



Year 7 Knowledge Organiser

**Autumn Term
2021/22**

Name:

Form:

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Instructions for using your Knowledge Organiser

Every school day, you should study 1 to 2 subjects from your knowledge organiser for homework lasting at least 1 hour in total.

On pages 6 and 7 there is space for you to record the subjects you have studied to make sure you are giving equal time to all of them. Your parent should sign off your homework each evening on these pages.

Your parent should also sign your reading log on pages 8 and 9.

You can use the note pages in this booklet to help with your studies.

You need to bring your Knowledge Organiser to school every day. It will be checked regularly during form time.

You will be regularly tested on knowledge contained in this booklet in your lessons and through quizzes on Show My Homework.

Self- testing

You can use your Knowledge Organiser in a number of different ways but you should not just copy from the organiser. Use the following tips and guidance to help you get the most out of learning and revising your subject knowledge.

These are some possible tasks you could try:

- Ask someone to write questions for you
- Write your own challenging questions, leave them overnight and try answering them the next day
- Create mind maps
- Create flash cards
- Put the key words into new sentences
- Look, write, cover and check
- Write a mnemonic
- Use the 'clock' template to divide the information into smaller sections
- Give yourself a spelling test
- Give yourself a definition test
- Draw images and annotate/label them with extra information
- Do further research on the topic
- Create fact files
- Create flowcharts
- Draw diagrams

How to self- test with the knowledge organiser

The Knowledge Organisers are designed to help you learn a wide range of knowledge which will, in turn, mean you are more prepared for your lessons and make even better progress.

To get the most out of your Knowledge Organiser you should be learning sections and then self-testing.

Look, Cover, Write, Check, Correct

This should be familiar to you from primary school.

First Look, then cover this colum	Next try to answer/give definition/spell	Now Check to see if you were right	Finally Correct those you got wrong
Look	Write	Check	Correct
Noun	Person place or thing		
Belief	Something you believe	X	Accept true without proof

Questions/Answers, Answers/Questions

Ask a parent, carer, study partner to write you questions (or answers) and then you write the answer (or possible question that would respond to that answer).

You can also write your own questions but if you do this leave it until the next day before you answer them to see what you can remember after a break.

Always remember to check and correct

Flashcards

These are a very good and simple self-testing tool.

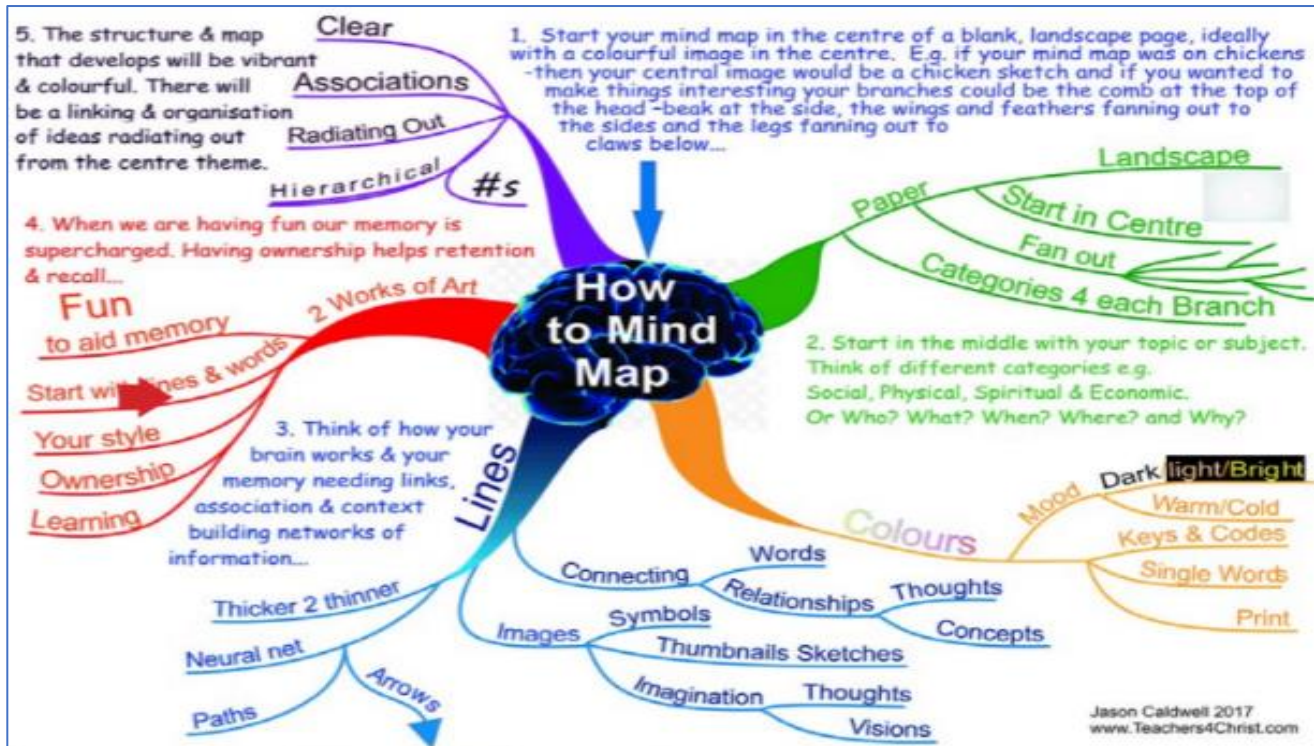
To make your own, take some card and cut into rectangles roughly 10cm x 6cm. Write the key word on one side and the definition on the other.

Then go through your cards looking at one side and seeing if you can remember the keyword/definition on the other side.

Mind Maps

Mind mapping is a process that involves a distinct combination of imagery, colour and visual-spatial arrangement. The technique maps out your thoughts using keywords that trigger associations in the brain to spark further ideas.

Once you have made your map, cover it and test yourself on different strands, e.g. how much of the 'Lines' strand can you recall.



Clock Learning

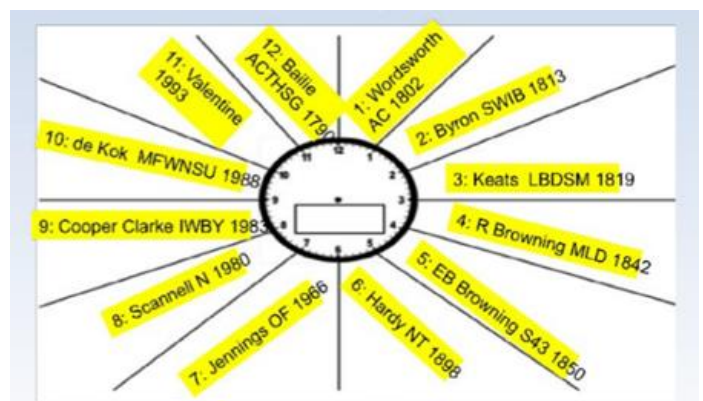
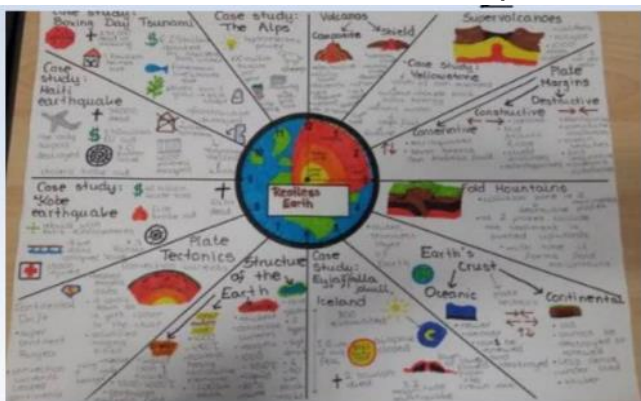
For this technique, draw a basic clock.

Take a subject or topic and break it down into 12 sub-categories.

Make notes in each segment of the clock. Revise each part for 5 minutes.

Now the clock over and try and write out as much information as you can from one of the segments.

Clocks can also be used to help to visualise a timeline



Homework log and parental check

Week 1	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 2	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 3	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 4	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 5	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 6	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 7	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			

Homework log and parental check

Week 8	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 9	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 10	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 11	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 12	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 13	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 14	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			

Reading log

Use this reading log to record the books you read along with how long you have spent reading and the Accelerated Reader quizzes you have completed.

Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Book(s) read (title and author)	Total time spent reading	Parent/Guardian /Staff signature
1										
2										
3										
4										
5										
6										
7										

Reading log

Use this reading log to record the books you read along with how long you have spent reading and the Accelerated Reader quizzes you have completed.

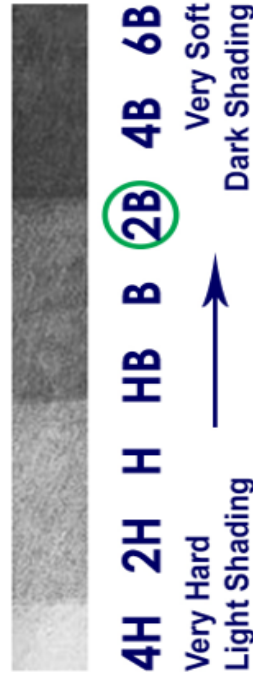
Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Book(s) read (title and author)	Total time spent reading	Parent/Guardian /Staff signature
8										
9										
10										
11										
12										
13										
14										

Art – Learning to See – Drawing:

Drawing is the art or technique of producing images on a surface, usually paper, by means of marks, usually of graphite, ink, chalk, charcoal, or crayon.

Art Specific Language and Terms			
Tone	The lightness or darkness of something.	Observational	A drawing or painting from life.
Tonal Gradation	A visual technique of gradually transitioning from one colour/hue to another, or from one shade to another, or one texture to another.	Scaling up	A precise way to transfer and enlarge a small image.
Depth	Refers to making objects appear closer or further away and making a two-dimensional image seem three-dimensional.	Control	How carefully you work with a specific media.
Proportion	The size relationship between different elements. E.g height compared to width.	Negative shape	The empty or unfilled areas of a piece of artwork.
Composition	Where you place objects on the page.	Accuracy	The extent to which one piece of work looks like another.

Choose the right pencil:



Drawing and its importance as an artistic expression:

Drawing is used to express creativity, and therefore has been prominent in the world of art. Throughout much of history, drawing was regarded as the foundation for artistic practice. Initially, artists used and reused wooden tablets for the production of their drawings. Following the widespread availability of paper in the 14th century, the use of drawing in the arts increased. At this point, drawing was commonly used as a tool for thought and investigation, acting as a study medium whilst artists were preparing for their final pieces of work.

The Renaissance brought about a great sophistication in drawing techniques, enabling artists to represent things more realistically than before and revealing an interest in geometry and philosophy.

Art – Learning to See – Mark Making:

Mark making is a term used to describe the different lines, patterns, and textures we create in a piece of art. It applies to any art material on any surface, not only pen or pencil on paper.

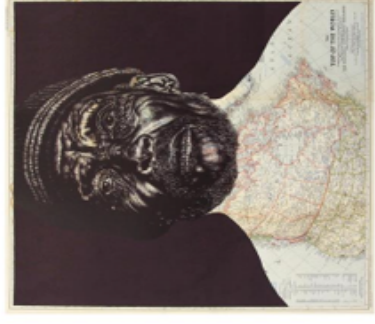
Art Specific Language and Terms				
Hatching	Closely drawn parallel lines to create tone.	Composition	Where you place objects on the page.	
Crosshatching	Crosshatching is the drawing of two layers of hatching at right-angles to create a mesh-like pattern.	Control	How carefully you work with a specific media.	
Texture	Texture is the way something feels to the touch, or looks to the eye. Words like rough, silky, shiny and dull help writers describe the texture of an object. In art we can create texture by using Mark Making techniques.	Direction of Line	They could be vertical, horizontal or diagonal. Lines can be used in art and design to help guide your eye around a painting, or to create a sense of balance and structure.	
Quality of Line	Line quality or line weight - refers to the thickness or thinness of a line. By varying the line quality you can make objects appear more 3-Dimensional and more interesting.	Monoprinting	Monoprinting is a form of printmaking that has lines or images that can only be made once, unlike most printmaking, which allows for multiple originals.	

Mark Powell:

London-based artist Mark Powell reuses old envelopes as canvases to produce incredible drawings. His sketches are made using only a Biro pen, and they often incorporate original stamps and postage marks. By recycling the envelopes, he is in some way preserving a bit of history and the tales behind the sender. He says this is why his work, which is primarily portraiture, focuses on older characters that appear to tell their own stories from the very creases and wrinkles of their faces.



Projection Protection - 2018



Top of the World - 2016

Key words

Houses of Parliament	Parliament is the place where MPs and Peers meet to make decisions and pass laws. Parliament makes sure that the government are running the country properly.
Government	The winning party in a General Election form the government. The Government is led by the Prime Minister. The Prime Minister belongs to the political party with the majority of the seats.
MP	Member of Parliament – an elected representative who works in the House of Commons. There are 650 all together.
Westminster	The Palace of Westminster, is in the centre of London The Houses of Parliament, also known as The Houses of Parliament.
Seats	If an MP wins the most votes in their area (constituency) they can have a seat in Parliament – there are 650.
Laws	Rules that have been passed as Acts of Parliament and now must be followed.
Vote	Making a choice in an election or other group decision.
General Election	An election that takes place across the whole UK (Northern Ireland, England, Wales & Scotland) to elect 650 MPs.

Democracy

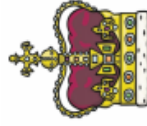
A system of government based on opinions of the people through a fair electoral system.

Democratic participation

Everybody has the opportunity to take part in a fair decision making process, e.g. by voting.

Assessing the Impact

Interviews, discussion, Q&A or surveys

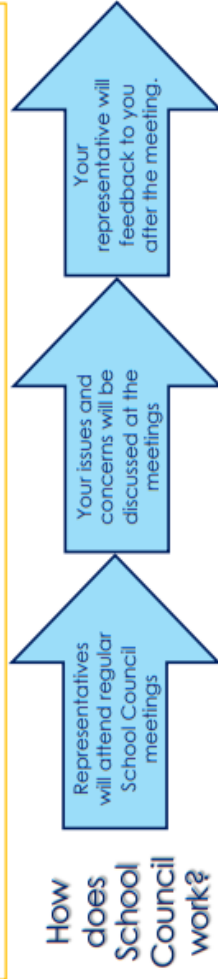


Head of State in the UK is Queen Elizabeth II



Pressure Groups

A group of people who have similar ideas and interests who try to put pressure on the government in order to make a specific change to a specific law. They do not need votes, but they do campaign for public support.

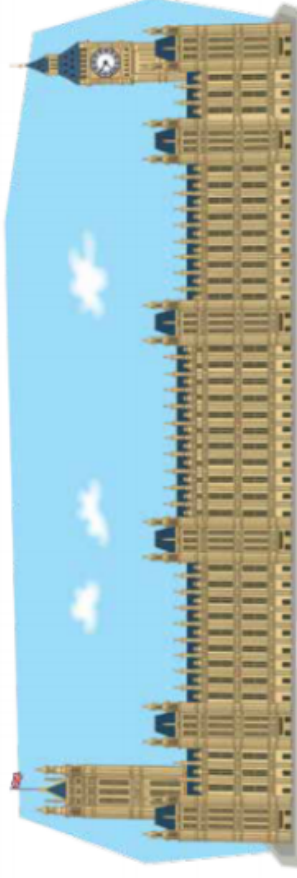


Houses of Parliament

The Houses of Parliament, also known as the Palace of Westminster, is in the centre of London.

