



Year 7 Knowledge Organiser

**Spring Term
2020/21**

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 column	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.

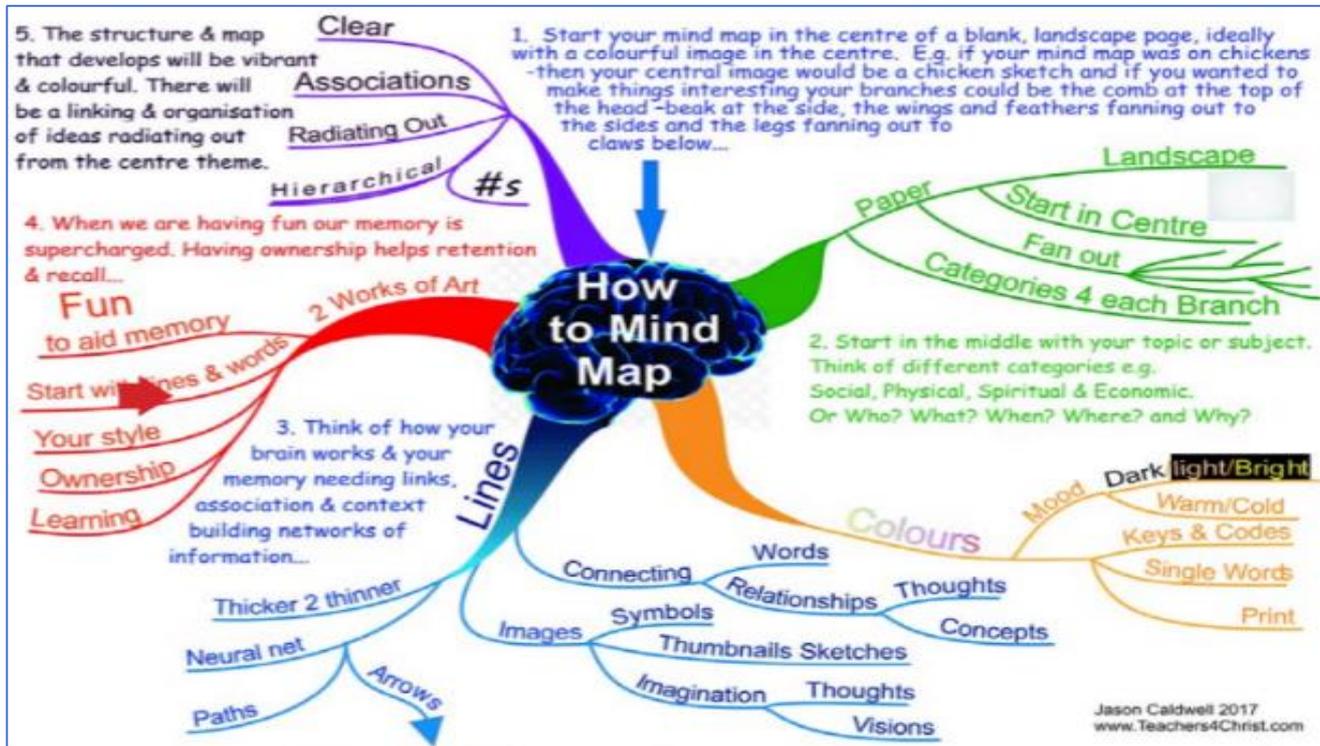
To make your own, take some card and cut into rectangles roughly 10cm x 6cm. Write the key word on one side and the definition on the other.

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

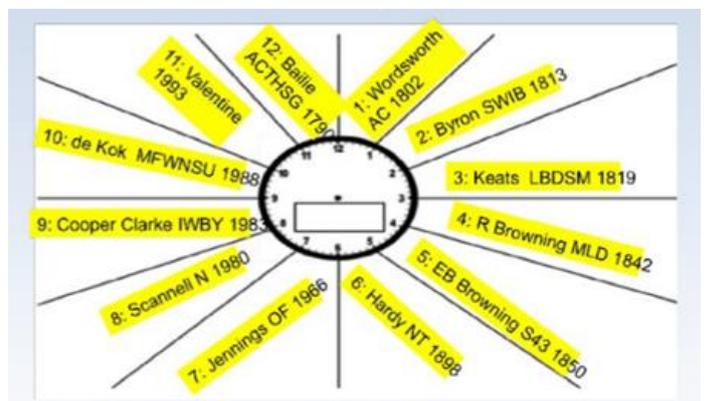
For this technique, draw a basic clock.

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										

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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.

Art – Mark Making & Impressionism:

Art Specific Language and Terms	
Watercolour	Watercolour is a painting method in which the paints are made of pigments suspended in a water-based solution.
Layering	The process of layering while painting makes it easier to add surface texture, subtle colour changes and depth in a piece of art.
Directional Line	Lines can lead the eye around an image and they can also be used to express something to the viewer e.g. shape or movement.
Texture	Texture relates to the surface quality of a work of art.
Plein Air	Plein air painting is about leaving the four walls of a studio behind and experiencing painting and drawing in the landscape.
Realism	Realism was a mid nineteenth century artistic movement where artists painted from everyday life in a naturalistic manner. The term is also used to describe artworks painted in a realistic almost photographic way.
Impressionism	A theory or practice in painting especially among French painters of about 1870 of depicting the natural appearances of objects by means of dabs or strokes of primary unmixed colours in order to simulate actual reflected light.
Post - Impressionism	Post-Impressionism is an art movement that developed in the late 19 th century. It a subjective approach to painting and artists opted to paint emotion rather than realism in their work.

Vincent Van Gogh was a Dutch post-impressionist painter who is among the most famous and influential figures in the history of Western art.



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Art – Impressionism – Van Gogh:

Vincent Van Gogh was a Dutch post-impressionist painter who is among the most famous and influential figures in the history of Western art.

Art Specific Language and Terms		
Realism	Realism was a mid nineteenth century artistic movement where artists painted from everyday life in a naturalistic manner. The term is also used to describe artworks painted in a realistic almost photographic way.	Post - Impressionism
Impressionism	A style of painting especially among French painters around 1870 of depicting the natural appearances of objects by means of dabs or strokes of primary unmixed colours in order to simulate actual reflected light.	Plein Air
		Post-impressionism was an art movement that developed in the late 19 th century from Impressionism. It is a subjective approach to painting and artists painted emotions rather than realism in their work.
		Plein air painting is about leaving the four walls of a studio behind and experiencing painting and drawing in the landscape.

Why is it called Impressionism?

Impressionist artists were not trying to paint a reflection of real life, but an 'impression' of what the person, light, atmosphere, object or landscape looked like to them. And that's why they were called impressionists! They tried to capture the movement and life of what they saw and show it to us as if it were happening before our eyes.

Some of the main impressionist artists are Claude Monet, Camille Pissarro, Alfred Sisley, Auguste Renoir, Mary Cassatt and Edgar Degas.

How did they Paint?

Before impressionism, landscapes in art were often imaginary, perfect landscapes painted in the studio. The impressionists changed all that. They painted outdoors. As they were outside, they looked at how light and colour changed the scenes. They often painted thickly and used quick (and quite messy) brush strokes. In most of the paintings before impressionism you can't really see the brushstrokes at all.



John Singer Sargent
Claude Monet Painting by the Edge of a Wood ?1885



Camille Pissarro
The Pork Butcher 1883

Y7 CITIZENSHIP KNOWLEDGE ORGANISER

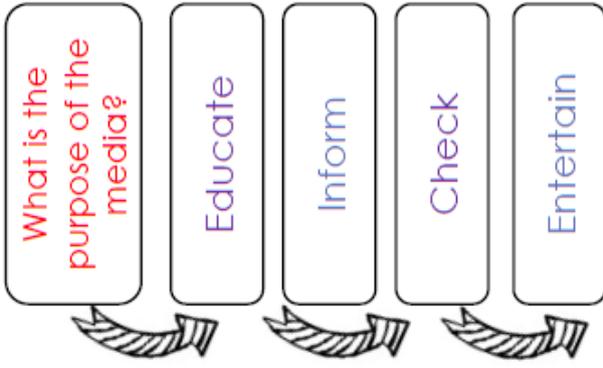
Spring Term

<p>Media</p> <p>Different methods of delivering a message, story or information to a large audience</p>
<p>Mass Media</p> <p>Different methods of delivering a message, story or information to a large audience</p>
<p>Broadsheets</p> <p>Have smaller headlines, with detailed articles. They are considered to be a more educational newspaper with key focuses on political, financial, national and international news. Broadsheets rarely contain much celebrity gossip.</p>
<p>Tabloids</p> <p>Have large headlines usually with short articles. Also tend to include lots of gossip and celebrity news. Most tabloids tend to be less 'serious' than some other newspapers.</p>

Making connections

How can you link different topics together?

Accountability + TV + newspapers
 Educate + inform + check + entertain
 New media + E-media
 Broadsheet + tabloid + newspaper
 Ofcom + TV
 Politicians + Media



Tabloid Vs **Broadsheet**

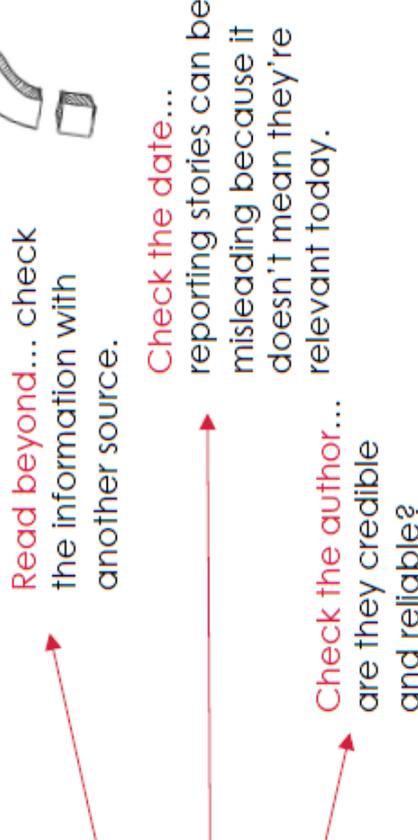
Have large headlines usually with short articles.	Have smaller headlines, with detailed articles.	Tend to be less 'serious' than some other newspapers.
More educational, with key focuses on political, financial, national and international news.	Tend to include lots of gossip and celebrity news as well as mostly national news.	Rarely contain much celebrity gossip.



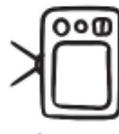
Fake News - Inaccurate, fake and fictional stories created by authors to trick the public into believing they are true.

HOW TO SPOT FAKE NEWS

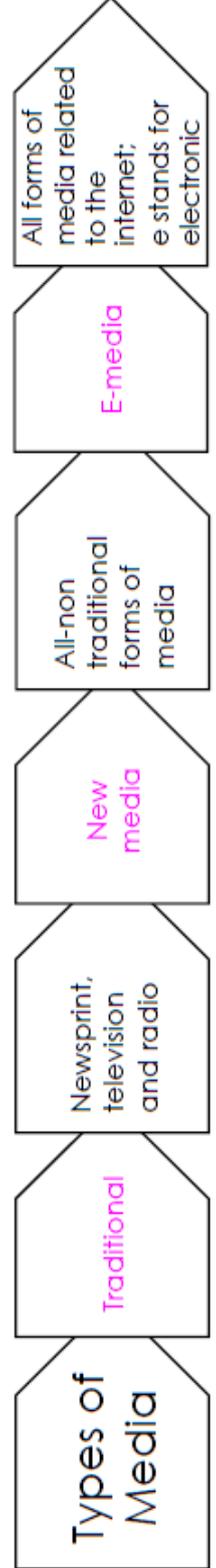
- CONSIDER THE SOURCE** - Is the website used to publish this? Is it a reliable source?
- CHECK THE AUTHOR** - Do you know who wrote this? Do you know their background? Do you know their contact details?
- CHECK THE DATE** - Are you looking at current events? Have they reported on current events?
- CHECK YOUR BIASES** - Do you have a strong opinion about your subject?
- READ BEYOND** - Read the whole article. Don't just read the headline.
- SUPPORTING SOURCES?** - Do you have other sources? Do you have other sources? Do you have other sources?
- IS IT A JOKE?** - Is it too good to be true? Is it too good to be true?
- ASK THE EXPERTS** - Ask a friend or family member. Ask a friend or family member.



Ofcom are an independent organisation who make sure that each TV programme is suitable for the audience.



Why is the media so important?



Y7 CITIZENSHIP KNOWLEDGE ORGANISER

Spring Term

Active Citizen

Trying alone or with others to bring about change. Using knowledge and understanding of **citizenship skills** to try and make a difference.

Direct action

Action taken where the normal channels are regarded as too slow or ineffective, often some sort of disruptive activity, to arouse public awareness.

Campaign

Activities that candidates and their supporters undertake to persuade people to vote for them.

Community

A group of people who live near each other in a local area; a group of people who share common beliefs or way of life.

Raise money

Vote in elections

Write to your MP (lobbying)

What does an active citizen do?

Help others

Volunteer

Campaign

Raise awareness

Convince others to change

Petition

Plastic Pollution

The biggest problem with unwanted plastic is the pollution and damage it causes the environment. Plastic breaks into tiny pieces, which then get blown around by the wind and the rain. It ends up in our streams, rivers and the ocean.



Yay!

Wind Turbines

- ✓ Environmentally friendly.
- ✓ Never ending fuel source.
- ✓ No pollution.
- ✓ Excellent supplement (help) to other renewable fuel sources.
- ✓ The energy used in creating wind farms is earned back within the first 3-6 months.
- ✗ Can take up a lot of land.
- ✗ Low energy production – Only a large number of turbines can mass produce energy.
- ✗ Quite expensive to maintain.
- ✗ Can be quite noisy – Often the locals will complain.
- ✗ Wind power alone cannot serve all of our needs.

