. Chemicals are avoided.
2.4	free-range farming	A natural farming methods where animals have freedom to roam.

4. Sustainable diets

3.1	food seasonality	The season when foods are harvested.
3.2	food miles	The distance that foods have travelled from their origin to your plate.
3.3	vegetarian diet	A diet that excludes meat or fish.
3.4	vegan diet	A diet that excludes meat, fish and all animal products.
3.5	pescetarian diet	A diet that excludes meat but includes fish.

2. Religion and food choice

Religion	Pork	Beef	Lamb	Chicken	Fish
Islam	✗	Halal only	Halal only	Halal only	✓
Hinduism	✗	✗	✓	✓	✓
Judaism	✗	Kosher only	Kosher only	Kosher only	✓
Sikhism	✗	✗	✓	✓	✓
Buddhism (strict)	✗	✗	✗	✗	✗
Seventh-day Adventist Church	✗	✗	✗	✗	✗
Rastafari Movement	✗	✗	✗	✗	✗

What Is taste?

Taste influences the food that we choose to eat.

Taste is detected by the taste buds on the tongue which recognise five different tastes – sweet, sour, bitter, salty or umami (savoury).

5. Taste testing

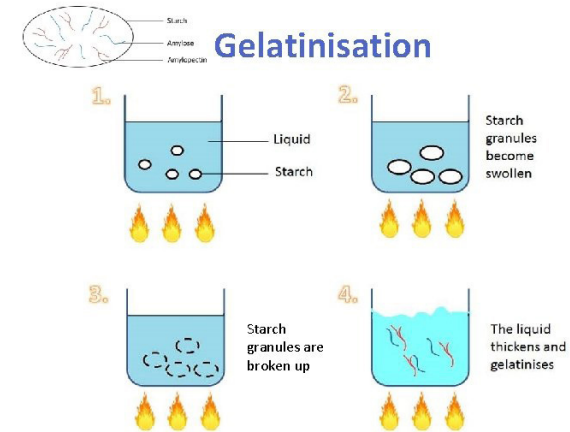
		Examples
5.1	sweet	sweets, honey, golden syrup
5.2	salty	crisps, anchovies, bacon
5.3	bitter	coffee, cocoa powder, green tea
5.4	sour	citrus fruit, rhubarb, gooseberries
5.5	umami	meat, gravy, mushrooms



6. Essential components of food packaging		
6.1	name of product	Must be accurate and clear on packaging.
6.2	manufacturer's contact details	For enquiries or complaints.
6.3	description of the product	Simple explanation of what the product is.
6.4	weight	Accurate weight in grams or kilograms.
6.5	ingredients list	Listed in descending order. Allergens in bold .
6.6	cooking instructions	How to cook the food.
6.7	shelf life	Use-by or best-before dates
6.8	storage instructions	How to store the food safely.
6.9	place or origin	Where the food was grown, reared or caught.
6.10	allergens and intolerances	Labelled clearly in bold in ingredients list.
6.11	back of pack nutrition label	Energy (kcal/kJ), fat (g), saturates (g), carbohydrates (g), sugars (g), protein (g) and salt (g) must be listed per 100g/ml.

7. Practical skills		
7.1	bridge hold	Form a bridge over the ingredient with your hand and put the knife underneath.
7.2	claw grip	Curl fingers inwards and grip the food with your fingertips, keeping fingers away from the knife.
7.3	knead	To massage and push a dough to stretch and develop the gluten.
7.4	reduction sauce	A sauce that uses boiling and simmering to thicken it.
7.5	preserving	Using a method of cooking to extend the shelf life of a food e.g. making jam, curing and dehydrating.
7.6	making a roux sauce	A white sauce (Béchamel) made with flour, butter and milk. The starch thickens the sauce.

8. Food science		
8.1	dextrinisation	The browning of starch in the presence of dry heat.
8.2	raising agent	Something that makes a mixture rise. They can be biological, chemical or mechanical.
8.3	gelatinisation	When starch molecules swell in the presence of heat. This thickens a liquid.
8.4	pectin	The natural setting agent in fruit.



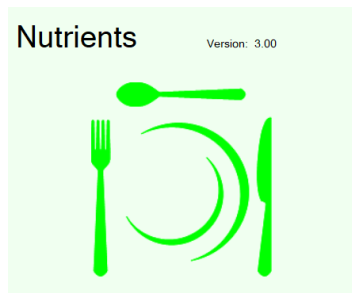
9. Nutrition requirements of teenagers	
What are their special dietary and energy needs?	Which nutrients should they have more of?
Follow the Eatwell Guide	protein calcium and vitamin D Iron and vitamin C
Teenagers have growth spurts and are very active, so high energy needs.	
Increased appetite means increased portion sizes are needed.	



The Eduqas GCSE Food Preparation and Nutrition online textbook covers the syllabus and give a more in-depth overview of the subject. There are lots of videos and activities to view.

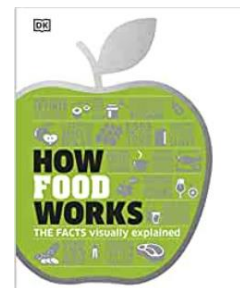
ONLINE TEXTBOOK LOGIN DETAILS:

Student Username: SWINCHESTER4
 Student Password: STUDENT4



Nutrients is a nutrition software available to use on school computers. You can design nutrition labels and cost out your dishes.

Books to read:



Videos to watch:



GCSE Food Preparation and Nutrition videos

Stretch your vocabulary		
a1	commodity	A type of food group.
a2	saturated fat	Usually from animal sources: can be harmful to health.
a3	Non-starch Polysaccharide (NSP)	A complex sugar found in the cell walls of plants. Helps to aid digestion.
a4	convection	Heat travels through air or water.
a5	Basal Metabolic Rate (BMR)	The rate at which a person uses energy when resting.



1. Mes droits		My rights
J'ai le droit de/d'...	I am allowed to...	
aller au MacDo avec mes copains	go to McDonald's with my friends	
aller sur des forums	go onto forums	
aller sur Facebook	go on Facebook	
jouer à des jeux vidéo	play video games	
regarder la télé jusqu'à onze heures du soir	watch TV until 11pm	
sortir avec mes copains le weekend	go out with my friends at the weekend	
sortir seul(e)	go out by myself	
surfer sur Internet une heure par jour	surf the net for one hour per day	

2. Les conditions		Conditions
si j'ai aidé à la maison	if I have helped around the house	
si j'ai fini mes devoirs	if I have finished my homework	
si j'ai mon portable sur moi	if I have my phone on me	
si je rentre avant dix heures du soir	if I get back before 10pm	
si je veux	if I want	
si mes parents savent avec qui je suis	if my parents know who I am with	
si mes parents savent où je vais	if my parents know where I am going	

3. Les expressions avec 'avoir'		Expressions with 'avoir'
avoir le droit de	to be allowed to (literally: to have the right to)	
avoir faim	to be hungry	
avoir soif	to be thirsty	
avoir froid	to be cold	
avoir chaud	to be warm	
avoir raison	to be right	
avoir tort	to be wrong	
avoir envie de	to want to	
en avoir marre de	to be fed up of	

5. Les mots essentiels		Key words
à mon avis	in my opinion	
au lieu de	instead of	
avant tout	above all	
comment	how	
complètement	completely	
être d'accord	to agree	
franchement	frankly	
malheureusement	unfortunately	
malgré	in spite of	
même	even	
plein de	loads of	
pour (+ infin)	in order to	
pourtant	however	

4. Les réactions		Reactions
Mais ce n'est pas juste!	But it's not fair!	
C'est tout à fait normal.	That's quite right.	
Ce n'est pas du tout normal.	That's not right at all.	
C'est fou!	That's crazy!	
On te traite comme un enfant!	They are treating you like a child.	
Mais révolte-toi!	Rebel!	
Tes parents exagèrent!	Your parents are going too far!	

6. Faire des achats		Shopping
bon marché	cheap	
cher/chère	expensive	
le commerce équitable	fair trade	
les conditions de travail	working conditions	
éco	green	
l'éthique sur l'étiquette	ethical labelling	
l'ouvrier/ouvrière	worker	
le produit	product	



7. Qu'est-ce qui est important pour toi dans la vie? What is important for you in life?	
Ce qui est important pour moi, c'est...	What is important for me is...
Qu'est-ce qui te préoccupe dans la vie?	What worries you in life?
Ce qui me préoccupe, c'est...	What worries me is...
l'argent (m)	money
la cruauté envers les animaux	cruelty to animals
l'état de la planète	the state of the planet
mes études (fpl)	my studies
la faim dans le monde	hunger in the world
l'injustice (f)	injustice
la musique	music
la pauvreté dans le monde	poverty in the world
ma santé	my health
la violence	violence
le racisme	racism

8. Des verbes utiles	Useful verbs
acheter	to buy
adopter	to adopt
agir	to act
consommer	to consume
énervé	to get on someone's nerves
exploiter	to exploit
fabriquer	to make
faire attention	to pay attention
devenir membre	to become a member
participer (à)	to take part (in)
penser	to think
protéger	to protect
respecter	to respect

9. Qu'est-ce que c'est pour toi, le bonheur?	
Qu'est-ce qui te rend heureux/heureuse?	What makes you happy?
Ce qui me rend heureux, c'est de/d'(+ infin)	What makes me happy is to...
Ce qui me rend heureux, c'est le/la/les (+ noun)	What makes me happy is...
Le Bonheur, c'est quand...	Happiness is when...
accro	hooked
l'amitié (f)	friendship
apprécier	to appreciate
déprimé(e)	depressed

What does happiness mean for you?	
decédé(e)	passed away/deceased
oublier	to forget
rester au lit	to stay in bed
réussir	to succeed
se retrouver	to meet up
se sentir	to feel
rigoler	to have fun (informal)

Knowledge Builder: French

Click on the following link to practise Direct Object Pronouns



Click on the following link to improve your listening



Arte Journal Junior



1. Present tense									
	Regular (all regular verbs follow this pattern)			Irregular verbs (there are more but these you must learn by heart)					
	Jouer (-ER) To play	Finir (-IR) To finish	Attendre (-RE) To wait	Être To be	Avoir To have	Aller To go	Faire To make/do	Prendre To take	Vouloir To want
Je/j'	joue	finis	attends	suis	ai	vais	fais	prends	veux
Tu	joues	finis	attends	es	as	vas	fais	prends	veux
Il/Elle/On	joue	finit	attend	est	a	va	fait	prend	veut
Nous	jouons	finissons	attendons	sommes	avons	allons	faisons	prenons	voulons
Vous	jouez	finissez	attendez	êtes	avez	allez	faites	prenez	voulez
Ils/Elles	jouent	finissent	attendent	sont	ont	vont	font	prennent	veulent

2. Perfect tense												
	Regular past participles with 'avoir'			Irregular past participles with 'avoir'	Irregular past participles with 'être' (add 'e' if the subject is feminine, add 's' if the subject is masculine plural, add 'es' if the subject is feminine plural)			Irregular past participles with 'être'				
		Jouer (-ER) To play	Finir (-IR) To finish	Attendre (-RE) To wait	bu (drank) fait (made/did) écrit (wrote) lu (read) pris (took) reçu (received) vu (saw)		Aller To go	Partir To leave	Descendre To go down	Venir To come	Naître To be born	Mourir To die
Je/j'	ai	joué (played)	fini (finished)	attendu (waited)		suis	allé(e)	parti(e)	descendu(e)	venu(e)	né(e)	mort(e)
Tu	as					es						
Il/Elle/On	a					est						
Nous	avons					sommes	allé(e)s	parti(e)s	descendu(e) s	venu(e)s	né(e)s	mort(e)s
Vous	avez					êtes						
Ils/Elles	ont					sont						
						Same pattern: Arriver, Entrer, Rentrer, Monter, Rester, Tomber Retourner		Same Pattern: Sortir		To remember which verbs take 'être' as the auxiliary you can use the mnemonic: MRS VAN DER TRAMP M onter, R ester, S ortir, V enir, A rriver, N âître, D escendre, E nter, R etourner, T omber, R entrer, A ller, M ourir, P artir		



3. Imperfect tense				
	Regular – take the ‘nous’ form of the present tense and remove –ons. Then you have your stem (e.g. nous habitons → habit- + imperfect ending)			Irregular stem
	Jouer (-ER) To play	Finir (-IR) to finish	Attendre (-RE) To wait	Être
Je/J'	jouais	finissais	attendais	étais
Tu	jouais	finissais	attendais	étais
Il/Elle/On	jouait	finissait	attendait	était
Nous	jouions	finissions	attendions	étions
Vous	jouiez	finissiez	attendiez	étiez
Ils/Elles	jouaient	finissaient	attendaient	étaient

4. Near future tense			
	Aller To go	+ Infinitive	
Je/J'	vais	manger aller boire acheter visiter parler	to eat to go to drink to buy to visit to talk
Tu	vas		
Il/Elle/On	va		
Nous	allons		
Vous	allez		
Ils/Elles	vont		
<p>This is the equivalent of ‘I am going to...’ or ‘You are going to...’ etc... in English. It is the most straightforward way of referring to future events.</p>			

5. Future tense			
	Manger (-ER) To eat	Finir (-IR) To finish	Apprendre (-RE) To learn
Je/J'	mangerai	finirai	apprendrai
Tu	mangeras	finiras	apprendras
Il/Elle/On	mangera	finira	apprendra
Nous	mangerons	finirons	apprendrons
Vous	mangerez	finirez	apprendrez
Ils/Elles	mangeront	finiront	apprendront
<p>This is basically the infinitive + the correct ending. It translates as ‘I will...’, ‘You will...’ etc. For –RE verbs you drop the ‘e’ to make the stem.</p>			

6. Conditional tense			
	Manger (-ER) To eat	Finir (-IR) To finish	Apprendre (-RE) To learn
Je/J'	mangerais	finirais	apprendrais
Tu	mangerais	finirais	apprendrais
Il/Elle/On	mangerait	finirait	apprendrait
Nous	mangerions	finirions	apprendrions
Vous	mangeriez	finiriez	apprendriez
Ils/Elles	mangeraient	finiraient	apprendraient
<p>This is also the infinitive + the correct ending. It translates as ‘I would...’, ‘You would...’ etc. For –RE verbs you drop the ‘e’ to make the stem.</p>			

Click on the following links to practise grammar



The present tense



The perfect tense



The imperfect tense



The near future tense



The future tense



The conditional tense



1. Climate issues		
1.1	global commons	Areas – and their potential economic resources – that lie beyond national jurisdiction: the atmosphere, the high seas, Antarctica, and outer space.
1.2	atmosphere	The layer of gases surrounding the Earth’s surface.
1.3	climate	The average weather conditions experienced in an area measured over a long period of time.
1.4	climate graph	A graph that shows the mean average temperature and rainfall for each month of the year.
1.5	climate change	Change to the long term weather patterns around the world.
1.6	global warming	Increases in the world’s temperature caused by human activities that increase the amount of greenhouse gases in the atmosphere.
1.8	the greenhouse effect	The trapping of heat within the Earth’s atmosphere by an insulating layer of gases. (Greenhouse gases e.g. CO2).
1.9	climate conferences	Climate Change Conferences advances the global climate talks, mobilizes action, look at the impacts of climate change as well as innovation and solutions.
1.10	adaptation	Changing our behaviour to live with the consequences of increased temperatures and reduced or increased rainfall.
1.11	mitigation	Taking action to try to stop the human causes of climate change.
1.12	pollution	The introduction of harmful materials into the environment. These harmful materials are called pollutants. They can be natural (e.g. ash) or man made.
1.13	natural resources	Materials that occur naturally and can be extracted or exploited to make money.