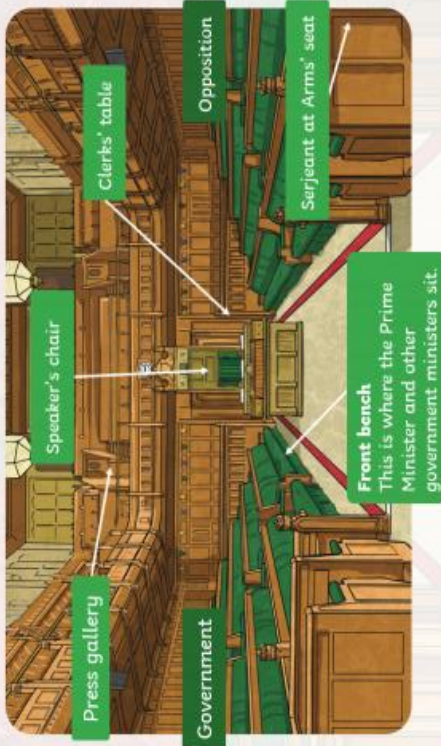
Parliament is made up of three parts: the House of Commons, the House of Lords and the king or queen – known as the Monarch.

The role of the Monarch is mainly ceremonial these days. The Monarch meets the **Prime Minister** once a week to hear what's going on in Parliament, signs new laws (gives Royal Assent) and attends the State Opening of Parliament.

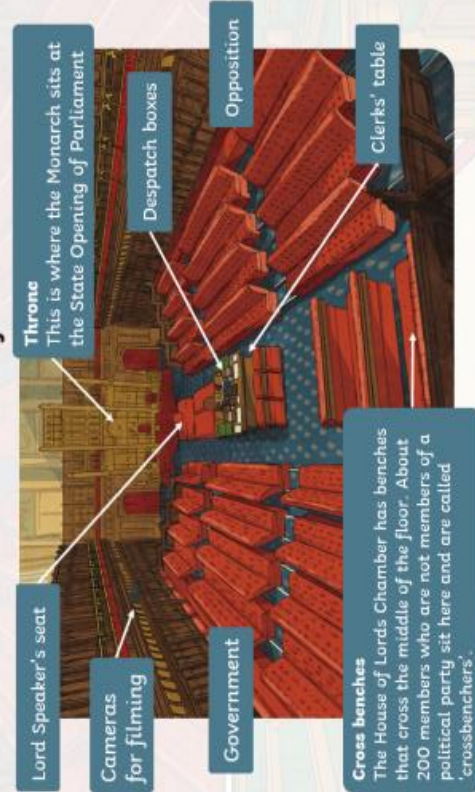


Y7 CITIZENSHIP KNOWLEDGE ORGANISER Autumn Term

What Does the House of Commons Look Like?



What Does the House of Lords Look Like?



Local
Related to a persons village, town or community within which they live in.

National
Related to one country, usually means the country you live in.

International
Related to two or more nations (countries).

The House of Commons is made up of Members of Parliament (MPs). MPs are elected to represent our views in the House of Commons. The **Speaker** sits at the head of the Chamber and is responsible for making sure the MPs are polite and fair. The **Serjeant at Arms** carries the mace into the Chamber at the start of each day. This ancient job dates back to 1415. The Serjeant at Arms is the only person allowed to carry a sword in Parliament.

In the House of Lords, members are appointed from inside and outside of Parliament, based on their special experience and knowledge, to check and challenge the work of the Government. The job of the Lords is to question and challenge the work of the Government. They spend lots of time examining ideas for new laws in detail.

Command Words	
Argue	Present a reasoned case
Comment	Present an informed opinion
Compare	Identify similarities and/or differences
Define	Specify the meaning
Describe	Set out the main characteristics
Name	Identify using a recognised technical term
Outline	Set out main characteristics
Suggest	Present a possible case/ solution

Political Party

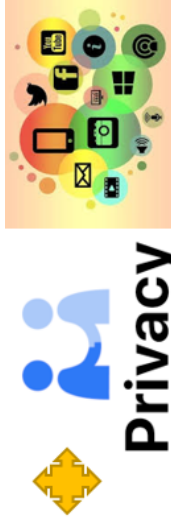
A group of people with similar ideas and interests, who try to make changes to the way the country is run and seek to gain votes and win elections. They focus on a broad range of issues like education, healthcare, police and the economy (money & taxes).



Computer Science – Introduction Keywords

Unit 7.1 - Passwords, Logon, SMHW, emails, safe and effective searching, plagiarism, copyright, hardware, computer systems, and networks.

Login	Login is used to get on to a computer or system. A password or code is used when logging in. The user enters a "username" and "password"
Email	Electronic mail is a method of exchanging messages between people using electronic devices
Password	A password used to confirm the identity of a user. It is a secret word or phrase that must be used to gain access.
Boolean (AND OR NOT]	Boolean Operators are simple words (AND, OR, NOT or AND NOT) used to search. This saves time and effort getting rid of inappropriate search results.
Output Device	A OUTPUT device is used to get information out of a computer.
Searching	Searching is used to finding information using keywords.
Copyright	Copyright is a law that gives the owner of work the right to say how other people can use it. Work can be a book, movie, picture, song or website. Work can only be copied if the owner gives permission.
Plagiarism	Plagiarism is copying another person's ideas, words or writing and pretending that they are one's own work.
Hardware	Computer hardware includes the physical parts of a computer, such as the case, central processing unit, monitor, keyboard, computer data storage, graphics card, sound card, speakers and motherboard.
Software	Computer software is a set of instructions and its tells a computer what to do or how to perform a task. Software includes all different software programs on a computer, such as applications and the operating system.
Input Device	An INPUT device sends data to the computer from the 'real world'
Computer System	A computer system is a functional computer. It receives user input, processes data, and creates information to storage or output.
Authentication	Authentication is the process of verifying the identity of a person or device. Like entering a username and password when you log in to a website.
E-safety	E-safety is safe and responsible use of technology on the computer and the internet.
Privacy	Computer privacy is to protect the personal information saved on a computer or when using a computer. Privacy settings should be set high to protect information.



Privacy



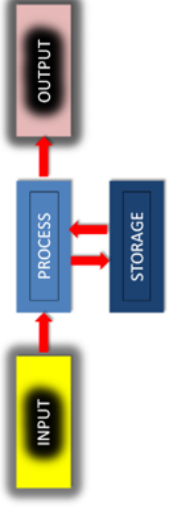
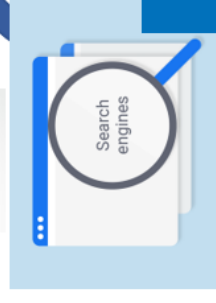
COPYRIGHT



PASSWORDS
Letters
Numbers
Symbols

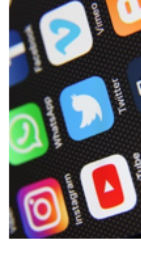
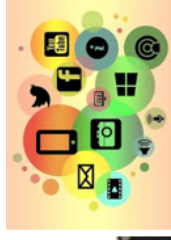


SEARCHING



Computer Science – E-Safety Knowledge Organiser

Unit 7.2 - 7.2 E safety: Cyberbullying, social media, netiquette, digital footprint, reporting concerns..



STOP cyberbullying



harassment technology bully

How to Deal with Cyberbullying

SAVE → any evidence of the bullying and show an adult.

BLOCK → messages or the person. Do not respond to them in any way.

LOG OFF → the site where the cyberbullying is happening.

TALK → to someone you trust about it.



Keywords	Definition
Cyber Bullying	The use of electronic communication to bully a person, typically by sending messages of an intimidating or threatening nature.
Secured Password	A secured password is: at least eight characters long, a mixture of numbers, uppercase and lowercase letters and other symbols.
Online privacy	The level of privacy protection an individual has while connected to the Internet.
Social Media	Social media are interactive technologies that facilitate the sharing of information, ideas, interests and other forms of expression through virtual networks.
Grooming	The actions undertaken by a paedophile to befriend and establish an emotional connection with a child in order to lower the child's inhibitions in preparation for sexual abuse and/or rape.
Netiquette	The word netiquette is a combination of 'net' (from internet) and 'etiquette'. It means respecting other users' views and displaying common courtesy when posting your views online.
Sexting	The sending and receiving of sexually explicit photos, messages and video clips, by text, email or posting them on social networking sites.
Digital Footprint	Whenever you visit a website, share a photo or make a comment online, you leave a digital footprint that other people can see. Your digital footprint includes all the information you share or that's collected about you online, and there can be a lot of it.
Hacking	Slang term used to describe illegal access of computer systems by unauthorised users.
Troll	Someone who posts inflammatory, or off-topic messages in an online community, such as an online discussion forum, chat room, or blog, with the primary intent of provoking readers into an emotional response or of otherwise disrupting normal on-topic discussion. services.
Phishing Email	An email that tricks you into handing over sensitive personal information.
Trojan Horse/Malware	An email that offers something tempting and when opened, installs a virus onto your computer.

Introduction to Drama

General Drama Terminology

Vocabulary	Explanation
Status	Status is about the power difference in the relationship between two characters. A character in a high status looks down on the lower status character.
Facial Expression	A facial expression conveys an emotion that tells us about the character and the way they react to a situation. It may also tell us something about that situation, e.g. if the character is very shocked when something happens. A facial expression can also convey the character's true feelings.
Body Language	Body language conveys a character to the audience. It shows the audience the characters personality. It can also be used to show emotions/ status/relationships . Body language tells us about how a character may be reacting to a particular situation, which in turn can inform an audience about that circumstances the character is within, e.g. if the character is very shocked when something happens. Body Language can also convey the character's true feelings.
Character	A person portrayed in a drama, novel, or other artistic piece.
Corpse	Breaking your character, this could be through laughing, using inappropriate vocabulary or movement.
Stage	The space used to perform on.
Stimuli	These are resources that are used to give you the ideas on the context, focus and purpose of the dramatic topic being preformed. They can be stories, scripts, pictures, songs, poems, saying words etc.
Plot	Plot is a term used to describe the events that make up a story, or the main part of a story. These events relate to each other in a pattern or a sequence.
Levels	Using different heights or levels onstage creates visual interest, it suggests status, can be symbolic and suggest various locations.
Proxemics	Proxemics is the use of space on a stage or how the actors/characters are placed on a stage. The distance or level between character/actors shows their relationships and feelings.
Audience	The people who are watching the performance.

Drama is a lesson where you will get to work practically, in groups, practise speaking and listening skills. You will have the opportunity to build key skills like confidence, communication, concentration and team work. You'll learn to think about your performance and your audience whether you're improvising or working from a script. Throughout KS3 we will devise work and explore drama through a variety of mediums as well as looking at the technical element such as costume, lighting, set design and staging!

Introduction to Drama

Explorative Strategies Learnt this Term

Strategy	Explanation
Freeze Frame	A single frame forming a motionless image.
Thought in Head	A 'thought in head' is when an actor says their characters thoughts out loud .
Thought-Track	Thought-track is when a character steps out of a scene to address the audience about how they are feeling. Sharing thoughts in this way provides deeper insight into the character for an audience.
Marking the Moment	This highlights a key moment in a scene or improvisation. This can be done in a number of different ways: for example through slow-motion, a freeze-frame, narration, thought-track or music.
Hot Seating	A strategy in which an actor ROLE PLAYS a character or characters, played by the teacher or a student, are interviewed by the rest of the group to find out more information about them.
Role Play	This is about stepping into another character's shoes. Taking on the role of someone different to yourself. Becoming a character.
Devil and Angel	This technique involves at least three people. On the left of the central character, one person plays the good angel, and to the right, another person plays the bad angel. The central character could be in some sort of dilemma, e.g. there is a decision to be made.
Flashback	Performers in a scene are asked to improvise scenes which take place seconds, minutes, days or years before or after a dramatic moment. This enables the exploration of characters' background, motivation and the consequences of their actions.
Split Stage	Describe two or more scenes which are performed on stage at the same time.
Cross Cutting	A technique used to move back in time from the present. You would be acting out a scene in the present and then go back in time to show a scene from the past – using flash forward / flash back.
Mime	The theatrical technique of expressing an idea entirely by gesture and bodily movement without the use of words. Miming uses gesture and movement only to act out a scene. When using mime you are communicating with the audience through action and movement rather than a reliance of dialogue.
Narration	Recounting of events and actions that have happened or are currently happening on the stage. The narration is normally done by one of the actors in the performance.

Rehearsal techniques are exercises used in rehearsal (practice) to help actors improve and develop their performance. An example of a rehearsal technique is 'hot seating'.

In our performances we should always project our voice, stay in character, face the audience, know our role, know our lines and not giggle or break character as best we can!



Year 7, Autumn Term: Story and Context *Sir Gawain and the Green Knight* by Simon Armitage

A story is shaped by its context: even when a story is clearly fictitious, it can reflect elements of real life and human experience. Stories and poems can tell us something about the world, as experienced or understood by the writer.

Vocabulary

Key concept word:

- context

Words connected to this poem's context:

- epitome
- courtly love
- hierarchical
- status
- chivalric code

General English reading and writing terms:

- advise/advice
- argument
- quotation
- reference

Grammatical terms:

- imperative verb
- modal verb
- subordinating conjunction
- complex sentence

Poetic terms:

- alliteration
- rhyme
- rhythm

Context: 14th Century England



- *Sir Gawain and the Green Knight* is a 14th century Arthurian legend, translated by Simon Armitage.
- Society in 14th century England was hierarchical; people were defined by social status.
- The poem *Sir Gawain and the Green Knight* offers insight into the 14th century royal court.
- The poem offers us insight into the activities of noble 14th century men.
- An idealised moral code for knights existed, known as the chivalric code. This defined how knights were supposed to behave.
- Knightly values included courtesy, truth, honour and loyalty.
- Knights were expected to engage in courtly love only.
- Straying from the chivalric code brought dishonour.
- The Church was a highly influential institution in the 14th Century.
- This poem gives us insight into 14th century ideas about sin and forgiveness.

Reading

Assessment: 'Gawain is the epitome of a good 14th century knight.' How far do you agree with this view? Support your argument with reference to the text. For each paragraph include:

- * a topic sentence, including an inference;
- * embedded quotations;
- * a link to context.

Identify these in the example below:

Gawain could be seen as the epitome of a good 14th century knight because he demonstrates bravery. When he was waiting for the Green Knight to strike him, the writer tells us that 'Gawain was motionless, never moved a muscle, but stood stone-still'. Bravery was part of the chivalric code, which was important to knights at this time.

Writing

Advice Writing Conventions:

- ◆ first person plural
- ◆ second person
- ◆ imperative verb
- ◆ modal verb
- ◆ rhetorical question
- ◆ triple
- ◆ reasoning (do x because y)
- ◆ exclamatory sentences
- ◆ conditional (If..., then...)
- ◆ supposed situations (When..., then...).

There are four sentence moods:

- ◆ declarative
- ◆ exclamatory
- ◆ interrogative
- ◆ imperative

Write an example of each sentence mood.



Writing Task 1: How to Be a Good Friend

The **structure** of an advice text/guide book should include: (a) a title (b) an introduction (c) sections/subheadings (d) a closing paragraph. Why is this an effective structure?

Grammar focus: what are the differences in meaning of these modal verbs?

- You **could** go to the shops.
- You **should** go to the shops.
- You **must** go to the shops.



Writing Task 2: Write a paragraph advising other students about the importance of washing their hands.

You need to use complex sentences beginning with a subordinating conjunction. Look at the examples below to remind you how to construct this type of sentence; remember the **comma** after the subordinate clause.

If Gawain wants to be a good knight, he must show bravery and honour.

When Gawain reaches the castle, he could...

While Lord Bertilak is out hunting, Gawain should...



Writing Task 3: Write a short guide book entitled 'How to be a good 14th century knight'.

Retrieval: What characteristics does a good knight embody? What do knights adhere to?