Wow!



Solar Power

Solar energy is light, heat, and other forms of energy given off by the Sun. Solar energy can be collected and used to heat buildings and to make electricity.



Useful

Citizenship Skills

Advocacy

Representing or acting on behalf of a particular cause.

Responsible action

Doing something on behalf of others to try and raise awareness, make a difference or achieve certain aims. This will be done in order to have a positive impact on others or a particular cause.

Active Participation

Taking part by becoming involved; doing something or saying something to try and make a change or make a difference.

Informing opinions

Giving other people information in order to try and change their opinions and views.

Active Citizenship & Sustainability

Making connections

How can you link different topics together?

Responsible action + advocacy
Advocacy + MP + representation
Informing opinions + responsible action
Carbon Footprint + advocacy + MPs + Parliament

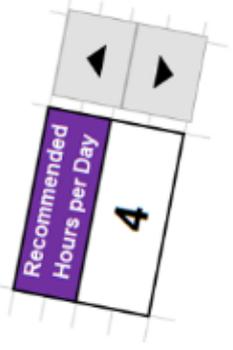
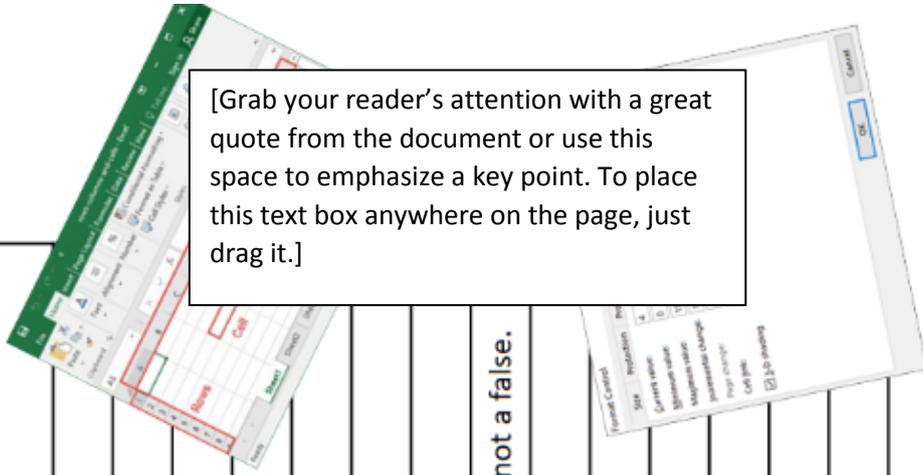
Computing – Spreadsheet Key Knowledge

Key Vocabulary



Cell Reference	The name of an individual cell (The coordinates to a cell)
Row	A range of cells that go across (horizontal) the spreadsheet. Rows have a number.
Column	A vertical range of cells. Columns have a letter.
Cell	A rectangular box that can contain any value
Sheet	A single page in a spreadsheet document
Workbook	A collection of sheets
Formula	A mathematical operation performed on values in the spreadsheet
Tab	The button that changes which sheet you are looking at
Formatting	The appearance of the cell (Colour, font size, type and colour. Borders
Conditional Formatting	This changes the format of a cell based on what condition you enter.
If Statement	A function that sees if a condition is met. If it is met a true value is returned if not a false.
Cell Replication	Copying of data in a cell to another cell
Validation	Where the computer checks your data entry to see if it is allowed.
Absolute Cell Reference	Makes the cell static (Will not change when copying a formula)
Colon :	Defines a range of cells. Colon in effect means to e.g A2:D5
Static Cell	A cells value that has to be changed manually
Dynamic Cell	A cell value changes automatically based on contents from another cell.

[Grab your reader's attention with a great quote from the document or use this space to emphasize a key point. To place this text box anywhere on the page, just drag it.]



=Sum	Adds the values of a cell range
=Average	Finds the average value of a range
=Max	Finds the maximum value in a range
=Min	Finds the minimum value in a range
=IF	Used to create an IF statement

Key Formulas

Computing – Flowol and Cryptology Keywords

Algorithm	An algorithm is a list of step-by-step instructions that when followed will solve a problem.
Flowchart	A flowchart is a way of showing all the steps in an algorithm or problem visually in a diagram.
Terminator	The symbol used in a flowchart to start or stop.
Decision Box	The diamond shape used in a flowchart so the user makes a decision, normally either yes or no.
Mimic	The interactive image used in Flowol to use alongside the flowchart.
Subroutine	A set of instructions made to perform another operation within a program.
Cryptography	The art of creating codes.
Cryptology	The study of codes – both creating and solving them.
Caesar Cipher	The first modern cipher code, developed by Julius Caesar.
Barcode	A combination of lines and numbers which stores information – product identification, the size/weight of a product, where the product comes from and the manufacturer. It does not store the product name or the price.
Barcode Reader	A device that is used to read the information from a barcode. Either a barcode scanner at the checkout or a hand held barcode reader.
Check Digit	The check digit is the final number. It is used by the computer to check all the other numbers have been entered correctly.
Data Matrix Codes	A two-dimensional code made of black and white cells or dots in a square or rectangular pattern. The information is encoded to hold text or numeric data.
QR Codes	A Quick Response code is a two-dimensional barcode. It is machine readable which contains information about the item it is attached to.
Ecommerce	Electronic commerce – means to buy or sell good and/or services online.
Encryption	Converting information into secret code that hides the information's true meaning.
Decryption	The process of taking encrypted data and converting it back into text that you or the computer can read and understand.
SSL	Secure Socket Layer. An encryption method that encrypts purchase details when online shopping. It gets switched on when you visit a secure server.
Public and Private Keys	An encryption/decryption method that uses an algorithm that makes two keys – a public one and a private one. The public key is given to anyone, but it can only encrypt. The private key is what is needed to decrypt and is kept private.

Drama - Genre

- **Genre** can be defined as a style or category of drama, art, music, or literature.
- A **theatre practitioner** is a person or theatre company that creates practical work or theories to do with performance and theatre. The list of theatre practitioners is constantly changing and evolving, as people are always creating new work and coming up with new thoughts and methodologies for theatre and performance.

Some examples of **theatre practitioners** include

Greek Theatre, Brecht, Stanislavski, Kate Mitchell, Steven Berkoff, John Godber or Gecko. These **practitioners** have very different and exciting approaches to Drama!

Why do we study theatre practitioners and genres? Looking at how theatre has changed, developed and progressed over time can be very useful for helping to shape ideas when we are devising and considering how we can create. Various genres may favour certain types of staging, acting and/or design ideas which can influence our practical work.

The **genre** of a performance refers to the type of story being told, and the **style** refers to how the work is presented on stage. Popular theatrical genres and styles include (but are not limited to):

Theatre in education (TiE)

Physical theatre

Epic theatre

Political theatre

Comedy

Tragedy

Melodrama

Commedia Dell'arte

Gothic

Surrealism

Realism

Absurdism

Practitioners usually stick to a genre or style and this is often linked with their work

Theatre roles:

Cast: All of the performers including the leads and chorus

Director: Theatre directors set their artistic vision for a play, including selecting the cast, collaborating with designers, blocking the play's movements, leading rehearsals, and monitoring the production's pacing. They may be influenced by a particular **practitioner's** ideas or the **genre** they are using.

Stage production team: Stage production workers handle the behind-the-scenes tasks that are necessary for putting on theatrical performances. Their responsibilities include costume and set design, installing lights, rigging, sound equipment, and scenery, and set building for events in parks, stadiums, arenas, and other places.

Theatre techniques are the things we include within performance to ensure a successful presentation of a play. They also include any rehearsal practices that advance and enhance the understanding of the audience through the acting of the cast on stage. An example of this might be to explore **proxemics** on stage... **Proxemics** is when the performers show characters relationships through their use of space on stage.

Practitioners / Genre can also be associated with their use of techniques within their work and some become recognisable features.

Drama - Physical Theatre

Devising from a Stimuli....

What is devising? Creating a piece of drama collaboratively.

What is a stimulus? The starting point, idea or inspiration for your devised drama. It is what you base your drama around. It could be a poem, a song, a piece of art, etc.

- Things to consider when devising from a stimulus:
- What does the stimulus mean to you? – Keep it simple
 - What thoughts and feelings does it communicate?
 - Pick one and explore it
 - Do we need to start with a story to communicate meaning?
 - Create a piece of movement and see what the audience thinks it means/communicates
 - It's ok to make the audience think – not everything needs to make sense

Vocabulary	Definition
Physical theatre	Communicating a story or meaning through movement
Bodies as props	Using your body to create the idea of a prop
Physicalising emotions	Using your body to show a particular emotion
Round by through	A sequence of movement, often performed by two people, which involves partners moving round, by and through one another.
Hymns hands	A sequence of contact movement, often performed by two people, that involves moving hands on each other's torsos.
Chair duets	A series of contact movements that are performed mainly on chairs, often between two people.
Role on the wall	A rehearsal technique where you write down the thoughts and feelings a character has on the inside and how they show them on the outside.
Canon	Movement or sound/speech that is performed one after the other.
Unison	Movement or sound/speech that is performed at the same time, in synch.

Some of the techniques used this half term were from the *theatre company/practitioner* called Frantic Assembly. The *genre* of their work is physical theatre.

The techniques we used are known as building blocks.

Round, by Through
Hymns Hands
Chair Duets

Characterisation & Setting

Writers create characters and settings that reflect the themes they want to explore. Students of English notice this and can comment on how a writer's choices around characterisation and setting contribute to the overall meaning of a text.

Settings

A setting is any place that features in a story. It's where parts of the story play out. The main setting in *The Graveyard Book* is the graveyard itself.

Writers use settings to reflect genres, characters and themes.



Perhaps *The Graveyard Book* is set mostly in a graveyard:

--to reflect the gothic elements of the story - it's a dark tale with a sinister character, Jack Frost, at the heart of it.
--to reflect the idea of a character, Bod, who is caught between worlds - he is a living boy who exists in the realm of the dead

--to make us think about the cycle of life - about being born and growing up, living and dying

Characters

Writers create characters to help them explore themes. It would be quite hard to explore ideas about growing up, and how tough it can be, without featuring a child who is growing up! But it doesn't stop there. That character's personality and behaviour has to reflect the writer's ideas about growing up too. For example, they might create an adventurous character to suggest that taking risks and making mistakes is an important part of growing up. They couldn't really do that with a character who was too shy and quiet to ever take a risk.



age?
gender?
situation?
personality and behaviour?
what makes them rounded, complex, interesting?

Relationships

Relationships **between** characters are also very important. We learn a lot about human behaviour from the way characters interact. Actor, Tom Burke, says that:

[Storytelling] "is more about the spaces between characters rather than the individual characters themselves."



Poetry

Poets also create characters. The narrator, or 'voice' of the poem, is also a character. This character might be very similar to, or very different from the writer themselves. The writer will once again choose the best character/narrator to help them explore the themes they're most interested in. In *Not My Business*, Niyi Osundare creates a selfish character, very unlike himself, to explore the idea that people should stand up to oppression and look after each other, not ignore it.

Non-fiction

Journalists and travel writers, even people writing autobiographies, create a version of themselves to tell their 'story'. It might be that they show their playful, funny side, like Bill Bryson often does; it might be that they show their anger about something they think is wrong in the world. Sometimes autobiographers present themselves much more positively than other people might, editing out all the things they don't want the public to know!

Students of English think about how writers create characters and settings that allow them to explore the themes they are interested in writing about.

We ask ourselves how these choices reflect a writer's ideas and intentions.

A Worked Example of Thinking in English

Writers create characters and settings that reflect the themes they want to explore.

In *The Graveyard Book*, Neil Gaiman created characters and settings that would help him to explore common struggles we all experience as we grow up, as well as create an entertaining gothic story.



Gaiman's intentions in exploring aspects of growing up within a gothic story

ideas



+



The Graveyard Book: a gothic story in which a young boy grows up in a graveyard.

examples

Students of English explore texts by tracking ideas and examples

Gaiman is interested in exploring the idea that relationships, especially those between children and the adults who raise them, can be difficult sometimes even when bonds are strong. He also suggests that children often find feelings hard to deal with.

Gaiman characterises Bod as a boy who has grown close to his mentor and is hurt when Silas has to leave him. He takes this apparent abandonment very personally and struggles to process his feelings. Gaiman writes, 'Bod snorted and walked off, kicking at imaginary stones.'

Gaiman wants to explore the idea that our relationship with important places in our lives change as we grow older. He uses the setting to do this. In particular, he shows how our relationship with home changes once we become old enough to head out on our own.

Bod's relationship with the graveyard itself changes. By the end of the novel, he is losing his ability to see the dead. He is also restless to explore the world on his own and has to leave his home to do that.

Food Technology - 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.

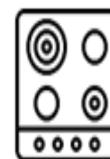
Equipment – all the equipment you need to prepare and cook food can be found in the kitchen cupboards and drawers in school.

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



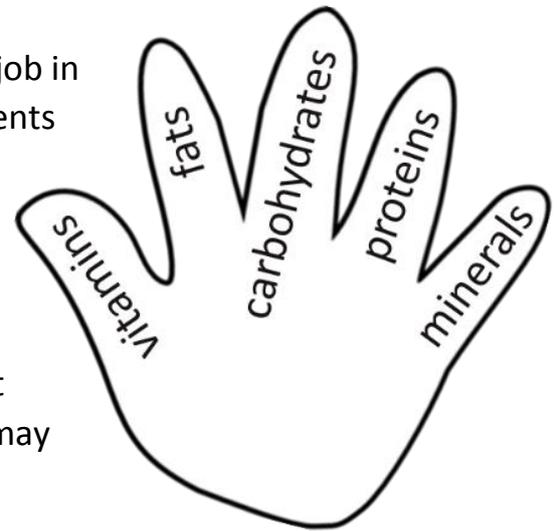
Heat transfer – food is cooked by transferring heat by conduction (heat from the hob warms up the saucepan and the food inside it), convection (e.g. heat in the oven warms up the air which circulates around the food to cook it) or radiation (heat from the grill radiates downwards to cook food).