2. Antarctic and plastic issues		
2.1	water stress	Occurs when the demand for useable water exceeds the available amount for a period of time.
2.2	waste hierarchy	Ranks all of the different waste management options into an order of what is best for the environment.
2.3	food miles	The distance food has travelled to get to your plate.
2.4	Antarctica	The large, frozen southern continent surrounded by the Southern Ocean.
2.5	Low Income Country (LIC)	A poor country with GNI per capita below \$1,035.
2.6	Newly Emerging Economy (NEE)	A country that has begun to experience high rates of economic development (GNI between \$1,036 - \$12,776).
2.7	High Income Country (HIC)	A country with a GNI per capita above \$12,775.
2.8	poverty	Lack of access to basic needs, such as food, shelter, water and education; extreme poverty is a very high level of poverty.
2.9	sustainability	Meeting our needs today whilst allowing the needs of future generations to be met.
2.10	microplastics	Plastic particles that are too small to be seen with the human eye. Either caused by the breakdown of
2.11	recycling	The action or process of converting waste into reusable material.
2.12	design solutions	The approach to creating products and services that have considered the environmental, social, and economic impacts from the initial phase through to the end of life.
2.13	scarcity	A lack of a particular resource in any one place at any one time.



1. How does a river shape the landscape?		
1.1	erosion	The wearing away of rock and soil found along the river bed and banks.
1.2	transportation	How rivers picks up and carries material as they flow downstream.
1.3	deposition	This is when a river drops (deposits) the sediment it is carrying –It usually occurs when the river slows down and energy is reduced.
2. What are the 4 erosional processes?		
2.1	hydraulic action	The force of the river against the banks can cause air to be trapped in cracks and crevices. The pressure weakens the banks and gradually wears it away.
2.2	abrasion	The force of the water in the river carrying stones and other materials grinds the bedload like a piece of sandpaper.
2.3	attrition	Rocks being carried by the river smash together and break into smaller, smoother and rounder particles.
2.4	solution	Soluble particles are dissolved by weak acids in the water.
3. What are the 4 transportation processes?		
3.1	solution	Minerals are dissolved in the water and carried along in solution (in the water).
3.2	suspension	Fine light material is carried along in the flow of the water.
3.3	saltation	Small pebbles and stones are bounced along the river bed.
3.4	traction	Large boulders and rocks are rolled along the river bed.
4. What are the characteristics of rivers?		
4.1	river course	The path of a river across the surface of the land, usually to the sea. It flows in a channel.
4.2	source	Where the river begins. This is usually in hills or mountains where water collects from natural springs.
4.3	mouth	Where a river ends and enters another larger body of water e.g. the sea.
4.4	tributaries	A freshwater stream that feeds into a larger stream or river.
4.5	confluence	The point where a tributary meets the mainstream.
4.6	long profile	A way of displaying the slope of a river along its entire course.
4.7	drainage basin	the area of land drained by a major river and its tributaries. All rivers flow from the source (often in the mountains) to the mouth (the sea).
5. What typical landforms will I find on a river?		
5.1	waterfall	Sudden drop of a river or stream over a vertical or very steep slope - It often forms where the river meets a band of softer rock after flowing over an area of harder rock.
5.2	gorge	A narrow, steep sided valley, often formed as a waterfall retreats upstream.
5.3	valley	Low lying areas of land between hills or mountains, normally with a river running through them.
5.4	meander	A bend in a river.
4.6	oxbow lake	An arc-shaped lake which has been cut off from a meandering river.
6. How do rivers effect human populations?		
1.1	flood	Occurs when river volume is larger than the size of the channel and water spills out onto the floodplain and other areas creating flood risk.





1.0 Deutsche Orte	1.0 German places
Berlin	Berlin
Wien	Vienna
München	Munich
Hannover	Hanover
Köln	Cologne
Genf	Geneva
Ostsee	Baltic Sea
Donau	Danube
Rhein	Rhine
Nürnberg	Nuremberg

2.0 Berlin nach 1945	2.0 Berlin after 1945
Die Mauer	The wall
Der Mauerfall	Fall of the Berlin Wall
Die Alliierten	The Allies
Die Luftbrücke	Airlift
Der kalter Krieg	Cold War
getrennt	separated
DDR	GDR (East Germany)
BRD	FRG (West Germany)
Reichstag	German Parliament Building
Der Trabant	East German type of car

2.1 Berlin today	
Fernsehturm	TV Tower
Kurfürstendamm (Ku'damm)	Famous Berlin shopping street
KDW (Kaufhaus des Westens)	Large and famous department store
Grunewald	Large green forest area
Der Brandenburger Tor	Brandenburg Gate
Der Tiergarten	Very large park, containing a zoo

3.0 Wann?	4.0 When?
normalerweise	normally
jetzt	now
heute	today
gestern	yesterday
letzte Woche	last week
letztes Wochenende	last weekend
neulich	recently
vor drei Jahren	three years ago
morgen	tomorrow
nächste Woche	next week
in der Zukunft	in the future

Find out more about a divided Berlin here:



4.0 Using a range of tenses with appropriate time markers

In German we use four tenses.

Use a time marker when you are switching between tenses to make your writing clear.

Present: Jeden Tag höre ich Musik.

Perfect: Letzes Jahr habe ich eine Bootsfahrt gemacht.

Imperfect: Als ich jünger war, spielte ich Klavier.

Future: Nächstes Jahr werde ich auf ein Konzert gehen.

Knowledge builder: Watch or read the new on



Logo provides access to a wide range of listening and reading resources. You can watch the last seven days of news bulletins and read about anything that takes your interest.



<p>5.0 Word Order</p> <p>1.1 Put verbs second and/or last: eg Ich <u>spiele</u> jeden Tag Tennis. Ich <u>habe</u> jeden Tag Tennis <u>gespielt</u> OR Jeden Tag <u>spiele</u> ich Tennis. Jeden Tag <u>habe</u> ich Tennis <u>gespielt</u>.</p> <p>Form the verb in second position according to who the sentence is about.</p> <p>1.2 TIME, MANNER, PLACE: Put the “when” at the beginning, the “where” at the end and anything else in between.</p> <p>It doesn't matter if there are only two of these details, the rule is the same. eg: Am Montag fahre ich mit dem Bus in die Stadt. Ich fahre mit dem Bus in die Stadt. Am Montag fahre ich in die Stadt.</p>

<p>6.0 Checklist for written work</p> <ul style="list-style-type: none"> • Have I written about all the bullet points? • Is the start of each paragraph directly relevant? • Is my work clear? • Are verbs correctly formed? • Are tenses correct? • Word order – verb 2nd / last? • CAPITAL LETTERS ON NOUNS • Genders • Adjective endings • Spellings – ei/ie • Is there a good variety of different vocabulary? • Have I given opinions and explained them at least twice?
--

7.0 Giving opinions	
Ich mag Deutsch (nicht)	I (don't) like German.
Ich finde Deutsch toll.	I find German great.
Deutsch ist einfach.	German is simple.
Deutsch gefällt mir (nicht).	I (don't) like German.
Meiner Meinung nach ist Deutsch interessant.	In my opinion German is interesting.
You can give an opinion about anything using these structures. Just change what you are talking about and the adjectives.	

<p>8.0 Explaining opinions</p> <p>Ich mag Deutsch. Es <u>ist</u> interessant. Ich mag Deutsch nicht, denn es <u>ist</u> langweilig. Deutsch gefällt mir, weil es interessant <u>ist</u>. Deutsch gefällt mir nicht, da es langweilig <u>ist</u>.</p> <p>“weil” and “da” send the <u>verb</u> to the <u>end</u>. “denn” does not change the word order. They all mean because.</p> <p><i>This is how to add extra detail:</i></p> <p>Deutsch gefällt mir, weil die Lehrerin hilfsbereit ist. Es ist interessant und ich bekomme gute Noten.</p> <p>Mein Lieblingstag ist Donnerstag, denn ich habe Sport. Ich bin sehr sportlich und spiele gern Rugby.</p>

9.0 Subordinating conjunctions	
bevor	before
da	because
damit	so that
dass	that
nachdem	after
ob	whether
obwohl	although
seit	since
weil	because
wenn	when/if/whenever
Verb is sent to the end:	
Ich mag Pizza, <u>weil</u> sie lecker <u>ist</u> .	
I like pizza because it is tasty.	

<p>10.0 Prepositions</p> <p>Dative case, for indirect objects or with the following words: aus, ausser, bei, gegenüber, mit, nach, seit, von, zu</p> <p>Accusative case, for direct objects or with the following words: bis, durch, für, gegen, ohne, um</p> <p>These prepositions take accusative when there is movement and dative when there is no movement: an, auf, entlang, hinter, in, über, unter, vor, zwischen</p>
--

11.0 Coordinating conjunctions	
aber	but
denn	because
oder	or
und	and
Word order stays the same:	
Mein Bruder ist freundlich, aber meine Schwester ist nervig.	
My brother is friendly but my sister is annoying.	
Ich bin kreativ und ich male oft.	
I am creative and I often paint.	

12.0 Question words	
was?	what?
wo?	where?
wer?	who?
wann?	when?
warum?	why?
welche?	which?
wohin?	where to?
woher?	where from?
wie viel?	how much?
wie viele?	how many?
Put the verb second:	
Was <u>ist</u> das?	What <u>is</u> that?



13.0 Present tense – regular verbs	
One verb in second position. Take off the –en from the infinitive and add the following endings:	
ich spiele	I play
du spielst	you play
er/sie/es spielt	he/she/it plays
wir spielen	we play
ihr spielt	you all play
sie/Sie spielen	they play
Sie spielen	you (Mr/Mrs) play

13.1 Present tense – irregular verbs	
You will need to learn these. They are irregular for “du” and “er/sie/es” but otherwise regular, except for modal verbs and the verb “sein” – to be.	
sein	to be
ich bin	I am
du bist	you are
er/sie/es ist	he/she/it is
wir sind	we are
ihr seid	you all are
sie sind	they are
Sie sind	you (Mr/Mrs) are
Wir sind laut.	We are loud
Bist du müde?	Are you tired?

14.0 Modal verbs	
ich muss	I have to
ich darf	I am allowed to
ich soll	I ought to
ich will	I want to
ich mag	I like to
ich kann	I am able to
These go with an infinitive verb. The infinitive goes to the end:	
Ich soll putzen.	I ought to clean.
Ich will lesen.	I want to read.
Ich mag schwimmen.	I like to swim.
Darf ich gehen?	May I go?

15.0 Imperfect tense			
Past tense used in formal writing or in these common expressions:			
ich war / es war		I was / it was	
ich hatte		I had	
es gab		there was/were	
One verb goes second. Regular verbs: there is a “t” before the present tense endings. Many irregular verbs:			
aß	ate	las	read
fuhr	travelled	sah	saw
ging	went	trug	wore

16.0 Perfect tense with haben	
Correct form of “haben” goes second (called the “auxiliary verb”, past participle to the end. Past participle (regular verbs): take the –en off the verb, add a ge- at the start and a –t at the end. spielen > gespielt wohnen > gewohnt	
ich habe	wir haben
du hast	ihr habt
er/sie hat	sie/Sie haben
Ich <u>habe</u> Tennis <u>gespielt</u> .	
I played tennis.	
16.1 A few irregular past participles	
gegessen	eaten
getrunken	drunk
besucht	visited
benutzt	used
gesehen	seen

17.0 Conditional	
ich würde	wir würden
du würdest	ihr würdet
er/sie würde	sie/Sie würden
Infinitive to end:	
Ich <u>würde</u> gern nach Italian <u>fliegen</u> .	
I would like to fly to Italy.	

16.2 Perfect tense with sein	
ich bin	wir sind
du bist	ihr seid
er/sie/es ist	sie/Sie sind
Use the correct form of sein as auxiliary verb. Use sein with verbs of movement.	
gekommen	come
gegangen	gone
gefahren	travelled
geflogen	flown
geblieben	stayed
gewesen	been
Ich bin geschwommen.	
I swam / I have swum.	
Er ist in die Stadt gegangen.	
He went / He has gone to town.	

18.0 Future tense	
Correct form of “werden” and infinitive to end:	
ich werde	wir werden
du wirst	ihr werdet
er/sie/es wird	sie/Sie werden
Ich <u>werde</u> ins Kino <u>gehen</u> .	
I will go to the cinema.	



1. Core knowledge: Substantive (what happened in the past)		
1.1	decolonisation	A process where countries become independent from an empire's control.
1.2	movement	When an idea or a protest becomes more popular and gathers more supporters.
1.3	Pan-African Movement	The idea of independence for Africans and unity between all 'black' peoples.
1.4	Great Leap Forward	When Mao (China's leader) tried to increase China's industry. It failed.
1.5	Cultural Revolution	When Mao used young Communists as soldiers to attack 'old' Chinese traditions.
1.6	Civil Rights	Basic things people believe they are entitled to. Things every person should have.

3. This Term's Enquiry Questions	
1945 CE – 1970 CE	Why is the term 'Decolonisation' problematic?
1928 CE – 1976 CE	What evidence is there to support Dr Mike Lynch's claim that Mao was more evil than Stalin or Hitler?
1954 CE – 1968 CE	Was the Civil Rights Movement really the start of a social revolution in the 'Land of the Free'?

2. Core knowledge: Disciplinary (how historians think)		
2.1	Change	When something starts happening, stops happening, happens more, or happens differently.
2.2	Continuity	When something carries on happening. People allow it or encourage it to carry on happening.
2.3	Similarity	Something that two different peoples/nations have in common. 'They were both Islamic nations.'
2.4	Difference	Something that one people/nation has that another does not have. 'Spain was wealthier than...'



1900 1920 1940 1960 1980 2000 2020



Why is the term 'Decolonisation' problematic?



What evidence is there to support Dr Mike Lynch's claim that Mao was more evil than Stalin or Hitler?

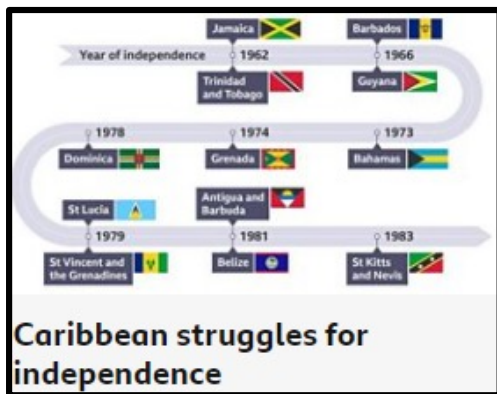


Was the Civil Rights Movement really the start of a social revolution in the 'Land of the Free'?



