Year 7 Knowledge Organiser

Summer Term 2020/21

Name:

Form:

West Norfolk Academies Trust

Contents Page

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.

How to self-test with your Knowledge Organiser

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

The Importance of Self-testing

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

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

Look, Cover, Write, Check, Correct

This should be familiar to you from primary school.

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

Questions/Answers, Answers/Questions

Ask a parent, carer, study partner to write you questions (or answers) and then you write the answer (or possible question that would respond to that answer).
You can also write your own questions but if you do this leave it until the next day before you answer them to see what you can remember after a break.

Always remember to check and correct

Flashcards

These are a very good and simple self-testing tool.
To make your own, take some card and cut into rectangles roughly 10cm x 6cm.
Write the key word on one side and the definition on the other.
Then go through your cards looking at one side and seeing if you can remember the keyword/definition on the other side.

Mind Maps

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

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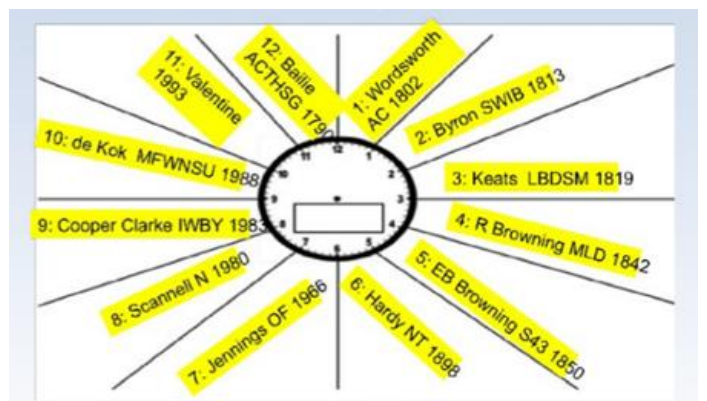

Clock Learning

For this technique, draw a basic clock.
Take a subject or topic and break it down into 12 sub-categories.
Make notes in each segment of the clock. Revise each part for 5 minutes.
Now the clock over and try and write out as much information as you can from one of the segments.

Clocks can also be used to help to visualise a timeline

Homework log and parental check

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

Homework log and parental check

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

Reading log

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

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

Reading log

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

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

Art – Installation:

Art Specific Language and Terms

Installation	Installation art is a type of three-dimensional work that is often site-specific and designed to transform the perception of a space.	**Collaborative Art**	Collaborative art is artwork that involves working as a team to create art, and each person contributes in some significant way to the artwork.
Sculpture	Sculpture is three-dimensional art made by one of four basic processes: carving, modelling, casting or constructing.	**Contemporary Art**	Contemporary art is the art of today, produced in the second half of the 20th century or in the 21st century.
Mix Media	Mixed media is a term used to describe artworks made from a combination of different media or materials.	**Scale**	Scale refers to the size of an object in relationship to another object.

Jacob Hashimoto
Swarm Theory
2013

Cornelia Parker
Cold Dark Matter:
An Exploded View 1991

Contemporary Installation Art:

Rafael Gómezbarros
Casa Tomada
2013

Pascale Marthine Tayou
Plastic Bags
2019

Art – Installation:

Art Specific Language and Terms

Conceptual	Conceptual art is art for which the concept (idea) behind the work is more important than the finished art object.	**Contextual**	Contextual Information. Specific to artwork, context consists of all of the things about the artwork that might have influenced the artwork or the artist but which are not actually part of the artwork. Contextual information can deepen and improve our understanding of an artwork.
Contemporary Art	Contemporary art is the art of today, produced in the second half of the 20th century or in the 21st century.	**Exhibition**	An art exhibition is traditionally the space in which art objects meet an audience.

What is an Installation?

Installation artworks often occupy an entire room or gallery space that the spectator has to walk through in order to engage fully with the work of art. Some installations are designed simply to be walked around and contemplated, or are so fragile that they can only be viewed from a doorway, or one end of a room. What makes installation art different from sculpture or other traditional art forms is that it is a complete unified experience, rather than a display of separate, individual artworks. The focus on how the viewer experiences the work and the desire to provide an intense experience for them is a dominant theme in installation art.

When did Installation Art begin?

Installation art began in the late 1950's when artists like Allan Kaprow started creating environments. From the 1960s the creation of installations had become a major strand in modern art. This was increasingly the case from the early 1990s when the 'crash' of the art market in the late 1980s led to a reawakening of interest in conceptual art. Miscellaneous materials (mixed media), light and sound have remained fundamental to installation art.

Allan Kaprow
Yard
1961/2014

Y7 CITIZENSHIP KNOWLEDGE ORGANISER

Human Rights and Me!

Discrimination
Treating someone unfairly as a result of prejudice.

Human rights
The basic rights and freedoms that belong to every person in the world, from birth until death.

Civil Liberties
These are like human rights but provide additional protection from the government. For example, Freedom of Speech.

Racism
Racism is the belief that people of a certain race are inferior. It can be both prejudice (feelings) and discrimination (actions).

Gender Equality
Making sure that all people, of all genders are treated equally and are given equal opportunities in life. For example in politics or education.

Prejudice
Negative thoughts and feelings towards a person because of their age, gender, race or religion which are not based on real experience.

Children's Rights
Human Rights which have been created especially to protect and support children all around the world.

The right to life.

Why do we have Human Rights?

The Universal Declaration of Human Rights is a document which states a list of rules and rights which every person is entitled to.

It was written by people from all around the world, a group of people known as the UN (United Nations) in 1948.

The right to free speech.

The right to a fair trial.

The right to an education.

Freedom from slavery.

Freedom of thought, religion and belief.

Key people in the fight against racism…

Racism is still an issue in modern society but throughout history there have been some key people who have made a huge impact on improving the issue.

Rosa Parks – civil rights activist who boycotted using a segregated bus in USA.

Malcolm X – civil rights campaigner who fought for equality between black and white people.

Martin Luther King Jr – campaigned for integration between black and white people using peaceful methods.

RACISM CASE STUDY The Murder of Stephen Lawrence

Stephen Lawrence was only 18 years old when he was stabbed and killed in a racist attack whilst waiting for a bus with his friend. There was a lot of controversy surrounding Stephen's death; firstly due to the incompetent way the police dealt with the crime and secondly because the people who committed the crime were not convicted until 2012, this was 19 years after Stephen was brutally murdered!

Stephen's friends and family never gave up and campaigned tirelessly for years to get justice for Stephen and other victims of racist attacks. Stephen's mother, Baroness Doreen Lawrence went on to campaign for equality for black people and for other victims of racist crime; she was even made a member of the House of Lords for all of her hard work and contributions to equality and racism in the UK.
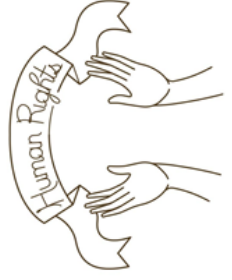
Did you know?

There are 30 articles that make up the Universal Declaration of Human Rights!

Making connections

How can you link different topics together?

Human Rights + democracy
Children + education + rights
Community + equality + active citizen

Y7 CITIZENSHIP KNOWLEDGE ORGANISER

Human Rights… how do they work?

Human rights are **universal**. This means they apply to **everyone** – no matter who they are or where they are from. Human beings are no matter who they are or where they are important and are all worthy and important of their **human** all worthy to have all of their **rights** met.

FREEDOM

The ability to act, speak or think as one thinks.

But what does it mean to be free?

Freedom to protest and show that you are unhappy with something.

Freedom to move around the country or around the world!

Freedom to follow whatever religion you like, or no religion at all!
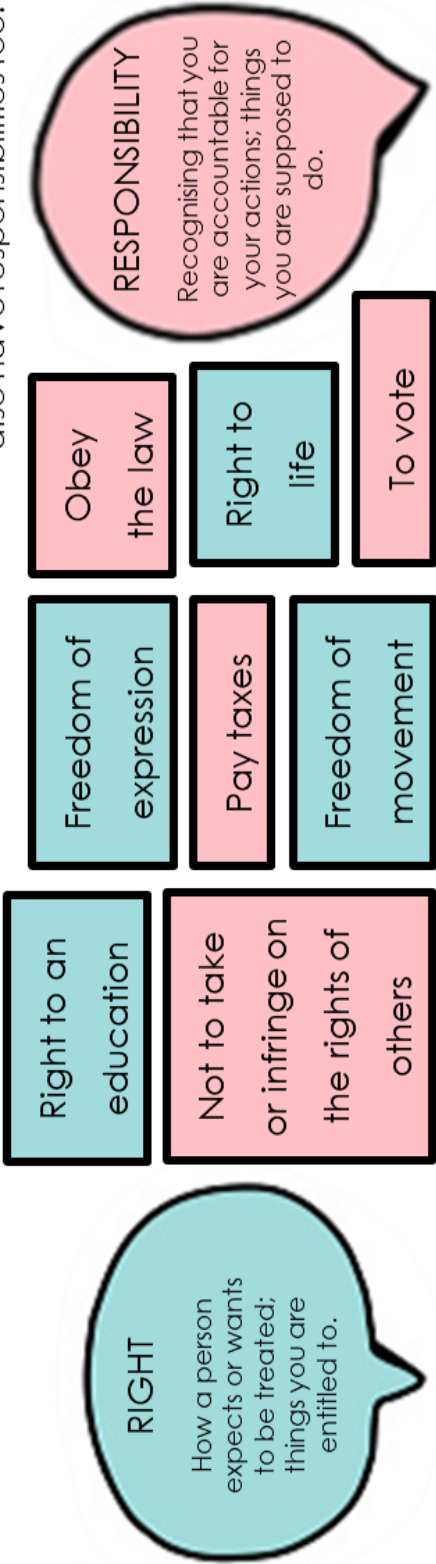
Freedom to join a political party or another group of your choice.

Freedom to choose your own lifestyle and hobbies.

Freedom of the press to print any article that they think the public should read.

Rights vs Responsibilities

All people have rights, which enable them access to certain freedoms but as citizens we also have responsibilities too.

RESPONSIBILITY
Recognising that you are accountable for your actions; things you are supposed to do.

Obey the law

Right to life

To vote

Freedom of expression

Pay taxes

Freedom of movement

Right to an education

Not to take or infringe on the rights of others

Human rights give us freedoms that enable us to live a good life. Some countries do not value Human Rights which means their citizens are not as free as we are here in the UK. A country's government must respect Human Rights in order for its citizens to live in FREEDOM.

RIGHT
How a person expects or wants to be treated; things you are entitled to.

The Human Rights of Children

There are 45 articles which outline specific human rights that **children** are entitles to, some of them include…

12 RESPECT FOR CHILDREN'S VIEWS
Children have the right to give their opinions freely on issues that affect them. Adults should listen and take children seriously.

13 SHARING THOUGHTS FREELY
Children have the right to share freely with others what they learn, think and feel, by talking, drawing, writing or in any other way unless it harms other people.

19 PROTECTION FROM VIOLENCE
Governments must protect children from violence, abuse and being neglected by anyone who looks after them.

31 REST, PLAY, CULTURE, ARTS
Every child has the right to rest, relax, play and to take part in cultural and creative activities.

13

Computing – Scratch Key Knowledge

Key Vocabulary

Sprite	This is an object in Scratch. Scratch the cat is a sprite. Sprites can have commands
Hide	Makes the sprite disappear.
Show	Makes the sprite appear.
Stage	The area that can be seen when scratch is ran.
Backdrop	Background displayed on your Scratch stage.
Costume	A different appearance of a sprite.
Cartesian Coordinates	Use to pinpoint a location using x and y values (see below)
X axis	Horizontal axis. From left to right. 0 is in the middle.
Y axis	Vertical axis. From top to bottom. 0 is in the middle.
Algorithm	A step by step series of instructions to solve a problem
Repeat	A repetition of an instruction a set number of times
Forever	This creates a loop (iteration) that repeats a command over and over again.
If	This is a decision in programming. Performs one thing if a criteria is met.
Elif	This is an extra choice when using an If Statement (Else If)
Else	As in Elif. This performs a different task based on the if statement.
Broadcast	Sends a message to Scratch to say that something has happened.
Receive	Performs a task when a 'Broadcast' is received.
Operators	Mathematical elements such as +, -, *, / meaning plus, subtract, multiply and divide.
Conditional Operators	Mathematical elements such as =, <, > meaning equal to, less than, greater than.
Variable	A stored value that can change (for example score)
Debug	The process of identifying and removing errors in your code.

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.

