



Year 7

Knowledge Organiser

Spring Term (2) 2023

*What you need to know!*

## Knowledge Organisers – FAQ

### **What is a Knowledge Organiser?**

Every ½ term this academic year, a new Knowledge Organiser will be produced and put on the school website. These documents are produced for Year 7, Year 8 and Year 9 students and contain key information, specific subject terminology and links to additional resources to help you and your child fully understand topics within the different subject areas.

### **Can Knowledge Organisers be used for revision and preparing for assessments?**

These Knowledge Organisers are designed around the content delivered in lessons each half term in Year 7, 8 and 9. Therefore, they are an excellent revision tool to help prepare your child for end of unit tests as well as their end of year exams which cover previously learned subject content.

### **How should I use the Knowledge Organiser?**

In order that these documents are useful and not too complicated, the Knowledge Organiser is designed to include the basic facts and information being covered in a specific subject over that half term. You may choose to print a version in order that you annotate or tick off aspects once they are fully understood. You may also choose to use this as an electronic revision guide, using the hyperlinks to webpages to secure or deepen understanding.

### **What are the Arrow Tasks?**

At Liskeard School & Community College, teachers use Arrow Tasks as a way of stretching your child. These tasks often involve extending their knowledge through research or applying a learned concept in another way. Try to complete all the Arrow Tasks within the Knowledge Organiser to increase your knowledge and extend your conceptual understanding.

## Contents

Art  
Drama  
English  
Ethics, Philosophy and World Views  
French  
Geography  
History  
ICT and Computer Science  
Maths

Music  
Physical Education  
Science  
Spanish  
Technology: Electronics  
Technology: Food  
Technology: Product Design  
Technology: Textiles  
A guide to revision strategies

**Please note:** These subjects are hyperlinked. Click on the subject to take you to the relevant pages.

Topic: **Painting: Still Life. (2D Painting).**

**I need to know:** How to mix and apply colour and tone, demonstrating an appreciation of form.

Key Words	Definitions
Primary	Red, Yellow, Blue. Primary colours cannot be made by mixing other colours together.
Secondary	Orange, Violet, Green. Secondary colours are made by mixing two primary colours.
Tertiary	Tertiary colours are between, or a mix of primary and secondary colour.
Complimentary	Complimentary colours are opposite each other on the colour wheel. Put together they provide a strong contrast. Blue and orange are the coldest and warmest colours on the colour wheel. Yellow and purple are the palest and darkest colours on the colour wheel.
Tone	Black and white are the darkest and lightest tones. Mixing the two provide a range, or gradation, of tones from dark grey to light grey.
Shades	Mixing a small amount of black to a pure colour will make a shade.
Tints	Mixing a small amount of white to a pure colour will make a tint.
Pigment	A substance or compound that gives something a particular colour.
Ground	A ground or primer is the background surface on which you paint. It separates your painting from the supporting paper, canvas or board.
Impasto	The technique of applying paint or pigment thickly so that it stands out from a surface.
Layering	In technique, this simply means building up multiple layers of paint one on top of the other. In art theory it can also refer to layers of meaning.
Weight	The weight of a colour refers to its dominance within the composition or painting as a whole.
Composition	In the visual arts, composition is the arrangement of visual elements in a work of art. Space and silence are all important and can be seen and heard in music, writing and photography.
Localised colour	In painting, local colour is the natural colour of an object unmodified by manipulated light and shadow or any other distortion.
Reflected colour	In art, reflected colour is a change of hue caused when one colour is reflected onto another.
Reflected light and tone	Depending upon what material the apple is sitting on you are likely to see some reflected light on the underside of the apple making the tone lighter than the shadow.
Chiaroscuro	Chiaroscuro, in art, is the use of strong contrasts between light and dark, usually bold contrasts affecting a whole composition. It is also a technical term used by artists for the use of contrasts of light to achieve a sense of volume in modelling three-dimensional objects.
Line	The application of line in drawing is complex. Often line is simply used to outline shapes; however, the application of line is often underestimated. Try varying your quality of line, (dark / light / straight / curved / thick / thin...) to record the idea of weight and tension.