Food Technology - 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.

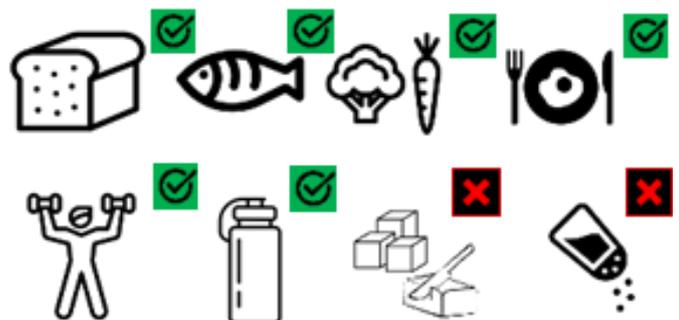


The Eatwell Guide shows how eating different foods can make a healthy and balanced diet. It divides up different food groups and shows how much of each group is needed. Extra information about the amount of water we need and the labels on food packaging is also provided.

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 Technology - 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 Technology - 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 Technology - Topic 5: Starchy Carbohydrates

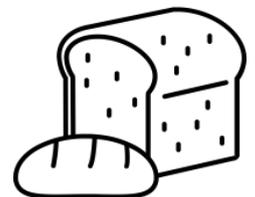
Carbohydrate is made by green plants is one of the five nutrients essential for life. There are 3 types of carbohydrate:

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 process 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 Technology - 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.

Y7 French- Spring Term 1

Describing a classroom

il y a...	<i>there is</i>
un tableau (noir/blanc)	<i>a (black/white) board</i>
un poster	<i>a poster</i>
un/une prof	<i>a teacher</i>
un écran	<i>a screen</i>
un ordinateur	<i>a computer</i>
une porte	<i>a door</i>
une fenêtre	<i>a window</i>
une tablette	<i>a tablet</i>
les rideaux	<i>the curtains</i>
les stores	<i>the blinds</i>
des tables	<i>some tables</i>
des chaises	<i>some chairs</i>
des élèves	<i>some pupils</i>
c'est...	<i>it's...</i>
sympa/ génial/ modern/ triste/ nul/ démodé	
<i>nice/ great/ modern/ sad/ rubbish/ old-fashioned</i>	

School subjects

Qu'est-ce que tu penses de tes matières?	<i>What do you think of your subjects?</i>
le français	<i>French</i>
le théâtre	<i>drama</i>
la géographie	<i>geography</i>
la musique	<i>music</i>
la technologie	<i>technology</i>
l'anglais	<i>English</i>
l'EPS	<i>P.E.</i>
l'histoire	<i>history</i>
l'allemand	<i>German</i>
l'informatique	<i>I.C.T.</i>
les arts plastiques	<i>art</i>
le dessin	<i>art</i>
les maths	<i>math's</i>
les sciences	<i>science</i>
la religion	<i>religious studies</i>
la cuisine	<i>cookery</i>
l'éducation civique	<i>P.S.H.E.</i>
ma matière préférée est...	<i>my favourite subject is...</i>
le/la prof est sympa	<i>the teacher is kind</i>
le/la prof est trop sévère	<i>the teacher is too strict</i>
j'ai trop de devoirs	<i>I have too much homework</i>

Opinions

Tu aimes...?	<i>Do you like?</i>
j'adore...	<i>I love...</i>
j'aime...	<i>I like...</i>
j'aime assez	<i>I quite like...</i>
je n'aime pas...	<i>I don't like...</i>
je déteste...	<i>I hate...</i>
parce que/ car	<i>because</i>
C'est...	<i>it's...</i>
	<i>je pense que c'est...</i>
	<i>I think that it is...</i>
facile	<i>easy</i>
difficile	<i>difficult</i>
intéressant	<i>interesting</i>
ennuyeux/barbant	<i>boring</i>
amusant	<i>fun</i>
utile	<i>useful</i>
un gaspillage de temps	<i>a waste of time</i>

Telling the time

Quelle heure est-il?	<i>What time is it?</i>
il est...	<i>it is...</i>
cinq heures	<i>five o'clock</i>
cinq heures dix/ vingt	<i>ten/twenty past five</i>
cinq heures et quart	<i>quarter past five</i>
cinq heures et demie	<i>half past five</i>
cinq heures moins dix/vingt	<i>ten/twenty to five</i>
cinq heures moins le quart	<i>quarter to five</i>
midi/minuit	<i>midday/ midnight</i>

Photo description

ici il y a...	<i>here there is...</i>
en bas	<i>at the bottom</i>
au centre	<i>at the centre</i>
à droite	<i>to the right</i>
à gauche	<i>to the left</i>
il y a aussi...	<i>there is also...</i>

School day

Ta journée scolaire est comment?	<i>What is your school day like?</i>
je me lève	<i>I get up</i>
je me lave	<i>I wash</i>
je me brosse les dents	<i>I brush my teeth</i>
je mange le petit-déjeuner	<i>I eat breakfast</i>
je quitte la maison	<i>I leave home</i>
j'arrive au collège	<i>I arrive at school</i>
je retrouve mes copains	<i>I meet my friends</i>
on commence les cours	<i>we start lessons</i>
je mange à la cantine	<i>I eat in the canteen</i>
je chante dans la chorale	<i>I sing in the choir</i>
je joue dehors	<i>I play outside</i>
on recommence les cours	<i>we begin lessons again</i>
je rentre à la maison	<i>I get home</i>
	<i>à- at</i>
je fais mes devoirs	<i>I do homework</i>
je mange le dîner	<i>I eat dinner</i>
je me couche	<i>I go to bed</i>

School uniform

Qu'est-ce que tu portes?	<i>What do you wear?</i>
je porte...	<i>I wear...</i>
on porte...	<i>we wear...</i>
l'uniforme scolaire	<i>school uniform</i>
un pantalon	<i>trousers</i>
un polo	<i>polo shirt</i>
un pull	<i>jumper</i>
un sweat	<i>sweatshirt</i>
un tee-shirt	<i>tee-shirt</i>
une chemise	<i>shirt</i>
une cravate	<i>tie</i>
une jupe	<i>skirt</i>
une veste	<i>jacket</i>
un costume	<i>suit</i>
des chaussettes (f)	<i>socks</i>
des chaussures (f)	<i>shoes</i>
des baskets (f)	<i>trainers</i>
	<i>à mon avis c'est...</i>
	<i>in my opinion it is...</i>
	<i>chic</i>
	<i>smart/ stylish</i>
	<i>confortable</i>
	<i>comfy/ comfortable</i>
	<i>démodé</i>
	<i>old-fashioned</i>
	<i>pratique</i>
	<i>practical</i>
	<i>moche</i>
	<i>ugly</i>

AIMER

	<i>to like</i>
j'aime	<i>I like</i>
tu aimes	<i>you like</i>
il aime	<i>he likes</i>
elle aime	<i>she likes</i>
nous aimons	<i>we like</i>
vous aimez	<i>you like (plural)</i>
ils aiment	<i>they like</i>
elles aiment	<i>they like</i>
j'aime le dessin car c'est amusant	
<i>I like art because it is fun</i>	
il aime l'allemand mais c'est difficile	
<i>he likes German but it is difficult</i>	

Useful verbs (INFINITIVES)

porter	<i>to wear</i>
commencer	<i>to begin</i>
jouer	<i>to play</i>
chanter	<i>to sing</i>
penser	<i>to think</i>
aimer	<i>to like</i>
adorer	<i>to love</i>
manger	<i>to eat</i>
faire	<i>to do</i>
étudier	<i>to study</i>
apprendre	<i>to learn</i>

Y7 French- Spring Term 2

Sports

Je joue...	<i>I play...</i>
au basket	<i>basketball</i>
au billard	<i>pool</i>
au football(foot)	<i>football</i>
au rugby	<i>rugby</i>
au hockey	<i>hockey</i>
au tennis	<i>tennis</i>
au volleyball	<i>volleyball</i>
à la pétanque/ aux boules	<i>boules</i>
aux cartes	<i>cards</i>
aux échecs	<i>chess</i>

Je suis	<i>I am</i>
Je ne suis pas	<i>I am not</i>
assez	<i>quite</i>
très	<i>very</i>
sportif/sportive	<i>sporty</i>

Free time activities

Qu'est-ce que tu fais?	<i>What do you do?</i>
Je fais du skate.	<i>I go skateboarding.</i>
Je fais du patin à glace.	<i>I go ice skating.</i>
Je fais du vélo.	<i>I go cycling.</i>
Je fais du ski.	<i>I go skiing.</i>
Je fais du judo.	<i>I do judo.</i>
Je fais du théâtre.	<i>I do drama.</i>
Je fais de la cuisine.	<i>I do cookery.</i>
Je fais de la danse.	<i>I do dancing.</i>
Je fais de la gymnastique.	<i>I do gymnastics.</i>
Je fais de la natation.	<i>I go swimming.</i>
Je fais de l'athlétisme.	<i>I do athletics.</i>
Je fais de l'équitation.	<i>I go horse riding.</i>
Je fais des randonnées.	<i>I go hiking.</i>
Je ne fais pas de sport/ danse, (etc.).	<i>I don't do sport/ dancing, (etc.).</i>
Est-ce que tu fais souvent (du vélo)?	<i>Do you do/ go (cycling) often?</i>
Je fais... (du vélo).	<i>I do/go (cycling)...</i>
parfois	<i>sometimes.</i>
souvent	<i>often.</i>
tout le temps	<i>all the time.</i>
tous les jours	<i>every day.</i>
tous les weekends	<i>every weekend.</i>
tous les lundis/mardis, (etc.)	<i>every Monday/Tuesday, (etc.).</i>

Likes and dislikes

j'aime...	<i>I like...</i>
je n'aime pas	<i>I don't like...</i>
j'adore...	<i>I love...</i>
je déteste	<i>I hate...</i>
j'aime jouer au foot	<i>I like to play football</i>
je n'aime pas faire du judo	<i>I don't like to do judo</i>

The weather

Quel temps fait-il?	<i>What's the weather like?</i>
il fait beau	<i>The weather is fine.</i>
il fait mauvais	<i>The weather is bad.</i>
il fait chaud	<i>It's hot.</i>
il fait froid	<i>It's cold.</i>
il fait nuageux	<i>It's cloudy.</i>
il y a du soleil	<i>It's sunny.</i>
il y a du vent	<i>It's windy.</i>
il y a de l'orage	<i>It's stormy</i>
il pleut	<i>It's raining.</i>
il neige	<i>It's snowing.</i>
il gèle	<i>It's freezing.</i>
au printemps	<i>in spring</i>
en été	<i>in summer</i>
en automne	<i>in autumn</i>
en hiver	<i>in winter</i>

Quand (il pleut/ il fait chaud)
When (it rains/ it is hot)

... je reste à la maison	<i>I stay at home.</i>
... je joue dans le jardin	<i>I play in the garden.</i>

Technology

Qu'est-ce que tu aimes faire sur ton portable?	<i>What do you like doing on your phone?</i>
Qu'est-ce que tu aimes faire sur la tablette?	<i>What do you like doing on your tablet?</i>
j'aime.../je n'aime pas...	<i>I like/ I don't like...</i>
blogger	<i>blogging</i>
écouter de la musique	<i>listening to music</i>
envoyer des SMS	<i>sending texts</i>
prendre des selfies	<i>taking selfies</i>
partager des photos/ des vidéos	<i>sharing photos/ videos</i>
regarder des films	<i>watching films</i>
tchatter avec mes copains/ copines	<i>chatting (online) with my friends</i>
télécharger des chansons	<i>downloading songs</i>
faire des achats	<i>shopping online</i>

JOUER *to play*

je joue	<i>I play</i>
tu joues	<i>you play</i>
il joue	<i>he play</i>
elle joue	<i>she play</i>
nous jouons	<i>we play</i>
vous jouez	<i>you play (plural)</i>
ils jouent	<i>they play</i>
elles jouent	<i>they play</i>

je joue au hockey
I play hockey

nous jouons au basket
we play basketball

FAIRE *to do*

je fais	<i>I do</i>
tu fais	<i>you do</i>
il fait	<i>he does</i>
elle fait	<i>she does</i>
nous faisons	<i>we do</i>
vous faites	<i>you do (plural)</i>
ils font	<i>they do</i>
elles font	<i>they do</i>

il fait de la cuisine
he does cookery

elles font de la natation
they go swimming

Adjectives

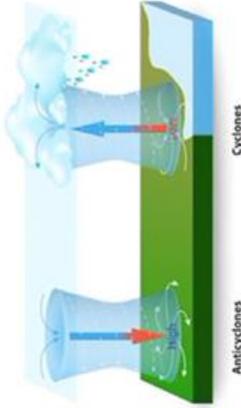
amusant	<i>fun</i>
marrant	<i>funny</i>
ennuyeux	<i>boring</i>
facile	<i>easy</i>
intéressant	<i>interesting</i>
barbant	<i>boring</i>
rapide	<i>fast</i>
utile	<i>useful</i>
reposant	<i>relaxing</i>
c'est...	<i>it is...</i>
à mon avis c'est...	<i>in my opinion it is...</i>
je pense que c'est...	<i>I think that it is...</i>

Connectives

parce que	<i>because</i>
mais	<i>but</i>
et	<i>and</i>
cependant	<i>however</i>
car	<i>because</i>
donc	<i>therefore</i>
aussi	<i>also</i>

Knowledge Organiser Weather and Climate

CYCLONES AND ANTICYCLONES



Cooler Air sinking Warmer Air Rising

Weather Basics

The weather is made up of a number of components: pressure, temperature, wind, drought, precipitation, humidity and sunlight. Each of these components are what make up the daily **weather** condition experienced in an area. Weather is experienced at different scales, locally, regionally, nationally and globally. There are a number of **factors** which **affect** our **weather** at a local scale, these are:

- Distance from the sea.
- Altitude
- Latitude.
- Prevailing winds

At a global scale the weather is affected by **global pressure bands** and the amount of **solar insolation** and area receives.