- ◆ Plan: title, introduction, subheadings/sections, closing paragraph
- ◆ Create a checklist: conventions of advice writing
- ◆ Revise the grammar of advice writing
- ◆ Plan/draft/review/redraft

Food Preparation and Nutrition

Topic 1: Getting Ready to Cook

Personal hygiene – before starting to cook, you need to get yourself ready:

1. Taking off outdoor clothing (coats, blazers, jumpers and ties) and putting on a clean apron
2. Tying up long hair
3. Cleaning hands with hot soapy water



Good personal hygiene will stop you cross-contaminating food with the harmful bacteria that causes food poisoning. When preparing food you should not be eating your ingredients or licking your fingers.

Ingredients – you need to weigh and measure all the foods you need for a recipe before coming to school.

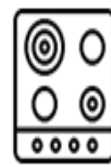
Equipment – all the equipment you need to prepare and cook food can be found in the kitchen cupboards and drawers in school.

Knife safety – when using a knife to prepare food you need to follow these important rules:

1. Collect the knife by holding the handle and pointing the blade downwards
2. Choose the correct chopping board
3. Use bridge and claw to keep your fingers away from the sharp blade
4. Avoid putting your finger on the top of the blade
5. Wash the knife up first (don't leave in the bottom of the sink)

Cooker safety – you will be using all parts of the cooker (hob, grill and oven). Follow these important rules:

1. Always use oven gloves for the grill and oven
2. Bend your knees to see if your food is cooked – don't get on your knees
3. Adjust the temperature of the hob if food is cooking too quickly or is about to boil over
4. Point handles of saucepans to the side so you don't knock them



Heat transfer – food is cooked by transferring heat by conduction (heat from the hob warms up the saucepan and the food inside it), convection (e.g. heat in the oven warms up the air which circulates around the food to cook it) or radiation (heat from the grill radiates downwards to cook food).

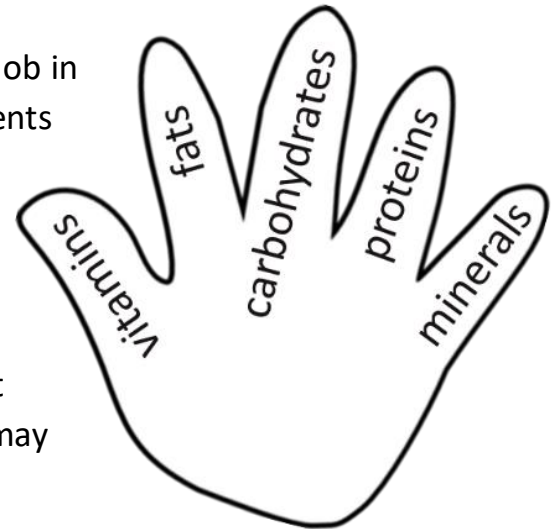
Food Preparation and Nutrition

Topic 2: Healthy Eating

We need food for growth and repair of cells, energy, warmth, protection from illnesses and keep our bodies working properly.

Food is made of 5 nutrients. Each nutrient does a different job in the body. Eating a balanced diet means we get all the nutrients we need for a long and healthy life.

The amount of energy we need depends upon our age, gender, activity level and body size. If we eat more food than we need, and don't use it up by exercising, any energy that's left is turned into fat and we put on weight. If we eat less food than we need, the fat stores are used up and we may end up losing weight.



The Eatwell Guide shows how eating different foods can make a healthy and balanced diet. It divides up different food groups and shows how much of each group is needed. Extra information about the amount of water we need and the labels on food packaging is also provided.

There are also eight guidelines for a healthy lifestyle. They are:

1. Eating at least 5 portions of fruit and vegetables every day
2. Eating higher fibre starchy foods like potatoes, bread, rice or pasta
3. Eating less food high in fats and sugar
4. Eating less salt
5. Eating more fish – including one portion of oily fish
6. Drinking plenty of fluids (at least 6 to 8 glasses a day)
7. Being more active
8. Eating breakfast every day

8 healthy eating tips



Food Preparation and Nutrition

Topic 3: Fruit

Fruits are an important part of a balanced diet and should make up two portions of your 5-a-day.

Fruits contain a variety of micronutrients, for example Vitamins C and A, and they are also a good source of fibre.



There are different types of fruit:

1. **Soft fruits** e.g. raspberries and strawberries
2. **Citrus fruits** e.g. lemons and limes
3. **Stone fruits** e.g. plums and apricots
4. **Tree fruits** e.g. apples and pears
5. **Exotic fruits** e.g. bananas and kiwis
6. **Dried fruits** e.g. currants and sultanas

Fruits can be eaten fresh, frozen, canned or dried. They can be preserved in jams or puréed to make a sauce.

Some fruits are grown in the UK and some are imported from other countries. If imported they can travel thousands of miles to get to the shops. The distance travelled between where food is grown and your table is called a 'food mile'. Pollution from food miles can harm the environment.

Most fruits grown in the UK have a growing season - a time of the year when the growing conditions are best. Choosing seasonal foods has many advantages:

1. They have more nutrients as they are fresher
2. They are cheaper because they are plentiful
3. If grown locally you can support local farmers
4. The food miles will be lower so it's less harmful to the environment

There are some disadvantages too. Only eating seasonal or local foods means that your favourite foods might not be available all year round. Your diet could also lack variety.

Some fruits, for example apples, will spoil if you cut them and their cells are exposed to oxygen in the air. This is called enzymic browning and it can be prevented by covering the fruit with fruit juice or syrup.



Food Preparation and Nutrition

Topic 4: Vegetables

Vegetables are an important part of a balanced diet and should make up three portions of your 5-a-day.

Vegetables contain a variety of micronutrients, for example Vitamins C and B, and they are also a good source of fibre.

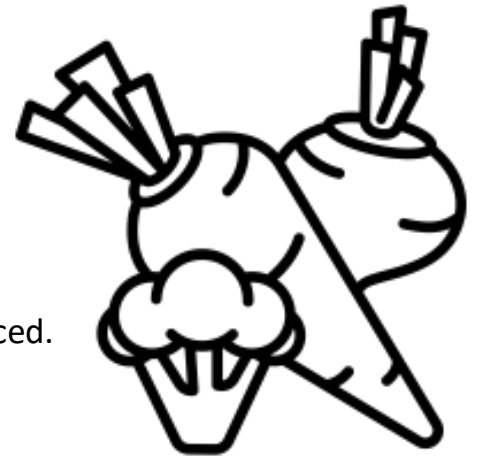


There are different types of vegetables:

1. **Fruit vegetables** e.g. tomatoes and cucumbers
2. **Seeds and pods** e.g. peas and beans
3. **Flower vegetables** e.g. broccoli and cauliflower
4. **Leafy vegetables** e.g. spinach and cabbage
5. **Stem vegetables** e.g. asparagus and celery
6. **Tubers** e.g. potatoes and sweet potatoes
7. **Fungi** e.g. different types of mushrooms
8. **Bulbs** e.g. onions and garlic
9. **Roots** e.g. carrots and beetroot

Vegetables can be eaten fresh, frozen, dried, canned and juiced.

Eating a rainbow of colours provides different vitamins and minerals and can make a meal look more appetising.



Modern growing techniques and the use of technology mean that vegetables can be grown, harvested and packaged within hours so they are very fresh.

Many supermarkets now sell 'wonky' vegetables. These are different shapes and sizes or the wrong colour but they are still tasty and nutritious. Wonky vegetables are often cheaper to buy and stop good food from going to waste.

Children in the UK are not eating enough vegetables. Advertising campaigns to promote vegetables to children and their parents are trying to tackle the problem.



Food Preparation and Nutrition

Topic 5: Starchy Carbohydrates

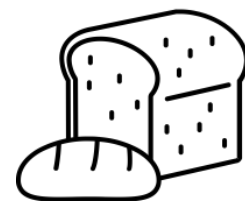
Carbohydrate is made by green plants is one of the five nutrients essential for life. There are 3 types of carbohydrate:

1. **Sugar** - simple carbohydrates that can be broken down by the body quickly and turned into glucose for energy
2. **Starch** - complex carbohydrates that are made up of different sugar molecules linked together. The body takes longer to break them down into glucose giving us slow release energy
3. **Fibre** - another complex carbohydrate found in the cell walls of plants. The body can't break fibre down but it is important to help with removing waste from the body



Many starchy foods are grown in the UK. Potatoes are a tuber which grow from the roots of a potato plant. Because they contain so much starch, they are included in the starchy foods section of the Eatwell Guide even though they are a vegetable.

Cereals like wheat are grown, harvested and the seeds milled to produce flour. Flour is used to make baked goods like bread, cakes and scones and also pasta. Oats grow in cool, wet climates and can be milled to make rolled oats and oatmeal. Oats are used to make porridge and flapjacks.



Healthy eating advice suggests that meals should be based on starchy carbohydrates such as breakfast cereals, bread, pasta, potatoes or rice. Wholemeal varieties of these foods are also a good source of fibre and keep you feeling fuller for longer.

Starchy food is often served as an accompaniment for meat, chicken fish or vegetable dishes. Starches, such as cornflour, can also be used to thicken sauces through a processes called gelatinisation.

When starch comes into contact with dry heat it is broken down into a sugar which turns the food brown and gives a nutty flavour and aroma, for example when bread is toasted. This is called dextrinization.

Many starchy foods are baked and use raising agents to give them a light and spongy texture. Raising agents can be chemical (baking powder), mechanical (whisking), physical (water turning to steam) or biological (yeast). Chemical and biological agents work by producing carbon dioxide gas to aerate a mixture.

Food Preparation and Nutrition

Topic 6: Simple Carbohydrates (Sugar)

Sugar and syrup are both types of carbohydrate but you will not find them on the Eatwell Guide because, although we like sugary foods, we do not NEED them in order to be healthy.

Sugar is found naturally in fruits and vegetables and fruit juices. Honey is also a natural sugar made by bees. In addition, there are many types of processed sugars made from sugar beet and sugar cane. They are often called 'free sugars' and examples include granulated and icing sugar and treacle and golden syrup.



These processed sugars are added to many processed foods such as breakfast cereals, biscuits, jams, chocolate and fizzy drinks. It is sometimes difficult to judge how much sugar these foods contain. Sugar is also hidden in some savoury foods such as salad dressings, bread, ketchup and soups. These 'hidden sugars' mean that people eat more sugar than they realise.

You need to look carefully at food labels to identify hidden sugars. They are sometimes called other names like dextrose, glucose, syrup or molasses. Sugars are also listed on the traffic light labelling on packaging. If food is high in sugar it will show up red on the traffic light. Recommended daily intake of sugar is a maximum of 24g or 6 teaspoons for children.



A diet high in free sugars can lead to tooth decay and obesity in children. It is also linked to Type 2 diabetes and some cancers in adults.

People enjoy high sugar foods because they have sensory appeal – it improves the appearance, taste, aroma and texture of food. Sensory evaluation is when you judge food on its sensory appeal. Sensory evaluation is helpful when food manufacturers are launching a new product or improving a recipe. It's important to use sensory words that are objective when you are taste testing eg chewy, sweet, sticky or golden brown.

One reason why sugars improve the colour and flavour of baked foods, such as flapjacks, is because they caramelize when heated. The heat causes water to evaporate which produces a darker, sticky liquid. The longer it is heated, the darker the caramel becomes.

Year 7 French - Autumn Term 1

Greetings

bonjour/ salut	hello/ hi
au revoir	goodbye
à bientôt	see you soon
à demain	see you tomorrow
à la semaine prochaine	see you next week
Comment ça va?	How are you?
Comment t'appelles-tu?	What is your name?
Comment ça s'écrit?	How is it spelled?
je m'appelle...	My name is...
très bien merci	very well thank you
s'il vous plaît	please
comme ci, comme ça	ok/ so so
ça va mal	not very well
je me sens malade	I feel unwell

Age and numbers

Quel âge as-tu? <i>How old are you?</i>			
J'ai... ans.		<i>I am ... years old.</i>	
il/elle a ... ans.		<i>he/she is ... years old.</i>	
un	<i>one</i>	onze	<i>eleven</i>
deux	<i>two</i>	douze	<i>twelve</i>
trois	<i>three</i>	treize	<i>thirteen</i>
quatre	<i>four</i>	quatorze	<i>fourteen</i>
cinq	<i>five</i>	quinze	<i>fifteen</i>
six	<i>six</i>	seize	<i>sixteen</i>
sept	<i>seven</i>	dix-sept	<i>seventeen</i>
huit	<i>eight</i>	dix-huit	<i>eighteen</i>
neuf	<i>nine</i>	dix-neuf	<i>nineteen</i>
dix	<i>ten</i>	vingt	<i>twenty</i>
		vingt-et-un	<i>twenty one</i>
		vingt-deux	<i>twenty two</i>
		trente	<i>thirty</i>

Days of the week and the date

Quelle est la date aujourd'hui?
What is the date today?

Aujourd'hui c'est... Today is ...

lundi	Monday		
mardi	Tuesday		
mercredi	Wednesday		
jeudi	Thursday		
vendredi	Friday	le premier	the first
samedi	Saturday	le deux	the second
dimanche	Sunday	le trois	the third

L'alphabet français!

A	ah	I	ee	Q	koo	Y	ee-grek
B	beh	J	zhee	R	air	Z	zed
C	seh	K	kah	S	ess		
D	deh	L	ell	T	teh		
E	uh	M	em	U	ooh		
F	eff	N	en	V	veh		
G	zheh	O	oh	W	doo-blah-veh		
H	ahsh	P	peh	X	eeks		

Items in a pencil case

Dans ma trousse il y a...	In my pencil case there is...
Dans ma trousse j'ai...	In my pencil case I have...
Dans ta trousse tu as...	In your pencil case you have...

un stylo	a writing pen
un crayon	a pencil
un bic	a biro
une gomme	a rubber
une règle	a ruler
un bâton de colle	a glue stick
des feutres	felt pens
des crayons de couleur	coloured pencils
un compas	a compass
une calculatrice	a calculator
des ciseaux	scissors
un taille-crayon	sharpener
Est-ce que je peux emprunter...?	Can I borrow...?