=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

Computing – Introduction to text based programming keywords

Input	Any information or data sent to a computer for processing eg entering data by a keyboard
Output	Data generated by a computer such as the result of a calculation
Variable	A value that can change during the running of a program
Constant	A value that does not change during the running of a program
Sequence	Instructions are executed one after the other
Iteration	Instructions are repeated a specified number of times or until a condition is met
Syntax error	Mistakes in the way the code is written e.g. misspelling a command word such as print
Logic error	Program works but produces an unintended result e.g. multiplying instead of dividing
Debugging	The process of finding and resolving defects or problems within a computer program that prevent correct operation.
Selection	A decision where choices need to be made usually using IF statements
Program	A set of ordered instructions to solve a problem
Condition controlled loop	Code that is repeated until a condition is met
Operator	A symbol that usually represents an action or process eg != meaning not equal to
Comment	A text note to explain the code.
Module	Code that other people have written to save you having to write it yourself e.g. turtle
Procedure	A set of instructions stored under a name so they can be easily reused
IDE	Integrated development environment used to write code, test for errors and translate a program
Count controlled loop	Code that is repeated a set number of times

Drama-Constantin Stanislavski 1863-1938

Stanislavski was a Russian theatre practitioner famous for creating a system of acting.

Naturalism Vs Realism….

Naturalism - refers to theatre that tries to create a perfect illusion of reality by use of a range of dramatic and theatrical strategies.

Realism - **Realism** in the **theatre** was a general movement that began in 19th-century **theatre**, around the 1870s, and remained present through much of the 20th century. It developed a set of dramatic and **theatrical** conventions with the aim of bringing a greater fidelity of real life to texts and performances.

Both are a style of theatre that aims to mimic real life. Characters, stories, costumes and set designs should all appear as if the audience is watching real life, not a performance. This is what Stanislavski was aiming for in his theatre.

- 4th Wall
- Naturalism
- Magic If
- The System
- Method Acting
- Given Circumstances
- Realism
- Imagination
- Feeling of Truth

Stanislavski's 8 Questions

1. **Who am I?**
   Think about what your character is like in terms of personality.

2. **What are my given circumstances?**
   Think about your recent past and how this has affected you and brought you to where you are.

3. **What are my relationships?**
   Think about your relationship with other characters, events and things that surround you.

4. **What is my objective? Why?**
   This is what you want, your motivation or reason for action.

5. **What must I overcome?**
   This is the problem that is stopping you from getting your objective; what you need to overcome to reach your goal.

6. **What is my action?**
   This is what you do to overcome your obstacle and attempt to reach your goal.

7. **What is my super objective?**
   This is your main or overall goal throughout the whole play.

8. **What is my through line of action?**
   These are the links in all of your objectives that drive it to the super objective.

Key Concepts

4th Wall	It is an imaginary wall at the front of the stage separating the audience from the actors which allowed for Stanislavski's method called the suspension of disbelief to take place.
Magic If	The magic word of 'IF' opens up many possibilities for the actor to 'create a whole new life' of stimulating emotions. What would I do if …..happens?
Given Circumstances	The given circumstances are the information about the character that you start off with and the play as a whole. How old is the character? What's their situation in the play and in relation to the other characters? Are there any notes provided about the play and its characters? Such notes and stage directions may not tell you everything you need to build a character but they are the starting point.
Emotional Memory	An actor's store room. Remembering feelings and emotions that they have had and felt, strengthens their characterisations.
Accentuation	Emphasising the incorrect word in a sentence changes the context and meaning of the whole story. Being clear of what to accentuate is vital, so that the correct meaning and atmosphere is communicated.
Imagination	"…when you begin to study each role you should first gather all the materials that have a bearing on it, and supplement them with more and more imagination…" You must use your imagination to discover your character.
Feeling of truth	This is a state of mind that can't be learnt….The actor MUST believe in what they are doing for the audience to believe.
Tempo and Rhythm	There is an inner and an outer tempo and rhythm. He linked tempo to the speed of an action or feeling and the rhythm to the intensity or depth of the experience.

Drama- Kneehigh 1980's - Present

Kneehigh are from Cornwall, England. Their founder and creator is Mike Shepherd. They are a touring company that performs in different locations, such as clay pits, marquees, cliff-tops, woods. They are a storytelling company and they like to tell Folk & Fairy tales. Their performances are interactive and they require an audience response. They always work as an ensemble.

Key Features of a Kneehigh performance…

- Physical Theatre- actors use their bodies in inventive ways to make objects
- Live Music
- Songs
- Ensemble work
- Puppetry
- Mask
- Improvisation
- Clowning
- Costume
- Grotesque & Comedy elements

- Dance
- Animation
- Stunts
- 'Clocking' the audience
- Direct address
- Chorus work
- Audience interaction
- Theatre in the round (sometimes)
- Pre show activities (as audience arrive)
- Exaggerated characters
- Gender swapping

Further Reading www.kneehighcookbook.co.uk

Kneehigh - Hansel & Gretel

- First performed in 2009
- Adapted (from the original Grimm tale) by Carl Grose
- Use of talking puppet animals
- Supernature Chorus (Supernature means beyond the rules of nature e.g. magic, transformations or unusual happenings)

The Key Themes of the Performance are
- Family
- Famine
- Fear & Survival
- Abandoned Children
- Witches

Follow the link for the trailer
https://www.youtube.com/watch?v=TyHKir0CfeE

Vocabulary	Definition
Body As Prop	Using your body in performance to make props. Actors should be able to use these in their performance.
Columbian Hypnosis	Involves students working in pairs to lead one another through a space as one participant follows another participant's hand. This activity requires trust, awareness, and non-verbal communication as students work together to move safely through the space.
Choral Speech	All speaking as one.
Narration	Narration is recounting of events and actions that have happened or are currently happening on the stage, it is done by one of the actors in the performance as the narrator.
Direct Address	Directly speaking to and involving the audience.

Studying English is about thinking, noticing, exploring, creating...

Genre & Theme

Genre refers to the category a text belongs to. For example, *The Giver* is a **dystopian** story.

Texts can belong to **more than one** category. For example, *The Graveyard Book* is a fantasy story with gothic elements. As it is also about growing up, it might even be referred to as something of a bildungsroman.

The Giver is considered a dystopian story for lots of reasons. Here are some of the most important:

1. **It explores a failed attempt to create a utopia** (dystopias are failed utopias) – the original founders wanted to make a perfect world but instead created a very strict society where nobody is truly free
2. **It explores a common concern associated with the genre – the idea of the state controlling ordinary life** in a way that is very oppressive – In Jonas's community, every aspect of life is monitored and controlled. No dissent is allowed and punishments are very severe – a pilot is executed for taking a wrong turn!
3. **Leaders take surveillance of the population very seriously and there is an underlying culture of fear and mistrust.** – the public announcement system reminds people of the rules and the importance of obeying
4. **It features a search for truth and for freedom** – Jonas wants to know the real history of his society
5. **It features a 'hero' protagonist who moves from a position of naivety to a position of understanding** – initially, Jonas is as unaware as everyone else about the history of the culture and that leaders are not necessarily really on the side of the people
6. **It pits an individual against the state** – eventually Jonas escapes and there is a sense that things might change because of his actions

Exploring genres:

The text is a good example of the x genre because...
The text has x [e.g. dystopian] elements in that it has...

subject matter = what they're writing about (E.G. war or love or death.)

A **theme** is an important idea within a text. **It tells us something about the writer's attitude towards their subject matter.**

An important theme in *The Giver* is the idea that **culture influences us.** Jonas has grown up in a society that has discouraged everyone from questioning or challenging authority. He sees this as normal because he has never known anything else.

This is true for all of us. We all think our culture is 'normal' and everyone else's is 'different'. We can struggle to overcome the cultural lens through which we understand the world.

Themes helps us ask questions about ourselves, our cultures and our experiences. For example, the Giver might help us explore how we understand identity and belonging:

or

Is identity more about how we see ourselves or about who we really are? Are they different things? How does Jonas's identity change throughout the story?

If belonging is about connection – what is in the middle, holding everything together? Laws? Culture? A national symbol, like a flag? What holds Jonas's community together?

Societies have rules – a constitution, laws etc. Who gets to make them? Who makes the rules in Jonas's community and is it fair?

Exploring themes:
The writer uses a to explore ideas about …
The writer's language choices reflect the theme of …
The writer explores x by characterising y as someone who…

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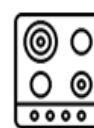
Heat transfer – food is cooked by transferring heat by conduction (heat from the hob warms up the saucepan and the food inside it), convection (e.g. heat in the oven warms up the air which circulates around the food to cook it) or radiation (heat from the grill radiates downwards to cook food).

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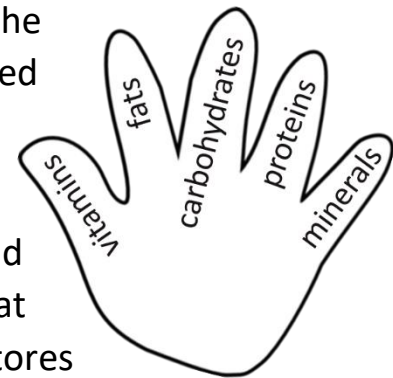
The Eatwell Guide shows how eating different foods can make a healthy and balanced diet. It divides up different food groups and shows how much of each group is needed. Extra information about the amount of water we need and the labels on food packaging is also provided.

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

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.

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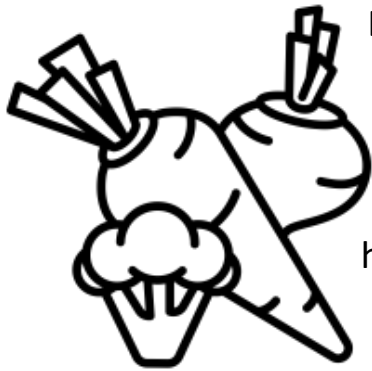
Eating a rainbow of colours provides different vitamins and minerals and can make a meal look more appetising.

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.

Topic 5: Starchy Carbohydrates

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

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

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

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

Healthy eating advice suggests that meals should be based on starchy carbohydrates such as breakfast cereals, bread, pasta, potatoes or rice. Wholemeal varieties of these foods are also a good source of fibre and keep you feeling fuller for longer.
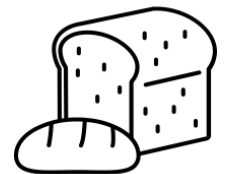
Starchy food is often served as an accompaniment for meat, chicken fish or vegetable dishes. Starches, such as cornflour, can also be used to thicken sauces through a processes called gelatinisation.

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

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

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 e.g., chewy, sweet, sticky or golden brown.

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

Rooms in a house

Dans (ma maison) il y a (quatre) pièces
In (my house) there are (four) rooms
il n'y a pas de place *there is no space*

il n'y a pas de (jardin) *there is no (garden)*

Il y a… *there is/are…*
le salon *the living room*
le grenier *the attic*
le bureau *the office*
l'entrée *the hallway*
la cuisine *the kitchen*
la chambre *the bedroom*
la salle de bains *the bathroom*
la sale à manger *the dining room*
la cave *the cellar*
le jardin *the garden*

Activities at home
Chez moi… *At home…*

je range ma chambre *I tidy my room*
j'écoute de la musique *I listen to music*
je fais mes devoirs *I do my homework*
je joue à l'ordinateur *I play on the computer*
je joue aux jeux vidéo *I play computer games*
je lis *I read*
je fais de la cuisine *I do cooking*
je mets la table *I set the table*
je lave la voiture *I wash the car*
je travaille dans le jardin *I help in the garden*
je sors les poubelles *I take out the rubbish*
je fais mon lit *I make my bed*

Describing your bedroom

dans ma chambre il y a…
In my bedroom there is/ are…

il n'y a pas de (chaise) *there is no (chair)*

un lit *a bed*
un ordinateur *a computer*
un bureau *a desk*
un nounours *a teddy bear*
un réveil *an alarm clock*

une armoire *a wardrobe*
une chaise *a chair*
une commode *a chest of drawers*
une chaîne hifi *a stereo*

des étagères *some shelves*
des posters *some posters*
des photos *some photos*

Where you live

Où habites-tu? *Where do you live?*

j'habite dans… *I live in…*
un appartement *a flat*
un château *a castle*
une maison *a house*
une maison de plain-pied *a bungalow*
une chaumière *a cottage*
une ferme *a farm*

au bord de la mer *at the seaside*
à la campagne *in the countryside*
à la montagne *in the mountains*
en ville *in town*
dans un village *in a village*

qui s'appelle *called*
près de *near to*
à (Hunstanton) *in (place name)*

j'aime habiter ici *I like living here*

je n'aime pas habiter ici
I don't like living here

Places in town
Qu'est-ce qu'il y a dans…?
What is there in…?
ta ville/ ton village your town/ village
il y a… *there is/ there are…*
un centre de loisirs *a leisure centre*
un centre commercial
a shopping centre
un château *a castle*
un marché *a market*
un musée *a museum*
une mosquée *a mosque*
une gare *a train station*
une poste *a post office*
une banque *a bank*
une patinoire *an ice rink*
une piscine *a swimming pool*
des magasins *(some) shops*