**Arrow Tasks:** Compare and reflect upon the art work Da Vinci, De Heem, Cezanne, Morandi, Thiebaud, Euan Egglow. Consider how their use of colour and tone capture shape and form.



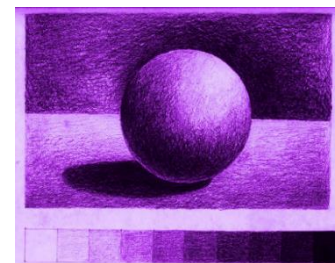
Explore mixing colours, adding black to make shades and white to make tints.



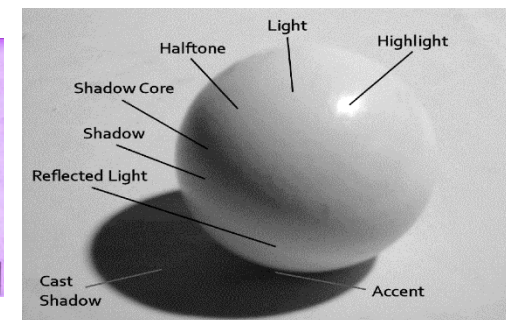
Euan Ugglow. Look carefully. Apply localised colour and tone accurately.



Student work.



Apply tones in a drawing to record light and shade on a form.



Consider the application of tone carefully. Shadows are not always as dark as you might think they are when light is reflected.



Topic: **Painting: Still Life. (2D Painting).**



Consider using some cooler, blue colours in the shadow of the apple. This will make the painting look even more 3D.



Consider the application of brush strokes really carefully. The direction and shape of the brush stroke can describe the rounded form of the apple and compliment your use of tone in recording 3D qualities.



Experiment with using a 'Chiaroscuro' style of lighting. This can make for a dramatic quality to the apple as well as showing off its three dimensional qualities.



Fabric drapes can appear weightless and soft at the same time as appearing heavy under tension. When drawing fabric, try to use straight lines to record fabric under the tension of its own weight.

**Thinking, questioning and communicating your visual intelligence using practical skills in ART.**

You will be able to organise your thoughts, understanding and expertise in **ART** this term under the following headings.

**Skills:** *Mixing colour and colour matching, applying colour and tone to form, exploring cool and warm colours, consider how line and shape compliment form, weight and tension...*

**Contexts:** *History, reasoning, ideas, recognising genre and styles, culture, connections, representations of space...*

**Rules:** *Visual analysis, measuring, proportion, translation of 3D to 2D, experimentation, exploration of colour values, compositions, adaptability ...*

**Audience:** *Personal, commercial, ethics, morals, age, empathy, critique...*

**Resolution:** *First hand and Secondary Sources, scale, representational, decisions, realism, style vs technique...*

**Communication:** *Represent, truth, analyse, evaluate, talk, show...*

**Legacy:** *Material, pigment, permanence, heritage, culture, pollution.*

Throughout the year we will be asking you to articulate (to say, explain and use), a number of **Personal, Learning and Thinking skills** to help you develop your knowledge and understanding. This term we will be asking you to reflect upon your **Reflective Learning**: Assess progress, set goals, consider success criteria, review, be open and positive, evaluate, communicate.

**Further thinking** (why does this matter?):

On a functional level, it is important to us all that we can identify, associate meaning, reproduce and apply a complex variety of colours because of its importance in food, nutrition, decay and poisoning; together with the recognition of visual cues to emotions and general health and wellbeing.

On a more complex level, throughout our history, colour has been used to record, and in doing so, it tells us a story of wealth, power, value, importance, travel, migration and export of goods. From the blue gem stone, Lapis Lazuli (mined in a remote Afghan mountain range), to the use of red pigment from a cochineal insect (a creature found on prickly-pear cacti in Mexico), colour reveals the rich history of humanity.



# Subject: Drama

Year: 7 Spring.