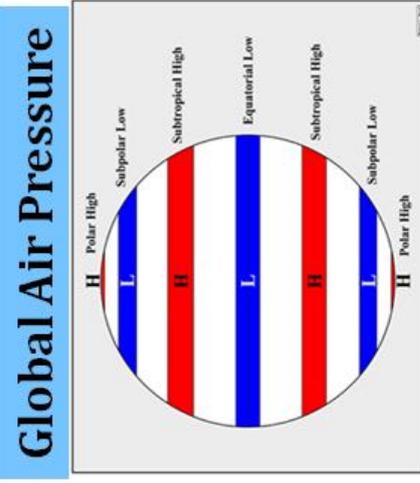
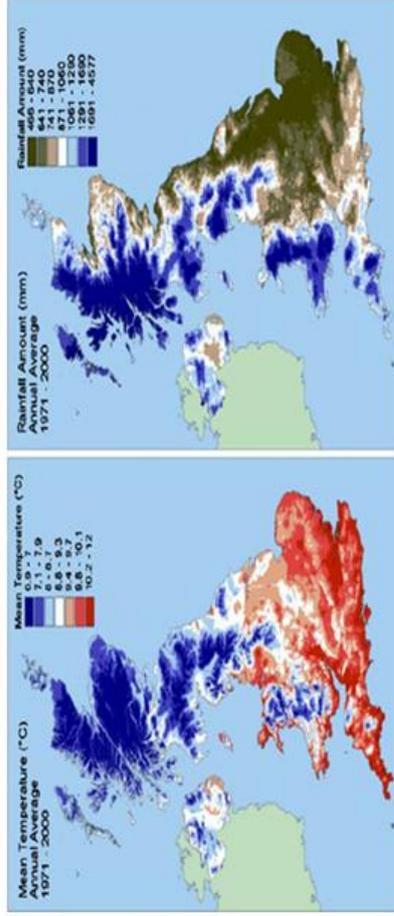
Climate Change

The Earth's climate is **warming** due to human activity. Cutting down trees (**deforestation**), **burning fossil fuels** and population growth are all contributing to the world growing warmer. Different **political systems** in countries will **influence** the laws and policies put in place to slow climate change down.

Storm Doris 'weather bomb': 94mph winds, travel chaos and snow - live updates

- A woman in Wolverhampton killed by fallen debris
- Port of Liverpool closed, flights and trains cancelled
- QE2 and Orwell bridges closed due to high winds
- Snow blocks Scotland's M80
- Stormy conditions likely to hit turnout in byelections

The Guardian, Nadia Khomami and Mathew Weaver 23 February 2017

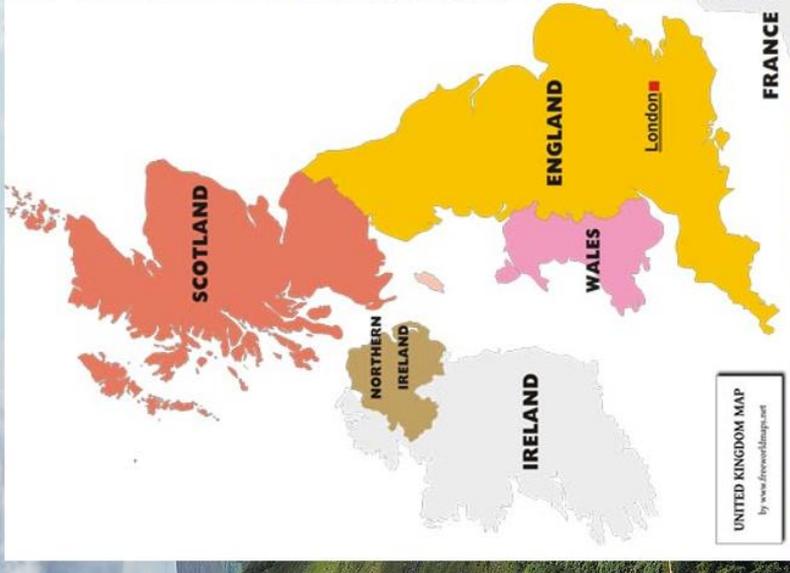


Command words

Describe	give a detailed account of the features of something without interpreting the information.
Explain	give reasons for
Identify	name or otherwise characterise
State	express in clear terms
Compare	identify similarities and/ or differences

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 - Spring Term 1

1. Was spielst du? Ich spiele ... Badminton / Basketball / Fußball Wasserball / Eishockey / Tennis Volleyball / Tischtennis / Handball Bist du sportlich? Ich bin sehr/ziemlich/nicht sehr sportlich.		What do you play? I play... badminton / basketball / football water polo / ice hockey / tennis volleyball / table tennis / handball Are you sporty? I am very/quite/not very sporty.	
2. Was machst du gern? What do you like to do?			
Ich fahre Rad.	I ride my bike.	Ich spiele Gitarre.	I play guitar.
Ich lese.	I read.	Ich schwimme.	I swim.
Ich mache Judo.	I do judo.	Ich sehe fern.	I watch TV.
Ich tanze.	I dance.	Ich reite.	I go horse riding.
Wie findest du das? Ich finde es ... irre/super/toll/cool nicht schlecht langweilig/nervig		What do you think of it? I find it... amazing/super/great/cool not bad boring/annoying	
3. Was machst du in deiner Freizeit? Ich gehe ins Kino. Ich höre Musik. Ich gehe einkaufen. Ich spiele Xbox oder Wii. Ich gehe in den Park. Ich gehe in die Stadt. Ich esse Hamburger oder Pizza. Ich chillen. Ich mache Sport. Wann machst du das? Wie oft machst du das? am Abend/Wochenende (sehr/ziemlich/nicht so) oft jeden Tag einmal/zweimal pro Woche dreimal pro Monat		What do you do in your free time? I go to the cinema. I listen to music. I go shopping. I play Xbox or Wii. I go to the park. I go to town. I eat hamburgers or pizza. I chill out. I do sports. When do you do that? How often do you do that? in the evening/on the weekend (very/quite/not so) often every day once/ twice per week Three times a month	
4. Was machst du am Computer oder auf deinem Handy? Ich chatte mit Freunden auf Facebook. Ich simse. Ich lade Musik herunter. Ich surfe im Internet. Ich spiele Computerspiele. immer manchmal nie jeden Morgen am Montag nächste Woche in zwei Wochen		What do you do on the computer or on your mobile phone? I chat with friends on facebook. I text. I download music. I surf the internet. I play computer games. always sometimes never every morning on Monday next week in 2 weeks	

Y7 German - Spring Term 2

1. Welches Fach magst du?

Ich mag ... (nicht/sehr).

Deutsch / Mathe
Naturwissenschaften
Informatik / Erdkunde
Geschichte / Werken
Englisch / Französisch
Sport / Theater

Was ist dein Lieblingsfach?

Mein Lieblingsfach ist ...
Warum magst du das (nicht)?
Ich mag (Mathe), weil es ... ist.
einfach / faszinierend
interessant / nützlich

Which subject do you like?

I like... (not/very).

German / Maths
Science
IT / geography
history / DT
English / French
PE / Drama

What is your favourite subject?

My favourite subject is...
Why do you (not) like that?
I like (Maths), because it is...
easy / fascinating
interesting / useful

2. Was für ein Wochentag ist heute?

Heute ist...
Montag/ Dienstag/ Mittwoch/
Donnerstag/ Freitag / Samstag
Sonntag

Was hast du am Montag?

Am Montag ...
... habe ich/ haben wir ...
... Deutsch/ Sport/ keine Schule.

Wie viel Uhr ist es?

Es ist acht Uhr.

Wann/Um wie viel Uhr

hast du/haben wir (Englisch)?

Um (8) Uhr (15).
in der ersten / zweiten / dritten Stunde
vor / nach der Pause

What day of the week is it today?

Today is...
Monday/ Tuesday/ Wednesday/
Thursday/ Friday/ Saturday
Sunday

What do you have on Monday?

On Monday...
I have / we have...
German/ PE/ no school

What time is it?

When/ at what time

do you have/ do we have (English)?

At (8:15)
in the first / second / third lesson
before / after break

3. Wie heißt dein(e) Lehrer(in)?

Mein Lehrer/Englischlehrer heißt ...
Meine Lehrerin/Deutschlehrerin heißt ...

Wie ist er/sie?

Er / Sie ist ...
zu/ sehr/ ziemlich/ ein bisschen/ nicht ...
freundlich / streng / fair
unpünktlich / arrogant / lustig

What is your teacher called?

My teacher / English teacher (masc.) is called...
My teacher / German teacher (fem.) is called...

What is he/she like?

He / Sie is...
too/very/quite/a bit/ not...
friendly / strict / fair
unpunctual / arrogant / funny

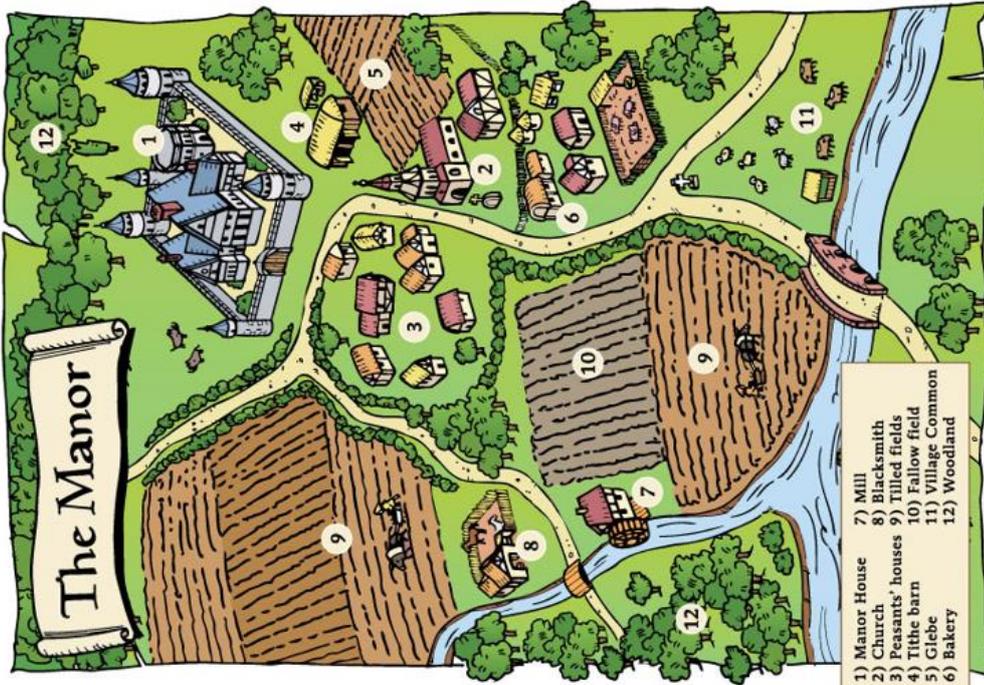
4. Beschreib das Klassenzimmer.

der Tisch / der Stuhl / der Computer
das Whiteboard / das Poster / das Fenster
die Wand / die Tür / der Korridor
in der Schule
im Klassenzimmer / im Korridor
auf dem Tisch
an der Wand
am Fenster
neben der Tür
neben dem Computer

Describe the classroom.

the table / the chair / the computer
the whiteboard / the poster / the window
the wall / the door / the corridor
in / at school
in the classroom / in the corridor
on the table (auf = on horizontally)
on the wall (an = on vertically)
at / by the window
next to the door
next to the computer