ALLER *to go*

je vais *I am going/ I go*
tu vas *you are going*
il va *he is going*
elle va *she is going*
nous allons *we are going*
vous allez *you are going (plural)*
ils vont *they are going*
elles vont *they are going*

Countries

j'habite… *I live…*

au pays de Galles *in Wales*
au Portugal *in Portugal*
en Angleterre *in England*
en Écosse *in Scotland*
en Irelande *in Ireland*
en Grèce *in Greece*
en Pologne *in Poland*
en Suisse *in Switzerland*
en Allemagne *in Germany*
en Espagne *in Spain*
en Italie *in Italy*
aux Etats-Unis *in America*

Adjectives

c'est… *it's…*
tranquille *peaceful*
bruyant *noisy*
confortable *comfortable*
grand *big*
petit *small*

Weekend activities

Où vas-tu le weekend?
Where do you go at the weekend?
je vais… *I go…*
au bowling *to the bowling alley*
au cinema/ parc *to the cinema/ park*
au stade *to the stadium*
à la piscine *to the swimming pool*
à la plage *to the beach*
à l'église *to the church*
aux magasins *to the shops*

le samedi matin/ après- midi/ soir
on Saturday morning/ afternoon/ evening

avec ma famille/ mes amis
with my family/ my friends

HABITER *to live*

j'habite *I am living/ I live*
tu habites *you are living*
il habite *he is living/ he lives*
elle habite *she is living/she lives*
nous habitons *we are living/ we live*
vous habitez *you are living (plural)*
ils habitent *they are living*
elles habitant *they are living*

j'habite dans une maison en ville
I live in a house in town

Breakfast

je mange…	*I eat…*
du pain	*bread*
du pain grillé	*toast*
du beurre	*butter*
du miel	*honey*
du Nutella	*Nutella*
du muesli	*granola*
de la confiture	*jam*
des céréales	*cereal*
des viennoiseries	*pastries*
des gaufres	*waffles*
des crêpes	*pancakes*
des beignets	*doughnuts*
des fruits	*fruit*
je bois…	*I drink*
du thé	*tea*
du café	*coffee*
du thé vert	*green tea*
du chocolat chaud	*hot chocolate*
de l'eau/ de l'eau du robinet	*water/ tap water*
du jus d'orange	*orange juice*
du lait	*milk*

Going out

Tu veux aller au café?	*Do you want to go to the café?*
Tu veux venir?	*Do you want to come?*
aujourd'hui	*today*
ce matin	*this morning*
cet après-midi	*this afternoon*
ce soir/ weekend	*this evening/ weekend*
Rendez-vous à quelle heure?	*What time will we meet?*
rendez-vous à…	*Let's meet at…*
Merci. Bonne idée!	*Thank you. Good idea!*
Oui, je veux bien.	*Yes, I want to.*
D'accord	*OK*
Pourquoi pas?	*Why not?*
Non, merci.	*No, thanks.*
Désolé(e)!	*Sorry!*
Je ne veux pas.	*I don't want to.*
Tu rigoles!	*You're joking!*

BOIRE — *to drink*

je bois	*I am drinking/ I drink*
tu bois	*you are drinking*
il boit	*he is drinking / he drinks*
elle boit	*she is drinking /she drinks*
nous buvons	*we are drinking / we live*
vous buvez	*you are drinking (plural)*
ils boivent	*they are drinking*
elles boivent	*they are drinking*

ALLER — *to go*

je vais	*I go/ I am going*
tu vas	*you go/ you are going*
il va	*he goes/ he is going*
elle va	*she goes/ she is going*
nous allons	*we go/ we are going*
vous allez	*you go/ you are going (plural)*
ils vont	*they go/ they are going*
elles vont	*they go/ they are going*

Visiting Paris

Qu'est-ce que tu vas faire à Paris?
What are you going to do in Paris?

Je vais… *I am going…*

visiter la cathédrale Notre Dame	*to visit Notre Dame Cathedral*
visiter la tour Eiffel	*to visit the Eiffel Tower*
aller au musée du Louvre	*to go to the Louvre*
aller aux Catacombes	*to go to the Catacombs*
faire une balade en bateau-mouche	*to go on a boat trip*
prendre des photos	*to take photos*
acheter des souvenirs	*to buy souvenirs*
admirer la Joconde	*to admire the Mona Lisa*
faire un pique-nique	*to go on a picnic*

Time frames

aujourd'hui	*today*
ce matin	*this morning*
cet après-midi	*this afternoon*
ce soir	*this evening*
ce weekend	*this weekend*
normalement/ d'habitude	*normally/ usually*
le lundi matin	*on Monday mornings*
le mardi après-midi	*on Tuesday afternoons*
le samedi soir	*on Saturday nights*
le weekend	*at weekends*
le weekend prochain	*next weekend*
dimanche prochain	*next Sunday*

MANGER — *to eat*

je mange	*I am eating/ I eat*
tu manges	*you are eating*
il mange	*he is eating*
elle mange	*she is eating*
nous mangeons	*we are eating*
vous mangez	*you are eating (plural)*
ils mangent	*they are eating*
elles mangent	*they are eating*

VOULOIR — *to want*

je veux	*I want*
tu veux	*you want*
il veut	*he wants*
elle veut	*she wants*
nous voulons	*we want*
vous voulez	*you want*
ils veulent	*they want*
elles veulent	*they want*

In a café

Vous désirez?	*What would you like?*
Pardon, madame/ monsieur	*Excuse me madam/ sir*
Je voudrais…	*I would like…*
Pour moi…	*For me…*
un Orangina	*a fizzy orange*
un diabolo menthe	*a mint cordial*
une grenadine à l'eau	*a pomegranate cordial*
un café express	*an expresso coffee*
un café crème	*a milky coffee*
un chocolat chaud	*a hot chocolate*
un thé au lait/ au citron	*a tea with milk/ lemon*
un jus d'orange	*an orange juice*
un coca (light)	*a (Diet) Coke*
une eau minérale	*a mineral water*
un croquemonsieur	*a grilled cheese and ham sandwich*
un sandwich au fromage/ au jambon	*a cheese/ ham sandwich*
une crêpe au sucre	*a pancake with sugar*
une glace au chocolat/ à la vanilla/ à la fraise/ à la pistache	*chocolate/ vanilla/ strawberry/ pistachio ice cream*
des frites	*chips*
Et pour vous?	*And for you?*
C'est combien, s'il vous plait?	*How much is it, please?*
Ça fait…	*It comes to…*
Voilà, merci.	*Here you are, thanks.*

Picture description

Qu'est-ce qu'il y a sur la photo?	*What is on the picture?*
Sur la photo, il y a…	*On the photo, there is…*
au fond/ au centre	*at the back/ in the middle*
à gauche/ à droite	*on the left/ on the right*

Near Future Tense

Aller + INFINITIVE = Future Tense

je vais boire	***I am going** to drink*
tu vas manger	***you are going** to eat*
il va regarder	***he is going** to watch*
elle va chanter	***she is going** to sing*
nous allons écouter	***we are going** to listen*
vous allez jouer	***you are going** to play*
ils vont visiter	***they are going** to visit*
elles vont faire	***they are going** to do*

Year 7 Geography - Asia

Introduction to Asia
Asia is the largest continent in the world. It has a population of over 4.3 billion in 49 countries, the largest of which are Russia, China and India

Asia's Physical Geography
Asia 's biomes (a large community of plants and animals found in a major habitat) include Tropical rainforest, steppe and semi-desert, coniferous forest and tundra.

The Monsoon Climate in SE Asia
The monsoon period of heavy rainfall occurs in India between June and September. It is caused by land heating up quickly causing air to rise, as a result moist rain-baring winds from the surrounding oceans fill the gap caused by the rising air. Heavy rainfall results. It brings the rain required for the rice harvest to grow supporting India's 1.3 billion people. 50% of Indian people are employed in agriculture (farming). However, too much rain can destroy the crops.

The risk of flooding in Asia
Bangladesh suffered flooding in 2017. The Ganges and the Brahmaputra rivers are transboundary rivers (crossing country borders) meet in Bangladesh. Other physical causes of flooding are Monsoon climate with heavy rain, silting up of the riverbed, Bangladesh sits on a flood plain – much of which is less than one metre above sea level and cyclones. Humans add to flood risk through deforestation – reducing interception, increasing soil erosion and landslides

Command words that you will use in this topic: Identify, state, describe, compare, explain and assess

The Growth of the Chinese Economy
China has experienced economic growth of 10% per year since 1979. Reasons for this include a large labour supply, large percentage of female workers, investment in infrastructure, low wages, energy supply, natural resources, location and political system and strong leadership.
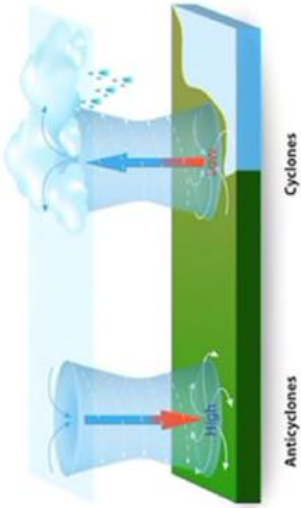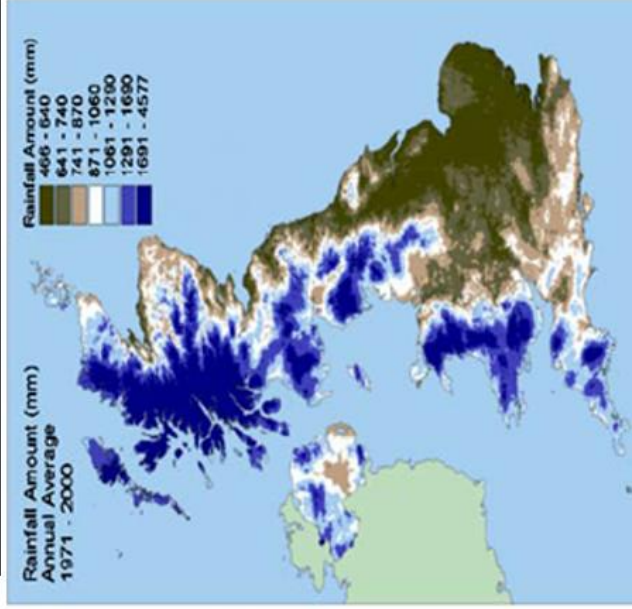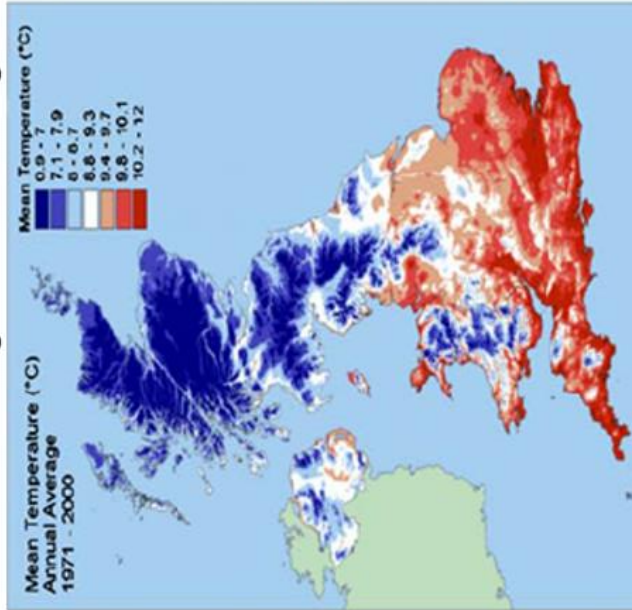
The Population of Japan
Japan's population of 126 million is forecast to fall by 1/3 in the next 50 years as people are not having as many children in a country with an ageing population. Its 2016 population pyramid shows 13% of people below the age of 15 and 26% over the age of 65. Japan is overcoming worker shortages using robots and increasing the number of overseas workers.

The population of Afghanistan
Rapid population growth of 2.34% in 2016 as birth rates exceed death rates. Birth rates are high as there is a need for children to look after parents in old age and a need to have children to help and work. It is a Strict Muslim society where people do not believe in contraception. Its 2016 population pyramid shows 42% of people below the age of 15 and 2.34% of people over the age of 65.