Classroom instructions

asseyez-vous	sit down
levez-vous	stand up
regardez le tableau	look at the board
écoutez bien	listen
lisez	read
parlez	speak
écrivez	write
en français	in French
en anglais	in English

Months and birthdays

Quelle est la date de ton anniversaire? -
When is your birthday?
Mon anniversaire c'est le... My birthday is on the...

janvier	January	juillet	July
février	February	août	August
mars	March	septembre	September
avril	April	octobre	October
mai	May	novembre	November
juin	June	décembre	December

Year 7 French- Autumn Term 2

Physical description

Tu es comment?	<i>Describe yourself</i>		
Je suis.../ je ne suis pas	<i>I am ... / I am not...</i>		
il/elle est ...	<i>he/she is ...</i>		
il/ elle n'est pas	<i>he/ she is not</i>		
grand/grande	<i>tall</i>	assez	<i>quite</i>
petit/petite	<i>small</i>	très	<i>very</i>
mince	<i>slim</i>	un peu	<i>a bit</i>
gros/ grosse	<i>large</i>	et	<i>and</i>
musclé/ musclée	<i>athletic</i>	mais	<i>but</i>
beau/ belle	<i>beautiful</i>	aussi	<i>also</i>
moche	<i>ugly</i>		
fort/forte	<i>strong</i>		
faible	<i>weak</i>		

Family members

Comment est ta famille?	<i>Describe your family</i>		
Dans ma famille il y a...	<i>In my family there is...</i>		
je n'ai pas de...	<i>I don't have...</i>		
mon frère	<i>my brother</i>		
ma soeur	<i>my sister</i>		
ma demi-soeur	<i>my half sister</i>		
mon demi-frère	<i>my half brother</i>		
mon jumeau	<i>my twin brother</i>		
ma jumelle	<i>my twin sister</i>		
ma mère	<i>my mum</i>		
ma belle-mère	<i>my step-mum</i>		
mon père	<i>my dad</i>		
mon beau-père	<i>my step-dad</i>		
ma grand-mère	<i>my grandmother</i>		
mon grand-père	<i>my grandfather</i>		
il/elle s'appelle...	<i>he/ she is called...</i>		
ils/ elles s'appellent...	<i>they are called...</i>		
il/elle a... ans	<i>he/ she is... years old</i>		
ils/elles ont... ans	<i>they are... years old</i>		

Animals

un chien	<i>a dog</i>
un chat	<i>a cat</i>
un poisson	<i>a fish</i>
un cheval	<i>a horse</i>
une tortue	<i>a tortoise</i>
un lapin	<i>a rabbit</i>
un oiseau	<i>a bird</i>
une souris	<i>a mouse</i>
un serpent	<i>a snake</i>
un cochon d'Inde	<i>a guinea pig</i>
un hamster	<i>a hamster</i>
qui s'appelle	<i>who is called</i>
qui s'appellent	<i>who are called</i>

Personality

Comment est ta personnalité?	<i>Describe your personality</i>	
je suis.../ je ne suis pas	<i>I am.../ I am not</i>	
il/elle est.../ il/elle n'est pas	<i>he/ she is.../he/she is not</i>	
bavard/ bavarde	<i>chatty</i>	
timide	<i>shy</i>	
méchant/ méchante	<i>mean/nasty</i>	
intelligent/intelligente	<i>clever</i>	
arrogant/arrogante	<i>arrogant</i>	
amusant/amusante	<i>fun</i>	
patient/ patiente	<i>patient</i>	

Describing hair and eyes

Tu as les yeux comment?	<i>Describe your eye colour</i>
Tu as les cheveux comment?	<i>Describe your hair</i>
J'ai les yeux bleus/ verts/ marron/ gris	<i>I have blue/green/brown/grey eyes</i>
Il/elle a les yeux bleus/ verts/ marron/ gris	<i>He/she has blue/green/brown/grey/eyes</i>
j'ai les cheveux...	<i>I have... hair</i>
il/elle a les cheveux...	<i>He/she has... hair</i>
longs/mi-longs/courts	<i>long/mid length/ short</i>
blonds/noirs/châtains/roux	<i>blonde/black/brown/red</i>
raides/ ondulés/ frisés	<i>straight/ wavy/ curly</i>

Colours

bleu/bleue	<i>blue</i>
vert/ verte	<i>green</i>
jaune	<i>yellow</i>
rouge	<i>red</i>
rose	<i>pink</i>
violet/ violette	<i>purple</i>
blanc/ blanche	<i>white</i>
noir/ noire	<i>black</i>
marron	<i>brown</i>
orange	<i>orange</i>
bigarré	<i>multicoloured</i>

Numbers

vingt	<i>twenty</i>
vingt-et-un	<i>twenty-one</i>
vingt-deux	<i>twenty-two</i>
trente	<i>thirty</i>
quarante	<i>forty</i>
cinquante	<i>fifty</i>
soixante	<i>sixty</i>
soixante-dix	<i>seventy</i>
quatre-vingts	<i>eighty</i>
quatre-vingts-dix	<i>ninety</i>
cent	<i>one hundred</i>

AVOIR

	<i>to have</i>
j'ai	<i>I have</i>
tu as	<i>you have</i>
il a	<i>he has</i>
elle a	<i>she has</i>
nous avons	<i>we have</i>
vous avez	<i>you have (plural)</i>
ils ont	<i>they have</i>
elles ont	<i>they have</i>
j'ai deux frères	<i>I have two brothers</i>
il a un lapin	<i>He has a rabbit</i>
elle a les yeux verts	<i>She has green eyes</i>

ÊTRE

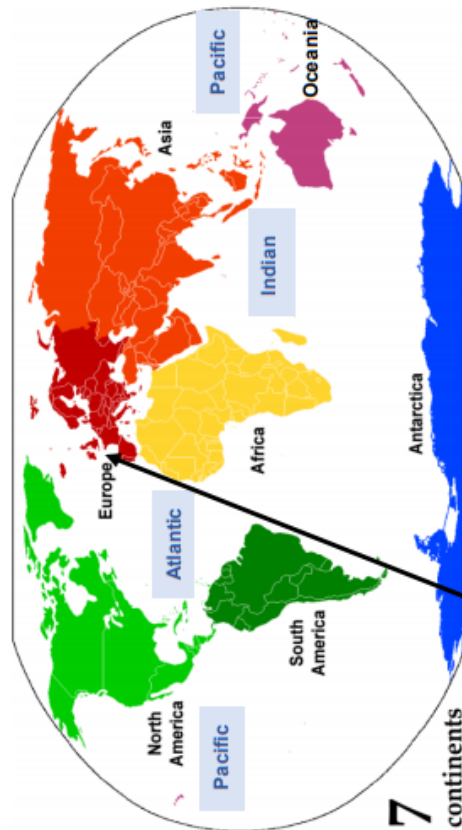
	<i>to be</i>
je suis	<i>I am</i>
tu es	<i>you are</i>
il est	<i>he is</i>
elle est	<i>she is</i>
nous sommes	<i>we are</i>
vous êtes	<i>you are (plural)</i>
ils sont	<i>they are</i>
elles sont	<i>they are</i>
je suis assez grand	<i>I am quite tall</i>
elle est méchante	<i>She is mean</i>
il est très timide	<i>He is very shy</i>

Year 7 Geography: Map Skills

Where do people live?

What is a continent ?	Masses of land that form Earth's continental crust.
What is a country ?	A nation with its own government and boundaries. Lots of different countries are located on one continent.
What is a region ?	An area that is quite similar e.g. landscapes, climate and types of work people do.
What is a county ?	Regions split into smaller areas called countries. They have their own Local Government.
What is a settlement ?	A settlement is the place where people settle and live. Settlements can range in size from a single house in a remote area to a city that has thousands of people.

Continents and Oceans



The United Kingdom

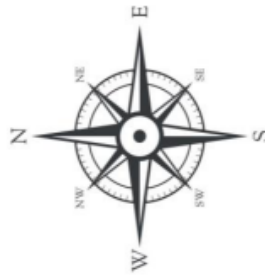


The United Kingdom (UK) is a sovereign nation located in Western Europe. It includes the countries: England, Scotland, Wales and Northern Ireland.

Orientation

Compass Directions

North – Never
East – Eat
South – Shredded
West – Wheat



Scale

Most maps have a scale. These help us to calculate distances on maps. A scale shows the ratio between **distance on a map** and **distance on corresponding ground**.

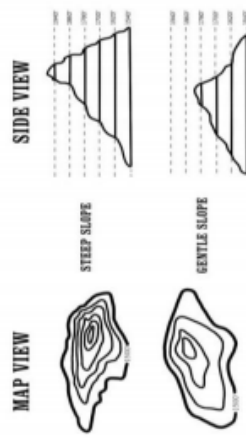
For example, using a 1:100000 scale, 1cm on the map = 1km on the corresponding ground.

Height

'Relief' = the shape of the land.
 Maps show height in a number of different ways.

Contour lines are **brown** lines on a map which join up areas of the same height.

If the contour lines are close together, the land has a **steep** gradient. If the contour lines are spaced out, the land has a **shallow** gradient.



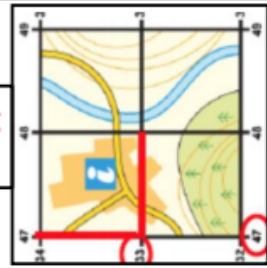
4 Figure Grid References

Grid references help a map-reader to locate a place.

How to:

1. Locate the place you want to go.
2. Count across the X axis lines until you reach the line that runs to the left of the location. These are your first two figures.
3. Count up the Y axis until you reach the line that runs below the location. These are your last two figures.

4733



6 Figure Grid References

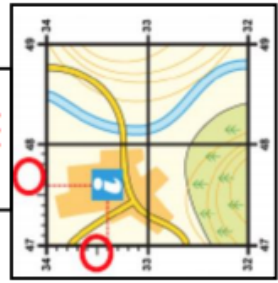
Grids often cover a large area, so sometimes you have to be more precise in order to pin point the exact location. In these instances, you would use 6 figure grid references.

The information point is at (47x, 33y).
 We need to find figures 'x' and 'y'.

4. Split each grid into 10 on the X and Y axis.

476334

5. Count across the X axis until you're in line with the location. Write the number for 'x' (476, 33y).



6. Count up the Y axis until you're in line with the location. Write the number for 'y' (476, 334).

The number one rule when calculating grid references: You must first move along the corridor THEN up the stairs.



Year 7 Geography: The Geography of the UK

Key Term	Definition
United Kingdom	An island nation in north-western Europe made up of England, Scotland, Wales and Northern Ireland.
Migration	The movement of people from one place to another with the intentions of settling, permanently or temporarily at a new location.
Commonwealth	A collection of 54 independent and equal countries, nearly all were once part of the British Empire .
Densely populated	A location that contains a higher number of people per km ² .
Sparsely populated	A location that contains a lower number of people per km ² .
Census	A survey of the entire population, to find out about people's characteristics, completed once every 10 years.
Import	Bringing goods into a country from abroad for sale.
Export	Sending goods to another country for sale.



Key ideas

The population of the UK is unevenly distributed. The UK is most densely in the south-east, where the capital London is located. The most sparsely located area of the UK is Scotland, which is mostly rural.

The UK's population is diverse with many different ethnicities and cultures due to migration over a long period of time. When the Second World War ended in 1945, large numbers of workers and their families from outside Europe, mainly from the Caribbean and from India and Pakistan, migrated into the UK. In more recent years the UK has had migration from European countries such as Poland.

The UK is part of Europe. From 1973 to 2020, the UK was also part of the European Union. A referendum (vote) was held in June 2016, in which 52% voted to leave and 48% voted to remain in the EU.

Y7 German - Autumn Term 1

1. Wie heißt du? What's your name ?

Hallo!	Hello !
Ich heiße ...	My name is...
Guten Tag!	Good day ! Hello !
Wie geht's?	How are you ?
Und dir?	And you ?
Gut	Good
Nicht schlecht.	Not bad.
Tschüs!	Bye !
Auf Wiedersehen!	Good bye !

2. Wie alt bist du? How old are you ?

Ich bin ... Jahre alt.	I am... years old.
eins 1	elf 11
zwei 2	zwölf 12
drei 3	dreizehn 13
vier 4	vierzehn 14
fünf 5	fünfzehn 15
sechs 6	sechszehn 16
sieben 7	siebzehn 17
acht 8	achtzehn 18
neun 9	neunzehn 19
zehn 10	zwanzig 20

3. Wo wohnst du?

Ich wohne in ...
 Er/Sie wohnt in ...
 Das ist in ...
 England
 Schottland
 Wales
 Nordirland
 Irland
 Wie schreibt man das (Haus)?
 Das schreibt man (H-A-U-S).

Where do you live ?

I live in...
 He/She lives in...
 That is in...
 England
 Scotland
 Wales
 Northern Ireland
 Ireland
 How do you spell that (house) ?
 You spell that (H-O-U-S-E).

4. Wie bist du?

freundlich
 launisch
 kreativ
 intelligent
 sportlich
 laut
 faul
 musikalisch
 lustig
 Ich bin sehr/ziemlich/nicht ...
 Was ist deine(e) ...?
 Mein(e) ... ist ...
 der Lieblingssport
 die Lieblingsmusik
 das Lieblingsspiel

What are you like?

friendly
 moody
 creative
 intelligent
 sporty
 loud
 lazy
 musical
 funny
 I am very/quite/not
 What is your... ?
 My... is...
 the favourite sport
 the favourite music
 the favourite game

5. Fragen

Wie? How?
 Wie geht's? How are you?
 Was? What?
 Was ist das? What is that?
 Wo? Where?
 Wo wohnst du? Where do you live?
 Woher? Where from?
 Woher kommst du? Where are you from?
 Wer? Who?
 Wer ist das? Who is that?
 Wie sagt man das? How do you say that?

A ah	B bay	C tsay	D day	E ay	F eff
G gay	H ha	I eee	J yacht	K car	L ell
M em	N en	O oh	P pay	Q coo	R air
S ess	T tay	U ooh	V fow	W vay	X ix
Y oopsilon	Z tsett	Ä ah Umlaut	Ö oh Umlaut	Ü ooh Umlaut	ß esstsett

Spontaneous Language:

- Wie sagt man das auf Deutsch/Englisch?
How do you say this in German/English?
- Darf ich Englisch sprechen?
May I speak English?
- Darf ich meine Jacke ausziehen?
May I take of my jacket?
- Darf ich trinken?
May I drink?
- Ja, das stimmt.
Yes, that is correct.
- Nein, das stimmt nicht.
No, that is not correct.

Y7 German - Autumn Term 2

1. Hast du ein Haustier? Do you have a pet?

Ich habe ...	I have...
einen Hund	a dog
einen Hamster	a hamster
eine Katze	a cat
eine Maus	a mouse
eine Schlange	a snake
ein Kaninchen	a rabbit
ein Pferd	a horse
ein Meerschweinchen	a guinea pig
groß/klein	big/small
dick/schlank	fat/thin
freundlich	friendly
intelligent	intelligent
lustig	funny
frech	cheeky

2. Wie ist er/sie/es?

What is he/she/it like?

Er/Sie/Es ist ...	He/She/It is...
schlau	cunning/smart
schnell	fast
süß	cute/sweet
langsam	slow
Er/Sie kann ...	He/She can...
fliegen	fly
(schnell) laufen	run (fast)
Rad fahren	ride a bike
schwimmen	swim
singen	sing
springen	jump
tanzen	dance

3. Hast du Geschwister?

In meiner Familie gibt es... Personen.
 meine Mutter
 mein Vater
 meine Eltern
 meine Großeltern
 Er wohnt in ...
 Ich habe eine Schwester/ zwei Schwestern.
 Ich habe einen Bruder / zwei Brüder.
 Ich habe keine Geschwister.
 Ich bin ein Einzelkind.

Do you have siblings?

In my family there are... people.
 my mother
 my father
 my parents
 my grandparents
 He lives in...
 I have a sister / two sisters.
 I have a brother / two brothers.
 I have no siblings.
 I am an only child.

4. Die Farben

The colours

schwarz	black
weiß	white
grau	grey
braun	brown
rot	red
orange	orange
gelb	yellow
grün	green
blau	blue
indigoblau	indigo
violet	violet
lila	purple
rosa	pink
Er/Sie hat...	He/She has...
Ich habe...	I have...
blonde/rote Haare	blond/red hair
lange/kurze/	long/short
mittellange Haare	mid-length hair
grüne/graue Augen	green/gray hair

5. Wann hast du Geburtstag?

When is your birthday?