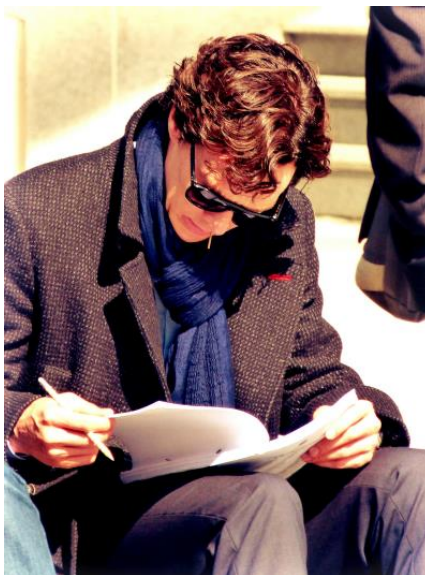
## Topic: Stage Voice

Key words	Definitions
Diction	How clear and precisely words are spoken
Projection	Speaking using clear stage voice
Pace	The speed of speech
Pitch	How high or low the voice is
Pause	Break in the speech
Volume	How loud or soft you speak
Accent	Pronunciation based on place of origin
Emphasis	The syllable or word that is stressed
Intonation	Adapting voice to show meaning
Expression	Making the emotion clear to the audience – visual and audible
Given Circumstances	The facts about the character that the actor cannot change
Script	A play text
Interpretation	Deciding on the meaning of a script
Motivation	What a character wants in a scene
Stage direction	Instructions in a script for action and interpretation
Staging	Plan the use of space
Rehearsal	Practising the piece of drama.
Blocking	To stage a scene focusing on transition
Dramatic Tension	To create suspense for the audience
Dialogue	Conversation between characters

**I need to know:** What to do with a script as an actor and how to use my stage voice to bring a character and their motivation to life in performance.

### Arrow Tasks:

Incorporate exaggerated physicality from Autumn term into performances.



### Wider Reading

- 'Bugsy Malone' by Alan Parker
- 'School of Rock' by Mike White
- 'The Terrible Fate of Humpty Dumpty' by David Calcutt
- 'How to do Accents' by Edda Sharpe
- **Fancy a career** in vocal acting?...

<https://www.voplanet.com/article/how-start-career-voice-acting>

### What We Do:

- Explore vocal acting skills
- Experiment with strategies for use of stage voice to show meaning.
- Read and interpret characters in scripts.
- Learn to look for the given circumstances.
- Explore character motivation and develop vocal performance from this.
- Prepare for and perform scenes from 'The Terrible Fate of Humpty Dumpty' by David Calcutt

Links to further resources: <https://www.youtube.com/watch?v=kEs8rK5Cqt8> – Use of emphasis in speech.  
<https://www.youtube.com/watch?v=CFXqyl4C1J4> – vocal warm up with National Theatre

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## Topic: Myths and legends

I need to know some of the ideas associated with myths and legends. I need to be able to see how writers engage and entertain and be able to use some of those techniques in my own writing.

### Key Words

- Myth – a story which explores an important mystery in the world (e.g. how animals were created, etc.)
- Legend – based on true events or people, a story which exaggerates a person or event in order to promote an idea
- Folk tale – a story which has been passed down through generations. It may have originally been based on a truth, but it is mostly fantasy
- Fantasy – a world which does not have to be based on scientific truths
- Archetypes – characters who all share the same personality traits
- Culture – a way of life for a group of people
- Moral – the lesson learned from a story

### Key themes:

Fate. The power of fate hangs over the lives of all the characters Hamilton describes, and even controls the gods themselves. ...

Pride and Hubris. The greatest sin in many **myths** is when a mortal grows too proud and claims to be the equal or superior of the gods.

Heroism.

Justice and Vengeance.

Beauty.

### Key characters

Hero – the protagonist (main character) who saves the day

Villain – the antagonist (anti-hero) who tries to disrupt everything

Trickster – the funny character who brings humour

Sidekick – the characters who support the hero or villain

Guardian – the protector of the hero

Mentor – the guiding character

Herald – the character who brings about a change of circumstance

Shapeshifter – the untrustworthy character who swaps allegiances.

### Big questions:

How are myths, legends and folk tales structured?

Why would people want to pass these stories on through generations?

What does this story tell you about the world of the people who invented it?