BITESIZE

BBC Bitesize KS3 History courses to extend your learning
The end of Empire
The Civil Rights Movement in America



This Term's Enquiry Questions	
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Podcast
Real Dictators Podcast has episodes on Mao Zedong of China, Stalin of the USSR, and Hitler of Nazi Germany.

iPLAYER



BBC iPlayer programmes to extend your learning
Selma
Our Black History Heroes



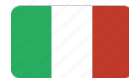
Timelines.tv YouTube videos to extend your learning
Gandhi in London, 1931
End of Empire, 1948



I paesi		Holiday destinations
1.0	vado a Roma	I go to Rome (city)
1.1	sono andato in Francia	I went to France (country)
1.2	andrò	I will go
1.3	in Italia	to Italy
1.4	in Inghilterra	to England
1.5	negli Stati Uniti	to America
1.6	in Francia	to France
1.7	in Spagna	to Spain

I trasporti		Transport
2.0	in macchina	by car
2.1	in aereo	by plane
2.2	in bicicletta	by bike
2.3	in motorino	by scooter
2.4	in metro	by metro
2.5	in treno	by train
2.6	in autobus	by bus
2.7	in pullman	by coach
2.8	in traghetto	by ferry
2.9	a piedi	on foot
2.10	a cavallo	on horseback
2.11	i mezzi pubblici	public transport
2.12	viaggiare	to travel

Attività in vacanza		Activities on holiday
3.0	fare l'equitazione	to go horse riding
3.1	vedere i monumenti storici	to see monuments
3.2	andare in bicicletta	to go cycling
3.3	nuotare	to go swimming
3.4	conoscere nuove persone	to meet new people
3.5	fare acquisti	to go shopping
3.6	fare/scattare foto	to take photos
3.7	fare una passeggiata	to go for a walk
3.8	fare un giro in barca	to go for a boat trip
3.9	rilassarsi	to relax
3.10	mangiare al ristorante	to eat in a restaurant
3.11	girare per la città	to go around the city
3.12	pescare	to fish
3.13	prendere il sole	to sunbathe
3.14	sciare	to ski
3.15	comprare souvenir	to buy souvenirs
3.16	scoprire nuove culture	to discover new cultures
3.17	divertirsi	to enjoy oneself



Prenotare un'albergo		Booking a hotel
4.0	vorrei	I would like
4.1	prenotare	to book
4.2	una camera singola	a single room
4.3	una camera a due letti	a room with 2 beds
4.4	una camera matrimoniale	a room with a double bed
4.5	è compresa la colazione?	is breakfast included?
4.6	c'è ..?	is there?
4.7	ci sono..?	are there?
4.8	un ascensore	a lift
4.9	con doccia/bagno	with a shower/bath
4.10	per quante notti?	for how many nights?
4.11	per una notte	for 1 night

Gioco da ruolo		Role play phrases
5.0	a che ora comincia il film?	what time does the film start?
5.1	a che ora finisce il film?	what time does the film finish?
5.2	mi piace il libro	I like the book (singular)
5.3	mi piacciono i libri	I like the books (plural)
5.4	ha ..?	do you have ? (formal)
5.5	le piace..?	do you like ..? (formal)



To learn more about **countries** scan the QR code below:



Looking for some ...
challenging vocab practice!

Head to Student Resources
Italian yr 9 Quizlet Summer 1

Dialogue practice!

How to **buy train tickets**.
Watch this video.

Add phrases to your vocab book.



Dialogue practice!

How to **book a hotel room** in Italian. Watch this video.
Add phrases to your vocab book.



All about **free time** activities to do
on holiday.

Watch this video.
Add new vocab about hobbies and holiday activities to your vocab book.



Dialogue practice!

How to **order food** at a restaurant. Watch this video.
Add phrases to your vocab book.





Oggetti smarriti in vacanza	Lost items on holiday
ho perso	I have lost
ho lasciato	I have left
mi hanno rubato	someone has taken
le mie chiavi	my keys
il mio passaporto	my passport
la mia borsa	my bag
la mia carta di credito	my credit card
la mia macchina fotografica	my camera
il mio telefonino/cellulare	my mobile
il mio zaino	my rucksack
i miei soldi	my money
la mia valigia	my suitcase
è	it is
grande	big
piccolo	small
vecchio	old
nuovo	new
di plastica	plastic
di pelle	leather
di cotone	cotton
contiene	it contains
vale 100 euro	it's worth 100 euros

I problemi in vacanza	Problems on holiday
non funziona	it doesn't work
la luce	the light
il riscaldamento	the heating
la doccia	the shower
manca	there isn't
mancano	there aren't any
non c'è	there isn't
non ci sono	there aren't
la carta igienica	toilet paper
il sapone	soap
l'acqua calda	hot water
la finestra	the window
un asciugamano	towel
è sporco	it's dirty
è rotto/guasto	it's broken
dà sul parcheggio	Looks out onto the carpark
costa troppo	it costs a lot
non funziona l'aria condizionata	the air conditioning isn't working
non posso chiudere la finestra	I can't close the window

Fare un reclamo	To make a complaint
c'è un problema	there is a problem
mi dispiace	I'm sorry
posso avere ...?	can I have...?
uno sconto	a discount
mi fa uno sconto?	can you give me a discount?
vorrei un rimborso	I would like a refund
vorrei vedere il direttore	I would like to see the manager
lo scontrino	the receipt
posso cambiarlo/la?	can I change it?
che schifo!	how awful!
che rabbia!	I'm furious!
che albergo!	what a hotel!
non è possibile	It's not possible
mi dica	can I help you?
non sono contento/a	I am not happy

L'imperfetto	The Imperfect
and <u>avo</u>	I used to go
and <u>avi</u>	you used to go
and <u>ava</u>	s/he used to go
and <u>avamo</u>	we used to go
and <u>avate</u>	you lot used to go
and <u>avano</u>	they used to go



Tenses workshop!

Past, Present, Future explained.
Address your own misconceptions.



Looking for some ...
challenging vocab practice!

Head to Student Resources
Italian yr 9 Quizlet
Summer Term 2

Reading practice!

Read this dialogue about
organising a holiday. Answer the
questions at the end.



Making complaints on holiday!

Watch this video.
Note down in your vocab book any
useful sentences.



Listening practice!

Watch this video (22 minutes).
Divide your practice into
5-minute sessions.

Look at the images, listen to the
question, **listen to the dialogue**,
answer in your exercise book.



Complaints YouTube Reel

Watch this reel.
Note down some general
complaining expressions.





Key terms		
1.1	cum clause	cum = when A cum clause is an additional piece of information embedded within a sentence that expresses when something had or was happening.
1.2	Pluperfect subjunctive	A form of a verb used in a cum clause and that expresses when something had happened.
1.3	Imperfect subjunctive	A form of a verb used in a cum clause and that expresses when something was happening.

Neuter nouns			
		2nd declension	3rd declension
2.1	Singular	templ -um	nomen / caput
2.2	Plural	templ -a	nomin -a / capit -a

Stage 24 vocabulary



Pluperfect subjunctive				
	singular		plural	
3.1	portav -isset	S/he had carried	portav -issent	They had carried

The pluperfect subjunctive is formed using the stem of a perfect tense verb and one of the two endings above depending on whether the noun it is describing is singular or plural.

Even though the verb looks different to a regular pluperfect tense verb, it is still translated the same way – had...



Stage 23 vocabulary

imperfect subjunctive				
	singular		plural	
4.1	portare -t	S/he was carrying	portare -nt	They were carrying

The imperfect subjunctive is formed using the infinitive and one of the two endings above depending on whether the noun it is describing is singular or plural.

Even though the verb looks different to a regular imperfect tense verb, it is still translated the same way – was or were...



Key terms		
1.1	Indirect question	A question that is being reported.
1.2	Purpose clause	A clause that expresses intent to do, or not to do, something.

Indirect question	
3.1	A question that is being reported.
e.g. The soldiers understood what Vercobrix had done . The direct question would be ' What has Vercobrix done? '	
Indirect questions, in Latin, will always contain a questioning word and a subjunctive verb.	
e.g. milites intellexerunt quid Vercobrix fecisset .	

Purpose clause	
4.1	A clause that expresses intent to do, or not to do, something.
e.g. milites ad principia convenerunt ut Agricolam audirent . The soldiers gathered at the headquarters in order to hear Agricola.	
Purpose clauses always contain:	
ut = in order to or ne = in order not to	
and a subjunctive verb.	

Subjunctive verbs			
		Pluperfect subjunctive	Imperfect subjunctive
Singular			
2.1	1st person	portav -isse -m	portare -m
2.2	2nd person	portav -isse -s	portare -s
2.3	3rd person	portav -isse -t	portare -t
Plural			
2.4	1st person	portav -isse -mus	portare -mus
2.5	2nd person	portav -isse -tis	portare -tis
2.6	3rd person	portav -isse -nt	portare -nt

Stage 25 vocabulary



Stage 26 vocabulary





Punishment and rewards for soldiers

Stage 27 vocabulary



Punishments and Rewards

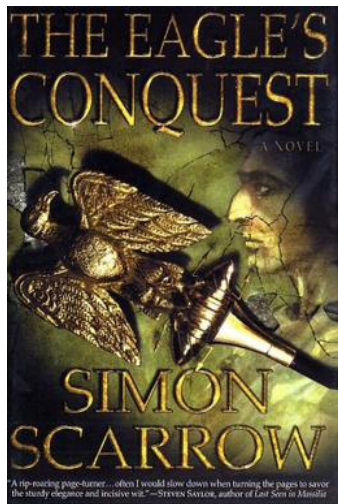
Discipline was very harsh. Soldiers were beaten if they did not follow orders.

Deserters and soldiers who left their post or fell asleep whilst on look-out were beaten to death by their fellow soldiers.

On a more positive note, there were awards for bravery for different ranks, such as medals, arm and neck bands. Gold crowns and silver spears were given to officers.



Suggested Reading:
Eagles of the Empire series
by Simon Scarrow



Watch a scene depicting
Roman battle tactics.
Taken from the film 'The Eagle'





By the end of this module you should be able to:-

(Bold is HIGHER tier only)

- Write and order numbers, including negative numbers and decimals
- Find the midpoint between two numbers
- Understand and apply the four operations to real life problems
- Understand and apply BIDMAS
- Calculate with decimals, using the four operations
- Solve problems involving money
- Convert to and from standard form
- Multiply, divide, add and subtract using numbers in standard form**
- Use the product rule for counting**

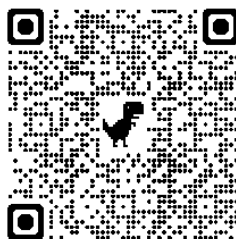
Important things to remember:-

- In standard form, a number is written as $A \times 10^n$, where $1 \leq A < 10$ and n is an integer.

Language	Meaning	Example																		
Decimal system	A number system using a base of 10	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Thousands</td> <td style="text-align: right;">Hundreds</td> <td style="text-align: right;">Tens</td> <td style="text-align: right;">Units</td> <td style="text-align: right;">• tenths</td> <td style="text-align: right;">hundredths</td> </tr> <tr> <td style="text-align: right;">1000</td> <td style="text-align: right;">100</td> <td style="text-align: right;">10</td> <td style="text-align: right;">1</td> <td style="text-align: right;">$\frac{1}{10}$</td> <td style="text-align: right;">$\frac{1}{100}$</td> </tr> <tr style="background-color: #e0f0e0;"> <td style="text-align: right;">5</td> <td style="text-align: right;">6</td> <td style="text-align: right;">3</td> <td style="text-align: right;">8</td> <td style="text-align: right;">• 2</td> <td style="text-align: right;">7</td> </tr> </table> <p>5, 6, 3, 8, 2 and 7 are digits. In the number 5638.27 the 6 has a value of 6 hundreds.</p>	Thousands	Hundreds	Tens	Units	• tenths	hundredths	1000	100	10	1	$\frac{1}{10}$	$\frac{1}{100}$	5	6	3	8	• 2	7
Thousands	Hundreds		Tens	Units	• tenths	hundredths														
1000	100		10	1	$\frac{1}{10}$	$\frac{1}{100}$														
5	6	3	8	• 2	7															
Digit	The individual symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 that are used on their own or put together to make numbers.																			
Place value	The value of a digit depends on its position in the number																			
Negative numbers	A negative number is less than zero.	-3, -2, -1																		
BIDMAS	The order of operations – brackets, indices, division, multiplication, addition and subtraction	$(2 + 3) + 5^2$ $= 5 + 5^2$ $= 5 + 25$ $= 30$																		
Index Base Power	The index or power shows how many times the base has to be multiplied by itself. The plural of index is indices.	$2^3 = 2 \times 2 \times 2 = 8$ 																		
Standard Form	A number written as a decimal between 1 and 10 multiplied by a power of 10.	$498000 = 4.98 \times 10^5$ $0.0056 = 5.6 \times 10^{-3}$																		



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GCSE Foundation Resources



GCSE Higher Resources



By the end of this module you should be able to: (Bold is HIGHER tier only)

- Simplify an expression by collecting like terms, multiplying and dividing terms – including with indices
- Expand and factorise single and double brackets
- Expand and simplify triple brackets**
- Find the difference of two squares**
- Solve linear equations
- Create algebraic expressions from worded statements
- Substitute into formulae

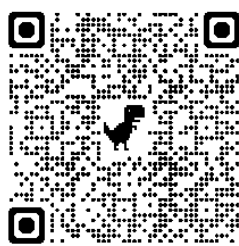
Expand and simplify...

$$\begin{array}{l}
 (x + 4)(x + 3) \\
 \xrightarrow{\hspace{1.5cm}} \\
 x^2 + 3x + 4x + 12 \\
 \xrightarrow{\hspace{1.5cm}} \\
 x^2 + 7x + 12
 \end{array}$$

Language	Meaning	Example
expression	Made from numbers, letters and operations but not including an equal's sign	$2x + 3y$
term	Part of an expression between plus or minus signs	In the example above $2x$ and $3y$ are terms
formula	An algebraic statement that connects things (plural formulae)	$d = s \times t$ Distance = speed x time
equation	An expression equal to a number or another expression	$x + 3 = 11$ $2x - 6 = x + 3$
expand	Remove the brackets in an expression by multiplying.	$(3x + 1)(2x - 3) = 6x^2 - 9x + 2x - 3$ $= 6x^2 - 7x - 3$
factorise	Find common factors in an expression and write it using brackets; the reverse of expanding.	$x^2 + 5x = x(x + 5)$ $x^2 - 6x + 5 = (x - 1)(x - 5)$
substitution	A method for checking if your solution to an equation is correct by replacing the unknown with the solution	Substituting $x = 3$ Into $2x + 1$ Gives $2 \times 3 + 1 = 7$
inverse operation	The mathematical operation that undoes an operation	Multiplying and dividing are inverse operations. When you multiply by 5 you can undo this by dividing by 5



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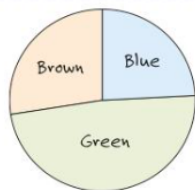
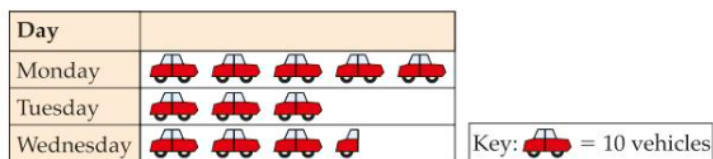
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By the end of this module you should be able to

(Bold is HIGHER tier only):-

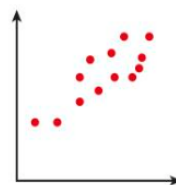
- Data collection for both discrete and continuous data
- Design and complete two-way tables (see below)
- Calculate the mean mode median and range.
- Design and complete frequency tables, calculating averages from them
- Bar charts, composite bar charts and bar line charts
- Pictograms (see below)
- Stem and leaf diagrams
- Draw and interpret pie charts (see below)
- Draw and interpret scatter graphs, including line of best fit



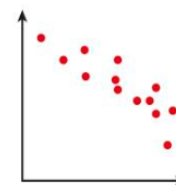
	Day 1	Day 2
Boys	26	54
Girls	55	32

Language	Meaning	Example
Mean	Add all the values and divide by the number of values	$\text{Mean (avg)} = \frac{3 + 7 + 10 + 8 + 31 + 10 + 2}{7} = \frac{71}{7}$ ↓ 10.14
Mode	The most common value	
Median	The middle value when the data is put in order	Median = 2, 3, 7, 8, 10, 10, 31 ↓ 8 ↑ middle
Range	The difference between the highest and lowest values	Mode = 3, 7, 10, 8, 31, 10, 2 ↓ 10
Discrete	Can only have certain values	Number of houses, shoe size
Continuous	Can have any value in a range	Height, length, volume
Correlation	A measure of how two or more things are connected. It is seen on a scatter graph. It can be either positive, negative or show no correlation	Positive – as one increases, so does the other Negative – as one increases, the other decreases No correlation – no clear connection between the variables

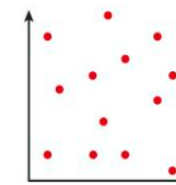
Positive correlation



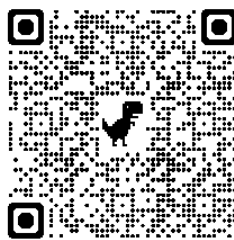
Negative correlation



No correlation



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By the end of this module you should be able to:

(Bold is HIGHER tier only):-

- Add, subtract, divide & multiply fractions and mixed numbers.
- Finding a fraction of a quantity or measure.
- Convert Fractions to decimals
- Find the reciprocal of an integer, decimal or fraction
- Write ratios in the form 1:n
- Find quantities using ratios
- Convert between currencies and measures.
- Use Direct Proportion
- Work out percentage increase and decrease.
- Problem solving using percentages, ratios and fractions.
- Convert Recurring decimals to a fraction.**

F	D	P
1/10	0.1	10%
1/4	0.25	25%
1/5	0.2	20%

Language	Meaning	Example
numerator	The top number in a fraction; it gives you the number of parts you have.	For $\frac{3}{5}$ 3 is the numerator 5 is the denominator
denominator	The bottom number in a fraction; it gives the total number of parts in the whole.	
integer	A whole number.	-5, 0 and 7 are integers
decimal	The standard number system based on powers of 10.	4.89 is a decimal number
percentage	A number which means 'out of 100'	85% means
VAT	Value added tax. A tax applied to goods and services	Standard Rate VAT in UK is 20%
equivalent fraction	Fractions which have the same value.	$\frac{1}{2}$ and $\frac{4}{8}$ are equivalent fractions
terminating decimal	A decimal which has a fixed number of decimal places.	0.286 has three decimal places
recurring decimal	A decimal which goes on for ever and has a repeating pattern.	$\frac{1}{3} = 0.33333333...$ has the number 3 repeating forever



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Year 9 focuses on how Music uses **patterns textures and structures**.