Important image

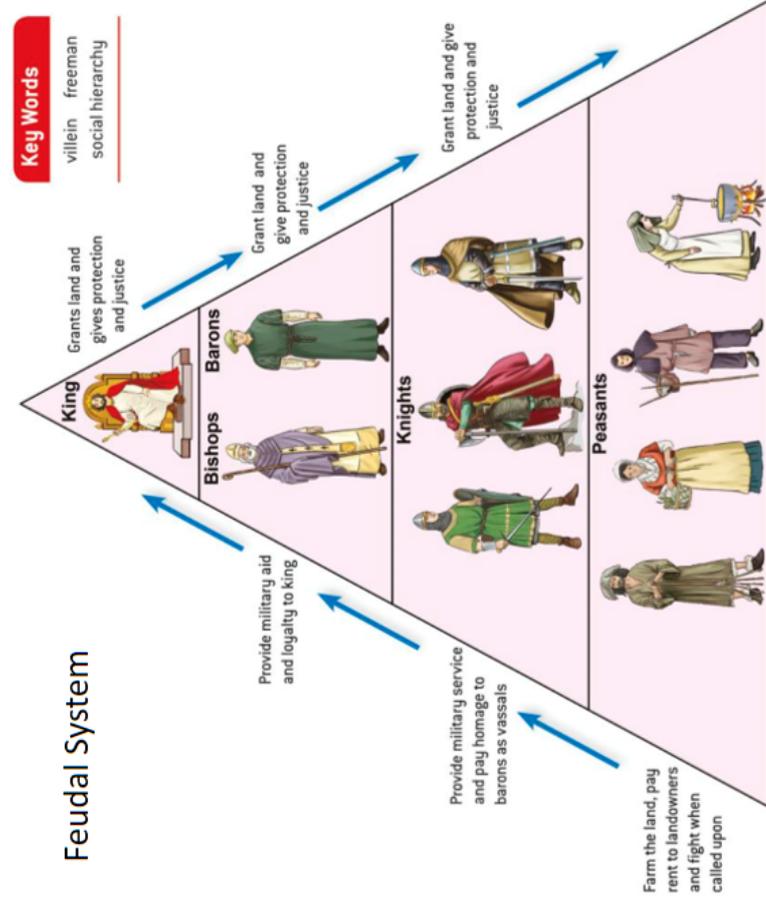


HISTORY

Key Words	Definition
The Church	Capital C = the whole organisation / institution of the Catholic Church based in Rome.
The church	Small c = the church (building) in the village
The Pope	The leader of the Catholic Church, lives in Rome and all Catholics must obey him
Archbishop	Lower rank than The Pope but usually in charge of the Catholic Church within individual countries
The Crusades	Religious wars called by The Pope of Catholics vs. Muslims (mostly fought in the Middle East)
Domesday Book	A survey done by William the Conqueror to assess the land and wealth in England so he could tax them
Feudal System	The structure (hierarchy) of England following the Norman Conquest
Homage	The act of swearing an oath of loyalty to your lord (Knight, Baron, Noble or King)
Clergy	An important member of The Church (Priest, Archbishop, The Pope who is the top ranking clergy)
Monarch	The king of queen is the monarch of their country
Tithe	A tax, 10% of your earnings was paid to The Church at your church service on a Sunday
Manor (House)	The Manor was an area of land granted by the king to a lord. He was the Lord of the Manor and lived in the Manor House. The Peasants worked the land of the Manor
Peasant	A poor person at the bottom of the feudal system (bottom of society) who works the land
Villein	Peasants with land to farm, unable to leave their manor
Serf	Peasant with land to farm, was able to leave their manor but it was safer not to
Excommunication	A punishment by The Pope banning you from attending church and church services meaning you will go be going to hell. Usually a threat of excommunication first
Miasma	A theory that bad air causes illness (Black Death)
Epidemic	When a disease spreads across a large area
Pandemic	A disease that has spread across the whole world
Flagellant	A form of self punishment where you whip yourself in the hope of preventing God punishing you further
Taxation	A payment made from your earnings to the government / Lord of the manor

Chronology	
1066	Norman Conquest
1085	Domesday Book
1087	William II
1095-1492	The Crusades
1100	Henry I
1135	Stephen & Matilda
1154	Henry II
1170	Thomas Becket murdered
1189	Richard I (Lionheart)
1199	King John
1215	Magna Carta
1216	Henry III
1272	Edward I
1265-1314	Welsh & Scottish wars
1307	Edward II
1327	Edward III
1348	Black Death
1377	Richard II
1381	Peasant's Revolt
1399	Henry IV
1413	Henry V
1422	Henry VI (Lancaster) 1
1455-1485	Wars of the Roses
1461	Edward IV (York) 1
1470	Henry VI (Lancaster) 2
1471	Edward IV (York) 2
1483	Edward V
1483	Princes die in the tower
1483	Richard III
1485	Battle of Bosworth
1485	Henry VII (Tudors)

Events Key
New Monarch
War or Battle
Significant Event



Core Knowledge
Generally speaking historians refer to the Middle Ages as the period following the Norman Conquest to the Tudor Period (1066-1485)
Living conditions in the Middle Ages were filthy with cramped conditions. Animals lived inside the houses and waste was thrown out into the streets. People bathed in the rivers whilst dumping waste in them too.
Following the Norman Conquest, William the Conqueror introduced new laws and structures to England. The Feudal System was introduced which was a hierarchy from top to bottom (king to peasant)
Thomas Becket was the Archbishop of Canterbury and had been good friends with King Henry II. Because Becket was more loyal to The Pope, Becket and Henry II fell out. Henry II said out-loud (but NOT an instruction) "will no one rid me of this troublesome priest" and Henry's knights took that as an order and murdered Becket in Canterbury Cathedral in 1170.
Following King John taking the throne from his brother Richard, his actions had led to the nobility (barons) growing increasingly angry with John. They forced John to sign the Magna Carta that put limits on the power of the king.
The Black Death arrived in England in 1348 on the Silk Road from China, killing half of the population of England. People in the Middle Ages believed God was punishing them for sins, or that wicked children had caused it. They also blamed Miasma (bad air) and Jews poisoning the wells. To prevent it, many became flagellants, whipping themselves to punish themselves so God wouldn't have to.
The Peasant's Revolt was led by Wat Tyler . The peasants had suffered greatly with the Black Death and then in 1381 they were told their pay would revert back to what it was 40 years ago. A new poll tax was introduced further angering them. The Peasant's marched on London, killing the Archbishop and demanded to speak with King Richard II. Richard agreed to deal with the taxes, but killed Tyler and other key rebels.
Key discoveries / ideas
Magna Carta in 1215 was the beginnings of challenging the monarch and their unlimited power.
Doom Paintings were designed to illustrate Heaven and Hell to war people what would happen if they sinned
Being excommunicated by The Pope was possibly the worst thing that could happen, meaning you would be going to hell when you died.
Over-lordship was the idea the king of England had the right to rule over Scotland, Wales and Ireland as well

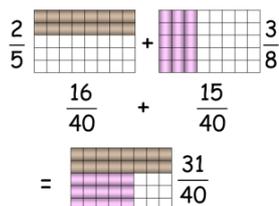
Common misconceptions
EVERYBODY in the Middle Ages was religious and in Western Europe were Catholic. They all feared God and followed the teachings of The Church for fear of going to hell
Whilst the Middle Ages was a period of relative filth and squalor, the people were cleaner than we think. They believed cleanliness was next to Godliness so washed their hands and faces before all meal times
People in the Middle Ages were not 'stupid', they were as creative and economical as we are today. Their attitudes were a little less adventurous but their beliefs made sense to them.
Key Themes
Government, Protest, Democracy, Military
Books / Articles / Films / websites
Measly Middle Ages (Horrible Histories)
Life in the Middle Ages BBC Bitesize

MATHEMATICS

Year 7 Knowledge Organiser ADD AND SUBTRACT FRACTIONS

Key Concept

Find equivalent fractions with same denominators and add the numerators.



Key Words

Fraction: A fraction is made up of a numerator (top) and a denominator (bottom).

Add: sum, total, plus.

Subtract: difference, fewer, minus, take away.

Equivalent fractions: fractions that represent the same amount.

Examples

$$\frac{2}{7} + \frac{3}{7} = \frac{2+3}{7} = \frac{5}{7}$$

$$\frac{5}{7} - \frac{2}{7} = \frac{5-2}{7} = \frac{3}{7}$$

$$\frac{2}{5} + \frac{3}{11} = \frac{22}{55} + \frac{15}{55} = \frac{37}{55}$$

$$1\frac{2}{5} + 2\frac{3}{11} = 1\frac{22}{55} + 2\frac{15}{55} = 3\frac{37}{55}$$

$$\frac{2}{5} + \frac{3}{5} = \frac{2+3}{5} = \frac{5}{5} = 1$$

$$1 - \frac{1}{3} = \frac{3}{3} - \frac{1}{3} = \frac{3-1}{3} = \frac{2}{3}$$



Clip Numbers

61 - 66

Tip

- A larger denominator does not mean a larger fraction.
- To find equivalent fractions multiply/divide the numerator and denominator by the same number.

Questions

1) $\frac{3}{5} + \frac{4}{15}$ 2) $\frac{2}{7} + \frac{5}{8}$ 3) $\frac{7}{9} - \frac{2}{5}$

ANSWERS: 1) $\frac{13}{15}$ 2) $\frac{31}{56}$ 3) $\frac{47}{45}$

Year 7 Knowledge Organiser Algebraic Expressions

Key Concept

Expressions

$$3a + 2b + 4a + b$$

$$f^2 + f^2 + f^2$$

Coefficients

$$6a^2 \quad 15c$$

(number in front of the variable)

Key Words

Variable: A letter/symbol used to represent an unknown number or quantity.

Expression: Shows a mathematical relationship whereby there is no solution.

Substitution means putting numbers in place of letters/symbols to calculate the value of an expression

Examples

1) $a \times b = ab$

3) $0.5w = \frac{1}{2}w$

2) $y + y + y = 3y$ $x \times y = 3y$

4) $\frac{1}{4}d + \frac{1}{4}d + \frac{1}{4}d = \frac{3}{4}d$

Simplify:

$$4a + 3b - a + 2b = 3a + 5b$$

Simplify:

$$x^2 + 3x + 4x^2 + 2x = 5x^2 + 5x$$



Clip Numbers

154-169, 548-550

Tip

When simplifying expressions be careful with negatives.

Questions

1) $a + a + a + a + a$ 2) $2x \times x \times x$ 3) $5x + 3y - 2x + 4y$
4) $2p - 6q + 2q + 4p$

ANSWERS: 1) $5a$ 2) $2pq$ 3) $3x + 7y$ 4) $4p - 4q$

MATHEMATICS

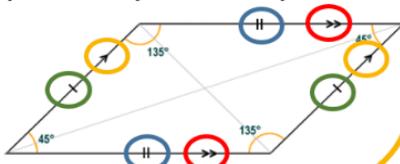
Year 7 Knowledge Organiser GEOMETRY (Labelling)

Key Concept

Number of Sides	Polygon Name
3	Triangle
4	Quadrilateral
5	Pentagon
6	Hexagon
7	Heptagon
8	Octagon
9	Nonagon
10	Decagon
11	Hendecagon
12	Dodecagon

Polygons

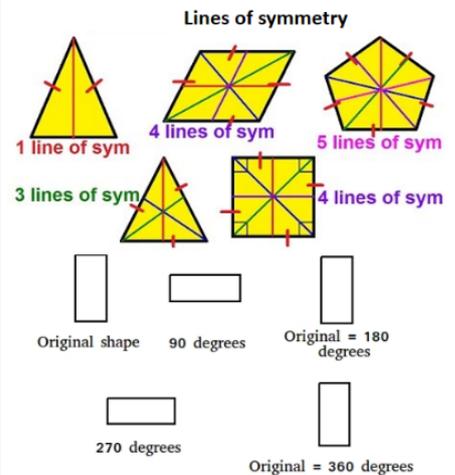
Labelling



Key Words

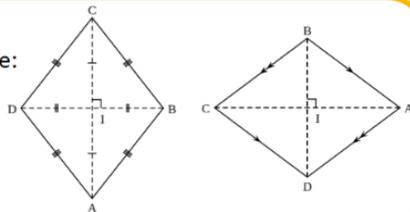
Lines of symmetry: imaginary line and divides a shape into identical halves.
Rotational symmetry: a shape has rotational symmetry when it still looks the same after some rotation.
Scalene triangle: a triangle with 3 different sides and angles
Isosceles triangle: a triangle with 2 equal sides and angles
Equilateral triangle: a triangle with 3 equal sides and all angles 60°

Examples



Question

Describe this shape:



Tip

Using accurate labelling will ensure you do not miss out any properties.

hegartymaths

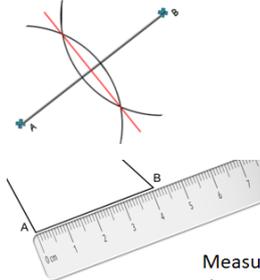
Clip Numbers 455, 822, 824, 827, 828

Year 7 Knowledge Organiser GEOMETRY (Construction/Measure)

Line Bisector

Key Concept

Angle Bisector



Measuring a line: ensure you start at 0.

Measuring an angle: ensure you use the correct scale on your protractor.

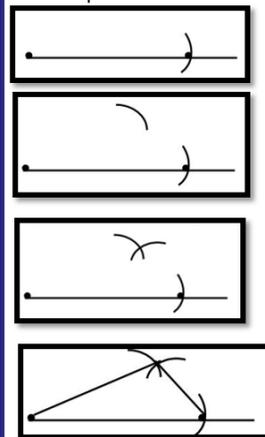


Key Words

Construction: To draw a shape, line or angle accurately using a compass and ruler.
Parallel: Two lines which never intersect.
Perpendicular: Two lines that intersect at 90° .
Bisect: Divide into two parts.
Equidistant: Equal distance.

Examples

Constructing an isosceles triangle using a compass.



Tip

Make sure you can use a ruler, compass and protractor properly in order to measure and draw accurately.
Always use ruler and pencil.

Questions

- Draw these angles then bisect them using constructions:
 - 46°
 - 18°
 - 124°
- Draw these lines and bisect them:
 - 6cm
 - 12cm

hegartymaths
 Clip Numbers
 458-461, 660-669

Music

Performing Skills 2

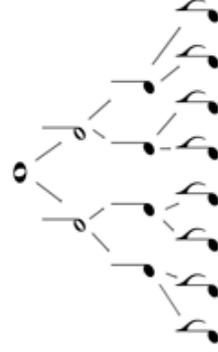
Scores	
A score is a way that music can be written down	
Graphic Score	A graphic score can use anything to help convey the composers intentions – pictures, symbols, diagrams etc.
Notated Score	A notated score uses traditional musical notation.
Key term – Metre	
Metre	A regular pattern of beats indicated by a time signature
Bar	How a musical score is divided up with a set number of beats in each bar as defined by the time signature
Time Signature	How many beats in a bar
Beat	How a bar is sub-divided
Pulse	The steady beat felt throughout the music
3/4	3 beats in a bar
4/4	4 beats in a bar
Key Term - Tempo	
How fast or slow music is played	
Key term – Rhythm Notation	
Rhythm	How notes of varying lengths can be used to make interesting patterns
Minim	2 beat duration
Crotchet	1 beat duration
Quaver	1/2 beat duration
Rests	A silent duration
Ostinato	A repeated pattern of notes

Key term – Pitch Notation	
How different pitches are notated on a traditional score	
Staff	
Treble Clef	EGBDF/FACE
Key term - Chords	
How notes can be played together to create chords	
Triads	3 notes played together at the same time
Basic Chords	Chords I and V

Listening	Identification and application of vocabulary relating to rhythm
Performing	Identification of time signatures
	Performing music from Graphic and Notated scores
Composing	Singing in a class environment
	Compose a short rhythm based piece demonstrating knowledge of key words
Contextual Knowledge	Short research project based upon a historical period of music

Practical Skills

Keyboard	Developing keyboard skills including layout of the keyboard and using the correct fingers when playing.
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TREBLE CLEF



7.3 KS3 Core PE Knowledge Organiser: The Skeletal System

Function of the Skeleton (1)	
Function	Example
1 Protection	The cranium and ribs protect the brain and vital organs in the chest.
2 Joints for movement	Joints allow the skeleton to move (e.g. the knee allows the leg to bend)
3 Muscle attachment	The skeleton provides a surface for muscles to attach to via tendons
4 Mineral storage	Bones store calcium and phosphorus to make sure they are strong.
5 Blood cell production	Red blood cells (to carry oxygen) and white blood cells (to protect against infection) are produced in the bone marrow of some bones.