### Suggested activities:

Take one of the scenes of the stories as an inspiration – set a story in this fantasy land where anything is possible and relationships are controlled by external forces.

Use a key quotation from the play to start a story.

Rewrite the outcome of the story differently for one of the characters – what would you change and how would it make a difference?

Links to further resources: <https://www.bbc.co.uk/bitesize/topics/zx339j6/articles/ztxwsrd>  
<https://www.ted.com/search?q=Mythology>







## Topic: Buddhism

## I need to know:

- The life of Siddhartha Gotama.
- Key Buddhist teachings – The three signs of being, the Four Noble Truths and the Noble Eightfold Path.
- Key Buddhist practices to include the Five Moral precepts.
- The types and purposes of meditation.
- How the Sangha was formed and how this can impact on other communities.
- Different types of Buddhism.

## Key Words and Definitions



- **Buddha** – ‘the Enlightened one’
- **Enlightenment** – understanding the truth about the way things are
- **Meditation** – mental control leading to concentration, calmness and wisdom
- **Nirvana** - the stopping of greed, hatred and ignorance
- **Dhamma** – ‘natural laws’ – teachings of the Buddha
- **Sangha** – the community of Buddhist monks and nuns
- **Kamma** – action which affects future lives
- **Dukkha** – suffering and everything is unsatisfactory
- **Samara** – Continual cycle of birth, illness, death and rebirth.

## The Life of Siddhartha Gotama

- Siddhartha was an Indian Prince, born in Lumbini (Nepal) in the fifth century BCE.
- When he was born there was a prophecy about who would become. He would either be a great religious ruler or a great leader.
- A wise man told his Father that if Siddhartha ever saw suffering he would become a great religious leader rather than a great leader. His Father decides to hide all suffering from him.
- One day, bored by his sheltered life, Siddhartha leaves the palace and sees four different sights: an old man, a sick man, a funeral and a holy man. The holy man seemed contented and happy even though he had nothing.
- Siddhartha leaves the palace and goes in search of the answer to why there is so much suffering in the world.

## Schools of Buddhism

The two main ‘schools’ of Buddhism are Theravada Buddhists and Mahayana Buddhists. Mahayana means ‘great vehicle’. Theravada means ‘teachings of the elders’.



## The Five Moral Precepts

- Do not harm another living being.
- Do not take anything that has not been given to you freely.
- Do not be obscene or behave in a sexually improper way.
- Speak truthfully.
- Do not confuse your brain with alcohol and drugs.

## The Three Signs of Being

- **Anicca – Everything changes.** Nothing in the world stays the same; people, plants, and ‘solid’ things like mountains are always changing.
- **Anatta – ‘No-soul’ (everyone changes).** There is no thing making us exactly the same person tomorrow as we are today. We do not even have a soul that remains the same.
- **Dukkha – Suffering (uncomfortable and bored).** Because everything and everyone changes and nothing is ever perfect, this causes people suffering. Our whole lives are dukkha and we cannot escape it. However, if we follow the teachings of the Buddha, we can overcome it.

## The Four Noble Truths

1. The problem is always **suffering** (dukkha).
2. Suffering is caused by desire – wanting things or people or situations.
3. The cure is to stop getting too attached to things, people or situations.
4. People need to accept things as part of life, be kind, and think positively (Eightfold Path).

## The Three Jewels

The Three Jewels are the most important part of Buddhist beliefs. Buddhists repeat these words everyday... ‘*I take refuge in the **Buddha**. I take refuge in the **Dhamma** (teaching). I take refuge in the **Sangha** (community).*’

## The Noble Eightfold Path (The Middleway)

**Right view** - following Buddhism will help in life. **Right intention** - you need to actually follow Buddhism, not just think about it. **Right speech** - speak honestly and kindly to others. **Right action** - treat people kindly. **Right livelihood** - have a honest job and do not con or take advantage of others for money. **Right effort** - think kindly about others. **Right mindfulness** - be aware of who and what is around you. **Right contemplation** - recognise the importance of training your mind in these things through meditation and practice.

Arrow Tasks You could enhance your learning by visiting one of the suggested websites below. Evaluation question challenges – ‘Selfishness leads to suffering.’ Discuss. ‘Actions have consequences.’ Discuss. You could research further local Buddhism centres and look at what activities and classes they offer.