1. Elements of Music		
1.1	pitch	The position of a single sound in the complete range of sound. <i>High / low</i>
1.2	tempo	The pace of the music. <i>Fast / Slow</i>
1.3	texture	Describes how layers of sound within a piece of music interact. <i>Thick / thin</i>
1.4	timbre	The quality of tone distinctive to a particular voice or instrument. <i>Example: bright, mellow</i>
1.5	dynamics	The variation in loudness between notes or phrases. <i>Loud / Soft (piano, forte, crescendo, diminuendo)</i>
1.6	duration	The length of a note or series of notes. <i>Long / Short</i>
1.7	silence	No noise. This can create tension in music.
1.8	melody	A melody is a succession of pitches in rhythm.
1.9	rhythm	A rhythm is a pattern of sounds of different lengths.

2. Notes on the keyboard

The diagram shows a piano keyboard with white keys labeled C, D, E, F, G, A, B, C, D, E, F, G, A, B. Black keys are labeled with their corresponding notes: D \flat , E \flat , C \sharp , D \sharp , G \flat , A \flat , B \flat , F \sharp , G \sharp , A \sharp .

3. Note lengths

ITEM	NOTE	REST	VALUE (number of beats)
Whole note/rest			4
Half note/rest			2
Quarter note/rest			1
Eighth note/rest			1/2
Sixteenth note/rest			1/4

4. Notes on the staff

The diagram shows a musical staff with a Treble Clef. The notes on the lines are E, F, G, A, B, C, D, E, F. The notes on the spaces are E, G, B, D, F and F, A, C, E.

Line Notes

Space Notes



Year 9 focuses on *stylistic conventions*.

5. Musical genres/styles studied during KS3			Stylistic conventions
5.1	Sea Shanty	A genre of traditional folk song that was once commonly sung as a work song to accompany rhythmical labour aboard large merchant sailing vessels.	use of call & response (shanty man & crew); emphasis on vocal harmonies; simple verse chorus structure; use of repetitive rhythms (ostinato)
5.2	Disco	A genre of dance music and a subculture that emerged in the 1970s from the United States' urban nightlife scene.	4/4 steady drum pattern; use of 'hooks' (a short catchy melodic phrase); steady tempo suitable for dancing (120bpm); syncopated bass line
5.3	Fanfares	A short, loud piece of music played to introduce the arrival of someone important.	use of brass and percussion instruments such as trumpet, cornet and snare drum; loud dynamics; melody centred around major triads; short
5.4	Hall of fame	Classical music generally refers to the art music of the Western world, considering to be distinct from Western folk music or popular music traditions.	use of orchestral instruments such as the violin, flute and French horn; varied texture, articulation, dynamics and melodic movement
5.5	Gospel	A genre that combines hymns and other songs borrowed from the oral traditions of the African-American culture.	strong use of vocal harmony; syncopated rhythms; use of call & response; often upbeat; dominated by vocals (use of choirs)
5.6	Blues	A genre and musical form that originated from the Deep South of the United States around the 1860s. Blues incorporates spirituals, work songs, field hollers, shouts, chants, and rhymed simple narrative ballads from the African-American culture.	use of blue notes/blues scale (C, Eb, F, F#, G and Bb); use of syncopation and swing rhythm; use of brass band instruments e.g. saxophone, trumpet, trombone; improvisation; tonal change; 12 bars structure using the primary chords (I, IV & V)
5.7	Folk	A genre that includes all sorts of oral music traditions from specific regions and societies around the world.	emphasis on the vocal line, thin texture; use of acoustic instruments; added vocal harmony; flexible tempo; simple chord patterns
5.8	Carribbean	Musical genres typically associated with the Carribbean islands. These include musical styles such as Mento, Ska, Rock Steady and Reggae.	slow tempo; emphasis on beats 2 & 4 (chords); bass drum on beat 3; heavy bass line; use of syncopation; 'skank' rhythm (accented off beat)
5.9	Rock	A form of popular music that evolved from rock and roll and pop music during the mid and late 1960s.	high energy; fast tempo; heavier feel with more aggressive sound; use of distorted guitar sounds; use of bass guitar, drum kit and loud vocals

6. Key components of a song		
6.1	Vocal melody	A melodic sequence written for the human voice.
6.2	Chords	Multiple notes played together, as a basis of harmony. Chords are typically played on a guitar or keyboard.
6.3	Bass line	A low-pitched instrumental part played by a rhythm section instrument such as the electric bass, double bass, cello, tuba or keyboard.
6.4	Drum pattern	A rhythmic pattern, or repeated rhythm establishing the meter and groove, played on drum kits and other percussion instruments.



Watch



BBC's short clip about writing and arranging songs



Listen



The Piano Guys' arrangement of 'Paradise' by Coldplay



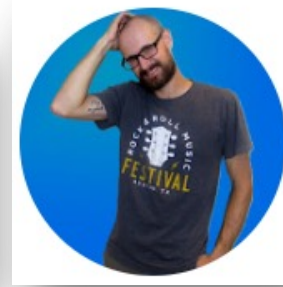
Read



How to Arrange a Song in 5 Steps



Watch



Transforming a Song into a New Genre (BandLab lesson)



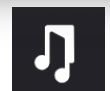
Listen



'Evaluation of Music' by Pentatonix



Read



Read more about how to arrange songs



TASK: Write a pop song using a simple 4 chords progression, then create a Reggae or Rock arrangement of the same song in BandLab. You can use the resources above for inspiration and to guide you through this project. Create and upload to a new page under UNIT 3 on OneNote.



1. Online Relationships		
1.1	Online Harassment	Something which causes alarm or distress to the victim. (You can harass someone without making threats and telling lies. You can even tell the truth about them but if it is unwanted and repeated, it is harassment.)
1.2	Personal boundaries	Personal boundaries are the limits and rules we set for ourselves within relationships.
1.3	Online consent	Consent online can be broken down into two parts: giving permission for your content to be used and asking permission to use other peoples.
1.4	Healthy relationships	Healthy relationships involve honesty, trust, respect and open communication between partners. They take effort and compromise from both people. There is no imbalance of power. Partners respect each other's independence, can make their own decisions without fear of retribution or retaliation, and share decisions.
1.5	Public behaviour	Public behaviour can be defined as anything that is heard, seen, or witnessed by other people in a public place which can include the internet eg a Twitter post.
1.6	Private behaviour	Private behaviour can happen in Internet chat rooms and other private online spaces (a Facebook post could count as private behaviour depending on context).
1.7	Online abuse	Online abuse is any type of abuse that happens on the internet. It can happen across any device that's connected to the web, like computers, tablets and mobile phones. It can happen anywhere online, including: social media

4. What was the recent change to the law concerning the minimum age of marriage in the UK?	
	The Marriage and Civil Partnership (Minimum Age) Act 2022, which gained Royal Assent in April last year, came into effect on the 27/2/2023. It means that 16 and 17 year olds will no longer be allowed to marry or enter a civil partnership, even if they have parental consent.

2. Family Life		
2.1	Marriage	A legal union between a man and a woman, or a same-sex couple.
2.2	Civil partnership	A relationship which can be registered by two people of the same sex or opposite-sex couples.
2.3	Long-term relationship	This means a relationship that has continued, to the exclusion of any other relationship, for a period of at least two years.
2.4	Co-habiting	Living together as a couple without being married or civil partners.
2.5	Ceremony	A formal religious or public occasion, especially one celebrating a particular event, achievement, anniversary.

3. Issues within relationships.	
3.1	What is coercive control?
	Coercive control is an act or a pattern of acts of assault, threats, humiliation and intimidation or other abuse that is used to harm, punish, or frighten their victim. This controlling behaviour is designed to make a person dependent by isolating them from support, exploiting them, depriving them of independence and regulating their everyday behaviour. It is a criminal offense.
3.2	What is domestic abuse?
	It is an incident or pattern of incidents of controlling, coercive, threatening, degrading and violent behaviour, including sexual violence, in the majority of cases by a partner or ex-partner, but also by a family member or carer
3.3	What does a 'forced marriage' mean?
	A forced marriage is where one or both people do not or cannot consent to the marriage and pressure or abuse is used to force them into the marriage. It is also when anything is done to make someone marry before they turn 18, even if there is no pressure or abuse. Forced marriage is illegal in the UK. It is a form of domestic abuse and a serious abuse of human rights.



1. Mental Health and emotional well-being		
1.1	Health	A complete state of physical, mental and emotional well-being, not merely the absence of disease.
1.2	Emotional well-being	The ability to produce positive emotions, moods, thoughts, and feelings, and adapt when confronted with adversity and stressful situations
1.3	Mental health	Mental health includes our emotional, psychological, and social well-being. It affects how we think, feel, and act. It also helps determine how we handle stress, relate to others, and make healthy choices
1.4	Resilience	The ability to adapt to change positively, recover from difficulties and persist in facing challenges.
1.5	Circles of support	These are people that surround us that can offer help and advice, such as, family and friends, teacher, tutor, welfare staff, Childline, The Brook centre etc.
1.6	Trusted adult	This can be any grown-up whose actions and words make you feel safe.
1.7	Stigma	A set of negative and unfair beliefs that a society or group of people have about something. For example, the stigma associated with mental illness.
1.8	Discrimination	The practice of treating one person or group of people less fairly or less well than other people or groups.
1.9	Peer pressure	The strong influence of a group, especially of children, on members of that group to behave the same as everybody else.

2. Strategies	
2.1	What are the four types of mental health disorders according to the NHS? Mood, anxiety, personality and psychotic.
2.2	What are examples of unhealthy coping strategies? Self-harm and eating disorders.
2.3	What are examples of healthy coping strategies? <ul style="list-style-type: none"> Express emotions – cry, scream, shout. Explore ways to express feelings such as through poetry/art. Seek professional; help and support, such as counselling. Find people who have had a similar experience through support groups. Talk to a family member, friend, teacher, or other trusted adult. Create a memory box, scrap book, or similar to remember good times. Spend time with family or friends, go to the park/cinema Write in a diary or letter Establish and stick to a regular routine (eat, sleep, school, exercise).
2.4	How do I develop resilience? <ul style="list-style-type: none"> Make meaningful connections Develop a sense of purpose by supporting my community or moving towards goals Embrace change as a normal part of living Avoid seeing disappointments and setbacks as problems which cannot be overcome Develop a positive sense of self by focusing on strengths and accomplishments Gain self-confidence by embracing new challenges Keep things in perspective Maintain a positive outlook Take care of myself emotionally and physically



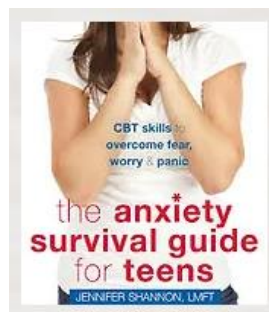
brook
Relationship advice



childline
ONLINE, ON THE PHONE, ANYTIME



YOUNGmINDS
fighting for young people's mental health



This book will teach you practical strategies for handling even the toughest situations that previously caused you to feel anxious or worried





1. Intro to The Holocaust		
1.1	The Holocaust	Also known as the Shoah, was the genocide of European Jews during World War II.
1.2	Shoah	The Jewish name given to genocide of European Jews.
1.3	Antisemitism	Hostility to or prejudice against Jewish people.
1.4	discrimination	The unjust or prejudicial treatment of different categories of people, especially on the grounds of race, age, sex, or disability.
1.5	prejudice	preconceived opinion that is not based on reason or actual experience.
1.6	genocide	The systematic and widespread slaughter of an entire national, racial, religious, or ethnic group.
1.7	Jew	A member of the people and cultural community whose traditional religion is Judaism and who trace their origins through the ancient Hebrew people of Israel to Abraham.
1.8	Roma & Sinti	Largest European minority who have lived in Europe for over 1000 years. They enjoy a nomadic way of life.

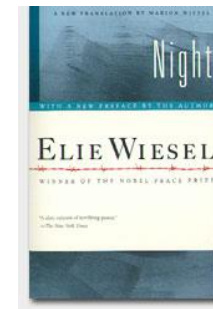
3. Antisemitism		
3.1	scapegoat	A person who is blamed for the wrongdoings, mistakes, or faults of others.
3.2	Ghettos	Neighbourhoods of European cities in which Jews were permitted to live.
3.3	Nuremberg Laws	Antisemitic and racist laws that were enacted in Nazi Germany in order to restrict Jewish freedoms.
3.4	persecution	To treat someone unfairly or cruelly over a long period of time because of their race, religion, or political beliefs.

2. Pre-war Jewish life		
2.1	Shtetl	The name given to a town/village in Eastern Europe where the population was almost entirely Jewish.
2.2	Yiddish	The first language of millions of Jews living in Eastern Europe.
2.3	Hebrew	The ancient language of the Torah and of prayer.
2.4	Orthodox Jews	Traditional Jews who are devoted to the study of the Torah.
2.5	Assimilated Jews	Jews who did not live separately from the non-Jewish community but had adopted the language, dress and culture of the non-Jewish society in which they lived.
2.6	Bund	A Jewish movement in Poland dedicated to bettering the conditions of the Jewish working class and celebrating a Yiddish culture.
2.7	Zionism	A Jewish movement dedicated to establishing a Jewish homeland in Palestine
2.8	Yom Kippur	The day of Atonement, a day of fasting.
2.9	Rosh Hashanah	Jewish New Year, the anniversary of creation.