Worked example – **Explain** how a function of the skeleton aids performance in *rugby union* (3 marks)

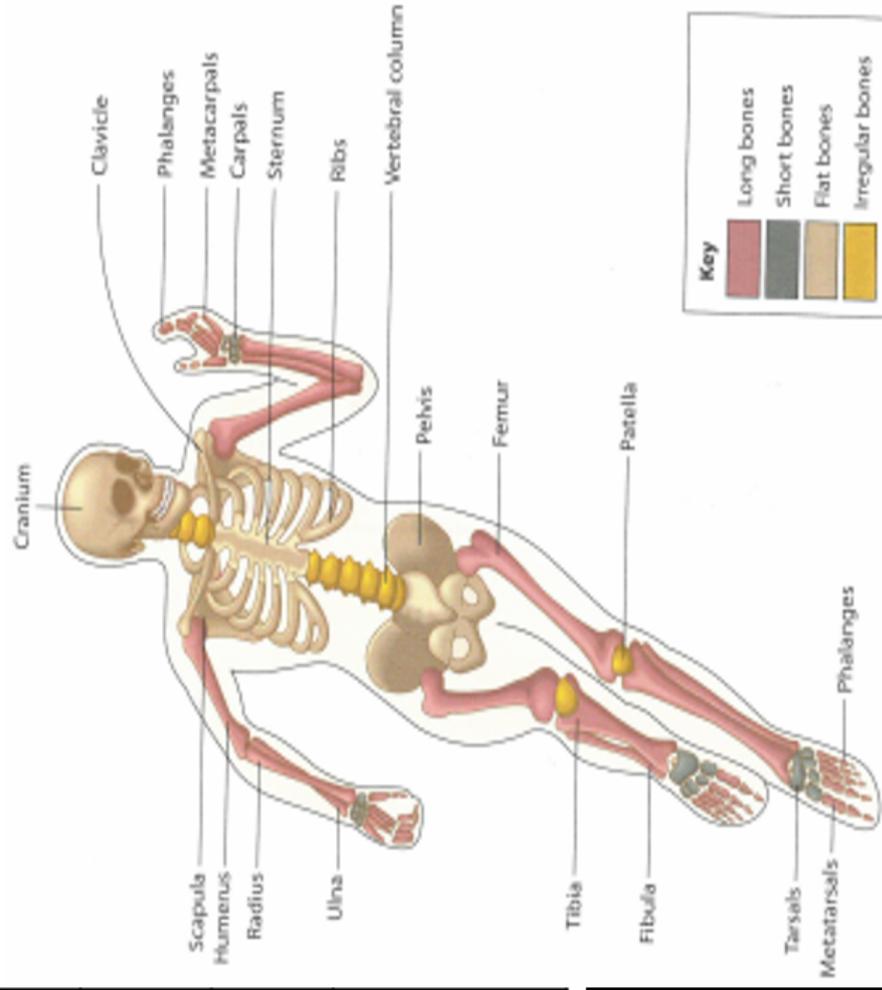
One function of the skeleton is mineral storage (1). Bones store the minerals calcium and phosphorus to ensure they stay strong (1). This is vital in rugby union as it is a contact sport and players require strong bones so that they do not break during tackles (1).

Explain - Requires a justification/exemplification of a point. The answer must contain some linked reasoning

Key Vocabulary

Protection, mineral, attachment, irregular, flat, long, short, function, classification, leverage, weight-bearing.

Identifying bones in the Skeletal System (2)



7.4 KS3 Core PE Knowledge Organiser: The Skeletal System

Types of Bone (3)		Key Misconceptions
Type	E.g.	Function in Sport
Long	Femur	<p>Bones that are longer than they are wide.</p> <p>These play a key part in leverage and movement. (humerus, radius, ulna, metacarpals, phalanges (fingers and toes), femur, tibia, fibula, metatarsals)</p> <p>Bones that are box-like in shape. These are designed to be weight-bearing. (carpals (wrist), tarsals (ankle))</p> <p>Thin, plate bones that act as a shell. They provide protection and a large surface to which muscles can attach. (cranium, clavicle (collar bone), scapula (shoulder blade), sternum, ribs, pelvis)</p> <p>Unusually shaped bones for a unique purpose. These also provide protection and a large surface to which muscles can attach. (vertebrae, patella (knee cap))</p>
Short	Carpals	
Flat	Sternum	
Irregular	Vertebrae	
Worked Example - State 3 bones found in the lower body.		
Any 3 from: phalanges, metatarsals, tarsals, fibula, tibia, patella, femur, pelvis.		
State - involves the recall of a fact		
Worked Examples		
Classify the following bones of the body		
Femur – (Long) Carpals – (Short) Patella – (Irregular)		Classify - group or place on a scale based on characteristics/analysis of characteristics
Analyse the <u>importance of the tarsals to a gymnast performing a handstand</u> . (4 marks)		
The carpals are classified as short bones (1) and are found in the wrist (1) . Short bones are box like shapes and are responsible for weight bearing (1) . This is important for a gymnast as when they perform a handstand their body weight is going through the wrists (1) so they need to be strong to hold the position to gain higher marks for presentation (1) .		
Analyse – break something down into its component parts		
YOUR TURN: Identify 3 functions of the skeletal system Explain the importance of long bones during a game of tennis Analyse the importance of the skeletal system during a game of netball.		

Year 7 Spring Religious Studies – Rites of Passage

<u>Key Term</u>	<u>Definition</u>
Baptise	To make someone officially a member of the Christian Church in a service of baptism
Bar Mitzvah	The Jewish coming of age ceremony for boys when they reach 13 years old
Bat Mitzvah	The Jewish coming of age ceremony for girls when they reach 12 years old.
Believer's Baptism	Is when a baptism happens at an older age when the person can make their own promises, often by Baptist denominations.
Brit Milah	The Brit Milah is a Jewish religious male circumcision ceremony performed by a mohel on the eighth day of the infant's life. The Brit Milah is followed by a celebratory meal.
Catholic Church	Sometimes known as the Roman Catholic Church. The largest Christian Church in the world.
Church of England (Anglican Church)	The Church of England is the established church of England. The Archbishop of Canterbury is the most senior cleric, although the monarch is the supreme governor. The Church of England is also the mother church of the international Anglican Communion.
Circumcision	Circumcision is the removal of the foreskin from the human penis. It is performed in some religions as part of their beliefs.
Coming of Age	Coming of age is a term used to describe the transition between childhood and adulthood.
Confirmation	A rite of passage for Christians where they confirm the promises made at their Baptism.
Denominations	Groups or branches within the Christian Church.
Humanism	A belief system based on the principle that people's spiritual and emotional needs can be satisfied without following a god or religion
Khalsa	The body or company of fully initiated Sikhs, to which devout orthodox Sikhs are ritually admitted at puberty
Mitzvah	A Jewish commandment or commitment
Orthodox	Following or conforming to the traditional or generally accepted rules or beliefs of a religion
Protestant	A member of the parts of the Christian Church that separated from the Roman Catholic Church during the 16th century
Reformation	The split between the Catholic and newly-formed Protestant churches in the 16 th Century.

Key Knowledge

What is a 'rite of passage'?

Ceremonies that mark important transitional periods in a person's life, such as birth, puberty, marriage, having children, and death. Rites of passage usually involve ritual activities and teachings designed to strip individuals of their original roles and prepare them for new roles.

What happens at a Humanist Naming Ceremony?

A naming ceremony is non-religious. It gives parents the opportunity to gather with family and friends to welcome their child into the family. Each ceremony is unique but might include poems, songs, and promises to the child.

What happens at a Sikh Naming Ceremony?

A baby will be taken to the Gurdwara soon after its birth. The Guru Granth Sahib is opened on a random page and the first letter of the new verse on this page will be the first letter of the baby's name. Boys will be given the name Singh as part of his name, girls will be given Kaur.

What happens at a Christian Baptism?

In denominations which baptise babies, the baby will be brought up to the font with parents and godparents, A sign of the cross is made on the baby and parents and godparents promise to bring the baby up as part of a Christian Community.

How do Christian beliefs in Original Sin guide their decision to baptise children?

Original Sin is a result of the Fall of Man – when Adam and Eve disobeyed God in the Garden of Eden. By disobeying God, they lost their innocence, and so did the rest of humankind. Some Christians believe that Baptisms cleanse babies of Original Sin. Others believe it is a way of welcoming them to the Church and follow Jesus' example as he was baptised.

What happens at a Jewish Brit Milah?

A Brit Milah is a ceremony which happens when a baby is 8 days old. It is usually held at the Synagogue or at home. At the ceremony the boy is circumcised. It is followed by a celebratory meal.

What happens at a Jewish Bar/Bat Mitzvah?

A Bar Mitzvah happens at 13 years old for boys, and a Bat Mitzvah happens at 12 years old for a girl. They will read from the Torah and participate in the Shabbat service at their Synagogue where they will promise to keep God's commandments.

What is a Christian Confirmation?

This can happen from around the age of seven up to adulthood. At the ceremony a person renews the promises made at their baptism. In Roman Catholic confirmations, the bishop anoints the believer's forehead with holy oil.

Year 7 Topic 2 Chemistry Knowledge Organiser

Tier 2 Vocabulary

Carbon dioxide
Rusting

Tier 3 Vocabulary

Oxidation
Reduction
Decomposition
Equation
Conservation of Mass
Formula
Acids
Alkalis
Neutralisation
Antacid
Oxides
Polymers
Ceramic
Composites

Ceramics - Ceramic means 'of pottery'. Its made out of clay soil, that has been dug out of the ground and heated in a kiln oven.

Composite - A composite is any material made of at least two other materials.

Oxidation – adding oxygen in a reaction.

Copper + Oxygen → Copper oxide

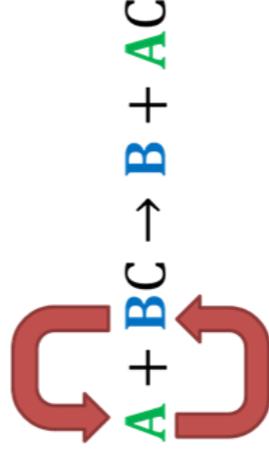
Examples: combustion; rusting

Reduction – removing oxygen in a reaction.

Iron oxide → Iron + oxygen

Examples: extracting meals

Displacement – When a more reactive element pushes a less reactive element out of its compound.



Gas Tests

Gas	Test	Observation
Hydrogen	Lit splint	Squeaky pop
Oxygen	Glowing splint	Relights
Carbon dioxide	Bubble into limewater	Turns cloudy

Naming 2 element compound
The name ending of the second element changes to -ide.

Sodium + Chlorine → Sodium chloride

Naming 3 element compound
The name ending of the third element changes to -ate.

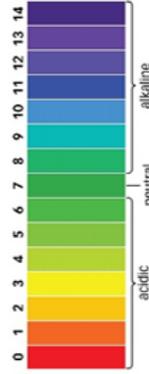
Sodium + sulfur + oxygen → Sodium sulfate

Decomposition – Breaking down a compound. (One compound breaks down into two parts)

Copper carbonate → Copper oxide + Carbon dioxide

Neutralisation

Universal indicator shows the colours of the pH scale:



When an acid reacts with an alkali they form a neutral solution containing a salt and water.

Too much acid in your stomach can cause indigestion. Antacids are used to neutralise the acid.

Formula

$MgCl_2$
2 elements (2 capital letters)
3 atoms (1 x Mg + 2 x Cl)

Forces – A push or a pull that make objects accelerate, decelerate, change direction or change shape.

Examples of forces are: Air resistance, friction, gravity, magnetism, upthrust as well as others.

Contact Forces – Forces that have to touch an object to exert a force.

Friction – Friction occurs when two surfaces rub past each other.



Air Resistance – the air particles hit off the object to slow it down.

Water resistance – the water particles hit off the object to slow it down.

Normal reaction – the force that acts against an object that is sat on a surface.

Non-contact force – Forces that are not required to touch to make them happen.

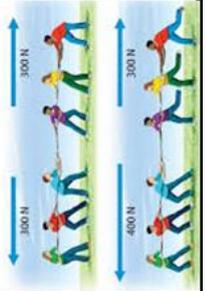
Magnetism – Magnets will try and attract and repel just by bringing them close together.

Gravity – Gravity is a force that pulls an object to the centre of another object.