Januar	January
Februar	February
März	March
April	April
Mai	May
Juni	June
Juli	July
August	August
September	September
Oktober	October
November	November
Dezember	December

- Ich habe am ...(s)ten ... Geburtstag.
My birthday is on the...th of
- Ich habe (heute) Geburtstag.
My birthday is today.

zwanzig 20 einundzwanzig 21 zweiundzwanzig 22 dreiundzwanzig 23 vierundzwanzig 24
 fünfundzwanzig 25 sechsundzwanzig 26 siebenundzwanzig 27 achtundzwanzig 28
 neunundzwanzig 29 dreißig 30 vierzig 40 fünfzig 50 sechzig 60 siebzig 70
 achtzig 80 neunzig 90 hundert 100 ersten – first zweiten – second dritten – third

HISTORY: Prehistoric and Ancient Britain Knowledge Organiser

Chronology	
4000 BC/BCE	The Neolithic period began
3000 BC/BCE	Grime's Graves flint mine established
2300 BC/BCE	The Bronze Age began
2000 BC/BCE	Stonehenge was completed
750 BC/BCE	The Iron Age began
500 BC/BCE	Celts arrived in Britain
43 AD/CE	The Romans invaded Britain
60 AD/CE	Boudicca's rebellion against the Romans
410 AD/CE	The last Roman leaders left Britain as Anglo-Saxons began to invade
793 AD/CE	First Viking invasion of Britain
865 AD/CE	The Danelaw was established
1016 AD/CE	King Cnut became the first Viking to rule a united England
1042 AD/CE	King Edward the Confessor made England Anglo-Saxon again

Core Knowledge

- Flint was a useful stone for building and making tools, because it's really hard.
- The Beaker people got their name from the decorated pots they made, but they also made objects out of metals like bronze.
- Iron replaced bronze because it is stronger
- The Romans took 3 attempts to conquer Britain! The part they ruled was called Britannia.
- The Romans attacked the Iceni because their leader, Boudicca, was a woman, and the Romans didn't let women rule or own property.
- Boudicca got revenge by destroying Colchester, London and St Albans, before being defeated by Suetonius Paulinus' Roman army.
- Roman towns were very advanced, with central heating, sewers, clean water and flushing toilets!
- The Romans left in 410 AD because of attacks on the Empire, including Anglo-Saxon invasions of Britain.
- Pull factors: Saxons were pulled to Britain due to climate, raw materials such as iron, silver, tin and copper.
- It was easy to travel due to rivers.
- Push Factors: Anglo Saxons society was competitive. It was very important for kings to explore, conquer new lands also their homeland often flooded.
- The Viking King Cnut was also king of Denmark and Norway.
- Edward the Confessor became King of England in 1042. He was a Saxon but was the step-son of King Cnut.

Key People

Beaker People	Anglo Saxons
Celts	Vikings
Boudicca	King Cnut (Canute)
Suetonius Paulinus	King Edward the Confessor

Useful Websites and Books

- BBC Bitesize Romans: <https://www.bbc.co.uk/bitesize/guides/zfsgsk7/revision/1>
- BBC Anglo-Saxons information: http://www.bbc.co.uk/schools/primaryhistory/anglo_saxons/who_were_the_anglo-saxons/
- Usborne Beginners History 9-14 (set of 10 books)
- Horrible Histories: Savage Stone Age, Cut-Throat Celts, Rotten Romans, Smashing Saxons, Vicious Vikings

Key Words

BC/BCE	Before Christ/Before Common Era
AD/CE	Anno Domini/Common Era
Neolithic	The late Stone Age, when farming began
Empire	A large group of states or countries ruled over by a single leader.
Imperialism	When a government has a policy to build up an empire
Militarism	The belief that a country should have a strong military, and use this aggressively to its advantage.
Rebellion	Disobeying rules or fighting against authority
Danelaw	The area of England controlled by the Vikings

HISTORY: 1066 and the Norman conquest Knowledge Organiser

Chronology	
January 1066	Edward the Confessor dies with no heir
September 1066	Harald Hardrada and Vikings invade England in the North
20th September	Battle of Fulford Gate – Vikings defeat Morcar and an English army
25th September	Battle of Stamford Bridge – Harold defeats Harald Hardrada– English victory.
14th October	Battle of Hastings – Norman victory. Harold Godwinson is killed.
December 1066	William the Conqueror is crowned King of England
1069	Harrying of the North
1085	Creation of the Domesday book

Key people

Harold Godwinson
Harald Hardrada
William I
Edward the Confessor
Edgar Aethling

Common misconceptions
The surviving accounts of the Battle of Hastings are all suspect. They were either written by Anglo-Saxon writers who hated the Normans as foreign overlords, or they were authored by Normans who had an interest in misrepresenting events.
Beginning at 9am on 14 October 1066 the battle lasted less than a day and is believed to have been over by nightfall. But although this may seem short by today's standards, at the time such battles were often over within an hour.
There is much debate over how many men were put forward by each of the opposing sides, though it is currently thought that both armies had between 5,000 and 7,000 men.



Useful Websites and Books

Revision websites:

<https://www.bbc.co.uk/bitesize/guides/zsjnb9q/revision/1>
<https://www.bbc.co.uk/teach/class-clips-video/history-ks3-ks4-1066/zrmd7nb>

DVD: '1066 A year to conquer England'

Fiction: *Anglo-Saxon Boy* by Tony Bradman – a story of 1066 woven around Magnus, young son of the Earl of Wessex.

Key Words	
Witan	The advisors of the Anglo-Saxon king
Earls	Rich and powerful land owners.
Earldom	The area of land controlled by Earls.
Thegn	Smaller landowners.
Ceorl	Ordinary people who owned just enough land to grow food on.
Thrall	Anglo-Saxon slave
heir	A person legally entitled to the property or rank of another on that person's death.
The Feudal system	A system of land control.
Oath	A sacred promise.
Housecarl	Harold Godwinson's elite soldiers
Fyrd	Harold Godwinson's inexperienced soldiers
Senlac hill	The area of land occupied by Harold's army at the Battle of Hastings
Bayeux Tapestry	70 metre long cloth created in the 1070s depicting events before, during and after the battle of Hastings.
Domesday book	A survey ordered by King William
Motte and Bailey castle	a fortification with a wooden or stone keep situated on a raised area of ground called a motte, accompanied by a walled courtyard, or bailey, surrounded by a protective ditch and palisade.

MATHEMATICS

Year 7 Knowledge Organiser - Addition and Subtraction

Key Concept

Place Value: The value a digit takes when placed in a particular position of a number.

Addition is commutative.
This means $6 + 8$ is the same as $8 + 6$.

Subtraction is not commutative. This means $8 - 6$ is not the same as $6 - 8$.

Addition and subtraction are inverse operations of each other.

Key Words



Add
Sum
Total
All together
Plus
In all



Subtract
Remain
Difference
Less than
Fewer
How many more
Minus

Examples

$$48 + 36 = 84$$



$$\begin{array}{r} 258 \\ + 87 \\ \hline 345 \\ 11 \end{array}$$

$$\begin{array}{r} 345 \\ - 28 \\ \hline 17 \end{array}$$

$$74 - 27 = 47 \text{ worked by counting back:}$$



hegartymaths
13-16, 46, 691,
864

Tip

Addition is associative,
so you can work them
out in any order.
 $4 + 3$ is the same as $3 + 4$

Questions

Answers can be:

- Integers
- Decimals

- 1) a) $49 + 37$ b) $125 + 69$ c) $5.6 + 24.8$
2) a) $64 - 28$ b) $134 - 57$ c) $16.2 - 9.5$

1) a) 86 b) 194 c) 30.4 2) a) 36 b) 77 c) 6.7

Year 7 Knowledge Organiser MULTIPLICATION AND DIVISION

Key Words

Multiply, times and product are all words that can indicate multiplication.

Divide, share, goes into and quotient are all words that can indicate division.

Multiplication is **associative**. This means that $(1.2 \times 5) \times 2$ is the same as $1.2 \times (5 \times 2)$.

Multiplication is **commutative**. This means 6×8 is the same as 8×6 .
Division is **not commutative**. This means $8 \div 4$ is not the same as $4 \div 8$.

Multiplication and division are **inverse operations** of each other.

Multiply/Divide by powers of 10

10 000	1000	100	10	1	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$

X 10
X 100
X 1000

Multiplying
digits move LEFT 1 space
digits move LEFT 2 spaces
digits move LEFT 3 spaces

$\div 10$
 $\div 100$
 $\div 1000$

Dividing
digits move RIGHT 1 space
digits move RIGHT 2 spaces
digits move RIGHT 3 spaces

Multiply/Divide decimals

Decimal means a number with a point

$$8 \times 4 = 32$$

$$8 \div 4 = 2$$

$$0.8 \times 4 = 3.2$$

$$0.8 \div 4 = 0.2$$

$$0.8 \times 0.004 = 0.0032$$

$$0.8 \div 0.004 = 200$$

Examples

Multiply/Divide integers

Integer means a whole number

\times	20	7
50	1000	350
6	120	42
		1512

$$56 \times 27 = 1512$$

$$\begin{array}{r} 97 \\ 3 \overline{) 291} \\ \underline{27} \\ 21 \\ \underline{21} \\ 0 \end{array}$$

$$291 \div 3 = 97$$

Multiply/Divide negatives

Negative means less than zero

$$8 \times 4 = 32$$

$$8 \div 4 = 2$$

$$8 \times (-4) = -32$$

$$8 \div (-4) = -2$$

$$(-8) \times 4 = -32$$

$$(-8) \div 4 = -2$$

$$(-8) \times (-4) = 32$$

$$(-8) \div (-4) = 2$$

Questions

1. a) 4.5×10 b) $4.5 \div 10$ c) $4.5 \div 1000$
2. a) 53×74 b) $228 \div 4$
3. a) 5.3×0.74 b) -53×74 c) $228 \div 0.004$
4. Calculate the mean of 5, 2, 3, 1, 6, and 1

ANSWERS 1a) 45 b) 0.45 c) 0.0045 2a) 3922 b) 57 3a) 3.922 b) -3922 c) 57000 4) 3

hegartymaths
Clip Numbers

15, 16, 21, 22, 42, 43,
48-50, 554, 405-408

Applications

Area

$$2 \times 4 = 8m^2$$

4 m

2 m



Mean

Add up the values and
divide by how many
values there are.
e.g. the mean of 6, 2
and 1 is 3 because:
 $6+2+1=9$ and $9 \div 3=3$

MATHEMATICS

Year 7 Knowledge Organiser FACTORS, MULTIPLES AND PRIMES

Key Concept

Factors:

Find these in pairs

12

1, 12

2, 6

3, 4

Multiples:

Start with the number itself

7: 7, 14, 21, 28, ...

Key Words

Factor: The numbers which fit into a number exactly.

Multiple: The numbers in the times table.

Prime: Numbers which have only two factors which are 1 and itself.

Highest Common Factor: The highest factor which is common for both numbers.

Lowest Common Multiple: The smallest multiple which is common to both numbers.

Examples

Lowest Common Multiple (LCM)

E.g. Find the LCM of 6 and 7:

6: 6, 12, 18, 24, 30, 36, 42, 48, 54, 60, ...

7: 7, 14, 21, 28, 35, 42, 49, 56, ...

LCM = 42

Highest Common Factor (HCF)

E.g. Find the HCF of 18 and 24


18: 1, 2, 3, 6, 9, 18

24: 1, 2, 3, 4, 6, 8, 12, 24

HCF = 6

Questions

- List the first 5 multiples of:
 - 7
 - 12
 - 50
- List the factors of:
 - 12
 - 15
 - 16
- Find the LCM of 5 and 7
 - Find the HCF of 20 and 16

 **hegartymaths**
Clip Numbers
4,6,10, 26 – 34

Tip

There is only one even prime number which is the number 2. This can be used to help solve lots of problems.

ANSWERS: 1) a) 7, 14, 21, 28, 35 b) 12, 24, 36, 48, 60 c) 50, 100, 150, 200, 250
2) a) 1, 2, 3, 4, 6, 12 b) 1, 3, 5, 15 c) 1, 2, 4, 8, 16
3) a) 35 b) 4

Year 7 Knowledge Organiser ORDER OF OPERATIONS

Key Concept

B Brackets

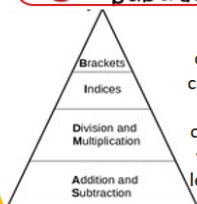
I Indices

D Division

M Multiplication

A Addition

S Subtraction



If a calculation contains the looped calculations work from left to right.

Key Words

Operation: In maths these are the functions $\times \div + -$.

Commutative: Calculations are commutative if changing the order does not change the result.

Associative: In these calculations you can re-group numbers and you will get the same answer.

Indices: These are the squares, cubes and powers.

Examples

$$\begin{array}{r} 5 \times 4 - 8 \div 2 \\ \hline 20 - 4 = 16 \end{array}$$

$$(2^2 + 6)^2 \times 4 - 8$$

$$(4 + 6)^2 \times 4 - 8$$

$$(10)^2 \times 4 - 8$$

$$100 \times 4 - 8$$

$$400 - 8 = 392$$

Questions

- $7 - 10 \div 2$
- $4^3 - 13 \times 4$
- $21 \div 7 - 7$
- $-12 \div (7 - 3)$
- $20 \div 2^2$
- $(16 - 13) \div 3$
- Place brackets to make the calculation work $20 \div 5 - 7 = -10$

 **hegartymaths**
24, 39-44,
120,150

Tips

- Put brackets around the calculations which need to be done first.
- Indices also includes roots.

ANSWERS: 1) 12 2) 27 3) -4 4) -3 5) 5 6) 1 7) 20 8) (5 - 7) = -2

Music

Performing Skills 1

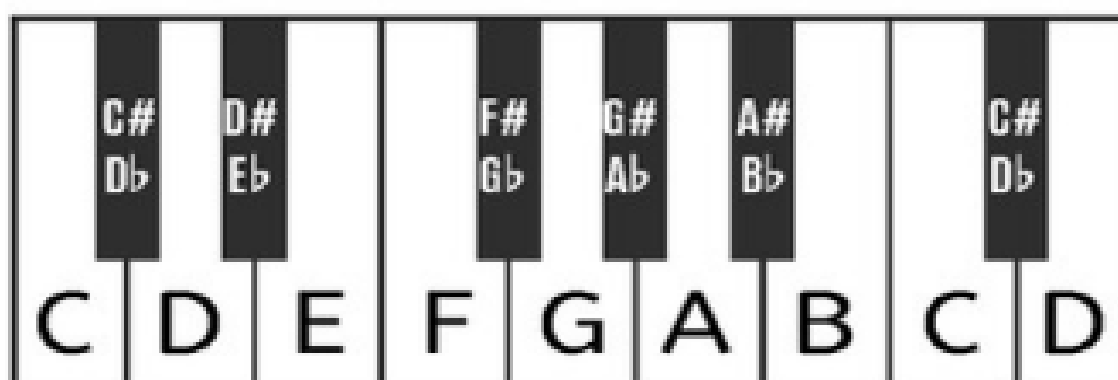
Key element – Dynamics	
Forte	The musical term for LOUD dynamics
Piano	The musical term for SOFT dynamics
Fortissimo	The musical term for VERY LOUD dynamics
Pianissimo	The Musical Term for VERY SOFT dynamics
Crescendo	The musical term for when music gets louder
Diminuendo	The musical term for when music gets quieter
Other musical elements	
Pitch	How high or low a note is
Tempo	How fast or slow a piece is performed
Duration	How long or short a time a note lasts for
Texture	How many layers of sound
Key term - Melody	
An introductory study of how melodies are constructed using the elements of pitch and rhythm	
Rhythm	How notes of varying durations can be combined to make interesting patterns
Phrase	A musical sentence
Ascending	Referring to PITCH, this is when the music moves from low pitch to higher pitches
Descending	Referring to PITCH, this is when the music moves from high pitch to lower pitches
Scalic	Ascending or descending melodies that move in step
Repetition	Patterns - melodic or rhythmic - that are repeated
Sequence	Melodic patterns that are repeated at different starting pitches
Question and Answer Phrase	Where two musical phrases are used, the first one feeling unfinished, leading to the second one, which 'answers' the first.

Listening	Identification and application of vocabulary relating to
	Identification and application of vocabulary relating to melodic shape and patterns
Performing	Learning to perform simple melodies on a keyboard
	Singing in a class environment
Composing	Compose a short melody based upon melodic patterns studied.
Contextual knowledge	Short research project based upon one famous composer/musician

Practical Skills

Keyboard	Learning basic keyboard skills including layout of the keyboard and using the correct fingers when playing.
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PIANO KEYBOARD



pp p f ff

PIANISSIMO
very soft

PIANO
soft

FORTE
loud

FORTISSIMO
very loud

7.1 KS3 Core PE

Warm Ups, Cool Downs
& the Voluntary Muscles

WARM UPS

Key Vocab

Flexibility
Preparation
Temperature
Oxygenated
Focus

Command word.

Explain means Justify a point. The answer must contain some linked reasoning.