Knowledge Builder



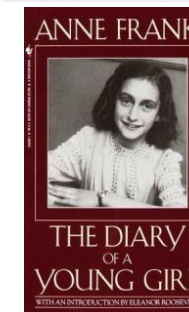
Hear from a Holocaust



Listen to Elie Wiesel's Night as an audio book



Research The Holocaust Encyclopedia



Learn about life in the Ghettos










1. Elie Wiesel- Night		
1.1	Hasidic	A Jewish sect founded upon mysticism, prayer, ritual strictness
1.2	Orthodox	A major branch of Judaism which teaches adherence to Jewish law including over 600 rules governing religious and everyday life.
1.3	shtibl	A Jewish house of prayer.
1.4	Shekinah in exile	The Shekinah (presence of God) goes into exile (leaving home) with Israel and will return with them at the end of days
1.5	Kabbalah	Form of Jewish mysticism offering insights into divine nature.
1.6	Talmud	A record of the oral tradition - holy sayings of the Rabbis relating to Jewish law, ethics, customs and history
1.7	Torah	The written tradition - the law of God revealed to Moses and recorded in the first five books of the Hebrew scriptures.
1.8	synagogue	A Jewish house of worship
1.9	Temple	Refers to the First Jewish Temple in Jerusalem which was destroyed by the Babylonians in 586BCE
1.10	Maimonides	Major Jewish theologian (teacher)
1.11	mysticism	The study of how to reach a divine communion (relationship) with God
1.12	Gestapo	German secret police under Nazi rule
1.13	Passover	Jewish festival that commemorates the exodus of the Jews from Egypt
1.14	Auschwitz	Site of Nazi concentration camp in Poland
1.15	Birkenau	A death camp- part of Auschwitz

2. Religion and Worldviews		
2.1	worldview	A worldview is a collection of attitudes, values, stories and expectations about the world around us, which inform our every thought and action.
2.2	values	Principles or standards of behaviour and what individuals consider important in life
2.3	religion	The belief in and worship of a superhuman controlling power, especially a personal God or gods. A particular system of faith and worship.
2.4	theist	A person who believes in the existence of a god or gods.
2.5	atheist	People who are atheist are described as people who do not need religious explanations or the promise of an afterlife to see value in the human experience. They do not believe in a God or gods.
2.6	agnostic	Someone who holds the view that it is impossible to know the truth about some things, such as God's existence or the afterlife.

3. Dimensions of religion		
3.1	Ninian Smart	He defined religion by looking at 7 dimensions: narrative /mythological, doctrinal, ethical, institutional, material, ritual and experiential.
3.2	Narrative	Stories (often regarded as revealed) that provide a meaning or explanation for the world as it is or should be.
3.3	Doctrinal	Systematic formulation of religious teachings in an intellectually coherent form. May be found in sacred scriptures e.g. theodicies.
3.4	Ethical	Rules about human behaviour (often regarded as revealed from supernatural realm).
3.5	Institutional	Rules for identifying community membership, roles, identities and participation, e.g. Leaders, teachers/gurus.
3.6	Material	Objects or places that symbolize or manifest the sacred or supernatural, e.g. Icons, churches, clothing.
3.7	Ritual	Symbolic actions done collectively or privately that transform the experience of the world from profane to sacred.
3.8	Experiential	A change in consciousness, emotion, sensation, bodily states brought about through religious practices of any sort, including ritual, meditation, music, or social interaction.




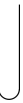
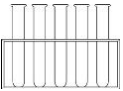

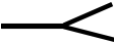



1. Safety in the Lab		
1.1	What is a hazard?	Something that can cause you harm
1.2	What is risk?	How likely a hazard will cause harm
1.3	What is a precaution?	A control measure we can put in place either to reduce the risk or the severity of the hazard
1.4	Give three examples of precautions that can be taken in the lab	Use safety goggles, ensure bags are clear from the floor, tie hair back
1.5	What is the name for a label on a bottle that tells us a substance could cause harm?	Hazard symbol
Give the meaning and typical hazard associated with the following hazard symbols		
1.6		Moderate health hazard – causes skin irritation
1.7		Serious health hazard – causes breathing difficulties
1.8		Toxic – could cause death if swallowed or inhaled
1.9		Corrosive – damages skin and clothing
1.10		Flammable – catches fire easily
1.11		Oxidising – makes flammable substances burn more fiercely
1.12		Harmful to the environment – could cause damage to animal and plant life










2. Safety in the Lab		
2.1	What are the 10 basic rules of working in a Science lab?	<ol style="list-style-type: none"> 1. Do not enter the lab without permission 2. Dress for practical work (hair tied back and ties tucked in) 3. Follow instructions from the person in charge 4. Make sure your working area is safe (bags and coats tucked under benches) 5. Never run in the lab 6. Don't eat or drink in the lab 7. Do not taste or sniff chemicals 8. Never leave an unattended Bunsen burner on a blue flame 9. Do not touch the electrical sockets without permission 10. In the case of accidents, tell an adult



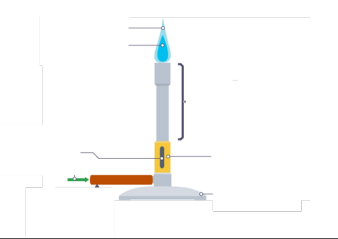
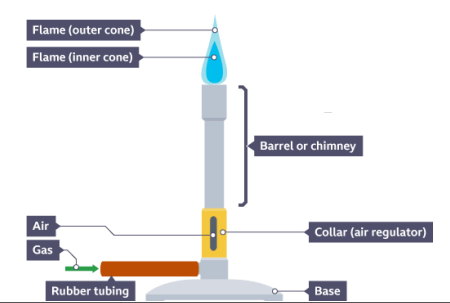
Scientific Equipment

What is the drawing and purpose for the following pieces of scientific equipment?

Equipment	Drawing	Purpose
test tube		Mixing chemicals to observe chemical reactions
boiling tube		Heating chemicals to observe chemical reactions
test tube rack		For safely holding test tubes and boiling tubes
clamp stand		To support other pieces of equipment and glassware
clamp		To support other pieces of equipment and glassware
beaker		For holding larger volumes of liquid
conical flask		To contain or mix liquids
spatula		For transferring small quantities of solid from one container to another

Equipment	Drawing	Purpose
thermometer		Measuring the temperature in °C
stirring rod		Stirring chemicals to speed up dissolving or a chemical reaction
pipette		For transferring very small volumes of liquid from one container to another
tripod		Safely supporting objects above a Bunsen burner
evaporating dish		For the evaporation of solutions
Bunsen burner		To heat up substances or objects
gauze		Safely supporting objects above a Bunsen burner and to spread the heat
measuring cylinder		For accurately measuring volumes of liquid
heatproof mat		Protecting the bench and safely storing hot objects



3. Bunsen Burner		
3.1	What are the missing labels from the Bunsen burner? 	
3.2	What are the five steps for safely lighting a Bunsen burner?	<ol style="list-style-type: none"> 1. Place a Bunsen burner on a heat-resistant mat 2. Turn the collar to ensure the air hole of the Bunsen burner is closed. 3. Hold a lit splint 1-2 cm above the top of the barrel of the burner. 4. Turn on the gas at the gas tap, and the Bunsen burner will burn with a yellow flame. 5. Extinguish the splint by placing it on the heat-resistant mat (do not blow it)
3.3	Name three safety precautions that should be taken when using a Bunsen burner	Tie your hair back, tuck your tie in, wear safety goggles
3.4	What colour will the of the Bunsen burner be when it is first lit?	Yellow
3.5	Why is the yellow flame of the Bunsen burner referred to as the safety flame?	It is easier to see and less hot than the blue flame
3.6	How can you change the colour of the flamer on a Bunsen burner?	By twisting the collar which opens and closes the air hole
3.7	Which flame of the Bunsen burner should be used for heating?	The blue flame as it is much hotter

4. Scientific Experiments		
4.1	What is the aim of a scientific investigation?	To answer a Scientific question
4.2	What is a variable?	Anything that can change during a Scientific investigation
4.3	What is the independent variable in an investigation?	The factor that you change
4.4	What is the dependent variable in an investigation?	The factor that you measure (as a result of marking the change)
4.5	What are the control variables in an investigation?	The factors you keep the same to ensure a fair test
4.6	What is a fair test?	An investigation in which only one factor is changed and all other factors are kept the same
4.7	What is data?	The measurements you make in an investigation
4.8	What is meant by accurate data?	Data that is close to the true value of what you are trying to measure
4.9	What is meant by precise data?	Data which gives similar results if you repeat the measurement, the spread of data is small
4.10	How can data be recorded?	In a table
4.11	When should a mean be calculated?	If repeats of measurements are taken
4.12	How do you calculate the mean?	By adding all the numbers together and dividing by the number of repeats you took



1		2												3	4	5	6	7	0
		Key relative atomic mass atomic symbol name atomic (proton) number										1 H hydrogen 1							4 He helium 2
7 Li lithium 3		9 Be beryllium 4												11 B boron 5	12 C carbon 6	14 N nitrogen 7	16 O oxygen 8	19 F fluorine 9	20 Ne neon 10
23 Na sodium 11		24 Mg magnesium 12												27 Al aluminium 13	28 Si silicon 14	31 P phosphorus 15	32 S sulfur 16	35.5 Cl chlorine 17	40 Ar argon 18
39 K potassium 19	40 Ca calcium 20	45 Sc scandium 21	48 Ti titanium 22	51 V vanadium 23	52 Cr chromium 24	55 Mn manganese 25	56 Fe iron 26	59 Co cobalt 27	59 Ni nickel 28	63.5 Cu copper 29	65 Zn zinc 30	70 Ga gallium 31	73 Ge germanium 32	75 As arsenic 33	79 Se selenium 34	80 Br bromine 35	84 Kr krypton 36		
85 Rb rubidium 37	88 Sr strontium 38	89 Y yttrium 39	91 Zr zirconium 40	93 Nb niobium 41	96 Mo molybdenum 42	[98] Tc technetium 43	101 Ru ruthenium 44	103 Rh rhodium 45	106 Pd palladium 46	108 Ag silver 47	112 Cd cadmium 48	115 In indium 49	119 Sn tin 50	122 Sb antimony 51	128 Te tellurium 52	127 I iodine 53	131 Xe xenon 54		
133 Cs caesium 55	137 Ba barium 56	139 La* lanthanum 57	178 Hf hafnium 72	181 Ta tantalum 73	184 W tungsten 74	186 Re rhenium 75	190 Os osmium 76	192 Ir iridium 77	195 Pt platinum 78	197 Au gold 79	201 Hg mercury 80	204 Tl thallium 81	207 Pb lead 82	209 Bi bismuth 83	[209] Po polonium 84	[210] At astatine 85	[222] Rn radon 86		
[223] Fr francium 87	[226] Ra radium 88	[227] Ac* actinium 89	[261] Rf rutherfordium 104	[262] Db dubnium 105	[266] Sg seaborgium 106	[264] Bh bohrium 107	[277] Hs hassium 108	[268] Mt meitnerium 109	[271] Ds darmstadtium 110	[272] Rg roentgenium 111	Elements with atomic numbers 112 – 116 have been reported but not fully authenticated								

* The Lanthanides (atomic numbers 58 – 71) and the Actinides (atomic numbers 90 – 103) have been omitted.

Relative atomic masses for **Cu** and **Cl** have not been rounded to the nearest whole number.

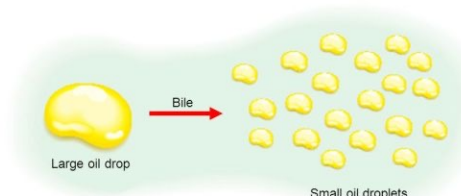


1. Levels of Organisation		
1.1	What are cells?	The basic building blocks of all living organisms
1.2	What is a tissue?	A group of cells with a similar structure and function
1.3	What is an organ?	A group of tissues performing specific functions
1.4	What is an organ system?	A group of organs working together to form organisms

2. Digestive System		
2.1	What is the function of the digestive system?	To break down food
2.2	What happens to food molecules during digestion?	Large food molecules are broken down into small molecules and are absorbed into the bloodstream
2.3	What is the function of the salivary glands in digestion?	Produce saliva (containing amylase enzyme)
2.4	What is the function of the stomach in digestion?	Churns food with its muscular walls, mixes food with acid
2.5	What is the function of the liver in digestion?	To produce bile
2.6	What is the function of the gall bladder in digestion?	Stores bile before it's released into the small intestine
2.7	What is the function of the pancreas in digestion?	To produce and secrete enzymes
2.8	What is the function of the small intestine in digestion?	To produce enzymes and to absorb nutrients from the digested food
2.9	What is the function of the large intestine in digestion?	Absorb excess water
2.10	State two functions of bile in digestion	Emulsify fat, neutralise stomach acid before food moves into the small intestine

2.11	State two functions of the stomach acid	Kills bacteria and creates an acidic environment
2.12	How is the small intestine adapted to absorb nutrients?	<ul style="list-style-type: none"> It is very long Villi provide a large surface area Villi are one cell thick Efficient blood supply Cells have many mitochondria
2.13	What are the labels in this diagram of the digestive system?	

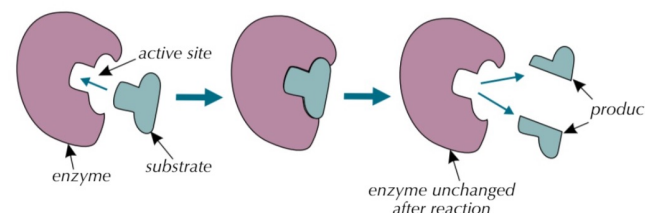
Emulsification





3. Food Tests		
3.1	How can you prepare a sample of food for a food test?	Crush the food (using a pestle and mortar), add a few drops of water and mix well
3.2	What is the name of the chemical used when testing for starch in a food sample?	Iodine solution
3.3	What colour is iodine and what colour does it turn in the presence of starch?	Brown, turns black/ dark blue if starch is present
3.4	What is the name of the chemical used when testing for lipids in a food sample?	Ethanol
3.5	What colour is ethanol and what happens to it in the presence of lipids?	Colourless, solution turns cloudy if lipids are present
3.6	What is the name of the chemical used when testing for sugar in a food sample?	Benedict's solution
3.7	What colour is Benedict's solution and what colour does it turn in the presence of sugar?	Blue, turns orange/ red if sugar is present
3.8	What extra experimental step is required when testing for sugar?	Heat the solution in a boiling water bath at 75°C for 5 minutes
3.9	What is the name of the chemical used when testing for protein in a food sample?	Biuret solution
3.10	What colour does biuret solution turn in the presence of protein?	Purple

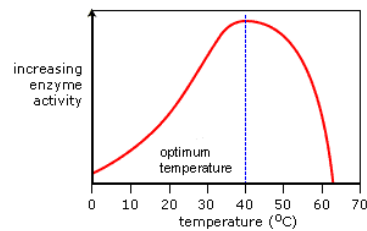
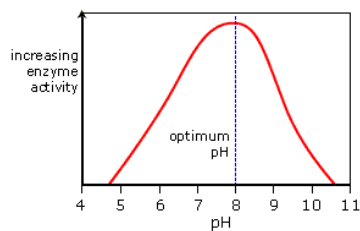
4. Enzymes		
4.1	What is an enzyme?	A biological catalyst which is a protein
4.2	Name the three different groups of enzymes involved in digestion	Carbohydrases, proteases, lipases
4.3	Which group of enzymes break down carbohydrates?	Carbohydrases
4.4	Which group of enzymes break down proteins?	Proteases
4.5	Which group of enzymes break down lipids?	Lipases
4.6	What products are carbohydrates broken down into?	Simple sugars, e.g. glucose
4.7	What products are proteins broken down into?	Amino acids
4.8	What products are lipids broken down into?	Fatty acids and glycerol
4.9	What are the products of digestion used for, in the body?	To build new carbohydrates, proteins and lipids, some glucose is used in respiration
4.10	What is the lock and key model?	The specific shape of the active site matches the specific shape of its substrate molecules
4.11	What does denatured mean?	When the shape of the enzymes active site changes and the substrate no longer fits
4.12	Name two environmental conditions that cause an enzyme active site to change	Temperature increase, increase or decrease in pH