RUSSIA
MONGOLIA
KAZAKHSTAN
CHINA
JAPAN
NORTH KOREA
SOUTH KOREA
TAIWAN
LAOS
CAMBODIA
VIETNAM
PHILIPPINES
INDONESIA
MALAYSIA
THAILAND
MYANMAR
BANGLADESH
BHUTAN
NEPAL
INDIA
SRI LANKA
MALDIVES
PAKISTAN
AFGHANISTAN
TAJIKISTAN
KYRGYZSTAN
UZBEKISTAN
TURKMENISTAN
IRAN
OMAN
YEMEN
SAUDI ARABIA
IRAQ
SYRIA
JORDAN
ISRAEL
LEBANON
TURKEY
AZERBAIJAN
ARMENIA
GEORGIA
Arabian Sea
Indian Ocean
AFRICA
N
0   1000 km

Knowledge Organiser Weather and Climate
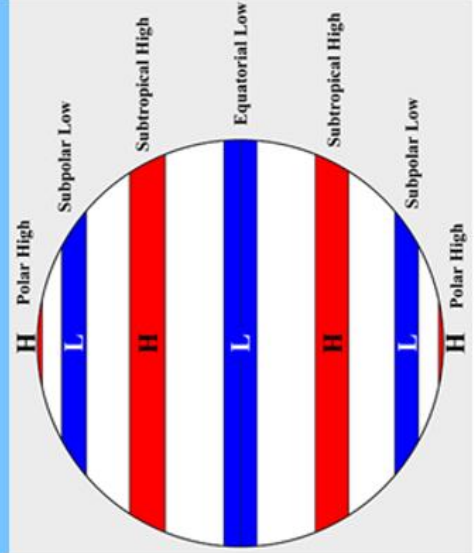
Weather Basics

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 air pressure bands** and the amount of **solar insulation** and area receives.

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

Global Air Pressure bands

H — Polar High
L — Subpolar Low
H — Subtropical High
L — Equatorial Low
H — Subtropical High
L — Subpolar Low
H — Polar High

CYCLONES AND ANTICYCLONES

Anticyclones   Cyclones

Cooler Air sinking   Warmer Air Rising

Mean Temperature (°C)
Annual Average
1971 - 2000

Mean Temperature (°C)
0.9 - 7
7.1 - 7.9
8 - 8.7
8.8 - 9.3
9.4 - 9.7
9.8 - 10.1
10.2 - 12

Rainfall Amount (mm)
Annual Average
1971 - 2000

Rainfall Amount (mm)
466 - 640
641 - 740
741 - 870
871 - 1060
1061 - 1200
1291 - 1690
1691 - 4577

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

Y7 German - Summer Term 1   Topic: Ferien – Holidays

1. Was gibt es in deiner Stadt?

1. Was gibt es in deiner Stadt?	**What is there in your town?**
der Bahnhof / der Park / der Marktplatz	the railway station / the park/ the market square
die Kirche / die Imbissstube / die Kegelbahn	the church / the snack stand / the bowling alley
das Kino / das Schwimmbad / das Schloss	the cinema / the swimming pool / the castle
Es gibt einen/keinen …	There is a / no… (for masc. nouns - der)
Es gibt eine/keine …	There is a / no… (for fem. nouns - die)
Es gibt ein/kein … (for neut. nouns)	There is a / no… (for neut. nouns – das)

2. Was möchtest du kaufen?

2. Was möchtest du kaufen?	**What would you like to buy?**
Ich möchte … (kaufen).	I would like (to buy)…
Du möchtest … (kaufen).	You would like (to buy)…
Er/Sie möchte … (kaufen).	He/She would like (to buy)…
einen Kuli	a ball pen
einen Schlüsselanhänger	a key ring
einen Aufkleber	a sticker
eine Tasse	a cup
eine Postkarte	a post card
eine Kappe	a (baseball) cap
ein Freundschaftsband	a friendship bracelet
ein Trikot	a (football) shirt
ein Kuscheltier	a cuddly toy
Was kostet das?	What does it cost?
Das kostet (3) Euro (40).	That costs (3) Euro (40).

3. Was möchtest du? Was möchten Sie?

3. Was möchtest du? Was möchten Sie?	**What would you like? (informal and formal)**
Etwas zu essen/trinken?	Something to eat/drink?
Ich möchte …	I would like…
Ich hätte gern …	I would like to have…
zweimal Bratwurst (mit …), bitte.	2 times fried sausage (with…). please.
der (…einen) Hamburger	the (…a) hamburger
der (…einen) Tee	the (…a) tea
die (…eine) Bratwurst	the (…a) fried sausage
die (…-) Pommes	the (…-) fries
das …(ein) Eis	the (…an) ice cream
das (…ein) Mineralwasser	the (…a) sparkling water

4. Was wirst du in den Sommerferien machen?

4. Was wirst du in den Sommerferien machen?	**What will you do in the summer holidays?**
Ich werde …/ Wir werden …	I will … / we will…
segeln / klettern / wander	sail / climb / hike
tauchen / windsurfen / rodeln	dive / windsurf / toboggan
an den Strand gehen	go to the beach
im See baden	bathe in the lake
im Meer schwimmen	swim in the sea
In den Sommerferien werde ich mit …	In the summer holidays I will.. with..
Wir warden nach … fahren	We will go to…
Wir werden … Wochen bleiben	We will stay… … weeks.
Wir werden … und auch …	We will… and also…
Dort gibt es … und …, aber kein …	There is ….there, but no…
Man kann dort … und …	You can…. there and …
Am Montag/Freitag …	On Monday / Friday…
Ich möchte auch …	I would also like to…

1. Was für eine Person ist….? | What kind of person is…?

Meiner Meinung nach ist…(name)…	In my opinion, …(name) is…
frech	cheeky
willensstark	strong willed
freundlich	friendly
selbstbewusst	confident
geduldig	patient
launisch	moody
klug	clever
liebevoll	caring
faul	lazy
eifersüchtig	jealous

2. Becshreibe die anderen Darsteller. | Describe the other characters.

Die Tochter / Enkelin ist…	The daughter / granddaughter is…
Der Sohn / Enkel hat…	The son / grandson has…
Die Chefin ist…	The boss (female) is…
Der Stalljunge ist…	The stable boy is…
Das Pferd hat…	The horse is…
schwarzes Fell	black fur
lange rote Haare	long red hair
kurze braune Haare	short brown hair
sportlich / nervig / gemein / lustig	sporty / annoying / mean / funny
… hat eine Glatze	… is bald headed
… trägt eine Brille	… wears glasses
….ist verletzt / humpelt	… is injured / limps

3. Eine Filmkritik | A film review

Einleitung	Introduction
Der Film heißt	The film is called....
Der Titel des Films ist	The title of the film is....
In dem Film geht es um	The film is about.....
Thema des Films ist	The theme of the film is....
Filmbeschreibung	Film description
Die Hauptpersonen sind	The main people are...
Die Geschichte handelt von	The story is about....
Meinung	Opinion
Ich finde den Film	I find the film....
gut / schlecht / interessant / uninteressant	good / bad / interesting / not interesting
spannend / langweilig / lustig / traurig	exciting / boring / funny / sad
überraschend / monoton	surprising / monotonous
Meine Lieblingsfigur ist....	My favourite character is…
Ich mag...	I like...
Ich mag nicht...	I don't like...
Meine Lieblingsszene ist....	My favourite scene is...
Ich würde den Film dir empfehlen /	I would recommend/
nicht empfehlen, weil	not recommend the film because...
der Film so spannend ist	the film is so exciting.
der Film so langweilig ist	the film is so boring.
die Geschichte toll ist / nicht so gut ist	the story is great / is not so good.
die Schauspieler gut sind	the actors are good.
die Schauspieler nicht so gut sind.	the actors are not so good.
ich mir der Film (nicht) gefallen hat.	I enjoyed (didn't enjoy) the film.

History

The Tudors

Key Words	Definition
Spanish Inquisition	An organisation created to ensure Spanish people were keeping to strict Catholicism.
Conquistadors	The Spanish word for "Conquerors". The explorers and soldiers who conquered the New World.
Annulment	To declare that a marriage is null and void. Unlike a divorce, it is as if the marriage had never happened.
Catholic	A Christian denomination. The Pope is the head of the Catholic Church.
Protestant	A Christian denomination which started as a protest movement against the Catholic Church.
Reformation	A religious movement which led to the creation of Protestant churches as people broke with Catholicism.
Renaissance	A French word meaning "rebirth". A flourishing of the arts and sciences during the early modern period of history.
Enclosure	Rich landowners merging small farms into larger ones, usually for the purpose of raising sheep. This led to poverty for many peasants.
Martyr	A person who is killed for their beliefs (usually religious).

Key People	Role
Henry VII	First Tudor King of England (1485-1507)
Ferdinand of Aragon & Isabella of Castile	The Catholic Monarchs. Joint rulers of Spain.
Christopher Columbus	Re(discovered) American in 1492.
Henry VIII	King of England (1509-47)
Martin Luther	Priest who was instrumental in the formation of the Protestant faith.
Thomas Cromwell	Chief adviser of Henry VIII, responsible for the dissolution of the monasteries.
Edward VI	King of England (1547-53)
Duke of Somerset	Lord Protector of England (regent) for Edward VI.
Earl of Warwick / Duke of Northumberland	The same person. As Earl of Warwick he put down Kett's Rebellion. After becoming Duke of Northumberland he became regent for Edward VI.
Thomas Cranmer	Protestant Archbishop of Canterbury. Burnt at the stake by Mary I.
Phillip II of Spain	King of Spain responsible for the Spanish Armada (Also King of England during the reign of Mary I).
Mary, Queen of Scots	Catholic Queen of Scotland. Forced to abdicate from power and fled to England.

Chronology	
1485	Battle of Bosworth / Henry VII become king
1492	Christopher Columbus (re)discovers America
1509	Henry VIII becomes king
1517	Martin Luther nails his 95 theses to the church door in Wittenberg, starting the Reformation
1536	Pilgrimage of Grace
1545	Mary Rose sinks
1547	Edward VI becomes king
1549	Kett's Rebellion
1553	Jane Grey and Mary I each become queen in turn
1558	Elizabeth I becomes queen
1587	Mary Queen of Scots executed
1588	Spanish Armada
1603	Elizabeth I dies – James I (Stuart) become king

The Tudor and Stuart Family Tree

Both the Tudors and the Stuarts are descended from Henry VII. When the line of Henry VIII died out, the Stuart branch of the family tree (through Henry VIII's sister Margaret), had the best claim to the English throne. The monarchs of England are highlighted in red. The monarchs of Scotland are highlighted in blue.

Family tree figures and labels:

- Elizabeth of York
- Henry VII of England
- Arthur, Prince of Wales
- Catherine of Aragon — 1
- Henry VIII of England — 2
- Anne Boleyn
- Jane Seymour
- Anne of Cleves
- Catherine Howard
- Catherine Parr
- Mary I of England
- Philip II of Spain
- Elizabeth I of England
- Edward VI of England
- Margaret Tudor, Queen of Scots
- James IV of Scotland — 1
- Archibald Douglas — 2
- Henry Stewart — 3
- Madeleine of Valois — 1
- James V of Scotland
- Mary of Guise — 2
- Margaret Douglas
- Matthew Stewart
- Francis II of France — 1
- Mary, Queen of Scots
- James Hepburn, Earl of Bothwell — 3
- Henry Stuart — 2
- Charles Stuart
- James VI of Scotland and I of England

Misconceptions

Catholicism and Protestantism are not different religions. They are different **denominations** of Christianity.
Henry VIII was not a Protestant. Although he broke from Rome and so was no longer Catholic, he did not embrace Protestantism either.

33

Year 7 Knowledge Organiser
Primes and Indices

Key Concept

Square numbers

1^2
$1 \times 1 = 1$

2^2
$2 \times 2 = 4$

3^2
$3 \times 3 = 9$

Cube numbers

1^3
$1 \times 1 \times 1$
1

2^3
$2 \times 2 \times 2$
8

3^3
$3 \times 3 \times 3$
27

hegartymaths

Clip Numbers
27-30, 99-101
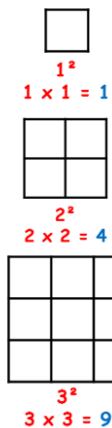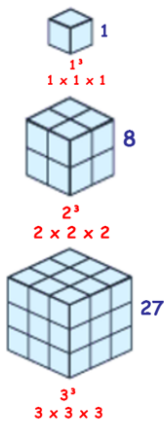
Key Words

Square: A square number is the result of multiplying a number by itself.
Cube: A cube number is the result of multiplying a number by itself twice.
Root: A root is the reverse of a power.
Prime number: A prime is a number that has only two factors which are 1 and itself.