Principles of a Warm Up (1)

	Principle	Description
1	Prepare the Body and Mind	To gradually prepare the body and mind for physical activity.
2	Increases Body Temperature	Makes muscles, tendons and ligaments more elastic increasing range of movement and reducing the risk of injury at a joint or in a muscle.
3	Increase Blood Flow	By increasing the heart rate, blood flow increases resulting in an increase in the oxygen being supplied to the working muscles.
4	Injury Prevention	To ensure that muscles, tendons and ligaments are stretched and prepared for physical activity to avoid injuries such as strains and sprains.



Worked example: Explain the phases of a warm up. (4 marks)

The warm up needs to take place before any form of activity. It has three phases and must be done in the following order. **1) pulse raiser**, to get the blood flowing around the body quicker and to increase the athletes breathing rate, energising them, **2) stretches**, this allows the muscles and joints to become more flexible reducing any injuries, **3) skill drills** which will help the athlete practice some of the key movements they will need to perform well and **4) psychological/mind** on task preparation which will help the athlete focus on the task in hand, resulting in a better performance.



Stages of a Warm Up (2)

	Stage	Description
1	Pulse Raiser	Gradually increases the heart rate (pulse) to increase blood flow around the body and speed up Oxygen delivery (needed to create energy) to the working muscles. This activity should last 3 to 5 minutes and can include activities such as jogging, cycling, slow swimming or rowing which will to increase your breathing rate and body temperature.
2	Stretching & Joint Mobilisation	Stretching the main muscle groups and joints increases their flexibility and mobility so that they are less likely to be injured (strained or 'pulled').
3	Sport Specific Drills (skill drills)	Practicing the skills and drills needed in the session/competition prepares the performer for the movements that they will need.
4	Psychological Warm up (mind on task)	Allows the performer to focus on the performance and nothing is able to distract them from it. Helps to minimise nerves .

Principles of a Cool Down (3)

	Principle	Description
1	Remove Waste Products	Remove such waste products as Lactic Acid , which builds up in your muscles during activity, removing the acid will limit soreness (DOMS) after exercise and blood pooling . It improves flexibility too!
2	Reduce Body Temperature	Allows muscles to cool down slowly reducing the chance of tightness and muscle aches to set in after activity.
3	Reduce both Heart Rate & Breathing Rate	Allows the body to slowly return to its resting state .

Stages of a Cool Down (4)

	Stage	Description
1	Pulse Lowering	Reduce the heart rate and breathing rate by performing light exercise for a minimum of 5 minutes or until the heart returns to its resting rate.
2	Active Static Stretching	Lengthening and relaxing the muscles used during the activity – holding them for 10-30 seconds
3	Developmental stretching	Improving flexibility and increasing the range of movement at the joint by lengthening the muscles used during the main activity – holding the stretch for 30-60 seconds .

Muscles Of The Body

The diagram shows a male figure from the front and back, with various muscles labeled in boxes. The labels are: DELTOID, PECTORAL, BICEPS, OBLIQUES, HIP FLEXORS, QUADRICEPS, GROIN, TIBIALIS ANTERIOR, TRAPEZIUS, LATISSIMUS DORSI, TRICEP, GLUTEUS MAXIMUS, ABDOMINALS, HAMSTRINGS, and GASTROCNEMIUS.

Key Misconceptions/mistakes

- 1) Cool downs **DON'T** stop injuries
- They prepare you for recovery. As the session is over it cannot stop an injury in that session!
- 2) 'Pulse raiser' – **Not just** 'jog' other things can be done for pulse raising, such as rowing machine, cycle slow swim.
- 3) 'Calf Muscle' – it is a **GASTROCNEMIUS** – this is the correct term, 'Calf Muscle' is 'baby speak'
- 4) **No** abbreviations – Abs, Quads, Hammies are all incorrect.

Year 7 Religious Studies Autumn Term

World Religions and Rule Systems

Knowledge Organiser

Key Knowledge

The Ten Commandments in Christianity are a set of rules given to Moses by God to help people know how to live. The first four are about people's relationship with God, the next six are about people's relationship with other people. One of the commandments is 'Thou shall not murder'.

The **Five Pillars of Islam** are some basic acts in Islam, considered mandatory by believers, and are the foundation of Muslim life. They include things such as prayer (Salah) , pilgrimage (Hajj), and charitable giving (Zakah).

The **Universal Declaration of Human Rights** (created 1948) is a list of 50 rights that people should have. It is strongly supported by the **Humanist** movement, and some individual Humanists helped to draft it.

The **Eightfold Path of Buddhism**, also called the Middle Path or Middle Way, is the system of following these eight divisions of the path to achieve spiritual enlightenment and cease suffering.

The **Five Precepts** are the **Buddhist** version of a code of conduct or rules to help people behave in a moral and ethical way. Buddhists should follow the Five Precepts to ensure they are living a morally good life. This helps them to get rid of suffering and achieve **enlightenment**. One of Precepts is 'refrain from wrong speech' (lying and gossiping).

The Two Greatest Commandments are two rules stressed by Jesus. Jesus said these are the Greatest Commandments and none other are needed. The Greatest Commandments show Christians that they must **love God** and **their neighbour** (=everyone).

Jesus told **the story of the Good Samaritan** to help Christians to understand what is meant by the second of the Greatest Commandments, "**Love your neighbour as yourself**". The Good Samaritan shows Christians that they must always try to **help others** especially those in need, even if they are from a different country / race.

Key Term	Definition
Agape	The term for the love originating from God for humankind
Agnostic	The belief that the existence of God is not known
Apostle's Creed	The summary of what the Church teaches and what Christians believe. It confirms the belief in God the Father, the Son and the Holy Spirit.
Atheist	A person who lacks belief in the existence of God
Commandment	A divine rule, for example of the Ten Commandments
Discrimination	The unfair treatment of people
Humanism	The belief that human needs and values are more important than religious ones.
Monotheistic	A belief that there is only one God.
Parable	A story with a moral or used to teach a lesson.
Testament	A statement of belief, for example the Old and New Testaments forming the Bible.
Good Samaritan	A parable told by Jesus to explain "Love your neighbour as yourself"

Key Quotes
"God said to Moses, 'Come up to Me, to the mountain, and remain there. I will give you the stone tablets, the Torah and the commandment that I have written for [the people's] instruction.'" (Exodus 24:12)
"He who does not love does not know God, for God is love." (1 John 4 – 8)
"And you shall love the Lord your God with all your heart, with all your soul, with all you your mind and with all your strength. The second is this; 'Love your neighbour as yourself'. There is no commandment greater than these". (Mark 12:30-31)

Buddhism



Buddhism began in India more than 2500 years ago, a **Prince, Siddhartha Gautama**, wanted to discover the truth. After searching and meditating, he became enlightened. He then travelled around India, sharing his wisdom. His followers called him **Buddha** (enlightened one). There are many Buddhist Scriptures, eg the Tripitaka which contains the Dhammapada, the Buddha's teachings. There is no single symbol, but the **Dharmachakra**, an 8 spoked wheel is often used. There are around 500 million Buddhists today.

Key beliefs: The Buddha never claimed to be a God, and Buddhists do not believe that he is divine. Buddhist prayer is about personal reflection and improvement, meditation rather than praying to a God. Worship is often individual, at home or sometimes in a temple, although it may involve listening to monks chanting.

Christianity



Christianity was founded **2000** years ago in present-day Israel. The first Christians said that a recently executed Jewish man called **Jesus** was actually the Messiah (promised saviour of people) and God incarnate. These beliefs spread and created a new religion: Christianity.

There are around 2.2 billion Christians now, they often worship in a **Church**, where they will be led by a **Priest** or **Vicar**. Their holy book is the **Bible** and their symbol is the **Cross**.

Key Beliefs: Christianity is monotheistic, which means they believe in only one God. However, they believe that God is three (called the Trinity), and to them, God is:

- God the Father (God in heaven)
- God the Son (Jesus)
- God the Holy Spirit (God in the world)

Hinduism



Hinduism can be traced to India around 3000 years ago. Unlike other religions **there was no single person who founded Hinduism**. There is no one book which tells Hindus what to believe or how to live, although Hindus view the four Vedas as sacred. There are around one billion Hindus in the world. Many Hindus worship at home at their own **shrines**, although Hindu temples also exist, and are sometimes called **Mandirs**. While Hindus generally worship individually, some services are led by Pujari (trained priests) or Brahmin. The Hindu symbol is the **aum**. **Key beliefs:** Hindus have many different beliefs, they do not worship the same gods and goddesses. They may talk about one overall God (**Brahman**) worshipped through **deities** like Ganesha. Some describe Hinduism as a collection of many different religions rather than one religion.

Islam



Islam started around 1400 years ago in the Middle East.

There are 1.6 billion Muslims in the world. They worship in a **Mosque**, led by an Imam. Their symbol is **the crescent moon and star**. Muslims say their religion is supported by the **5 pillars**, 5 duties every Muslim should try to follow in their daily life. These include Salah (prayer 5x a day), Zakah (giving alms) and Hajj (pilgrimage to Mecca).

Key beliefs: Islam is a monotheistic religion. The word 'Muslim' is Arabic for 'one who submits to God' – Muslims believe that they should live their whole lives for God. Muslims believe God (Allah) revealed himself to earlier prophets, like Moses and Jesus, but these messages changed over time, and so **God sent one final prophet – Muhammed**. These revelations are recorded in **the Qur'an**.

Judaism



According to the key Jewish Scripture, **the Torah**, Judaism began about 4000 years ago when **God made a covenant (agreement) with a man called Abraham** who lived in what is now Iraq.

God told Abraham he had chosen him, his descendants were to be a great nation. Originally known as Hebrews, they became known as Jews because many of them were living in a part of Israel called Judah. Jews suffered persecution under Hitler and the Nazis, there are around 14 million Jews in the world now. They worship in a **Synagogue**, services are led by a Rabbi. Their symbol is the Star of David.

Key beliefs: Judaism is monotheistic. They see God as eternal, the creator of everything. Many Jews believe that the name of God is so holy that it should not be spoken or written, so they use 'G-d' instead.

Sikhism



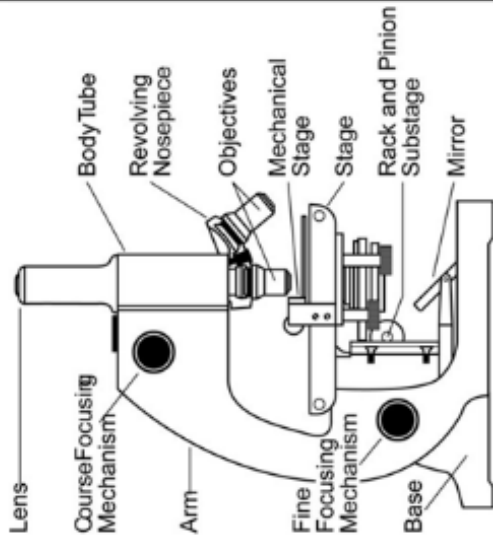
Sikhism began in India nearly 550 years ago. There are around 25 million followers now, known as Sikhs. **Sikhism originated with the stories of a young man called Nanak** who was part of a Hindu family. After his death, several stories were written about him which involve miraculous events. At the age of 30 he had an encounter with God, and became known as Guru. Sikhs worship in a **Gurdwara**, with services led by a Granthi who will read **the Guru Granth Sahib, the Sikh holy book**. The Sikh symbol is a Khanda.

Key Beliefs: Nanak's message was that while there are many different religions, there is only one God. Sikhs are monotheists who believe that God loves all people equally, not matter how they worship him. Sewa (service) is a key concept within Sikhism.

There are 6 main religions (see above) but also many other religious traditions / belief systems. **Baha'i** stress unity of God and of humanity – equality is a key belief and they do not see science and religion as contradictory. **Humanism** focuses on human need and values rather than religion. **Jains** have no God(s) or spiritual beings to help them, it is a religion of 'self help' which stresses non-violence / respect for life. **Zoroastrians** believe there is one universal supreme creator deity called Ahura Mazda, the Wise Lord.

Year 7 Topic 1 Biology Knowledge Organiser

Microscope –



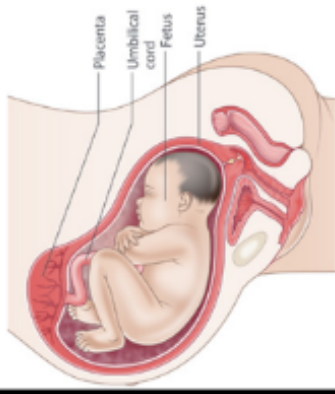
Puberty: What Happens?



Puberty: What Happens?



Pregnancy –



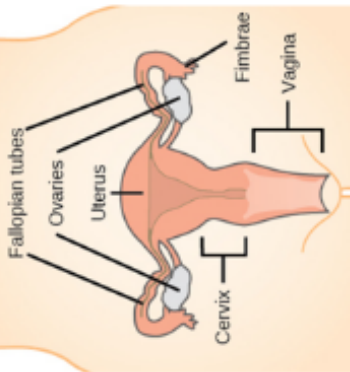
Tier 2 Vocabulary

Specialised Tissue
Puberty
Pregnancy
Organs
Glands

Tier 3 Vocabulary

Microscopes
Magnification
Cell wall
Vacuole
Cytoplasm
Chloroplast
Cell Membrane
Ribosomes
Menstrual Cycle
Ovulation
Fertilisation
Ovary
Oviduct
Uterus (womb)
Cervix
Vagina
Testes
Scrotum
Sperm ducts
Urethra
Penis

Female reproductive organs



Function of reproductive organs–

Ovary – releases egg cells
Uterus – support a developing baby.
Cervix – Muscle that holds the developing baby in place.
Testes – produces sperm
Urethra – takes urine (& sperm in males) out of the body.

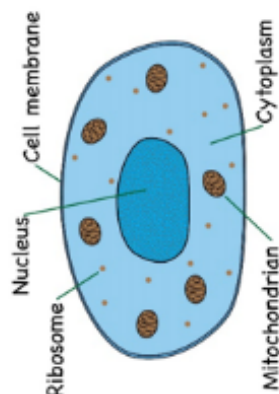
Function of cell parts –

Nucleus – Controls the cell
Cell Membrane – controls what goes in and out of the cell.
Cytoplasm – site of the chemical reactions.
Mitochondria – site of protein synthesis.
Ribosomes – Supports and strengthens the cell.
Cell wall – stores the cell sap.
Vacuole – stores the cell sap.
Chloroplasts – site of photosynthesis.

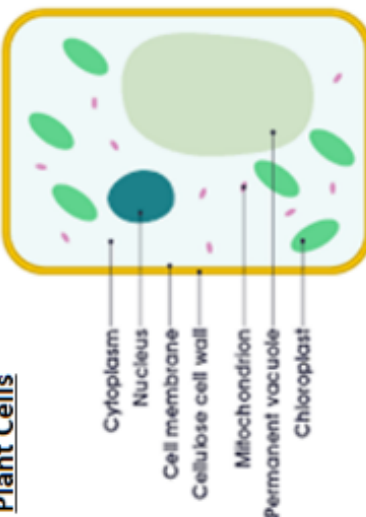
Male reproductive organs–



Animal Cells

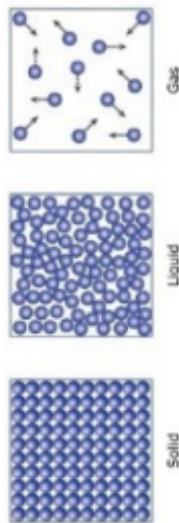


Plant Cells



Particles – Tiny objects that make up matter. Often drawn as small circles.

States of Matter – There are three states of matter. The particles are arranged differently in each:



Solids have a fixed shape, have a high density and cannot be compressed.

Liquids flow and can be poured, take the shape of the bottom of the container. Liquids cannot be compressed.

Gases can flow, have very low density and can be compressed. They take the shape of the whole container.