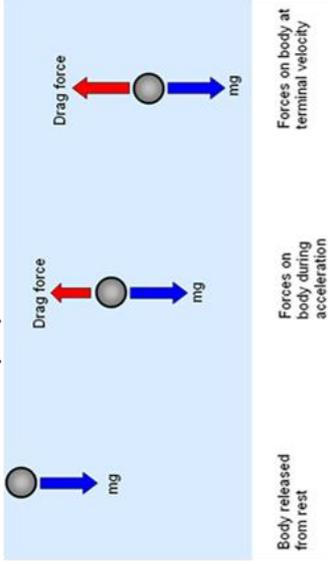


Force Arrows

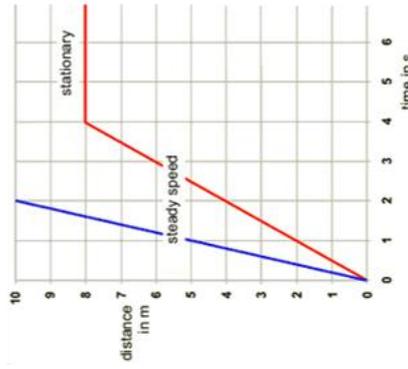
We can use force arrows to show the size of an arrow. Some forces are balanced when the size of the opposing forces are equal. Some forces are unbalanced when the size of the opposing forces are not equal.



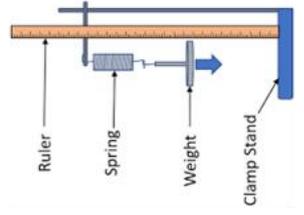
Terminal Velocity – Terminal velocity is the maximum velocity attainable by an object as it falls through a fluid (air is the most common example).



Distance Time Graphs –



Hooke's Law – As more mass is added to a spring, the spring will stretch proportionally.



If something happens proportionally then it will go up or down by the same amount each time.

Year 7 Topic 1 Physics Knowledge Organiser

Tier 2 Vocabulary

- Contact
- Non-Contact
- Terminal
- Parachute
- Extension
- Speed
- Exert
- Balanced
- Unbalanced
- Proportionality

Tier 3 Vocabulary

- Forces
- Resultant Force
- Friction
- Drag
- Air Resistance
- Upthrust
- Water Resistance
- Thrust
- Magnetism
- Normal Reaction
- Velocity

Spanish

Y7 Spring term Knowledge Organiser

Unit 3: El tiempo libre – Free time

Key spellings	
Learn these spellings, they will be really useful for this unit and you will be tested on them.	
1. hago	I do
2. juego	I play
3. me gusta	I like
4. no me gusta	I don't like
5. porque	because

¿Qué haces en tu tiempo libre?	What do you do in your free time?
bailo	I dance
canto karaoke	I sing karaoke
hablo con mis amigos	I talk with my friends
monto en bici	I ride my bike
saco fotos	I take photos
toco la guitarra	I play the guitar
What do you think <u>escucho música</u> and <u>mando SMS</u> mean?	

Los días de la semana	Days of the week	Time phrases
lunes	Monday	a veces sometimes
martes	Tuesday	de vez en cuando from time to time
miércoles	Wednesday	nunca never
jueves	Thursday	a menudo often
viernes	Friday	todos los días every day
sábado	Saturday	
domingo	Sunday	

Key vocabulary and questions

¿Qué te gusta hacer?	What do you like to do?
Me gusta...	I like...
Me gusta mucho...	I really like...
No me gusta...	I don't like...
No me gusta nada...	I really don't like...
chatear	to chat online
escribir correos	to write emails
escuchar música	to listen to music
jugar a los videojuegos	to play video games
leer	to read
mandar SMS	to send texts
navegar por Internet	to surf the internet
salir con mis amigos	to go out with friends
ver la televisión	to watch TV
¿Por qué?	Why?
porque es...	because it's...
porque no es...	because it's not...
interesante	interesting
guay	cool
divertido	fun/funny
estúpido	stupid
aburrido	boring
Always remember to justify your opinion with <i>porque</i> and a reason.	

Infinitive verbs

In English, infinitive verbs translate as 'to do', 'to eat', 'to go' etc.

In Spanish, there are 3 types of infinitive verb. They each have a different ending:
-AR (escuchar, mandar) **-ER** (leer, ver) **-IR** (salir, escribir)

Remember – no capital letters!

¿Qué tiempo hace?	What's the weather like?
En primavera...	In spring
En verano...	In summer
En otoño...	In autumn
En invierno...	In winter
hace buen tiempo	the weather is good
hace mal tiempo	the weather is bad
hace calor	it's hot
hace frío	it's cold
hace sol	it's sunny
llueve	it rains/it's raining
nieva	it snows/it's snowing
¿Qué haces cuando llueve?	What do you do when it's raining?
Cuando llueve...	When it's raining...

Key grammar	
The present tense -AR verbs	
Use the present tense to talk about things you normally do, or things that are happening right now (I dance/I am dancing).	
To form the present tense for regular -AR verbs:	
1.	Remove the -AR ending from the infinitive.
2.	Add the correct ending from the table below
e.g Chatear – Chateo = I chat Mandar – Mando = you send	
Bailar	
bailo	I dance
bailas	You dance
baila	He/She/It dances
bailamos	We dance
bailáis	You (pl.) dance
bailan	They dance

The verb HACER (To do)	
hago	I do
haces	you do
hace	he/she/it does
hacemos	we do
hacéis	you (pl) do
hacen	they do

The verb JUGAR (To play)	
juego	I play
juegas	you play
juega	he/she/it plays
jugamos	we play
jugáis	you (pl) play
juegan	they play

¿Qué deportes haces? What sports do you do?		
Hago...	I do...	Juego al...
artes marciales	martial arts	baloncesto
atletismo	athletics	fútbol
equitación	horse riding	tenis
gimnasia	gymnastics	voleibol
natación	swimming	rugby
ciclismo	cycling	hockey
esquí	skiing	golf
Can you use a dictionary to look up more sports to add to the list?		

Key spellings	
Learn these spellings, they will be really useful for this unit and you will be tested on them.	
1. español	Spanish
2. estudio	I study
3. aburrido	boring
4. hay	there is/are
5. divertido	fun

Key vocabulary and questions

¿Qué estudias?	What do you study?
Estudio...	I study
No estudio...	I don't study
Estudiamos...	We study...
inglés	English
dibujo	art
español	Spanish
francés	French
alemán	German
teatro	drama
informática	IT/Computing
tecnología	design technology
geografía	geography
historia	history
religión	RE
educación física	PE
ciencias	science
matemáticas	maths
idiomas	languages

¿Qué te gusta?	What do you like?
Me gusta (mucho)...	I (really) like...
No me gusta (nada)...	I (really) don't like...
Me encanta...	I love...
Prefiero...	I prefer...
Odio...	I hate...
Me gustan...	I like... (plural)
No me gustan...	I don't like... (plural)
Me encantan...	I love... (plural)

¿Por qué?	Why?
Porque es...	Because it is...
Porque son...	Because they are...
aburrido/a(s)	boring
divertido/a(s)	fun
práctico/a(s)	practical
difícil(es)	difficult
fácil(es)	easy
útil(es)	useful
importante(s)	important
interesante(s)	interesting

¿Cómo es tu insti?	What's your school like?
Mi insti es/no es...	My school is/isn't...
bonito	pretty
antiguo	old
bueno	good
feo	ugly
grande	big
pequeño	small
moderno	modern

When using opinions in Spanish, remember to use the article (e/la/los/las) and add n for plurals:

¿Te gusta el dibujo? Me encanta la religión.

¿Te gustan los idiomas? No me gustan las ciencias

¿Cómo son tus profes?	What are your teachers like?
La profesora es...	The teacher (female) is...
El profesor no es...	The teacher (male) isn't...
raro/a	odd
severo/a	strict
paciente	patient
What other personality adjectives can you remember from unit 1?	

Key grammar

The present tense -ER/IR verbs

To form the present tense for regular -ER/-IR verbs:

1. Remove the -ER/IR ending from the infinitive.
2. Add the correct ending from the table below

e.g

Beber – Beb – Bebo = I drink	Escribir – Escrib – Escribes = you write	Comer	To eat	To eat	To write
como	escribo	como	I eat	escribo	I write
comes	escribes	comes	You eat	escribes	You write
come	escribe	come	He/She/It eats	escribe	He/She/It writes
comemos	escribimos	comemos	We eat	escribimos	We write
coméis	escribís	coméis	You (pl.) eat	escribís	You (pl.) write
comen	escriben	comen	They eat	escriben	They write

¿Qué haces durante el recreo?	What do you do at break?
Durante el recreo...	At break time...
Como...	I eat...
un bocadillo	a sandwich
fruta	fruit
unos caramelos	some sweets
una chocolatina	a chocolate bar
unas patatas fritas	some crisps/chips
Como chicle	I chew gum
Bebo...	I drink...
agua	Water
un refresco	a fizzy drink
un zumo	a juice
Leo mis SMS	I read my texts
Escribo SMS	I write texts
No hago los deberes	I don't do homework

¿Qué hay en tu insti? What is there in your school?

En mi insti hay...	In my school there is/are...
No hay...	There isn't/aren't...
un campo de fútbol	a football field
un comedor	a dining hall
un gimnasio	a gym
un patio	a playground
una biblioteca	a library
una piscina	a pool
unos laboratorios	some laboratories
unas clases/aulas	some classrooms

KS3 Knowledge Organiser – Year 7 Timbers and Boards

Wood
(Often used as a general term)



Natural Wood (Cut from a Tree)

Man Made Boards
(Manufactured from natural wood sheets, pieces or fibres to create a board such as MDF, Plywood and Chipboard.)

Types of Wood

Natural wood can be divided into two groups: Hardwood and Softwood. The properties shown below are generally true for each group

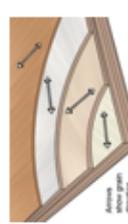
Hardwood	Softwood
<ul style="list-style-type: none"> From trees with broad leaves Slow growing More Expensive Close grain Considered more attractive More moisture resistant (less likely to rot) Denser Heavier Harder to cut An example would be Oak 	<ul style="list-style-type: none"> From trees with needles 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.



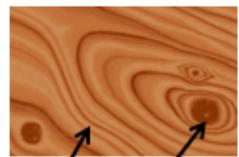
Age of a Tree

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.

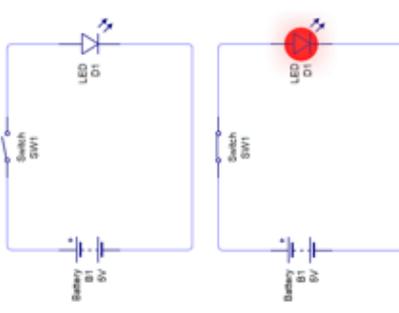
Hardwood	
Advantages	Disadvantages
Good Aesthetics (looks good)	Generally harder to cut and shape
Extremely durable	More expensive
Softwood	
Advantages	Disadvantages
More sustainable (trees grown quicker)	Can be knotty
Easier to cut and shape	Weaker, less durable
Cheaper	
MDF – Medium Density Fibreboard	
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

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
---------	--------	-----

HAND TOOLS USED

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

MACHINERY USED

	Scroll Saw	
	Disc Sander	
	Pillar Drill	



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.

KS3 Knowledge Organiser – Year 7 Health & Safety

Health and Safety:

Safe use of tools and materials is vital to everyone in the chain of production. Employers have a duty of care to ensure everyone is adequately trained to use tools and equipment.

Health and Safety:

Personal protective equipment (PPE) must be worn where recommended:

Health and Safety Rules

- Never enter a workshop without a member of staff present! You may be at risk of injuring yourself or others.
- Always put bags in basket – trip hazard
- Remove blazers and jumpers for a practical so you do not damage them. Or get them caught in machinery.
- Remove tie for every practical – so it does not get caught in machines.
- Put chairs away during all practical work—trip hazard.
- Do not touch machines and equipment – you could injure yourself.
- Tie back long hair to prevent it from being caught in machines.
- Always wear goggles so you don't injure your eyes when using machines.
- No running so you don't hurt yourself or other people.
- Always wear an apron so you do not damage your clothes.
- Watch and listen to teacher demonstrations so you know how to follow the practical task. If you do not pay attention you may injure yourself or other people.
- Only one person uses/operate machinery at a time. To prevent injury to yourself or others.

Stools & bags away
Trip Hazard

Long hair tied up
Trip Hazard

Ties, blazers and jumper removed
to protect clothing

Aprons on
to protect clothing

Goggles on all machinery
to protect eyes



Examples of using PPE

- ❖ Protective gloves and aprons for work with heat, eg brazing metals
- ❖ Goggles where there may be splashing or splinters, eg chemical use or using machinery
- ❖ Chainmail gloves when cutting with a fast-moving blade
- ❖ A thimble to offer protection from puncture wounds when sewing through thick materials by hand
- ❖ Ear protection when using or working around noisy equipment
- ❖ Dust mask when spray painting or routing wood
- ❖ A lot of safe working practice is common sense, such as tying hair back or tucking in loose clothing, but it is important that workers follow the rules set out by their employer:
- ❖ Machines cannot be left unattended
- ❖ All machines need to be fitted with an isolating switch, which needs to be switched off when changes are being made, e.g. swapping a drill bit
- ❖ Guards and dust extraction should be fitted where possible
- ❖ Work should be clamped down when cutting to avoid the risk of movement
- ❖ Tools should be stored safely when not in use
- ❖ Signage must be in place where there may be a health and safety risk

Emergency Stop Buttons

are wired in series with the control circuit of machinery. When pushing the mushroom head of emergency stop button will break the circuit of machinery equipment and removes power supply from the circuit energized



Hazard Warning Tape

Only one person allowed in the box to operate machinery safely



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.

Signage:

Safety signage can also be used to warn of potential hazards, indicate the location of the nearest emergency exit, first aid facility or fire fighting equipment. Effective safety signage can restrict access, ensure that personal protective equipment is worn, or convey that fire exit doors should be kept clear.