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

Examples

What is 2^4 ?
$2 \times 2 \times 2 \times 2 = 16$

What is $\sqrt{64}$?
$8^2 = 64$, so $\sqrt{64} = \pm 8$

List all the prime numbers less than 20

Write 36 as a product of prime factors
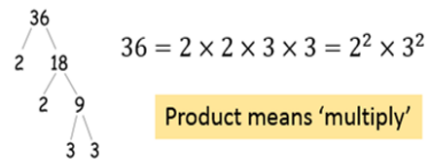
$36 = 2 \times 2 \times 3 \times 3 = 2^2 \times 3^2$

Product means 'multiply'

Questions
1) a) 2^5 b) 3^3 c) 1^{17} d) $\sqrt{81}$ e) $\sqrt{16}$ f) $\sqrt[3]{64}$
2) Find the reciprocal of: a) 4   b) $\frac{1}{3}$ c) 0.25
3) Write 72 as a product of primes.

ANSWERS: 1) a) 32   b) 27   c) 1   d) ∓ 9 e) ± 4 f) 4
2) a) $\frac{1}{4}$ b) 3   c) 4   3) $2^3 \times 3^2$

Year 7 Knowledge Organiser
Primes and Indices

Key Concept

Prime Factors:
Find the HCF of 12 and 18.
Step 1: List the prime factorization of each number.
12: 2 × 2 × 3 or 22 × 3
18: 2 × 3 × 3 or 2 × 32 .
Step 2: Look for factors that are common, or the same, in both lists. Then multiply those factors. The common factors of 12 and 18 are 2 and 3; 2 × 3 = 6.
Solution: The HCF of 12 and 18 is 6.

hegartymaths

Clip Numbers
4,6,10, 26 – 34

Key Words

Factor: The numbers which fit into a number exactly.
Multiple: The numbers in the times table.
Prime: Numbers which have only two factors which are 1 and itself.
Highest Common Factor: The highest factor which is common for both numbers.
Lowest Common Multiple: The smallest multiple which is common to both numbers.
Venn Diagrams: is an illustration of the relationships between **and** among sets, groups of objects

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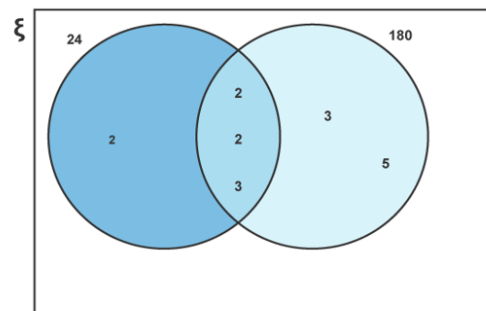
Examples

Find the HCF and LCM of 12 and 180.
Break the numbers into the product of prime factors using prime factor trees, as before.

The product of prime factors for 24 are: $2 \times 2 \times 2 \times 3$

The product of prime factors for 180 are: $2 \times 2 \times 3 \times 3 \times 5$

Questions
1) List the first 5 multiples of: a) 7   b) 12   c) 50
2) List the factors of: a) 12   b) 15   c) 16
3) a) Find the LCM of 5 and 7   b) Find the HCF of 20 and 16

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

Year 7 Knowledge Organiser
Fractions & Percentages of a Quantity

Key Concept

Multipliers

Find 15%	
Increase by 15%	
Decrease by 15%	

For **reverse percentage** problems you can divide by the multiplier to find the original amount.

Key Words

Percentage: Is a proportion that shows a number as parts per hundred.

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

Multiplier: A quantity by which a given number is to be multiplied.

Tip
There is a % function on your calculator.

To find 25% of 14 on a calculator:
2, 5, SHIFT, (, ×, 1, 4, =

Examples

Non-Calculator

$$\frac{3}{4} \, of \, 32 = 32 \div 4 \times 3 = 24$$

$16\% \, of \, 240$

$10\% = 24$
$5\% = 12$
$1\% = 2.4$

$= 24 + 12 + 2.4$
$= 38.4$

Calculator

Find **32%** of 54.60 = **0.32** × 54.60 = 17.472

Increase 45 by **12%** = 45 × **1.12** = 50.4

Questions
Find these fractions of amounts:

a) $\frac{1}{3} \, of \, 15$ a) $\frac{1}{5} \, of \, 65$ a) $\frac{2}{7} \, of \, 14$ a) $\frac{4}{9} \, of \, 45$

2) a) 35% of 140   b) 21% of 360   c) Increase 60 by 15%

ANSWERS: 1) a) 5 b) 13 c) 4 d) 20   2) a) 49 b) 75.6 c) 69

Year 7 Knowledge Organiser
Rounding

Key Concept

The purpose of **rounding** is to make a number simpler but keep its value close to what it was.

The digit to the right of the rounding digit tells you if you should round up or down. If **is less than 5, round down.**
If the digit to the right of the rounding digit is **5 or more, round up.**

Key Words
Integer: A whole number that can be positive, negative or zero.
Decimal place: The position of a digit to the right of a decimal point. **(d.p.)**
Significant figure: The significant figures of a number are the digits which carry meaning (i.e. are significant) to the size of the number. **(s.f.)** [The first significant figure of a number cannot be zero.]
Estimate: To find something close to the correct answer.
≈ means '**approximately** equal to'

PLACE VALUE CHART

Millions | Hundred Thousands | Ten Thousands | Thousands | Hundreds | Tens | Ones | Decimal Point | Tenths | Hundredths | Thousandths | Ten-Thousandths | Hundred-Thousandths | Millionths

Examples

Round 568.798 to the nearest hundred   5(6)8.798 ➝ 600

Round 568.798 to the nearest integer   568.(7)98 ➝ 569

Round 568.798 to 2 significant figures   56(8).798 ➝ 570

Round 568.798 to 2 decimal places   568.79(8) ➝ 568.80

Round 568.798 to the nearest tenth   568.7(9)8 ➝ 568.8

Applications
Rounding each number to 1 s.f. can be used to help you **estimate** answers to difficult calculations. e.g.

$$\frac{5.38 \times 99.3}{19.246} \approx \frac{5 \times 100}{20}$$

$$= \frac{500}{20} = 25$$

Questions
1.   Round 12,356.357 to the nearest:
a)   Thousand   b) Integer   c) Hundredth
2. By rounding each number to 1 s.f. estimate:
a) 58.2 x 2.3   b) 98.3 ÷ 19.2   c) $\frac{3.68 \times 237}{7.8}$

ANSWERS: 1a)12,000 b)12,356 c)12,356.36 2a)120 b)5 c)100

35

Music

Instruments of the Orchestra/Programme Music

Key Term – Dynamics	Revisiting dynamics and key words from Y7/T1
Key term – Metre	Revisiting knowledge of time signatures from Y7/T2
Irregular Time Signatures	5/4, 7/8
Programme Music	Understanding how different elements of music can be combined to create a particular mood or story in a listener's mind.
	Identification of different families and instruments of the orchestra
Listening	Investigating creative and imaginative responses to different and contrasting pieces of music
	Performance of compositions based upon Programme Music
Performing	Singing in a class environment
Composing	One or more composition tasks based upon Programme Music
Contextual Knowledge	Short research task on the orchestra
	Short research task on a famous composer

The Orchestra	An introduction to the orchestra and orchestral instruments
Strings	Violin, Viola, Cello, Double Bass
Woodwind	Flute, Oboe, Clarinet, Bassoon
Brass	French Horn, Trumpet, Trombone, Tuba
Percussion	Timpani, tuned and untuned percussion
	The role of a conductor
	The layout of an orchestra
Key Term – Sonority	The sonority, or timbre, of an instrument or voice is the colour, character or quality of sound it produces.
Key Term - Texture	
Texture	How different instruments and sounds combine to create differing layers of sound
Thick Texture	Many layers of sounds combined
Thin Texture	Few layers of sounds combined

The Orchestra

Double Basses

Violas

Cellos

Tuba

Trumpets

Trombones

Bassoons

Oboes

Conductor

Timpani

French Horns

Clarinets

Flutes

Percussion

Harp

Second Violins

First Violins

Piano

7.5 KS3 Core PE Knowledge Organiser: Joints and their Movements

VOCABULARY

Synovial
Joint
Condyloid
Cartilage
Ligament
Flexion
Extension
Rotation
Adduction
Abduction
Circumduction
Plantar-flexion
Dorsi-flexion
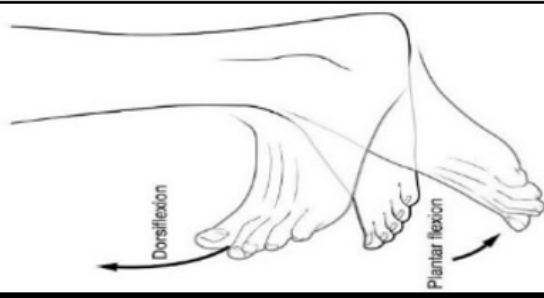
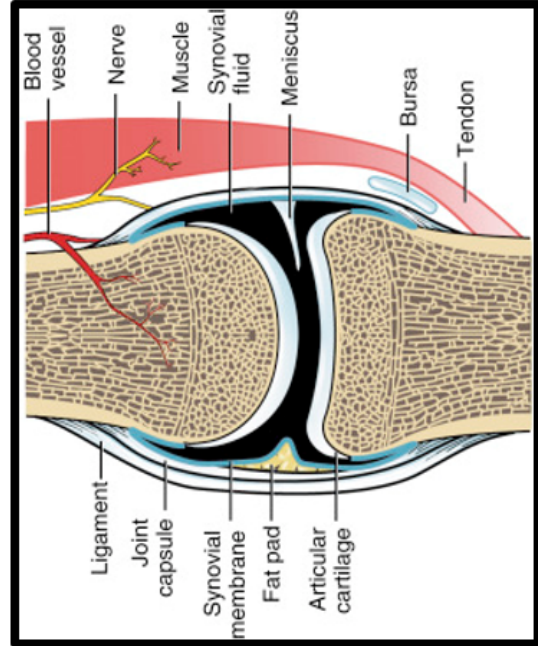

(1) Classification of Synovial Joints (freely movable)

1. PIVOT JOINT
• Neck

2. BALL & SOCKET JOINT
• Shoulder
• Hip

3. CONDYLOID JOINT
• Wrist

4. HINGE JOINT
• Elbow
• Knee
• Ankle
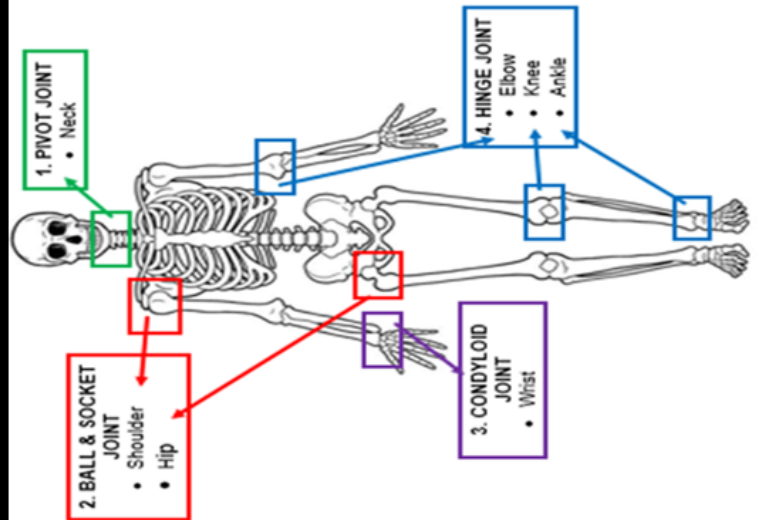
(2) Types of Movement

	Movement types	Description	Joints where movement takes place	Practical Application
1	Flexion	Bending the limbs at a joint	Ball & Socket, Condyloid, Hinge	The elbow flexes when performing a pull-up
2	Extension	Straightening limbs at a joint	Ball & Socket, Condyloid, Hinge	The elbow extends when putting a shot
3	Abduction	Movement away from the midline of the body	Ball & Socket, Condyloid	The hip and shoulder joints during a star jump movement.
4	Adduction	Movement towards the midline of the body	Ball & Socket, Condyloid	The hip and shoulder, returning the arms and legs back to their original position from a star jump movement.
5	Rotation	Twisting movement around a fixed point	Ball & Socket, Pivot	The hip in golf while performing a drive shot
6	Circumduction	Circular movement of a limb	Ball & Socket, Condyloid	The shoulder in cricket when bowling a ball
7	Dorsi-flexion	Bending or flexing the toes upwards closer to the shin	Hinge (ankle only)	The ankle in sprinting when positioning their feet in the starting blocks
8	Plantar-flexion	Pointing or extending the toe downwards away from the shin	Hinge (ankle only)	The ankle in gymnastics when pointing their toes during a cartwheel