Changes of state



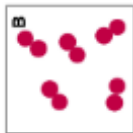
Chemical Reactions

Chemical reactions make a new substance as a product. They can be represented by a word equation in the format:

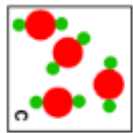
Reactants → Products

Many different things can be observed during a chemical reaction such as fizzing/ bubbling (gas given off); temperature change; colour change; precipitate formed.

Element – One type of atom. (all the dots are the same)



Compound – Two or more different atoms chemically combined.



(different kinds of dots joined together, each molecule the same)

Mixture – Different substances together but not chemically joined. (different kinds of molecules, not joined together)



Pressure

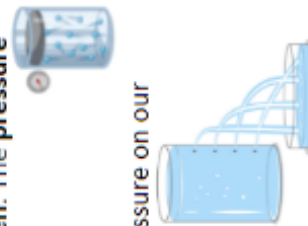
Gas pressure is the force exerted by gas particles per unit area of a surface.

Effect of temperature on pressure in gases

When a gas is **heated** the **particles move faster**. In a container the gas is **trapped** so the particles hit the wall of the container. As they move faster and faster they **hit the walls more often**. The **pressure** on the walls of the container therefore **increases**.

Water Pressure

When we go below the surface of the water, it exerts a pressure on our bodies. The **deeper** we go, the **greater the pressure**.



$$\text{Pressure (pascal, Pa)} = \frac{\text{Force (N)}}{\text{Area (m}^2\text{)}}$$

Year 7 Topic 1 Chemistry Knowledge Organiser

Brownian Motion

Particles in gases and liquids move about **randomly**. This is called **Brownian motion**. Particles are too small to see but we can use a **microscope** and smoke to watch them.

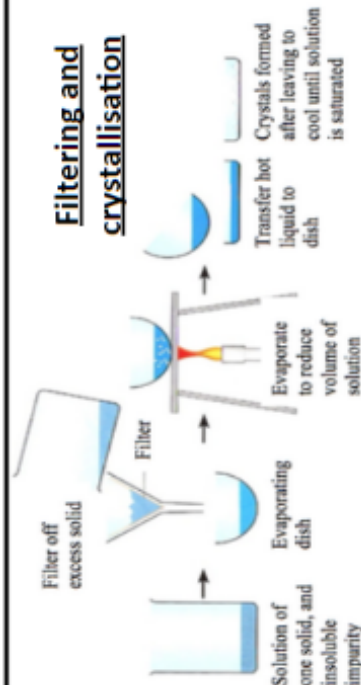
Tier 2 Vocabulary

Mixture
Equipment
Measurement
Observation
Technique
Properties
Evaporation
Condensation
Melting
Freezing

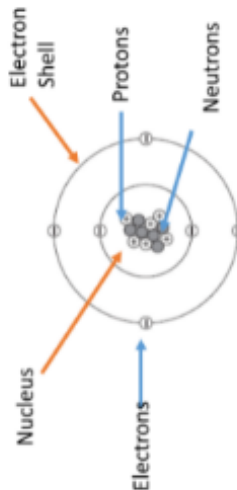
Tier 3 Vocabulary

Particle
State of Matter
Reaction
Element
Compound
Filtration
Crystallisation
Pressure
Pascal
Molecule
Protons
Neutrons
Electrons
Atoms

Filtering and crystallisation



Atoms – the smallest part of an element.



Key spellings	
Learn these spellings, they will be really useful for this unit and you will be tested on them.	
1. Hola	Hello
2. Me llamo	I am called
3. cumpleaños	birthday
4. Vivo en	I live in
5. Soy	I am

Key vocabulary and questions

Presentaciones	Introductions
¡Hola!	Hello!
Buenos días	Good morning
Buenas tardes	Good afternoon
Señor/Señora/Señorita	Sir/Mrs/Miss
¿Qué tal?	How are you?
¿Cómo estás?	How are you?
¡Fenomenal!	Great!
(Muy) bien, gracias.	(Very) well, thanks
Regular	Okay
Fatal	Awful
¿Cómo te llamas?	What's your name?
Me llamo...	My name is...
¿Cómo se escribe?	How do you spell it?
Se escribe...	You spell it...
¿Dónde vives?	Where do you live?
¡Hasta luego!	See you later!
¡Adiós!	Goodbye!
Look at the question marks (?) and exclamation marks (!) – what do you notice about Spanish punctuation?	

¿Cuántos años tienes?	How old are you?
Tengo...años	I am...years old
In Spanish, we use the verb TENER (to have) to talk about our age, instead of the verb to be:	
Tengo once años = I am 11 years old (literally, I have 11 years)	

Los números	Numbers
uno	1
dos	2
tres	3
cuatro	4
cinco	5
seis	6
siete	7
ocho	8
nueve	9
diez	10
once	11
doce	12
trece	13
catorce	14
quince	15

dieciséis	16
diecisiete	17
dieciocho	18
diecinueve	19
veinte	20
veintiuno	21
veintidós	22
veintitrés	23
veinticuatro	24
veinticinco	25
veintiséis	26
veintisiete	27
veintiocho	28
veintinueve	29
treinta	30
treinta y uno	31

cuarenta	40
cincuenta	50
sesenta	60
setenta	70
ochenta	80
noventa	90
cien	100

Los meses	Months
enero	January
febrero	February
marzo	March
abril	April
mayo	May
junio	June
julio	July
agosto	August
septiembre	September
octubre	October
noviembre	November
diciembre	December
There are no capital letters for months in Spanish.	

¿Qué tipo de persona eres?	What kind of person are you?
Soy...	I am...
No soy...	I am not...
divertido/a	fun/funny
generoso/a	generous
listo/a	clever
serio/a	serious
simpático/a	kind/nice
sincero/a	sincere
tímido/a	shy
tonto/a	silly
honesto/a	honest
tranquilo/a	quiet/calm
creativo/a	creative
antipático/a	mean
perezoso/a	lazy
aburrido/a	boring

Make sure your adjective ending is correct. -o for boys and -a for girls

Qualifiers	Connectives
muy = very	y = and
bastante = quite	también = also
un poco = a bit	pero = but

¿Cuál es la fecha de hoy?	What's the date today?
Es el dos de abril	It's 2 nd April
Es el cinco de junio	It's 5 th June
For the 1 st of the month, you can either say <i>el uno</i> or <i>el primero</i> :	
<i>El primero de mayo/El uno de mayo</i>	

¿Cuándo es tu cumpleaños?	When is your birthday?
Mi cumpleaños es el...de...	My birthday is the...of...
Example: <i>Mi cumpleaños es el seis de agosto</i> My birthday is 6 th August	

Palabras útiles	Useful words
un boli (bolígrafo)	a pen
un lápiz	a pencil
una regla	a ruler
una agenda	a planner
un libro	a textbook
un diccionario	a dictionary
una calculadora	a calculator
un cuaderno	an exercise book
All nouns in Spanish are either masculine or feminine. 'un' is used with masc nouns and 'una' is used with fem nouns.	

¡Entrad!	Enter!
¡Escuchad!	Listen!
¡Escribid!	Write!
¡Hablad!	Talk!
¡Repetid!	Repeat!
¡Copiad!	Copy!
¡Leed!/¡Mirad!	Read!/Look!
¡Sentaos!	Sit down!
¡Levantaos!	Stand up!
¡Silencio!	Silence!

Key spellings	
Learn these spellings, they will be really useful for this unit and you will be tested on them.	
1. Se llama	He/She/It is called
2. Tiene	He/She/It has
3. Tengo	I have
4. un hermano	a brother
5. es	He/She/It is

Key vocabulary and questions

¿Cuántas personas hay en tu familia?	How many people are in your family?
Hay cuatro personas en mi familia	There are four people in my family
mi madre	my mum
mi padre	my dad
mi madrastra	my stepmum
mi padrastro	my stepdad
mis padres	my parents
mi abuelo	my grandfather
mi abuela	my grandmother
mi tío	my uncle
mi tía	my aunt
mis primos	my cousins
mis hermanos	my siblings
Can you spot the easy rule for learning male and female family members?	

¿Tienes hermanos?	Do you have siblings?
Sí, tengo...	Yes, I have...
un hermano	a brother
una hermana	a sister
un hermanastro	a stepbrother/half-brother
una hermanastra	a stepsister/half-sister
dos hermanos	2 brothers
No tengo hermanos	I don't have any siblings
Soy hijo único	I'm an only child (boy)
Soy hija única	I'm an only child (girl)
Use the next box to say your siblings' names and ages.	

¿Cómo se llama...?	¿What are they called?
Mi abuelo se llama...	My grandad is called...
Mis padres se llaman...	My parents are called...
Mi tía tiene...años	My aunt is...years old
Mis primos tienen...años	My cousins are ...years old

¿Tienes mascotas?	Do you have pets?	Los colores	Colours
Sí, tengo...	Yes, I have...	blanco/a	white
una cobaya	a guinea pig	amarillo/a	yellow
una serpiente	a snake	negro/a	black
una tortuga	a tortoise	rojo/a	red
un perro	a dog	verde	green
un gato	a cat	gris	grey
un caballo	a horse	marrón	brown
un pájaro	a bird	azul	blue
un ratón	a mouse	rosa	pink
un pez	a fish	naranja	orange
No tengo mascotas	I don't have any pets	violeta	purple

Key grammar – Adjectival agreement

Adjectives in Spanish have masculine, feminine, singular and plural forms. You must make sure that your adjective ending **agrees** with the noun it is describing. Use the table below to help you get the right ending:

Singular		Plural	
Masc	Fem	Masc	Fem
amarillo	amarilla	amarillos	amarillas
blanco	blanca	blancos	blancas
verde	verde	verdes	verdes
azul	azul	azules	azules
rosa	rosa	rosa	rosa

The verb TENER (To have)		The verb SER (To be)	
tengo	I have	soy	I am
tienes	you have	eres	you are
tiene	he/she/it has	es	he/she/it is
tenemos	we have	somos	we are
tenéis	you (pl) have	sois	you (pl) are
tienen	they have	son	they are

¿Cómo eres?	What are you like?
Soy/No soy...	I am/I'm not...
Es/No es...	(S)he is/(S)he isn't...
alto/a	tall
bajo/a	short
delgado/a	slim
feo/a	ugly
guapo/a	good-looking
gordo/a	fat
joven	young
viejo/a	old
ni alto/a ni bajo/a	neither tall nor short
Make sure your adjective ending is correct.	

¿Cómo es tu pelo?	What's your hair like?
Tengo el pelo...	I have...hair
Tiene el pelo...	(S)he has...hair
castaño	brown
negro	black
rubio	blonde
blanco/gris	white/grey
largo	long
corto	short
ni largo ni corto	medium-length
liso	straight
rizado	curly
ondulado	wavy
Soy/Es calvo/a	I am/(S)he is bald
Soy/Es pelirrojo/a	I am/(S)he is a redhead

¿De qué color son tus ojos?	What colour are your eyes?
Tengo los ojos...	I have...eyes
Tiene los ojos...	(S)he has...eyes
azules	blue
verdes	green
marrones	brown
grises	grey
avellana	hazel
Llevo gafas	I wear glasses

Computer Aided Design

Advantages	Disadvantages
Highly accurate	Expensive set up
Can communicate with CAM	Requires Training
Files can be saved/shared via email	Files can corrupt/be deleted
Can use features like copy and paste	Requires access to a computer



Computer Aided Manufacture

Advantages	Disadvantages
Accurate to low tolerances	Expensive to set up
Quick – rapid prototyping	Requires Specialist Training
Multiples can be produced easily	Job loss to automation



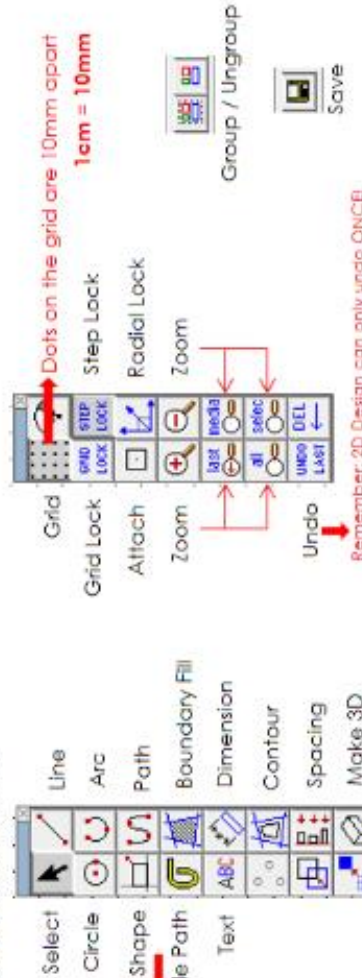
Garage Keys

- Black** = Laser engrave
- Red** = Laser cut



Other colours can be set up and used as required

Drawing Aides and Tools:



Remember: 2D Design can only undo ONCE

If you hold the mouse button down over a tool you will be offered a variety of options.

DEL ANY will delete a whole object, the **DEL part** tool will delete a line to where it intersects another line.

Materials suitable for laser cutting:

- Acrylic** – Thermoforming Plastic
- MDF** – Manufactured Board
- Plywood** – Manufactured Board
- Card/Paper** – Paper/Board
- Felt** – Fabric

Card/Paper



Acrylic



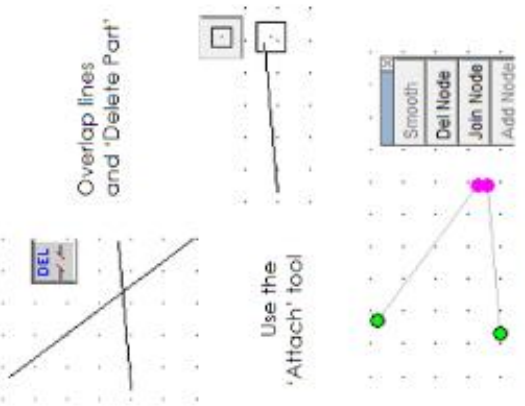
MDF



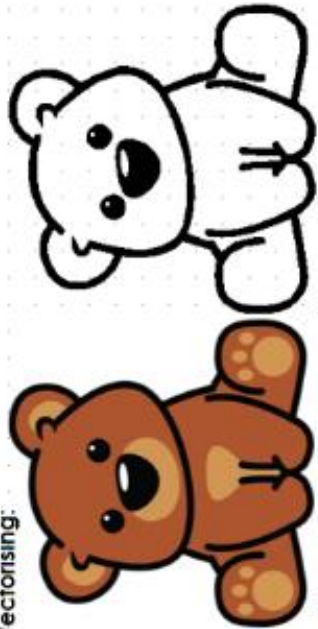
Plywood



How to ensure a closed boundary:



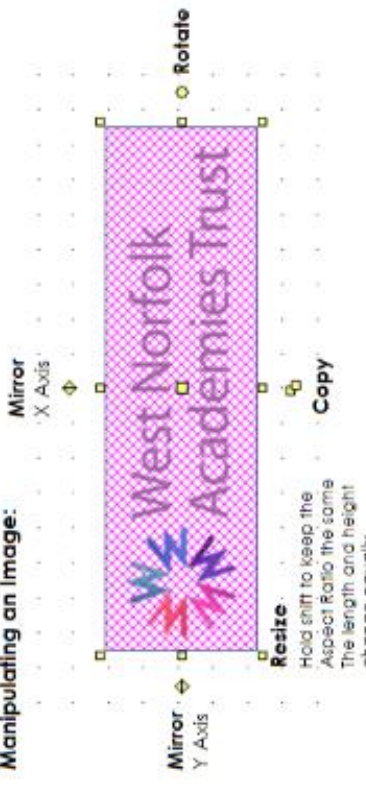
Vectorising:



Bitmap Image
Full Colour

Vector
Monochrome = Black and White

Manipulating an Image:



KS3 Knowledge Organiser – Year 7 Plastics, Health & Safety, Simple Electronics



Acrylic is the main **thermoplastic** used within schools.