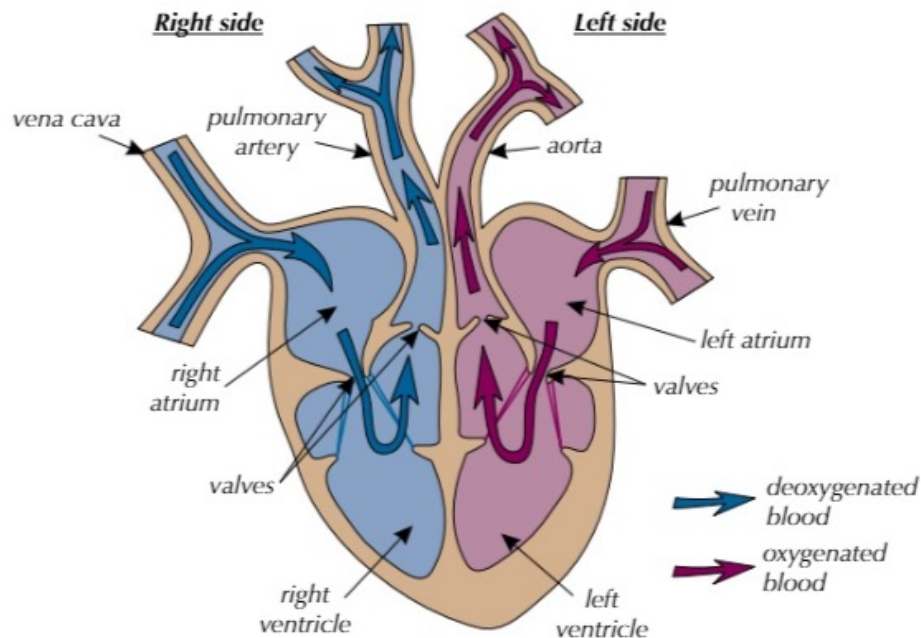
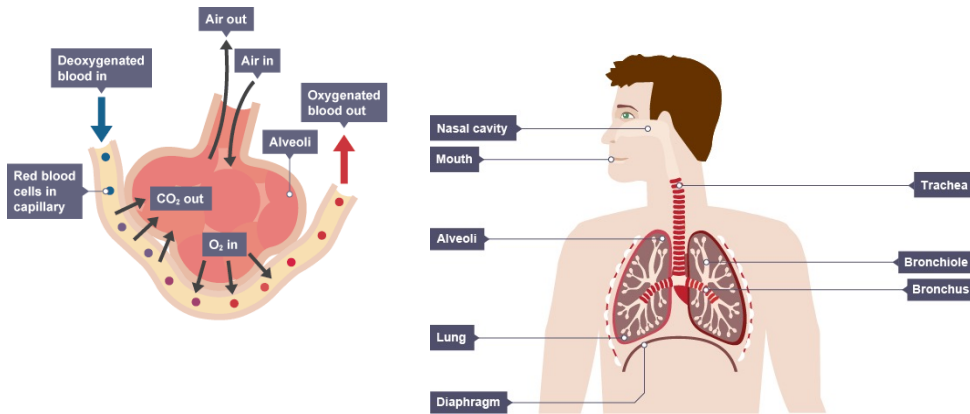




5. Rate of Enzyme Action		
5.1	Name two factors which affect the rate of enzyme action	Temperature, pH
5.2	What product does amylase break starch down into?	Glucose
Practical: Does pH effect the rate at which starch is broken down by the enzyme amylase?		
5.6	Why must a water bath be used during the practical?	To control the temperature
5.7	What is the independent variable in this investigation?	The pH
5.8	What is the dependent variable in this investigation?	The time taken for starch to fully breakdown
5.9	What are the control variables in this investigation?	<ul style="list-style-type: none"> • Volume of amylase solution • Volume of starch solution • Concentration of amylase solution • Concentration of starch solution • Temperature
5.10	What is the purpose of iodine in this investigation?	To test for the presence of starch to determine if it has been broken down
5.11	Why is continuous sampling used in this investigation?	To test for the presence of starch in a sample at regular intervals

6. The Lungs		
6.1	What structure protects the lungs?	Rib cage
6.2	What are the structures called where gas exchange happens?	Alveoli
6.3	Name substances that are exchanged in gas exchange at the alveoli	Oxygen moves into the blood stream and carbon dioxide moves into the alveoli
6.4	How do substances move between the alveoli and bloodstream?	By diffusion
6.6	State the pathway of air from the atmosphere to the blood.	Nose/ mouth → trachea → bronchi → bronchioles → alveoli → blood
6.7	How are lungs adapted for gas exchange?	<ul style="list-style-type: none"> • breathing moves air in and out • many alveoli • large capillary network around the alveoli • alveoli and capillaries are one cell thick
6.8	How does moving air in and out of the lungs aid the diffusion of gases?	Maintains the concentration gradient
6.9	How does having many alveoli aid the diffusion of gases?	Provides a large surface area
6.10	How does a large capillary network around the alveoli aid the diffusion of gases?	Maintains the concentration gradient
6.11	How does the alveoli and the capillaries being one cell thick aid the diffusion of gases?	Provides a short diffusion path





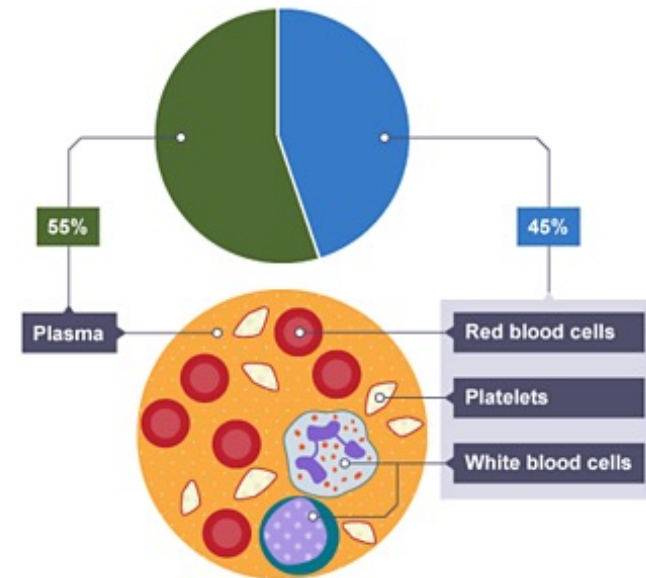
7. Heart		
7.1	What is the function of the heart?	To pump blood
7.2	Why is the heart described as a double pump?	The right side of the heart pumps blood to the lungs and the left side of the heart pumps blood around the body
7.3	Which blood vessel brings blood back from the body to the heart?	Vena cava
7.4	Which chamber of the heart does blood enter on return from the body?	Right atrium
7.5	Which blood vessel takes blood from the heart to the lungs?	Pulmonary artery
7.6	Which chamber of the heart does blood leave from to go to the lungs?	Right ventricle
7.7	Which blood vessel brings blood back from the lungs to the heart?	Pulmonary vein
7.8	Which chamber of the heart does blood enter on return from the lungs?	Left atrium
7.9	Which blood vessel takes blood from the heart to the body?	Aorta
7.10	Which chamber of the heart does blood leave from to go to the body?	Left ventricle
7.11	What is the function of valves in the heart?	To prevent the backflow of blood
7.11	Where are the cells found that control the natural resting heart rate?	Right atrium
7.12	What is an artificial pacemaker?	An electrical device used to correct irregularities in the heart rate



8. Blood Vessels		
8.1	Name the three types of blood vessels.	Arteries, veins, capillaries
8.2	What is the function of arteries in the body?	To transport high pressure blood away from the heart
8.3	What is the function of capillaries in the body?	To transport blood from the arteries to the tissues and allow the exchange of substances
8.4	What is the function of veins in the body?	To transport low pressure blood back to the heart
8.5	How are arteries adapted to their function?	Thick layer of muscle, thick layer of elastic tissue, narrow lumen
8.6	How are veins adapted to their function?	Thin layer of muscle, thin layer of elastic tissue, wide lumen, have valves
8.7	How are capillaries adapted to their function?	One cell thick

9.6	How are white blood cells adapted to their function?	Some can change shape to engulf pathogens, some can produce antibodies, some can produce antitoxins
9.7	What is the function of plasma?	To transport substances
9.9	Name examples of substances transported in the plasma	Carbon dioxide, water, glucose, amino acids, fatty acids and glycerol, hormones, antibodies, lactic acid, vitamins, minerals
9.8	What is the function of platelets?	To help the blood to clot

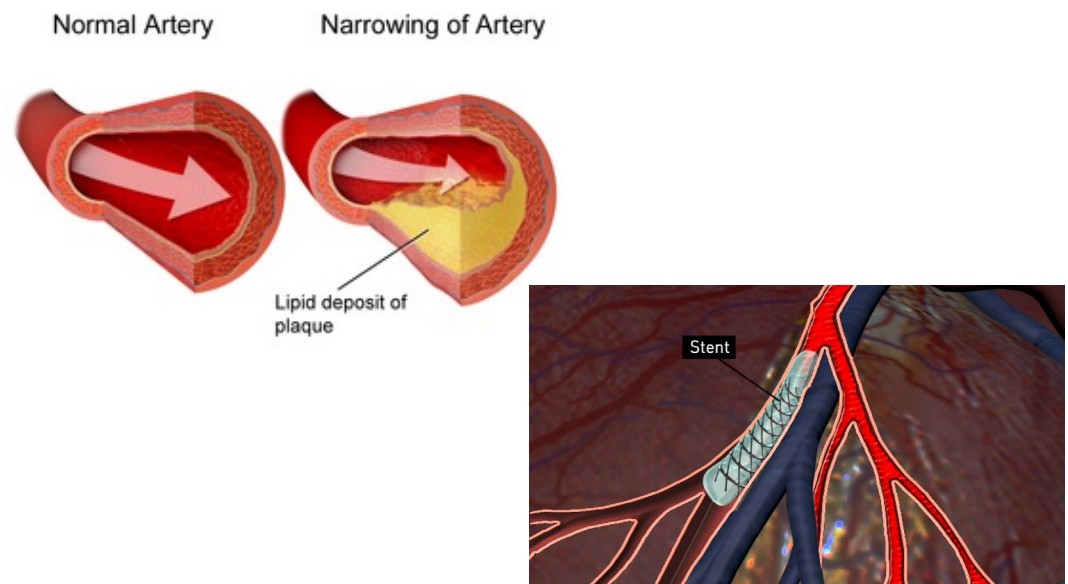
9. Blood		
9.1	What is the function of blood?	To transport substances around the body
9.2	Name the four components of blood	Red blood cells, white blood cells, plasma, platelets
9.3	What is the function of red blood cells?	Transport oxygen from the lungs to all the cells in the body
9.4	How are red blood cells adapted to their function?	Biconcave shape provides a large surface area, no nucleus to carry more oxygen, contain haemoglobin which binds to oxygen
9.5	What is the function of white blood cells?	Defend against infection





10. Coronary Heart Disease		
10.1	What is the function of the coronary arteries?	To supply blood to the heart tissue
10.2	What is coronary heart disease?	Where layers of fatty material build up inside the coronary arteries, narrowing them
10.3	What can happen to the heart, if the blood flow is restricted causing a lack of oxygen to the heart muscle?	Heart attack
10.4	How can coronary heart disease be treated?	Stents, statins
10.5	What is a stent?	A wire mesh tube than can be inserted inside arteries to widen them or keep them open
10.6	List the advantages of stents	They are effective for a long time, the recovery time from surgery is relatively quick
10.7	List the disadvantages of stents	There is a risk of complications during the operation, risk of infection from surgery, risk of developing a blood clot
10.8	What are statins?	Drugs that can reduce the amount of cholesterol present in the bloodstream
10.9	List the advantages of statins	Reduce the risk of strokes, coronary heart disease and heart attacks
10.10	List the disadvantages of statins	They are a long-term drug that must be taken regularly, side effects, it takes time for their effect to kick in

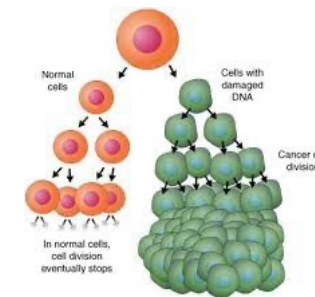
10.11	What are the consequences of faulty valves in the heart?	Blood doesn't circulate as effectively as normal
10.12	How can faulty heart valves be treated?	Replace the valve with a biological valve or a mechanical valve
10.13	How can doctors treat heart failure?	Heart transplant, artificial heart
10.14	Name one advantage of artificial hearts	Less likely to be rejected by the body's immune system than a donor heart
10.15	List the disadvantages of artificial hearts	Surgery can lead to bleeding and infection, they don't work as well as healthy natural hearts, requires drugs to thin the blood
10.16	State the risks associated with surgical intervention in the treatment of heart disease	Death, rejection of organ transplant, clotting problems, thrombosis, infection





11. Health and Disease		
11.1	What is health?	The state of physical and mental well-being
11.2	What is the major cause of ill health?	Diseases
11.3	What are communicable diseases?	Diseases that can be transmitted from one organism to another, caused by pathogen
11.4	What are non-communicable diseases?	Diseases that are not caused by infectious pathogens and are generally caused by lifestyle factors
11.5	What is a risk factor?	Something that can increase the chances of developing a non-communicable disease
11.6	What is a correlation?	A relationship between two sets of data, such that when one changes you would expect the other to change
11.7	What is smoking a risk factor for?	Cardiovascular disease, lung disease, lung cancer, foetal abnormalities (during pregnancy)
11.8	What is alcohol a risk factor for?	Liver damage, brain damage, foetal abnormalities (during pregnancy)
11.9	What is obesity a risk factor for?	Type 2 diabetes
11.10	State three risk factors of cardiovascular disease	Poor diet, smoking, lack of exercise
11.12	What are carcinogens and ionising radiation a risk factor for?	Cancer
11.13	Why might someone be more likely to suffer from infectious diseases?	Due to defects in the immune system
11.14	What can trigger someone developing allergies such as skin rashes or asthma?	Immune reactions initially caused by a pathogen
11.15	What can severe physical ill health potentially lead to?	Depression and other mental illness

12. Cancer		
12.1	What is cancer?	Uncontrolled cell growth and division of cells resulting in tumours
12.2	What are benign tumours?	Growths of abnormal cells which are contained in one area, usually within a membrane.
12.3	What are malignant tumours?	Malignant tumour cells are cancers, they are able to spread around the body and cause secondary tumours
12.4	Which type of tumours can invade neighbouring tissues and spread to different parts of the body?	Malignant tumours
12.5	How do some tumours spread to different parts of the body?	In the blood
12.6	What are the two types of risk factors that can cause different types of cancer?	Lifestyle risk factors and genetic risk factors
12.7	Give examples of lifestyle risk factors that can cause different types of cancer	Smoking, obesity, UV exposure, viruses living in cells





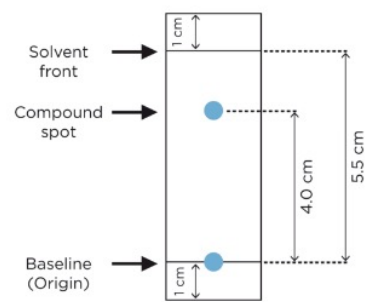
1. Purity and Formulations		
1.1	Define a pure substance.	A single element or compound, not mixed with any other substance
1.2	How can you distinguish a pure substance from a mixture?	Pure elements and compounds melt and boil at specific temperatures. Mixtures will melt and boil over a range of temperatures.
1.3	Define a formulation.	A formulation is a mixture that has been designed as a useful product .
1.4	How are formulations made?	Formulations are made by mixing the components in carefully measured quantities to ensure that the product has the required properties.
1.5	Give 2 examples of formulations	Fuels, cleaning agents, paints, medicines, alloys, fertilisers and foods.