Flexion

Extension

Rotation

Lateral rotation

Medial rotation

Circumduction

Abduction

Adduction
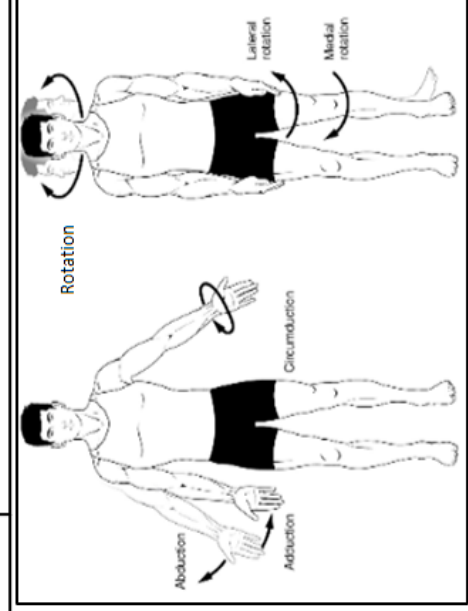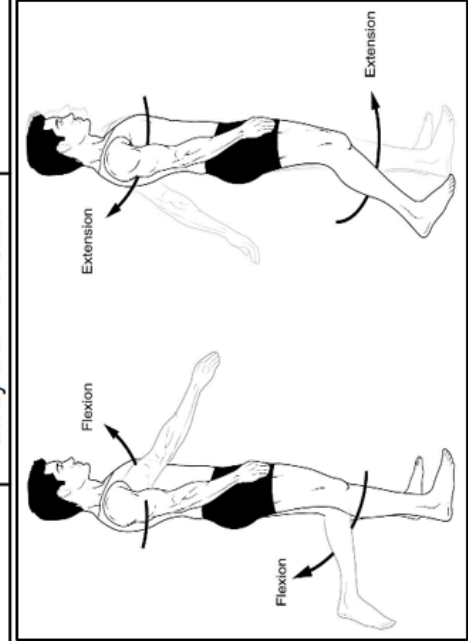
7.6 KS3 Core PE Knowledge Organiser: Joints and their Movements

(3) Characteristics of Synovial (freely movable) Joints

	Characteristic	Description
1	Synovial Fluid	Lubricates the joint.
2	Cartilage	Cushions the joint and prevents friction and wear and tear between the bone ends.
3	Ligament	Joins bone to bone, stabilising the joint.
4	Tendon	Joins muscle to bone enabling movement.

Labels: Blood vessel, Nerve, Muscle, Synovial fluid, Meniscus, Bursa, Tendon, Articular cartilage, Fat pad, Synovial membrane, Joint capsule, Ligament

---

Command Word: WHICH

Mainly used in multiple-choice questions where a selection from a set of options is required, for example 'Which **one** of the following....'

Worked example:

Which of the following types of movements are possible at the elbow?

Circumduction   Adduction

Flexion   Rotation

Dorsi-flexion   Extension

Your turn - attempt the following question:

Which one of the following statements is correct?

A Ball and socket joints allow rotation

B Flexion and extension are only possible at the ball and socket joint

C Hinge joints allow abduction and adduction

D All joint types allow the same range of movement

Key Misconceptions & Helpful Tips

- Use the correct terminology for a movement:
  So instead of just stating the arm bends – be more specific by stating the type of movement and the joint involved i.e. the arm flexes at the elbow.
- Abduction: Taking away from the body (abducted by aliens);
- Adduction: Adding to the body;
- Circumduction – Circular;
- Plantar-flexion: Planting the ball of the foot into the ground;
- Dorsi-flexion: Dorsal fin of a shark (points upwards out of the water).

Worked Example:

Analyse the photograph below of the football player. Analyse the types of movements and the joints being used.

Let's start with the left side of the body:

- Left Arm: Abduction at the shoulder, extension at the elbow.
- Left Leg: Flexion at the hip, extension at the knee, dorsi-flexion at the ankle.

Your turn – attempt to fill in the blanks:

- Right Arm: _____ at the shoulder, flexion at the _____.
- Right Leg: Extension at the _____ at the knee, _____ at the ankle.

Command Words:
ANALYSE

Break something down into its component parts, this could be in relation to movement analysis.

STATE

Involves the recall of a fact, or an example based on the given stimulus.

Year 7 Religious Studies Summer Term
Festivals and Holy Books Knowledge Organiser

Key Knowledge

Passover is the most celebrated festival in Judaism. It is celebrated in Spring and marks when the Israelites left Egypt to slavery. It begins with a special meal (Seder).

Vaisakhi is a festival in the Sikh and Hindu calendar, usually celebrated around 13th/14th April. In the Sikh religion it celebrates the formation of the Khalsa.

Easter is the most important festival in the Christian calendar. It celebrates Jesus rising from the dead, three days after he was executed.

Wesak is an important Buddhist festival, sometimes known as 'Buddha Day'. It usually happens on the first full moon in May, and is a time to celebrate the Buddha's birth.

The Qur'an is the central religious text of Islam, which Muslims believe to be a revelation from God.

Guru Granth Sahib ji is the central religious scripture of Sikhism, regarded by Sikhs as the final, sovereign and eternal living Guru following the lineage of the ten Gurus.

The **Torah** is the Jewish Holy book. It contains 613 commandments which are followed to different extents by Orthodox and Reform Jews. The **Torah** makes up the **Tenakh** with the **Nevi'im** and the **Ketuvim**. The **Talmud** is another collection of teachings for Jews.

The Bible is the collection of sacred texts within Christianity. It is split into the Old Testament which covers the creation of God, and the New Testament which covers the life of Jesus and his followers.

Key Quotes

"In the beginning God created the heavens and the earth" (Genesis 1:1)

'He has risen!' (Mark 16:5)

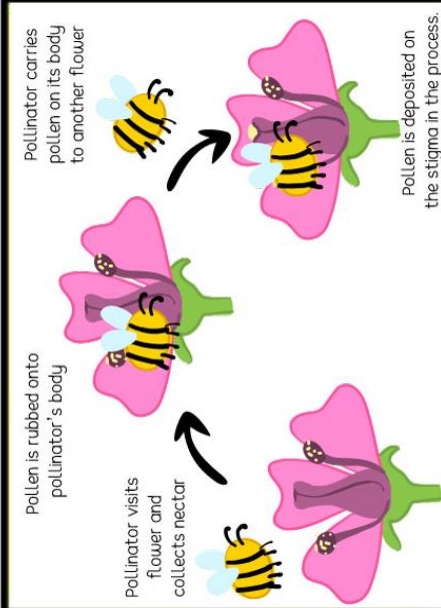You shall keep the feast of unleavened bread, as I commanded you.........' (Exodus 23:15)

Key Term	Definition
Adi Granth	The first version of the Guru Granth Sahib compiled by the fifth Guru.
Akhand Path	Where a granthi will read the entire Guru Granth Sahib from start to finish, usually at a festival or important event. It takes approximately 48 hours.
Amritsar	A city in Punjab, India. It is the site of the holiest shrine in the Sikh religion, the Golden Temple.
Arabic	A language spoken by around 150 million people in the Middle East and North Africa.
Deities	Someone considered divine or sacred. A god/goddess or supreme being.
Exodus	A mass departure of people.
Festivals	A day or period of celebration, typically for religious reasons.
Guru	A religious leader or teacher in the Sikh faith.
Hafiz	Someone who has learnt the entire Qur'an by heart.
Khalsa	The group of initiated Sikhs.
Nishan Sahib	The sacred holy flag found outside every Sikh temple. It is replaced during Vaisakhi.
Reincarnation	The rebirth of a soul in another body.
Sacred	Something connected to religion which is deserving of awe or respect.
Secular	Not connected with religious or spiritual matters.
Seder	The special meal to mark the beginning of the Jewish festival of Passover.
Surah	A chapter in the Qur'an.
Testament	A statement of belief, for example the Old and New Testaments forming the Bible.

Year 7 Topic 2 Biology Knowledge Organiser

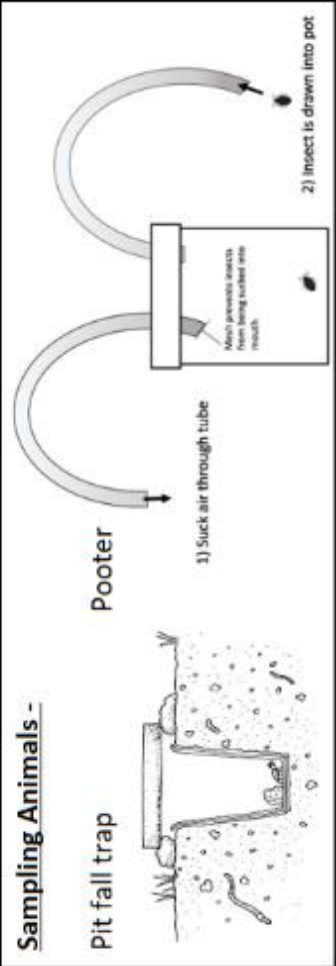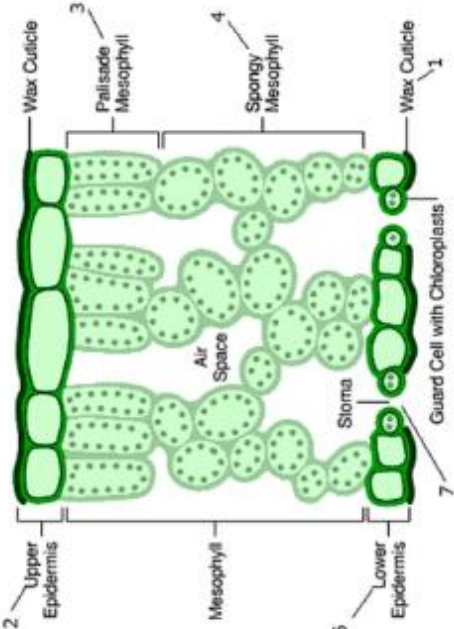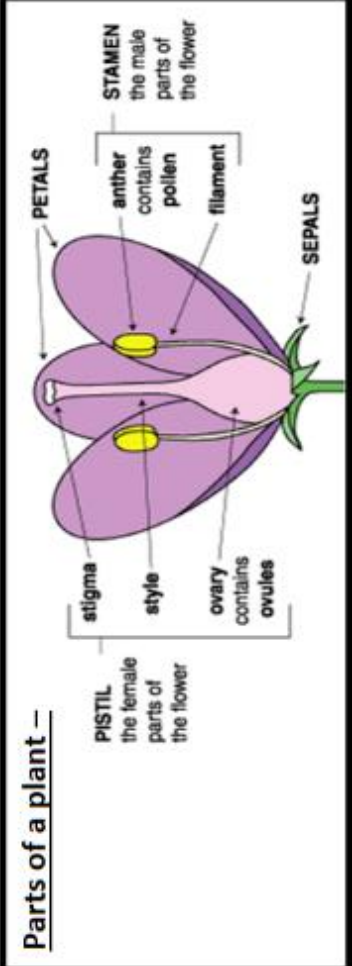## Tier 2 Vocabulary

Sampling
Random
Adaptation
Glucose
Oxygen
Carbon dioxide

Tier 3 Vocabulary

Habitat
Ecosystem
Organism
Species
Palisade cells
Mesophyll cells
Stomata
Guard Cells
Diffusion
Photosynthesis
Food Web
Food Chain
Pyramid of Numbers
Pyramid of Biomass
Producer
Herbivore
Carnivore
Omnivore
Consumer
Trophic level

Plant — Producer
Insect — Herbivore/Consumer
Mouse — Omnivore/Consumer
Owl — Carnivore/Consumer

Food Chains—

A food chain shows the path of energy from one living thing to another.

Adaptations of Plants —

Plants need light, nutrients and water to survive. Plants can adapt to different environments.
- Waxy covering
- Spines for leaves
- Long roots
- Fast growing seeds
- Flowers

Leaf Structure —

Wax Cuticle
Palisade Mesophyll — 3
Spongy Mesophyll — 4
Wax Cuticle — 1
Guard Cell with Chloroplasts
Air Space
Stoma — 7
2 — Upper Epidermis
Mesophyll
6 — Lower Epidermis

Sampling Plants —

Quadrats: Quadrats are usually square. They are taken to an area and placed down at random. The number of plants inside are counted.

Transect: A measuring tape is laid out over an area to be sampled. The quadrat is placed at equal intervals along the measuring tape. The number of a plant inside are counted.