Advantages:

Available in many colours and styles
Recyclable

Disadvantages:

Brittle
Scratches easily
Oil based (bad for the environment)

Types of Plastic

Thermosetting

Epoxy resin, polyester resin, urea formaldehyde

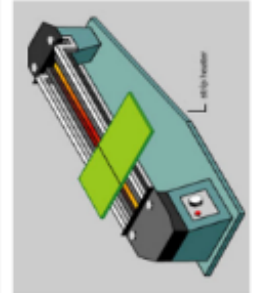
Can only be heated and shaped once
Not recyclable

Thermoplastic (Thermo-forming Plastic)

Acrylic, PVC, polythene, nylon, polypropylene

Can be heated and shaped repeatedly
Can be recycled

Thermo-Forming: Bending Plastic



Strip Heater

- Process is called Line Bending
- A heating element softens a thermoforming plastic (acrylic) along a line.
- This can then be bent to shape and held in place until cooled

Health & Safety



Wear A Mask



Wear Protective Clothing



Wear Ear Protectors



Wear Protective Gloves

Health & Safety Language and Terms

Health and Safety
Anything to do with a persons wellbeing in any given situation. From sitting at a computer for long periods to operating machinery.

Risk Assessment
A document that considers all risk to a person/s carrying out a task, and all control measure put in place to minimize or remove risk to health, this could be training, following certain rules or using PPE

PPE
Personal Protective Equipment
Goggles, aprons, dusk masks, gloves

Extraction
Can be dust extraction when using machinery or fume extraction when gluing or painting.



Health and safety rules **MUST** be followed at all times.



Long hair must be tied back and ties tucked in to prevent entrapment in machinery



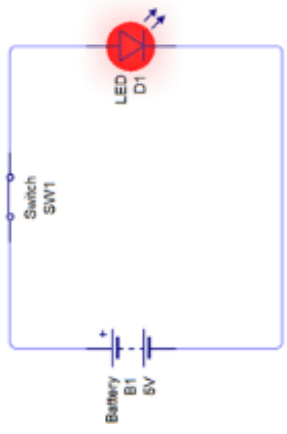
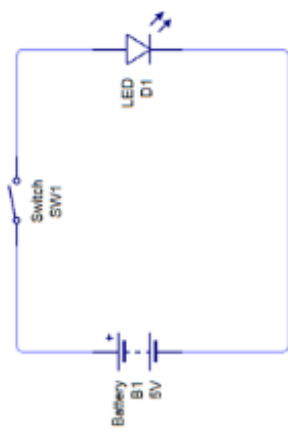
Electronics – LED's



- ▶ A light emitting diode (LED) lights up when electrons are flowing through it
- ▶ LEDs have a positive leg and a negative leg
- ▶ The anode (positive) has a longer leg
- ▶ The cathode (negative) has a shorter leg
- ▶ If the legs have been cut to the same length you can tell the negative leg as it has a flat edge to the plastic casing.



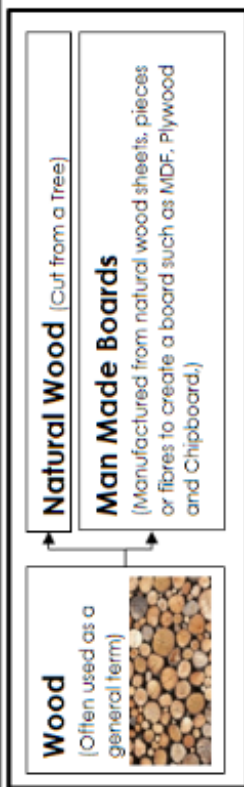
Electronics – Circuit



A simple circuit has been created to run a colour change LED. It consists of

Battery	
Switch	
LED	

KS3 Knowledge Organiser – Year 7 Timbers and Boards



Types of Wood	
Hardwood	Softwood
<ul style="list-style-type: none"> From trees with broad leaves Slow growing More Expensive Close grain Considered more attractive More moisture resistant (less likely to rot) Denser Heavier Harder to cut An example would be Oak 	<ul style="list-style-type: none"> From trees with needles Fast growing Cheaper Wide grain Less attractive Less moisture resistant (More likely to rot) Less dense Lighter Easier to cut An example would be Pine

Manufactured Board or Man Made Boards	
MDF – Medium Density Fibreboard Wood fibres glued together and rolled flat to form a sheet.	Plywood – Manufactured Board Thin layers of wood glued together with grain at 90° angles.

HAND TOOLS USED	
	Bench Hook
	Coping Saw
	Tennon Saw
	G Clamp
	Woodwork Vice
	Hand Clamp
	Glass Paper

Hardwood	
Advantages	Disadvantages
Good Aesthetics (looks good)	Generally harder to cut and shape
Extremely durable	More expensive
Easy to maintain	Slow growth rate
High strength	

Softwood	
Advantages	Disadvantages
More sustainable (trees grown quicker)	Can be knotty
Easier to cut and shape	Weaker, less durable
Cheaper	

MDF – Medium Density Fibreboard	
Advantages	Disadvantages
It is easy to cut and shape	Not as attractive
Takes paint well	Quickly damaged by water
Available in large sheets	MDF dust is harmful
Cheaper than other options	Weaker than plywood

Plywood	
Advantages	Disadvantages
Available in large sheets	More expensive than MDF
Available in various thicknesses	Raw edge needs finishing
Good strength and durability	Edges can splinter
Better than MDF with water contact	

Age of a Tree

The rings on a tree stump indicate annual growth so you can age a tree by counting the number of rings.

Wide rings show wetter weather when the tree grew more and narrower rings show dryer years when the tree did not grow as much.

Aesthetics of Timber

Lines in wood are called the grain

These marks are called knots and show where a branch grew

MDF can be cut on the laser cutter.

This is how your letter templates were created.

Plywood can be cut too.



Health and Safety: MDF dust is harmful so must not be machined without extraction and/or a mask to prevent you from breathing in the dust.

Timbers

Softwood

Fast growing tree (**Coniferous**)
Evergreen tree, green foliage all year round. Evergreens do not shed needles as much as **deciduous** plants that completely lose their leaves during **Autumn**.

Hardwood

Slow growing tree (**deciduous**)
 Trees, which shed their leaves each **autumn**.



Felling

Is the process of **cutting** down a tree

An **Axe, saw** or **chainsaw** may be used to **fell** a **tree**.



Pine – Softwood

Used for: door frames, skirting boards, furniture etc.

Characteristics:

Lightweight
 Easy to work with
 Can split and be resinous near knots
 Bears needles
 Has a vibrant open grain pattern
 Cheaper alternative to hardwoods



Spruce - Softwood

Used for: construction, furniture and musical instruments etc.

Characteristics:

Easy to work with
 High stiffness to weight ratio
 Creamy white
 A delicate grain



Oak – Hardwood

Used for: flooring, furniture, railway sleepers, veneers etc.

Characteristics:

Tough
 Hard
 Durable
 High quality finish
 Light brown
 A tight grain to pine where the grain is open and vibrant



Mahogany – Hardwood

Used for: high end furniture, joinery and veneers etc.

Characteristics:

Durable
 Finishes well
 Reddish brown, very dark deep tones



Grain

The uniqueness of a piece of wood is defined by many **characteristic** such as **colour**, **hardness** and **grain**.



Knots

Knots come from where the **branches** have been removed.



Manufactured Boards

Manufactured boards are usually **sheets** of process **natural timber recycled waste (woodchips)** products or veneers mixed with **adhesives or resins**, combined and **compressed**.

MDF – Medium Density Fibreboard – No grain, fine woodchips
 Plywood – veneers
 Chipboard – woodchips

Timbers – Finishes

Timber Finishes

Aesthetics relate to the way a material looks, and each example of **timber** has a **different pattern** on the **grain** and **texture**. The way a **timber** looks can be **altered** through **several methods**:

Paint

- Applied with a brush or roller.
- Needs a primer or undercoat on bare wood.
- Paint gives colour finish and adds a layer of protection against weathering.
- The more sheen, the more the paint will reflect light and seem to shine.



Varnish

- **Varnish** is a **clear transparent** and enhances the **natural grain** of the timber.
- Varnish can be colour tinted with oil stain.
- Varnish comes in **gloss**, satin or matte finish.
- Protects wood from knocks and spills.



Veneers & Laminating

A sure way to recognise wood laminate is when the grain does NOT follow through your piece.

A plastic material veneer used in kitchens, school desks etc.

Wood veneer is wood strips glued (compressed) together, both on particle board or plywood.

Timber Protection

Protects the wood from warping
Stops moisture
Rot & decay
Preservation/Extends life
Durability
Protects from insects, rodents and fungus
Colour /Aesthetics/Appearance



Wax

- A thin layer is applied with a **soft cloth** or very fine steel wool and pushed into the wood. Easy to apply and not messy to use.
- This enhances the natural colour and gives a deep shine.



Tanalisation

Tanalised timber has been pressure impregnated with wood preservative. Used for outdoor applications to extend its life – in particular for fencing, decking etc. This gives the added advantage that the timber **does not need further painting or staining**.



Clean Paint Brushes

You can simply use washing-up liquid for emulsion paints. White spirits for oil-based or gloss paints.



Stain

Permanently **stains** wood.

The colour can be affected by the base wood.

Brings out the **natural grain**. It does not protect!



Timbers-Carpentry Joints

What are Carpentry Joints?

Carpentry joinery involves cutting, shaping and fastening wood and other materials together to produce a finished product. Preparation of joints is one of the important operations in wood work.

Comb Joints

The cross-section of the joint resembles the interlocking of fingers between two hands, hence the name "finger joint".



Butt Joints

Two pieces of timber that are butted together at the ends, this also means that the joint isn't very strong in fact it is the weakest joint that is used in woodwork.

It is also the easiest to make.

Basic/simple.

Not strong due to little adhesive area.

Pins and nails often used.



Dowel Joints

Similar to Butt Joint but with wooden dowels.

Add strength.

Glued for extra strength.

Jigs are used to hold a piece of material during cutting, drilling or bending. Improve accuracy and efficiency.



Comb Joints

A finger joint, also known as a comb joint, is a woodworking joint made by cutting a set of complementary, interlocking profiles in two pieces of wood, which are then glued.

More attractive and decorative. Strong.



Mitre Joints

A joint made by cutting each of two parts to be joined, across the main surface, usually at a 45° angle, to form a corner, usually a 90° angle.

More attractive and decorative.

Used for door frames, skirting, photo frames etc.



Mortise and Tenon

A mortise and tenon joint connects two pieces of wood.

Woodworkers around the world have used it for thousands of years to join pieces of wood, mainly when the adjoining pieces connect at right angles.

The joint is both simple and strong.



Timbers-Tools & Machinery



Bench Hook

A bench hook is a workbench accessory used in woodworking to hold workpieces in place.



Try Square

A ruled metal straightedge set at right angles to a straight piece, used for measuring and marking square work.



Carpentry Vice

Wood often needs to be **clamped** when completing tasks such as sawing, drilling or carpentry.



Coping Saw

Narrow blade stretched across a D-shaped frame, used for cutting **curves** in wood, acrylic – used to cut through thin material.



Mitre Saw

Is a specialized tool that lets you make **cuts** at a variety of **angles**.



Tenon Saw

Cutting **shallow, straight lines** into small pieces of wood.



Disc Sander

Used to smooth materials such as woods and plastics.

Glass Paper

Sheets of paper coated with an **abrasive** surface ranging from **coarse** to **fine**.



Chisel

Carving or **cutting** a hard material such as wood, stone, or metal by hand, or struck with a **mallet**, or mechanical power.



Engineer File

Hand files are a type of hand tool used to **smooth**, **debur** and **shape** a range of materials including metals and **wood** whilst **removing** any unwanted material after **cutting** or **sharpening**.



Pillar Drill

This drill bit can be used to cut holes of different diameters into different types of material such as wood, acrylic or metal.

Portable Drill

Hand held tool.

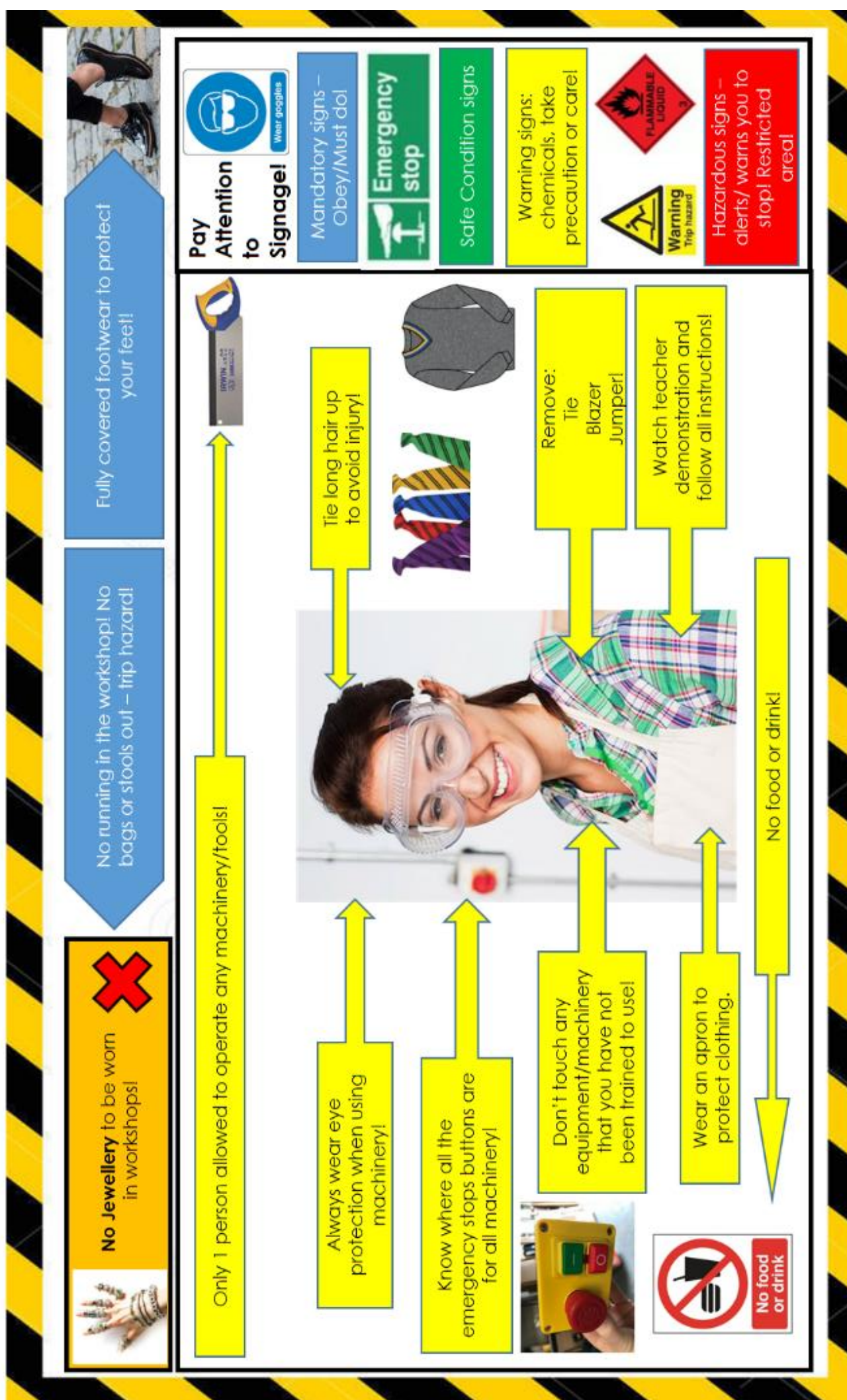


Scroll Saw



Scroll saws are often used to **cut intricate curves** and joints, a task you can complete **quickly** and with great **accuracy**.

Health and Safety Rules in the D&T Workshop!



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