2. Chromatography		
2.1	What does chromatography allow us to do?	Separate substances in a mixture based on their different solubilities.
2.2	Write a method for producing a chromatogram (Required Practical)	

The diagram illustrates the steps for producing a chromatogram:

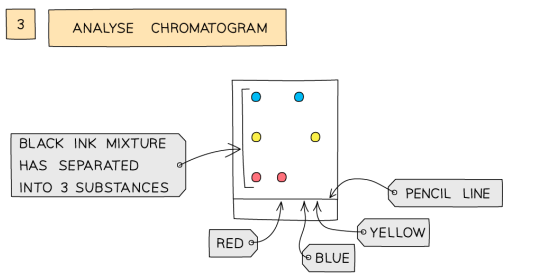
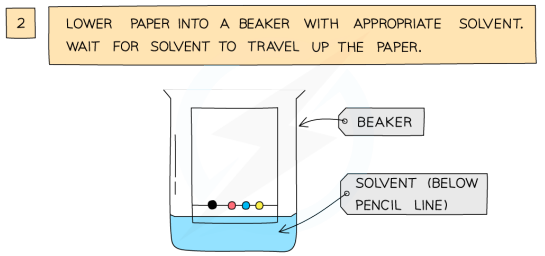
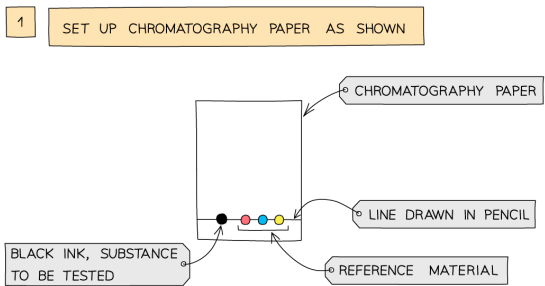
- Draw base line in pencil
- Spot each food colouring in turn
- Label the spots (A, B, C, D, U)
- Add water into beaker
- Roll paper round glass rod and tape
- Place chromatogram in beaker
- Remove chromatogram and draw the solvent front in pencil

2.3	What are the two 'phases' that chromatography relies on?	The stationary phase is the absorbent paper. The mobile phase is the solvent that moves through the paper, carrying different substances with it.
2.4	A dye which moves a long way up the paper has a greater affinity for which phase?	Mobile phase.
2.5	What is the R _f value?	The ratio of the distance moved by a substance (centre of spot) to the distance moved by the solvent (solvent front).
2.6	State the formula for calculating the R _f value.	$R_f = \frac{\text{distance moved by substance}}{\text{distance moved by solvent}}$
2.7	True or False: An R _f value can be greater than 1.	False. As the substance always moves less distance than the solvent, the R _f value is always between 0 and 1.
2.8	Calculate the R _f value for the following chromatogram. Give your answer to 3 significant figures	<p>Distance moved by substance = 4.0cm Distance moved by solvent = 5.5cm</p> $R_f = \frac{\text{distance moved by substance}}{\text{distance moved by solvent}}$ $R_f = \frac{4.0}{5.5}$ $R_f = 0.727272$ $R_f = 0.727 \text{ (3 significant figures)}$





2.9	How can you use a chromatogram to distinguish between a pure substance and a mixture?	A pure substance produces only one spot. An impure substance, or a mixture, produces two or more spots.
2.10	How can a chromatogram be used to identify unknown substances in a mixture?	Compare the R_f values of the spots produced by the mixture chromatogram with the R_f values of substances.
2.11	True or False: A substance has the same R_f value when the solvent is water or ethanol.	False. A substance has a unique R_f value for every solvent.



3. Identification of common gasses		
3.1	Describe the test for hydrogen.	Place a lit splint into hydrogen and it will make a squeaky pop sound .
3.2	Describe the test for oxygen.	Place a glowing splint into oxygen and it will relight .
3.3	Describe the test for carbon dioxide.	Bubble carbon dioxide through limewater and the limewater will turn milky (cloudy) .
3.4	Describe the test for chlorine.	When damp blue litmus paper is put into chlorine gas the litmus paper is bleached and turns white .



1. Scalar and Vector Quantities		
1.1	What is a scalar quantity?	A quantity with magnitude (size) only.
1.2	What is a vector quantity?	A quantity with magnitude (size) and an associated direction.
1.3	How are vector quantities represented?	With an arrow.
2. Contact and Non-Contact Forces		
2.1	What is a force?	A push or a pull that acts on an object due to the interaction with another object.
2.2	What is a contact force?	A force that occurs when objects are physically touching.
2.3	What is a non-contact force?	A force that occurs when objects are physically separated.
2.4	Name four examples of contact forces.	Friction, air resistance, tension, normal contact force.
2.5	Name three examples of non-contact forces.	Gravitational force, electrostatic force, magnetic force.
2.6	Is a force a scalar or vector quantity?	Vector because it has magnitude and direction.
2.7	Draw a diagram to show the forces produced when a book is on a table.	
2.8	Draw a diagram to show the forces produced when an object is hung with a rope.	

3. Gravity		
3.1	What is weight?	The force acting on an object due to gravity.
3.2	Why is there a force of gravity close to the Earth?	Due to the gravitational field around the Earth.
3.3	Name two factors which affect the weight of an object.	Mass and gravitational field strength.
3.4	What is the equation used to calculate weight?	Weight = mass x gravitational field strength (W=mg)
3.5	What is the unit of weight (W)?	Newtons (N)
3.6	What is the unit of mass (m)?	Kilograms (kg)
3.7	What is the unit of gravitational field strength (g)?	Newtons per kilogram (N/kg)
3.8	What is meant by an object's centre of mass?	The single point at which the weight of an object is considered to act. e.g.
3.9	How would you describe the relationship between the weight of an object and the mass of an object?	Directly proportional (as mass increases, weight increases at the same rate).
3.10	How is weight measured?	Using a calibrated spring-balance (a newtonmeter).



3. Gravity

Worked example questions:

A ball with a mass of 0.5kg is kicked into the air. The gravitational field strength on Earth is 9.8N/kg. Calculate the weight of the ball.

$$W = mg$$

$$W = 0.5 \times 9.8$$

$$W = 4.9\text{N}$$

A bird has a mass of 45g. The gravitational field strength on Earth is 9.8N/kg. Calculate the weight of the bird.

$$45\text{g} \div 1000 = 0.045\text{kg}$$

$$W = mg$$

$$W = 0.045 \times 9.8$$

$$W = 0.441\text{N}$$

A rock has a mass of 4.5kg. It's weight on Mars is 16.65N. What is the gravitational field strength on Mars?

$$W = mg$$

$$16.65 = 4.5 \times g$$

$$16.65 \div 4.5 = g$$

$$3.7\text{N/kg} = g$$

A goat has a weight of 539N. The gravitational field strength on Earth is 9.8N/kg. What is it's mass?

$$W = mg$$

$$539 = m \times 9.8$$

$$539 \div 9.8 = m$$

$$55\text{kg} = m$$

The following prefixes may be used in calculation questions:

Prefix	Multiplier	Power of ten
giga, G	1,000,000,000	10^9
mega, M	1,000,000	10^6
kilo, k	1,000	10^3
centi, c	1/100	10^{-2}
milli, m	1/1,000	10^{-3}
micro, μ	1/1,000,000	10^{-6}
nano, n	1/1,000,000,000	10^{-9}

4. Resultant Forces

4.1	What is a resultant force?	A single force that has the same effect as all the original forces acting on an object together.
4.2	How can you calculate the resultant force if more than one force act on an object in the same direction?	Add the forces together.
4.3	How can you calculate the resultant force if more than one force act on an object in different directions?	Subtract the smaller force from the larger force.

4. Resultant Forces

Practice Questions:

For each diagram, determine the resultant force

	$30\text{N} + 20\text{N}$ $= 50\text{N to the right.}$
	$15\text{N} - 5\text{N}$ $= 10\text{N to the right.}$
	$9\text{N} - 4\text{N}$ $= 5\text{N to the left.}$
	$25\text{N} - 25\text{N}$ $= 0\text{N (no resultant force)}$
	$(7\text{N} + 5\text{N}) - 10\text{N}$ $= 12\text{N} - 10\text{N}$ $= 2\text{N to the right.}$
	$(70\text{N} + 30\text{N}) - 50\text{N}$ $= 100\text{N} - 50\text{N}$ $= 50\text{N to the left.}$
Add your own example:	

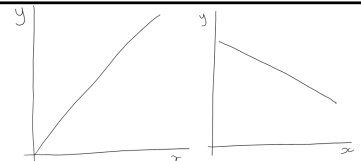
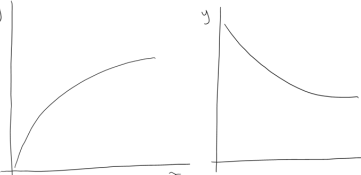


5. Work Done and Energy Transfer		
5.1	When is work done on an object?	When a force causes an object to move through a distance.
5.2	What is the equation used to calculate work done?	Work done = force x distance $W=Fs$
5.3	What is the unit for work done (W)?	Joules (J)
5.4	What is the unit for force (F)?	Newtons (N)
5.5	What is the unit for distance (s)?	Metres (m)
5.6	When is one joule of work done?	When a force of one newton causes a displacement of one metre.
5.7	What will occur if work is done against frictional forces?	A rise in the temperature of the object.
Worked example questions:		
A force of 3N acts on an object and causes it to move through a distance of 2m. Calculate the work done.		
$W = Fs$ $W = 3 \times 2$ $W = 6J$		
Calculate the force required to move an object 20cm when 40J of work is done.		
$20 \div 100 = 0.2m$ $W = Fs$ $40 = F \times 0.2$ $40 \div 0.2 = F$ $200N = F$		
An object is projected upwards with a force of 9N. 45J of work is done against the gravitational force. How far does the object move?		
$W = Fs$ $45 = 9 \times s$ $45 \div 9 = s$ $5m = s$		

6. Forces and Elasticity (Changing Shape)		
6.1	What are the three ways that you can change the shape of an object?	Stretch it, bend it, compress it.
6.2	What must occur to change the shape of a stationary object?	More than one force.
6.3	Draw a diagram to show the forces that must act to bend an object.	
6.4	Draw a diagram to show the forces that must act to stretch an object.	
6.5	Draw a diagram to show the forces that must act to compress an object.	
6.6	What is deformation?	Changing the shape of an object.
6.7	What is elastic deformation?	When an object is deformed and it returns to its original shape once the forces are removed.
6.8	What is inelastic deformation?	When an object is deformed and it does not return to its original shape once the forces are removed.
6.9	Give an example of elastic deformation.	Elastic band, hairband, spring.
6.10	Give an example of inelastic deformation.	Bending a pencil, stretching a piece of blue tack, squashing a piece of plasticine.

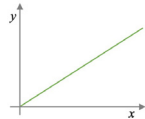
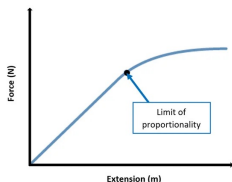


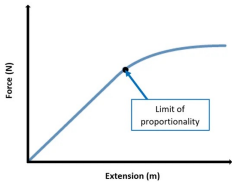
7. Forces and Elasticity (F=ke)		
7.1	What is meant by the spring-constant of a spring?	How difficult it is to extend or compress an elastic object (the larger the spring constant, the more force required).
7.2	Which spring will have a greater spring constant, a trampoline spring or a pen spring? Why?	A trampoline spring as it is stiffer. It is more difficult to extend/compress it. More force is required to extend/compress it by the same amount.
7.3	What is the equation used to calculate the force required to extend/squash a spring?	Force = spring constant x extension $F=ke$
7.4	What is the unit for force (F)?	Newtons (N)
7.5	What is the unit for spring constant (k)?	Newtons per metre (N/m)
7.6	What is the unit for extension/compression (e)?	Metres (m)

8. Forces and Elasticity (Describing Relationships)		
8.1	What is a linear relationship?	A straight-line relationship between two variables.
8.2	Draw two sketch graphs to show two examples of linear relationships.	
8.3	What is a non-linear relationship?	A relationship between two variables that does not give a straight-line (it gives a sloping line).
8.4	Draw two sketch graphs to show two examples of non-linear relationships.	
8.5	Do springs show a linear or non-linear relationship between force and extension?	Linear.
8.6	What is a directly proportional relationship?	A type of linear relationship where the line passes through zero.

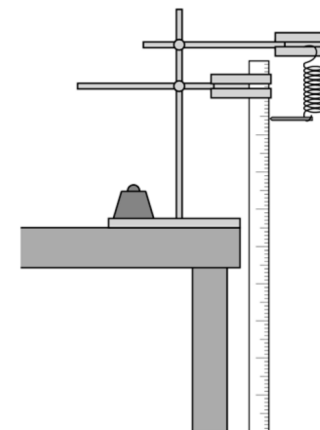
7. Worked example questions:	
How much force is needed to pull a spring with a spring constant of 20 N/m a distance of 0.5m?	$F = ke$ $F = 20 \times 0.5$ $F = 10N$
How much force is needed to pull a spring with a spring constant of 20 N/m a distance of 25cm?	$25 \div 100 = 0.25m$ $F = ke$ $F = 20 \times 0.25$ $F = 5N$
What is the spring constant of a spring if 40N of force is required to extend it by 1.6m?	$F = ke$ $40 = k \times 1.6$ $40 \div 1.6 = k$ $25N/m = k$
A force of 4N is applied to a spring with a spring constant of 2N/m. By how much does it extend?	$F = ke$ $4 = 2 \times e$ $4 \div 2 = e$ $2m = e$
A force is applied to a spring of length 2m is stretched. A force of 10N is applied to the spring with a spring constant of 2.5N/m. What is the new length of the spring?	$F = ke$ $10 = 2.5 \times e$ $10 \div 2.5 = e$ $4m = e$ $\text{extension} = \text{new length} - \text{original length}$ $4 = \text{new length} - 2$ $4 + 2 = \text{new length}$ $6m$



8. Forces and Elasticity (Describing Relationships)		
8.7	How would you describe the relationship between the extension of an elastic object and the force applied to the object?	Directly proportional (as force increases, extension increases at the same rate) provided that the limit of proportionality is not exceeded. 
8.7	What will happen to an elastic object if it reaches the limit of proportionality?	It will inelastically deform.
8.9	Draw a sketch graph to show the relationship between the extension of an elastic object and the force applied to the object.	

9. Forces and Elasticity (Force and Extension Investigation)		
9.1	What does the gradient of this graph tell you? 	The spring constant.
9.2	How would you measure the extension of a spring when a force is applied?	<ol style="list-style-type: none"> 1. Measure the original length of the spring. 2. Hang a mass onto the spring. 3. Measure the new length of the spring. 4. Find the difference between the original length and new length.
9.3	What is the purpose of the splint in this practical?	To accurately measure the length of the spring against the ruler.

10. Forces and Elasticity (Work Done Stretching or Compressing a Spring)		
10.1	When a force stretches/compresses a spring, what store of energy is stored in the spring and why?	Elastic potential energy because the spring does work.
10.2	Describe the relationship between the work done on the spring and the elastic potential energy in the spring.	Provided the spring is not inelastically deformed, the work done on the spring and the elastic potential energy stored are equal.
10.3	What is the equation used to calculate the work done or elastic potential energy in a spring?	Elastic potential energy =
10.4	What is the equation to calculate the energy in the elastic store?	Elastic energy store = $0.5 \times \text{spring constant} \times \text{extension}^2$ ($E_e = \frac{1}{2}Ke^2$)
10.5	What is the unit for spring constant?	Newtons/metre (N/m)
10.6	What is the unit for extension?	Metres (m)
10.7	How is the extension of a spring measured?	extension = extended length - original length





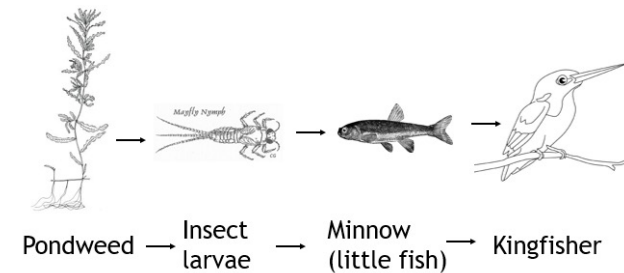
1. Abiotic and biotic factors		
1.1	Define the term habitat.	The place where an organism lives.
1.2	Define the term population.	All of the organisms of one species living in a habitat.
1.3	Define the term community.	All of the species living in a particular habitat.
1.4	Define the term abiotic factors.	Non-living factors in the environment.
1.5	List the abiotic factors.	Moisture level, light intensity, temperature, carbon dioxide level, wind intensity and direction, oxygen level, soil pH and mineral content.
1.6	Define the term biotic factors.	Living factors of the environment.
1.7	List the biotic factors.	New predators arriving, competition from another species, new pathogens, availability of food.
1.8	Define the term ecosystem.	The interaction of a community of living organisms with the non-living parts of their environment.
2. Competition		
2.1	Define the term competition.	The contest between organisms within a community.
2.2	Define the term interspecific competition.	Competition between different species in a community.
2.3	Define the term intraspecific competition.	Competition between organisms of the same species.
2.4	What do animals compete for?	Food, mates, territory.
2.5	What do plants compete for?	Water, light, minerals and nutrients from the soil, space.