Pollination —

Pollinator visits flower and collects nectar

Pollen is rubbed onto pollinator's body

Pollinator carries pollen on its body to another flower

Pollen is deposited on the stigma in the process.

pollen carried by wind

pollen caught on feathery stigmas

The act of transferring pollen grains from the male anther of a flower to the female stigma.

Sampling Animals -

Pit fall trap

Pooter

1) Suck air through tube
2) Insect is drawn into pot

Mesh prevents insects from being sucked into mouth

Parts of a plant —

PETALS
STAMEN the male parts of the flower
anther contains pollen
filament
SEPALS
stigma
style
ovary contains ovules
PISTIL the female parts of the flower

42

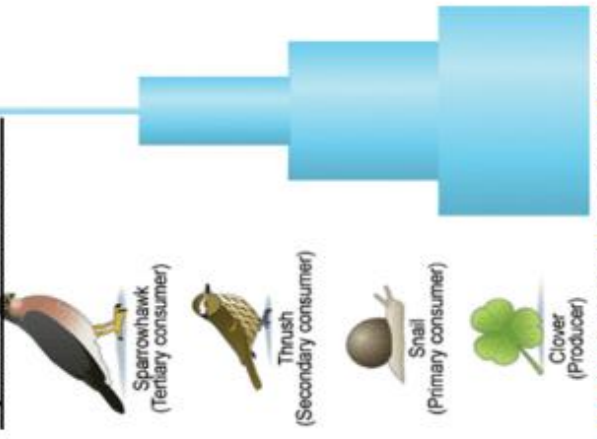## Food webs–
Food chains interlink to make a food web. Food webs help show the impact if a population were to change in number.

Berry tree
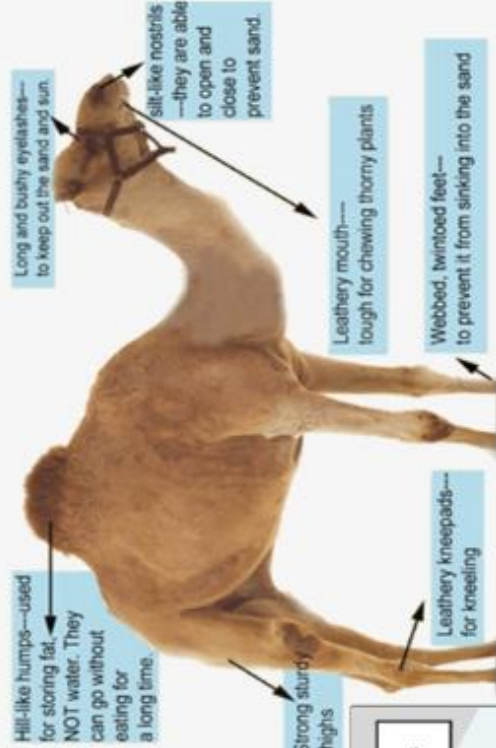
Bush

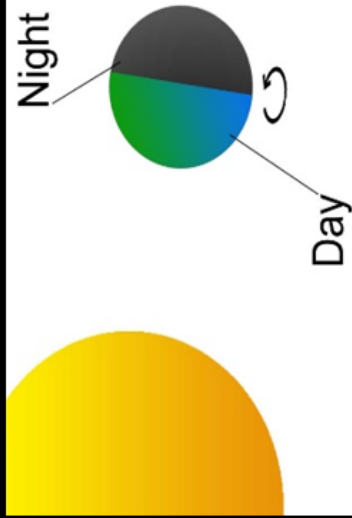## Pyramid of numbers –

Sparrowhawk (Tertiary consumer)

Thrush (Secondary consumer)

Snail (Primary consumer)

Clover (Producer)
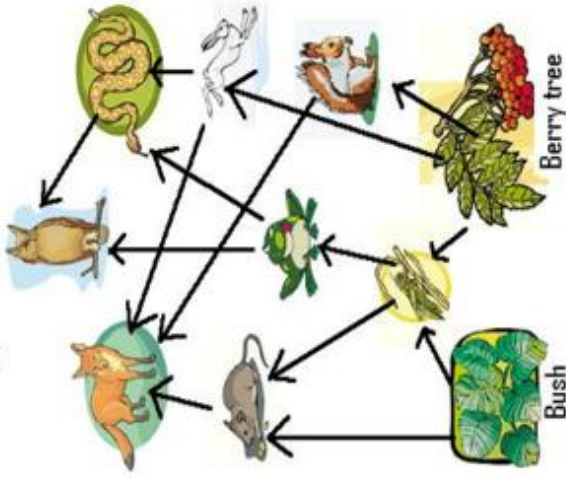
Producer always at the bottom

Habitats – The area where an organism lives.

Mountains

Grasslands

Polar regions

Urban

Wetlands

Desert

Rainforest

Marine

Adaptations of animals – Animals have special features that help them survive or help them catch food.

Long and bushy eyelashes—to keep out the sand and sun

slit-like nostrils—they are able to open and close to prevent sand.

Leathery mouth—tough for chewing thorny plants

Webbed, twintoed feet—to prevent it from sinking into the sand

Hill-like humps—used for storing fat, NOT water. They can go without eating for a long time.

Strong sturdy thighs

Leathery kneepads—for kneeling

Small ears to reduce heat loss

Sharp teeth to eat prey easily

Thick white fur to help keep the bear warm and for camouflage

Thick layer of fat to help insulate for warmth

Large paws to stop the bear sinking in the snow

Year 7 Topic 2 Physics Knowledge Organiser

Tier 2 Vocabulary

Sun
Star
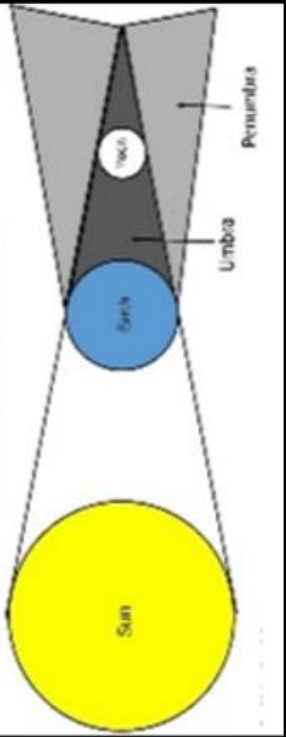Orbit
Planet
Earth
Seasons
Mass
Weight
Rotation
Pressure

Tier 3 Vocabulary

Solar system
Satellite
Solar eclipse
Lunar eclipse
Asteroid
Comet
Meteor
Gravity
Brownian Motion
Diffusion
Particles
Density

Day and Night

It takes 24 hours for the Earth to complete one rotation on its axis. As a result there are times that the UK is facing away from the sun (night) and there are times when the UK is facing towards the sun (day)

Night

Day

The sizes of the forces arrows in this diagram show that greater pressure is exerted by the fluid as you go deeper in the fluid.
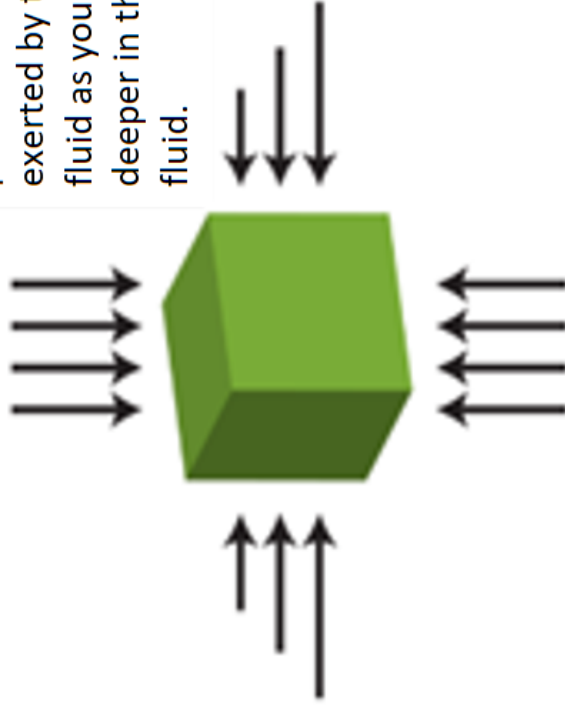
Pressure in gases

Particles in a gas are spread out. There is lots of space between the particles. Adding pressure pushes the particles closer together. This can be useful in reactions that involve gases because they will be more likely to collide.

Mass vs Weight

Mass – the amount of stuff you are made out of (Kg).
Weight – The force of gravity acting on that mass (weight = mass x gravity).

Mass: 50 kg
Weight: 110 lbs

Earth

Mass: 50 kg
Weight: 42 lbs

Mars

The man has the same mass because he is made of the same stuff. He has a different weight because gravity is much less on the moon.

Lunar eclipse
A lunar eclipse occurs when the Moon passes directly behind Earth and into its shadow.

Solar eclipse
A solar eclipse occurs when a portion of the Earth is engulfed in a shadow cast by the Moon which fully or partially blocks sunlight.

Solar System –

Phases of the moon

The moon takes 28 days to orbit the Earth.
The moon is a natural satellite.

Satellites

A satellite is a body that orbits the earth or another planet. They can be artificial or natural. An artifical satellite is a man-made object in orbit, used for communication, media, or navigation. The Moon is a natural satellite.

Seasons

We live in the Northern Hemisphere. In summer the Northern Hemisphere is tilted towards the sun. In winter it is tilted away from the sun. As shown in the diagram.

Spanish — Y7 Summer term Knowledge Organiser

Unit 5: Mi barrio – My area

Key spellings

Learn these spellings, they will be really useful for this unit and you will be tested on them.

1. está en…	it's in…
2. una ciudad	a city
3. voy	I go
4. voy a ir	I'm going to go
5. vamos a jugar	we're going to play

Key vocabulary and questions

¿Cómo es tu casa o tu piso?	What is your house or flat like?
Vivo en…	I live in…
una casa/un piso	a house/a flat
Mi casa/piso es…	Mi house/flat is…
antiguo/a	old/old-fashioned
bonito/a	pretty
cómodo/a	comfortable
feo/a	ugly
moderno/a	modern
pequeño/a	small
grande	big

¿Dónde está?	Where is it?
Está en…	I live in…
el campo	the countryside
la costa	the coast
la montaña	the mountains
el desierto	the desert
una ciudad	a city
un pueblo	a village
el norte/el sur	the North/South
el este/el oeste	the East/West
el centro	the Midlands

The verb ESTAR - To be (located)

estoy	I am
estás	you are
está	he/she/it is
estamos	we are
estáis	you (pl) are
están	they are

¿Qué hay en tu ciudad? / What is there in your town?

En mi ciudad hay…	In my city there is…
No hay…	There isn't…
un castillo	a castle
un centro comercial	a shopping centre
un estadio	a stadium
un mercado	a market
un museo	a museum
un polideportivo	a sports centre
un restaurante	a restaurant
un parque	a park
una piscina	a swimming pool
una plaza	a square
una tienda	a shop
una universidad	a university
unos museos	some museums
unas tiendas	Some shops
muchos parques	lots of parks
muchas plazas	lots of squares
Can you use a dictionary to look up some more places in the town?	

¿Qué haces en la ciudad? / What do you do in town?

Salgo con mis amigos	I go out with my friends
Voy…	I go…
al cine	to the cinema
al parque	to the park
al polideportivo	to the sports centre
al centro comercial	to the shopping centre
a la bolera	to the bowling alley
a la cafetería	to the café
a la piscina	to the swimming pool
a la playa	to the beach
Voy de compras	I go shopping
Voy de paseo	I go for a walk
No hago nada	I do nothing
Can you spot the rule for using al or a la with places?	

¿Qué hora es?

¿Qué hora es?	What time is it?
Es la una	It's 1:00
Son las dos	It's 2:00
Son las tres y diez	It's 3:10
Son las cuatro y cuarto	It's 4:15
Son las cinco y veinticinco	It's 5:25
Son las seis y media	It's 6:30
Son las siete menos veinte	It's 6:40
Son las ocho menos cuarto	It's 7:45
Son las nueve menos cinco	It's 8:55
Es mediodía/Es medianoche	It's midday/midnight
¿A qué hora?	At what time?
A la una	At 1:00
A las dos/tres/cuatro…	At 2:00/3:00/4:00…
A mediodía	At midday

Be careful to get the right hours when using *menos*.
7:45 = son las ocho menos cuarto (quarter to eight).

¿Qué vas a hacer / What are you going to do?