Signage	
	Hearing Protection <u>Mandatory</u>
	Breathing Protection <u>Mandatory</u>
	Protective footwear <u>Mandatory</u>
	Protective Gloves <u>Mandatory</u>
	Eye Protection <u>Mandatory</u>
	Caution Trip Hazard <u>Warning</u>
	Flammable Substance <u>Hazards</u>

Year 7 KS3 Design & Drawing Skills

Design Brief
Is a short description of the design problem and how it is to be solved. Written in a few sentences.

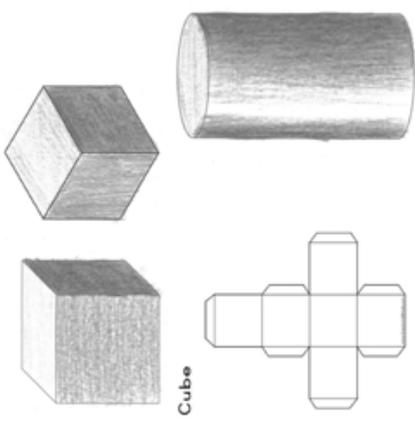
Assessment:

- Retrieval Practice – quizzing, starter/plenary tasks
- Formal knowledge assessments – delivered in time with reporting
- D&T practical skills assessed after every practical (P, D, C, E)

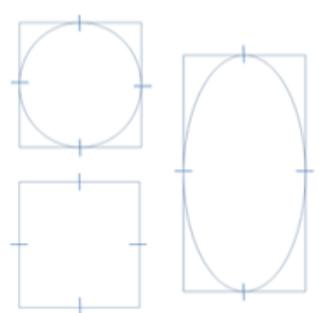
Freehand Sketching

- Producing drawings without using a ruler
- It helps you to explain your ideas clearly and get your thoughts down on paper quickly
- Always use a sharp pencil and hold your pencil loosely
- Use light, sweeping strokes

3 Dimensional Shapes & Nets
Cube, cuboid, cylinder



Shapes
Horizontal, vertical lines, Square, Circle, Ellipse.



Fonts
Weight, Spacing, Lower case and upper case

Script
a b c d e

Sans Serif
a b c d e

Serif
a b c d e

Typography
Pet

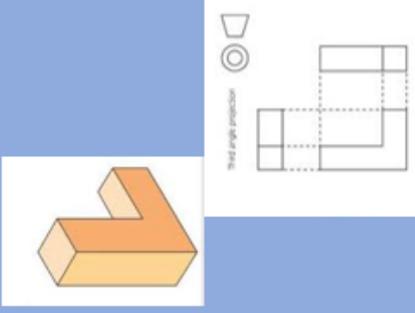
Tasks:
Learn about smart and composite materials. Design skills, fonts, Understand the properties of paper and card. Innovative packaging concepts

Tonal Shading:
Shading can make your sketches look more realistic
Coloured pencils are used – never felt tip pens
Different tones of colour can be achieved by using different amounts of pressure

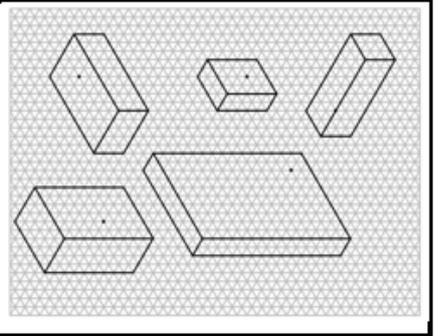


Iterative Design Process
Used to explore a range of design ideas.
Produce sketches and models.
Design cycle
Each stage is tested and evaluated.
Design
Stops design fixation. Creates new and exciting/innovative ideas

Orthographic Projection



Isometric Drawing
Is a way of presenting designs/drawings in three dimensions. In order for a design to appear three dimensional, a 30 degree angle is applied to its sides.



Year 7 KS3 Smart Materials & Composites

What are Smart Materials:

Have a property that changes in response to an external stimulus. This change is reversible if the stimulus changes again. A smart material is one that reacts to its environment all by itself.

Assessment:

- Retrieval Practice – quizzing, starter/plenary tasks
- Formal knowledge assessments – delivered in time with reporting
- D&T practical skills assessed after every practical (P, D, C, E)

Polymorph

Polymorph is a biodegradable polyester thermoplastic. It is a thermoplastic and can be reshaped (repeatedly) when hot but sets when cold.

When in its set form is an opaque white colour.

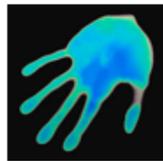
When added to boiling hot water the granules turn transparent and start to join together.

Once removed from the hot water the polymorph is soft and malleable and can be easily moulded.

Thermochromic

Reacts to the temperature of heat/water/human heat.

Resistance to current in batteries produces heat, to change the properties of the thermochromic (change) material.



Photochromic

Examples of paint pigment that changes colour when exposed to Ultra Violet (UV) light.

microcapsules in a powder pigment form. ... Photochromic powders are colourless in their inactivated state and become coloured when exposed to an ultraviolet light source.

They will also respond to natural sunlight.



Smart Putty

It is malleable and soft to touch.

Yet when subjected to shock loading such as being hit with a hammer or falling from a height it behaves as though it is hard.

Motorcyclist body armour and protective cases for expensive devices.



Shape Memory Alloy

If bent or distorted will change to their original shape when heated.

They are used for spectacle frames, which if accidentally bent can be heated and returned to their original shape.



Ferro Fluid

Are made up of tiny magnetic fragments of iron suspended in oil.

Each of the points is a line of the magnetic field.



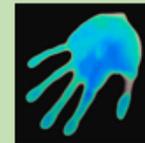
Key Facts:

The external stimulus could be, for example, temperature, light, moisture, stress or ph.

Key Facts:

- This change may show itself by:
- A change in volume (shape & size)
- A change in colour
- A change in viscosity (thickness)
- This change may be caused by:
- A change in temperature
- A change in light levels
- A change in stress (pressure)
- An electrical current or
- magnetic field

Smart Materials:



Tasks:
Learn about smart and composite materials. Design skills, fonts, Understand the properties of paper and card. Innovative packaging concepts

Composites

Combine the properties of two or more materials. Weight for weight, a carbon-fibre-reinforced can have up to six times the strength of steel. Unlike alloy, the materials are not mixed at a chemical level.

Fibreglass: car body parts, carbon-reinforced polyester for tent poles and high performance bike frames and sprits equipment



Year 8 – Textiles, Plastic, Metal CAD & Electronics

Year 7 KS3 Paper and Board

Standard Sizes and Forms:

Paper is available in sheet, ply or rolls. Colours. Size A0-A1 used in schools.
The weight of paper and card – GSM Gram Square Metre (the thickness of paper – card). Normal paper is 80gsm .

Tracing Paper

- Relatively hard
- Translucent
- 50-90gsm
- Working drawings
- Tracing- replicate/copy



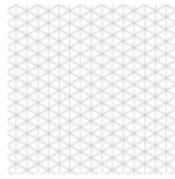
Cartridge Paper

- Tough
- Lightly textured
- Light in colour/white
- 100-150gsm
- Drawing and painting
- Printed flyers
- Leaflets



Grid Paper

- Printed square
- Isometric grids
- 60-100gsm
- Quick sketches
- Model making



Corrugated Cardboard

- Two or more layers
- Interlocking fluted inner sections
- Strength
- Light weight
- Recycled material
- Dark brown
- 250gsm
- Boxes
- Packaging

Duplex Board

- White surfaces
- Grey fibres between layers
- Waxed lining
- Absorbent
- Tough
- May include additives to prevent moisture
- Can not be recycled
- Food packaging



Solid White Board

- Strong
- High quality
- Pure
- bleached white pulp
- Book covers
- Expensive
- packaging
- Dyed

Assessment:

- Retrieval Practice – quizzing, starter/plenary tasks
- Formal knowledge assessments – delivered in time with reporting
- D&T practical skills assessed after every practical (P, D, C, E)

Key Facts:

Paper & card are made from cellulose fibers derived from wood and grasses.

Key Facts:

- Chemical are added to clean and produce texture to paper and card.
- Wood pulp is sourced from trees. New trees are planted to replace felled (cut trees).
- Most paper can be recycled and mixed with wood pulp.
- Recycled paper can not be used for food packaging.
- Is biodegradable.

Tasks:

Learn about smart and composite materials. Design skills, fonts, Understand the properties of paper and card. Innovative packaging concepts

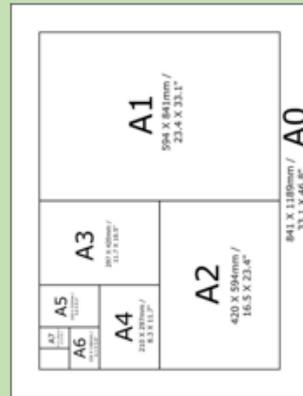
Manufacturing of Paper



Paper Sizes:



Foil-lined trays keeps heat, ready-meals



Year 8 – Textiles, Plastic, Metal CAD & Electronics

Year 7 KS3 Electronics and Soldering

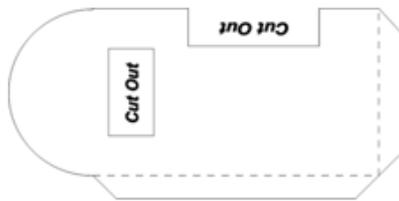
Design Specification

A list of measurable design criteria that the product must meet. Aesthetics (looks like/appearance), safety, size, function, materials, environment, client

Key Words:

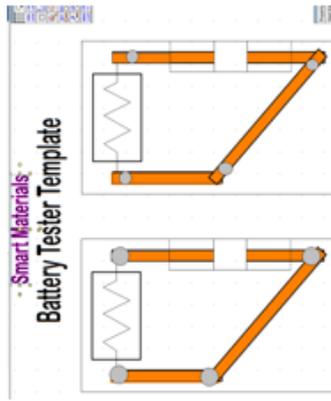
Conductor – Copper, steel, aluminum creates an excellent conductive path for electric current to flow
Insulator – fabric, wood, plastic prevents the flow of electricity

Design/Product



Battery Tester Circuit Board

The grey circles represent the solder and how it **must overlap** on the copper strips! The right diagram is the correct example.



Copper

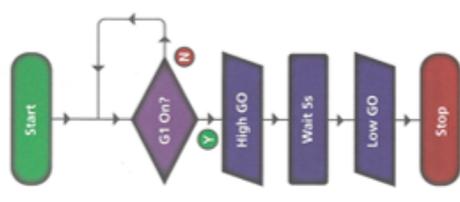
is soft and easily bent and so is a good conductor of electricity, which makes it useful for wiring. Copper is also a good conductor of heat and it does not react with water. Great for plumbing.



Solder

is a type of brazing which works at lower temperatures. Soft soldering is used to make permanent joints between copper, brass, tinplate or light steelwork
 Normal way of joining electronic circuit components.
 Soft solder melts at about 200°C.
 Flows into the heated metal along the joint

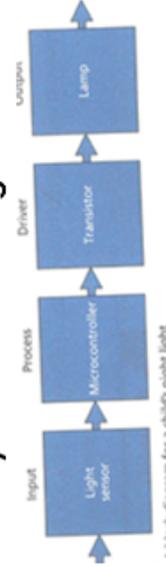
Flowchart



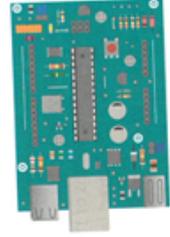
Electronic System Components

Component Name	Circuit Symbol
Push to make switch	
Light dependent resistor	
Thermistor	
Microcontroller	
Buzzer	
Speaker	
Lamp	

Systems Block Diagrams



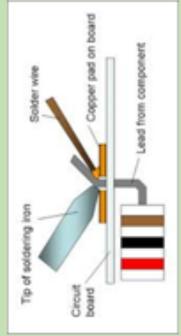
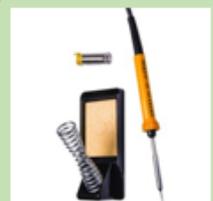
A block diagram for a child's night light



An Electronic System Printed PCB Circuit Board (PCB)

Health and Safety Soldering:

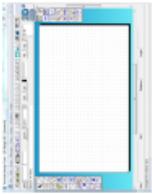
Never touch the element or tip of the soldering iron. They are very hot (about 400°C) and will burn. Hold wires to be heated with tweezers or clamps. ... Always return the soldering iron to its stand when not in use



KS3 Knowledge Organiser – Year 7 CAD/CAM

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

Drawing Aides and Tools:

Grid: Dots on the grid are 10mm apart
1cm = 10mm

Group / Ungroup

Save

Remember: 2D Design can only undo ONCE!

DEL ANY will delete a whole object, the DEL part tool will delete a line to where it intersects another line. If you hold the mouse button down over a tool you will be offered a variety of options.



Garage Keys

- Black = Laser engrave
- Laser moves quickly at a low power
- Red = Laser cut
- Laser moves slowly at high power

Other colours can be set up and used as required

Materials suitable for laser cutting:

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



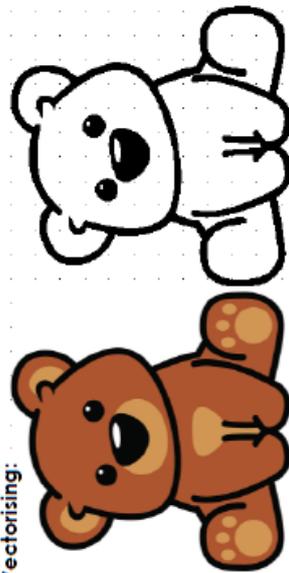
How to ensure a closed boundary:

Overlap lines and 'Delete Part'

Use the 'Attach' tool

'Edit' the lines and join the nodes

Vectorising:



Bitmap Image
Full Colour

Vector
Monochrome = Black and White

Manipulating an Image:

Mirror X Axis

Mirror Y Axis

Rotate

Copy

Resize
Hold shift to keep the Aspect Ratio the same. The length and height change equally.

Notes Page

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Notes Page