3. Adaptations		
3.1	What are the three different types of adaptations?	Structural, behavioural and functional adaptations.
3.2	Define the term structural adaptation.	Features of an organism's body structure.
3.3	Give examples of structural adaptations.	Body shape, fur colour, blubber, mimicry.
3.4	Define the term behavioural adaptation.	The ways that organisms behave.
3.5	Give examples of behavioural adaptations.	Migration, using tools.
3.6	Define the term functional adaptation.	Processes that occur inside an organism's body.
3.7	Give examples of functional adaptations.	Reproduction, metabolism, producing toxins.
3.8	Define the term extremophile.	Organisms that live in environments that are very extreme.
3.9	Give examples of environments that extremophiles live in.	High temperature, high pressure, high salt concentration.

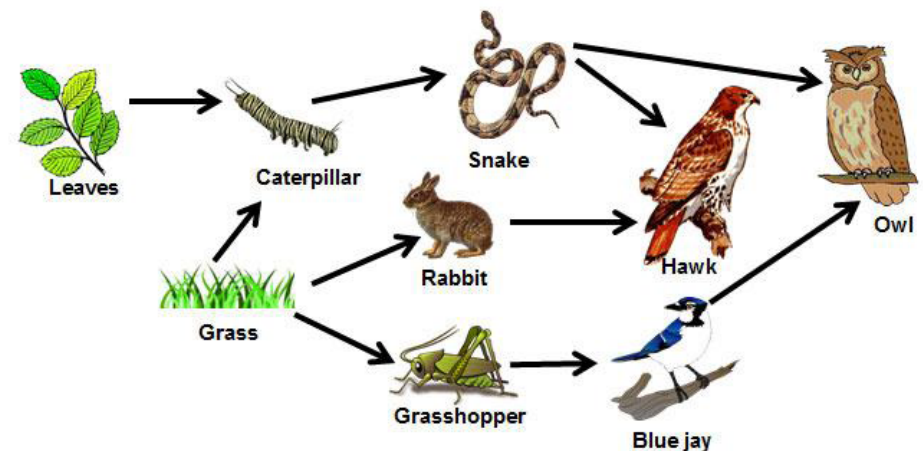


4. Interdependence		
4.1	What do food chains represent?	The feeding relationships between living organisms.
4.2	Define the term producer.	Organisms that make glucose by photosynthesis (e.g. Plants)
4.3	Define the term primary consumer.	The first consumer in the food chain. They only eat producers.
4.4	Define the term secondary consumer.	The second consumer in the food chain.
4.5	Define the term tertiary consumer.	The third consumer in the food chain.
4.6	In the diagram of a food chain, identify the producer, primary consumer, secondary consumer and tertiary consumer.	Producer = pondweed primary consumer = insect larvae secondary consumer = minnow tertiary consumer = kingfisher
4.7	What do food webs represent?	Show how the food chains are connected.
4.8	In the diagram of a food web, identify all of the primary consumers.	Caterpillars, rabbits, grasshoppers.
4.9	What do the arrows in a food chain and food web represent?	The direction of energy transfer.
4.10	In a community, what does each species depend on other species for?	Food, shelter, pollination, seed dispersal.
4.11	Define the term stable community.	All species and environmental factors are in balance so that the population sizes remain fairly constant.
4.12	Give examples of stable communities.	Tropical rainforests, ancient oak woodlands.

4.13	What is a predator?	A consumer that kills and eats others animals.
4.14	What are prey?	Animals that are eaten by predators.
4.15	In a predator-prey cycle, what affects the size of the predator population?	The size of the prey population.



Example of a food chain



Example of a food web



5. Required Practical: Sampling		
5.1	Why do scientists sample small sections rather than the entire environment?	It is not usually possible to survey an entire environment in detail. Sampling small sections is representative of the whole area.
5.2	What two sampling techniques can scientists use to investigate the distribution of a species?	Quadrats and line transects.
5.3	How can you place quadrats randomly?	Use a table of random numbers, random number generator.
5.4	How do you calculate an estimate of the population size?	$eps = \frac{\text{total area}}{\text{sampled area}} \times \text{total counted organisms}$
5.6	Describe the method for sampling using quadrats.	

5. RP Sampling continued	
5.7	A field has an area of 400m ² . Students counted 300 daisies across 10 randomly placed quadrats. Each quadrat was 0.5mx0.5m in area. Estimate the population size of daisies in the field.
<p>total population size = $\frac{\text{total area}}{\text{sampled area}} \times \text{total counted organisms}$</p> <p>total area = 400 m²</p> <p>sampled area = 0.5 x 0.5 x 10 = 2.5 m²</p> <p>total counted organisms = 300</p> <p>total population = $\frac{400}{2.5} \times 300 = 48,000$ daisies</p>	
5.8	Describe the method for sampling using a transect to investigate the effect light intensity on distribution of a particular plant species.



Te presento a Let me introduce you to ...	
este es mi padre/mi madre	This is my father/mother
estos son mis hermanos/hermanas	These are my brothers/sisters
encantado/a /¡Mucho gusto!	Pleased to meet you
¿Qué tal fue el viaje?	How was the journey?
¿Tienes hambre/sed/sueño?	Are you hungry/thirsty/sleepy
(No) Tengo hambre/sed/sueño	I am (not) hungry/thirsty/sleepy
Quiero	I want to...
¿Puedo...?	Can I ...?
acostarme	Go to bed
ducharme	Have a shower

High frequency words	
primero	first
luego	then
después	afterwards
más tarde	later
tal vez	perhaps
más	more
menos	less

De Tiendas	Shopping
Voy a comprar ...	I am going to buy
Quiero un/una ...	I want a...
¿En qué puedo ayudarle?	How can I help you?
¿Cuánto es?	How much is it?
Son euros	It is euros
Me lo/la/los/las llevo	I'll take it/them
Me da/Póngame	Can I have...?
Cien gramos	A hundred grams
Medio kilo	Half a kilo
Un cuarto de	A quarter kilo of
Un kilo de tomates	A kilo of tomatoes
¿Algo mas?	Anything else?
Nada más	That's it.
¿Cuánto cuesta la botella de agua?	How much is the bottle of water?
caro	expensive
barato	cheap
Es demasiado caro	It is too expensive

Reserva de hotel	Booking a hotel room
Quisiera reservar	I would like to book
Una habitación individual	A single room
Una habitación doble	A double room
¿Para cuántas noches?	For how many nights?
Para tres noches, del 3 al 6 de agosto	For three nights, from the 3rd to the 6th of August
Son cien euros por noche	It is a hundred euros per night
¿Hay aire acondicionado/wifi/asensor?	Is there air conditioning/wifi/a lift?

Comprando billetes de tren		Buying train tickets
¿Qué quiere usted?	What would you like?	
Quiero dos billetes para ...,por favor	I want two tickets to...,please	
¿Solo de ida o de ida y vuelta?	Single or return?	
¿Cuánto es ?	How much is it?	
Son ... euros	It ... euros	
¿A qué hora sale/llega el tren?	What time does the train leave/arrive?	
Sale/Llega a las	It leaves/arrives at ...	
¿De qué andén sale?	Which platform does it leave from?	

Youtube is a great source of learning for Spanish. Watch the documentary below and design a poster for San Fermín running of the bulls.

Use Quizlet to practice learned and new more challenging vocabulary.



San Fermín documentary.



Shopping vocabulary.



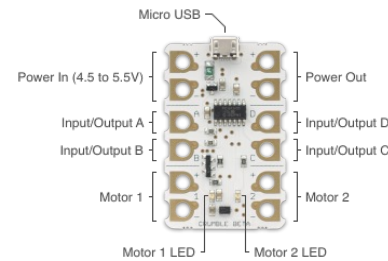
At the train station.



Research information about “La Tomatina” a festival which happens in August in Spain. Write a fictional account in English as if you had attended it last year.

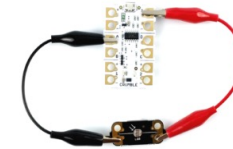


1. Metals & Alloys		
1.1	ferrous	This group of metals all contain iron (ferrite) and are magnetic.
1.2	non-ferrous	This group of metals do not contain iron and are not magnetic.
1.3	alloys	Alloys are a mixture of at least one pure metal and another element.
1.4	aluminium	High strength to weight ratio. Used to manufacture aircraft, car body panels and many other items.
1.5	copper	Ductile and malleable. Used to manufacture plumbing supplies and electrical cable.
1.6	mild steel	Tough and ductile. Commonly used in construction.
1.7	high carbon steel	Less ductile than mild steel but harder. Commonly used to manufacture tools.
1.8	riveting	Riveting is a semi-permanent and non-thermal joining method that involves using a mechanical fastener/rivet (a metallic part with a dome-shaped head) to join sheet metal parts.
1.9	ball peen hammer	It has two heads, one flat and the other, called the peen, rounded. The peening face is used for rounding off rivets.



Crumble controller

Crumble kits



Coat Hook



Sparkles



Snaphead Rivet



Set & Snap Tool



Cross & Draw Filing



Ball peen Hammer



Cordless Drill



Countersink

2. Programmable Components - Crumble kits		
2.1	sequence	How code is run in order from top to bottom, running each line in turn.
2.2	input & output	Something taken in, or received by the processor/program, or something put out by the processor/program.
2.3	Crumble	The Crumble is an easy-to-use programmable controller produced by Redfearn Electronics to teach KS3 D&T in schools.
2.4	Scratch	The Crumble software is Inspired by MIT Scratch, programs are simply built by snapping blocks together on screen.
2.5	Sparkles	The Sparkle is one of the most popular and satisfying Crumbs (components) for the Crumble. It is an easy-to-use RGB LED, and as such, allows a variety of different colours to be produced.
2.6	ldr	The light-dependant resistor (LDR) is a type of input device, which can be used to monitor light levels. Its resistance changes depending on the amount of light.



Redfearn Crumble:
YouTube video- Getting started with programming



CAD/CAM used by the Royal Navy:
Take a 'virtual' tour as a design engineer aboard HMS Astute



KS3 D&T BBC Teach:
Short film clip exploring the process of laser cutting.



Orthographic Projection:
Introduction to Third Angle Orthographic Drawing

ORTHOGRAPHIC PROJECTION

Now look at this example using a set of steps, I have included the dimensions on the ISOMETRIC DRAWING.

All of this means the drawing meets the required standard and should have the symbol for 3rd ANGLE ORTHOGRAPHIC PROJECTION.

Note how the three drawings are laid out, all in line with each other and each has been drawn to scale.

An orthographic projection is a way of representing a 3D object by using several 2D views of the object.

Stretch your vocabulary - STEM Symbols

Sequence – How your code is run in order from top to bottom, running each line in turn.



Input and Output – Something taken in, or received by the processor/program, or something put out by the processor/program, often having a visible/audible effect.



Repetition (Iteration) – Instead of writing out the same code again and again, you can repeat chunks of it.



Selection – You may only want certain blocks of code to run if something happens (when a condition is met).



Variable – Something given a name that has a value which can change e.g. testResults = pass or X = 42 etc.



Stretch your CAD skills - Bitmap Image Editing Tutorial



TechSoft Design Tutorial 12 – Loading a Bitmap Image and Clipping It

Clip paths are invaluable tools for graphic design work. They are user defined closed shapes which can be used to delete or hide parts of a drawing. The following example illustrates a common application. As part of a design, the image of an apple is required. The only apple image available is of an apple in a bowl of fruit, so it is necessary to "extract" the image of the individual apple from the rest of the fruit.

- Start up TechSoft Design V3, or close any open drawings (File > Close). Choose the New Icon from the Upper Icon Toolbar (or File > New). For the purposes of this tutorial only, choose Help > Restore Factory Defaults. Ensure that Grid Lock and Step Lock (RH toolbox) are off.
- Choose the Import Bitmap icon from the Upper Icon Toolbar (or Bitmaps > Import Bitmap) and load the image "Fruit.jpg" from the Tutorials folder. (See fig a.) The Bitmap Image Size and Colour dialog box will open. Click OK to accept the default values.

To work more accurately it will be helpful to zoom in to the apple.

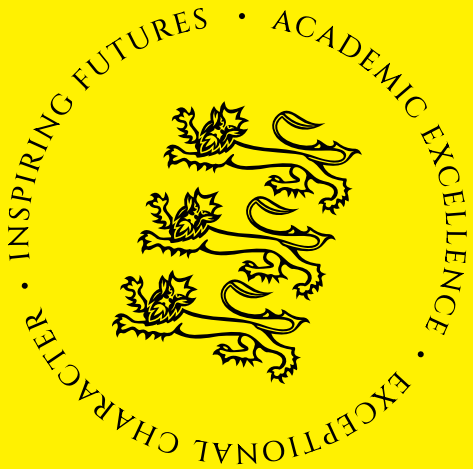
- Choose the Zoom In icon (LH toolbox). Zoom in around the apple as shown in fig b.
- Choose the Draw a Clip Path icon (LH toolbox). Note that the Closed Path Segment toolbox has opened in the bottom RH corner of the Drawing Area.
- Choose the Close Curve icon from the Closed Path Segment toolbox.

Move the cursor to any position on the edge of the apple and click the LH mouse button. Move the cursor about 15mm (see Distance at the bottom of the screen) along the edge of the apple (either direction) and click again. This will draw the first segment of the clip path around the apple. Continue to move the cursor around the apple clicking about every 15mm. When the cursor is about 15mm from the start point click the RH mouse button to close the clip path (you could close the clip path with a double click of the LH mouse button but this will put in an extra unnecessary point). The clip path will be drawn as a thin grey line.

The clip path drawn will probably be a close, but not exact fit to the apple. It is difficult to get a good fit when drawing around a shape as the curve may not always bend as required. The next step shows how to adjust the clip path to be an exact fit.

- Choose the Select icon (LH toolbox). Move the cursor to point to the clip path and click the LH mouse button to select the path.
- With the clip path highlighted, choose Start Edit from the Property/Start Edit toolbox (now showing in the bottom RH corner of the screen). Move the nodes and the handles to get the best possible fit of the path to the apple. You may also need to add nodes for small detail. (See TechSoft Design Tutorial 5 for more details of editing.) When you are happy with the fit of the clip path, move the cursor away from the clip path and click to leave Edit Mode (or click on End Edit in the bottom RH corner of the screen).
- Choose the Clip to a clip path icon (LH toolbox, click and hold on the Clip icon). Move the cursor to point to the clip path and click the LH mouse button to select the path. The Clip Settings dialog box will open as below.







Notes



Notes

Minimum Stationery Requirements



Ruler

3 Blue/
Black Pens

2 Green
Pens

Pencil

Whiteboard
Pen

Eraser

Highlighter Pen

Calculator

Protractor