Voy a salir	I am going to go out
Vas a ver la televisión	You are going to watch TV online
Va a ir de paseo	He/She is going to go for a walk
Vamos a jugar al tenis	We are going to play tennis
Vais a chatear	You (pl) are going to chat
Van a hacer los deberes	They are going to do homework

Look at the next page to see how the verb IR is used to talk about future plans

The verb IR - To go

voy	I go
vas	you go
va	he/she/it goes
vamos	we go
vais	you (pl) go
van	they go

¿Te gusta vivir en…? / Do you like living in…?

Me gusta (mucho) vivir en…	I (really) like living in…
No me gusta vivir en…	I (don't) like living in…
porque es/no es…	because it is/isn't
porque hay/no hay…	because there is/isn't…

Spanish Y7 Summer term Knowledge Organiser Unit 6: En Barcelona - In Barcelona

Key spellings

Learn these spellings, they will be really useful for this unit and you will be tested on them.

1. quiero	I want
2. una ración de	a portion of
3. ¿Cuánto es?	How much is it?
4. voy a visitar	I'm going to visit
5. se puede	you can

Key vocabulary and questions

En la cafetería	In the café
¿Qué quiere(s)?	What do you want? (-s = informal)
Quiero...	I want...
un batido de chocolate/fresa	a chocolate/strawberry milkshake
un té/café	a tea/coffee
una Coca-Cola	a Coca-Cola
una Fanta limón	a lemon Fanta
un granizado de limón	an iced lemon drink
una ración de...	a portion of...
calamares fritos	fried squid
croquetas de jamón	ham croquettes
gambas	prawns
pan con tomate	bread with tomatoes
patatas bravas	spicy potatoes
tortilla española	Spanish omelette
¿Algo más?	Anything else?
No, nada más.	No, nothing else
¿Y de beber?	And to drink?
¿Cuánto es?	How much is it?
Son tres euros cincuenta	It's 3,50€

The verb QUERER - To want

quiero	I want
quieres	you want
quiere	he/she/it wants
queremos	we want
queréis	you (pl) want
quieren	they want

¿Qué se puede hacer en Barcelona? / What can you do in Barcelona?

Se puede...	You can...
ver un partido en el Camp Nou	watch a match at the Nou Camp
ir al acuario/al zoo	go to the aquarium/the zoo
ver la catedral famosa	see the famous cathedral
ir de paseo en el Park Güell	go for a walk in Park Güell
visitar el museo Picasso	visit the Picasso museum
aprender a cocinar tapas	learn to cook tapas
ver un espectáculo flamenco	see a flamenco show
disfrutar de las vistas en Montserrat	enjoy the views in Montserrat
ver artistas callejeros en Las Ramblas	watch performers on Barcelona's main street.
hacer una visita guiada	do a guided tour
ir a la playa	go to the beach
Se pueden...	**You can (plural)**
comer platos típicos	eat regional dishes
comprar recuerdos en la Boquería	buy souvenirs in the Boquería market
comer churros en un café	eat churros in a café

Time phrases

mañana	tomorrow
en verano	in summer
la semana que viene	next week
este fin de semana	this weekend
por la mañana	in the morning
por la tarde	in the evening
primero	first
luego	then
después	after
finalmente	finally

Makre sure you always use a time phrase to make it clear which tense you are using, and link your work together using sequencers like *primero, luego,* and *finalmente*.

¿Qué vas a hacer en Barcelona? / What are you going to do in Barcelona?

Voy a...	I'm going to...
Vamos a...	We're going to...
Mi hermana va a...	My sister is going to...
Mis padres van a...	My parents are going to...
montar en bici	go cycling
comer helados	eat ice creams
visitar monumentos	visit monuments
ir de paseo	go for a walk
comprar recuerdos	buy souvenirs
sacar fotos	take photos
tomar el sol	sunbathe
ir de excursión	go on a trip
descansar	relax

Key grammar – The near future

Use the near future to talk about what is going to happen (I am going to eat, he is going to buy, we are going to dance)

This tense is formed by 3 parts, make sure you have all of them to use it correctly.

1. The present tense of IR (the verb to go)
2. 'a'
3. An infinitive verb (ending in -ar/er-ir)

1. The present tense of IR	2. 'a'	3. An infinitive verb	
Voy		comer	I am going to eat
Vas		bailar	You are going to dance
Va	a	llevar	(S)he is going to wear
Vamos		visitar	We are going to visit
Vais		comprar	You (pl.) are going to buy
Van		beber	They are going to drink

Year 7 KS3 Timbers and Boards

HAND TOOLS USED

Bench Hook	
Coping Saw	
Tennon Saw	
G Clamp	
Woodwork Vice	
Drilling Jig with 2 G-clamps	
Glass Paper	

MACHINERY USED

Jig Saw (Hegner)	
Disc Sander	
Pillar Drill	

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
- 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

Softwood
- 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.

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	Can warp twist and bend

Man made Boards- Plywood/MDF

Advantages	Disadvantages
It is easy to cut and shape	MDF has no grain so it is not as attractive
Takes paint well	But MDF Is damaged by water
Available in large sheets	Because of the adhesive used the 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	
Resistor	

Soldering Iron.
If you burn yourself run the burn under cold water for at least 15mins

Man made board
can be cut on a laser cutter or on a CNC machine (such as a MDX15)
This is how the HIPS (plastic) letter stencils were created.

Aesthetics of Timber

Lines in wood are called the grain

These marks are called knots and show where a branch grew

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

Year 7 KS3 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..

Signage

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

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

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 injury yourself.
- ☐ Tie back long hair to prevent it from being caught in machines.
- ☐ Always wear goggles so you don't injury 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 injury 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	Ties, blazers and jumper removed	Aprons on to protect clothing	Goggles on all machinery to protect eyes

Hazard Waring Tape

Only one person allowed in the box to operate machinerysafely

Emergency Stop Buttons

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

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.

Year 7 KS3 Design & Drawing Skills

Orthographic Projection

Third angle projection
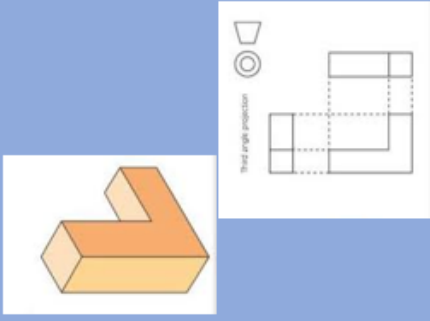
Isometric Drawing

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.
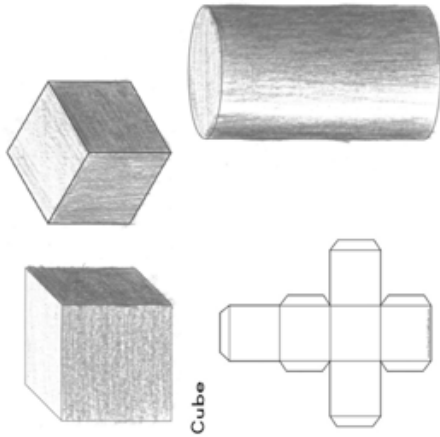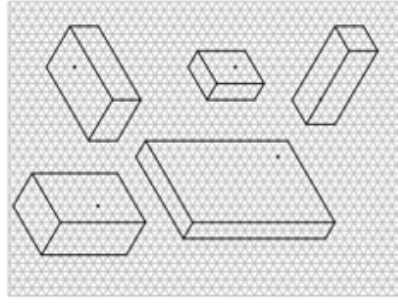

Assessment:

- 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)

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

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

Shapes

Horizontal, vertical lines. Square, Circle, Ellipse,

Design Brief

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

3 Dimensional Shapes & Nets

Cube, cuboid, cylinder

Cube

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

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

Year 7 KS3 Smart Materials & Composites

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

Year 8 – Textiles, Plastic, Metal CAD & Electronics

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

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.

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.

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

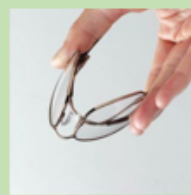They are used for spectacle frames, which if accidently bent can be heated and returned to their original shape.

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.

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.

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.

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.

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

Smart Martials:

Year 7 KS3 Paper and Board

Year 8 – Textiles, Plastic, Metal CAD & Electronics

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)

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 .

Solid White Board
Strong
High quality
Pure
bleached
white pulp
Book covers
Expensive packaging
Dyed

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

Corrugated Cardboard
Two or more layers
Interlacing fluted inner sections
Strength
Light weight
Recycled material
Dark brown
250gsm
Boxes
Packaging

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

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

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

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

Manufacturing of Paper

Paper Sizes:

A1
594 X 841mm /
23.4 X 33.1"

A3
297 X 420mm /
11.7 X 16.5"

A2
420 X 594mm /
16.5 X 23.4"

A5

A7
A6

A4
210 X 297mm /
8.3 X 11.7"

841 X 1189mm /
33.1 X 46.8" A0

Duplex and Corrugated

Foil-lined trays keeps heat, ready-meals

Year 7 KS3 Electronics and Soldering

Electronic System Components

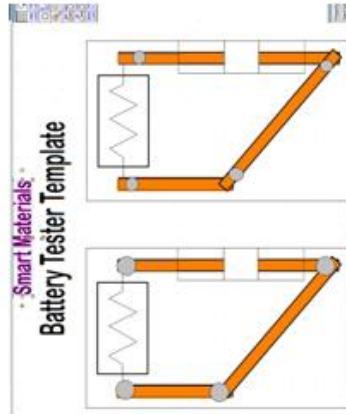| Component Name	Circuit Symbol
Push to make switch	
Light-dependent resistor	
Thermistor	
Microcontroller	
Buzzer	
Speaker	
Lamp	

Key Words:

Conductor – Copper, steel, aluminum creates an excellent conductive path for electric current to flow

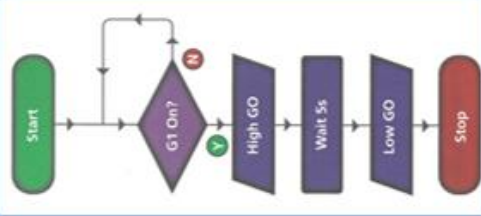**Insulator –** fabric, wood, plastic prevents the flow of electricity

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.

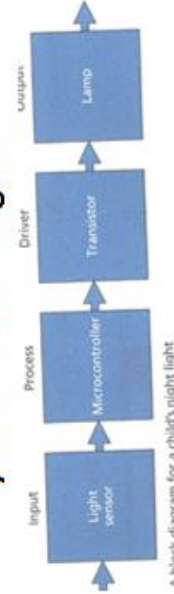Flows into the heated metal along the joint

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.

Systems Block Diagrams

A block diagram for a child's night light

An Electronic System Printed PCB Circuit Board (PCB)

Design Specification

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

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.

Smart Materials

Battery Tester Template

Design/Product
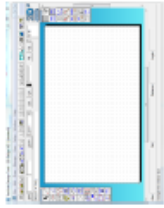

Health and Safety Soldering:

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
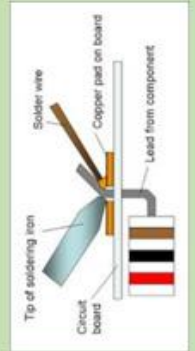
KS3 Knowledge Organiser – Year 7 CAD/CAM

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

Drawing Aides and Tools:

- Select
- Circle
- Double click to type a Double Path
- Line
- Arc
- Shape
- Path
- Boundary Fill
- Text
- Dimension
- ABC
- Contour
- Spacing
- Make 3D
- Zoom
- Clip
- Delete

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

Vectorising:

Bitmap Image
Full Colour

Vector
Monochrome = Black and White

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

Black = Laser engrave
- Laser moves quickly at a low power

Red = Laser cut
- Laser moves slowly at high power
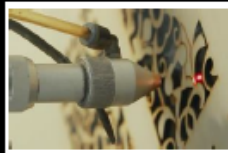
Other colours can be set up and used as required

Garage Keys

Felt

Card/Paper

Materials suitable for laser cutting:
Acrylic – Thermoforming Plastic
MDF – Manufactured Board
Plywood – Manufactured Board
Card/Paper – Paper/Board
Felt – Fabric

MDF

Acrylic

Plywood

How to ensure a closed boundary:

DEL

Overlap lines
and 'Delete Part'

Use the
'Attach' tool

Smooth
Del Node
Join Node
Add Node

'Edit' the lines and join the nodes

Drawing tool panel

- Grid — Dots on the grid are 10mm apart   1cm = 10mm
- Grid Lock — Step Lock
- Attach — Radial Lock
- Zoom — Zoom
- Undo — Remember: 2D Design can only undo ONCE!

Group / Ungroup

Save

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

Manipulating an Image:

ST CLEMENT'S HIGH SCHOOL

Rotate

Mirror
X Axis

Mirror
Y Axis

Copy

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

Notes Page