Links to further resources: [trutube.co.uk](http://trutube.co.uk) – excellent documentaries and clips on some of the topics studied in this course.

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## Topic: Mes Passetemps

I need to be able to: recognise and use a range of verbs, nouns and adjectives. I need to be able to describe my hobbies and when I do them.

Key Words	Definitions
Verb	Words which tell you the action
Subject pronouns	Words that tell you who is doing the action.
Noun	A place, person or a thing.
Gender	In French, nouns and adjectives can be either masculine or feminine.
Adjective	Words which describe nouns. In French adjectives are the same gender as the noun which they describe.
Definite article	'the'
Indefinite article	'a' 'some'
Singular (s)	One
Plural (pl)	More than one
Positive phrase	'is', 'do' 'does'
Negative phrase	'is not', 'does not', 'don't', 'never'
Possessive adjectives	My (in French, there are 3 forms; masculine singular, feminine singular and plural)

Jouer=to play

Je joue = I play

Tu joues= You play(s, friendly)

Il joue= He plays

Elle joue= She plays

On joue= we play

Nous jouons= We play

Vous jouez= You play (polite, pl)

Ils jouent= they play(m)

Elles jouent= they play (f)

faire= to do/ make

Je fais = I do/make

Tu fais = you (singular)  
do/make

Il fait= he does/makes

Elle fait = she  
does/makes

On fait= we do/make

Nous faisons = we  
do/makeVous faites= you  
do/make (plural)Ils font= they do/make  
(m)Elles font = they  
do/make (f)

Challenge: 'Faire' (To do) is an irregular verb. Find out as many phrases as you can which use the verb Faire and create a bank of useful sentences

e.g Faire du vélo = To go bikeriding – Je fais du vélo et j'aime ça!

	français	anglais
1	Qu'est-ce que tu fais avec ton ordinateur?	What do you do with your computer?
2	Qu'est-ce que tu fais avec ton portable?	What do you do with your mobile phone?
3	Je joue	I play
4	Je tchatte sur Whatsapp souvent	I chat on.....often
5	Je surfe sur internet tous les soirs	I go on the internet every evening
6	Quelquefois, Je regarde des clips vidéo	Sometimes,I watch video clips
7	Je télécharge de la musique tout le temps	I download music all the time
8	J'envoie des SMS tous les jours	I send texts every day
9	Je parle avec mes copains de temps en temps	I talk to my friends from time to time
10	Aussi, je joue au basket et au foot	Also, I play basketball and football
11	Je suis (assez) sportif/sportive	I am (quite) sporty(masc/fem)
12	Mon sport préféré est..	My favourite sport is..
13	Je fais du parkour une fois par semaine	I do parkour once a week
14	Je fais du patin à glace deux fois par semaine	I do ice skating twice a week
15	Je fais de la natation quand il fait beau	I go swimming when it's good weather
16	Je fais de l'équitation en été	I go horse-riding in the Summer
17	Je fais du vélo en hiver	I go cycling in the winter
18	Le soir, j'aime regarder la télé	In the evening, I like watching TV
19	Le weekend, j'aime retrouver mes amis en ville	At the weekend, I like meeting up with friends in town
20	Ensuite, j'aime faire les magasins	Then I like going shopping
21	Le samedi matin, j'aime faire du sport	On Saturday mornings, I like doing sport
22	D'habitude, j'aime jouer au rugby	Normally, I like playing rugby
23	Quand il fait chaud, elle fait du jogging	When it's hot, she goes jogging
24	Quand il pleut, ils écoutent de la musique	When it's raining, they listen to music



## Topic: India vs China

**I need to know:** In this topic, you will start to look at some of the geographical concepts you have already studied on a global scale, specifically investigating China and India. You will investigate aspects such as physical geography, population distribution and development of these two countries. There will be opportunities to compare the two countries throughout the unit.

Key Words	Definitions
Continent	Large, continuous, discrete masses of land, generally separated by expanses of water.
Physical geography	The earth's natural features and what our planet is like such as rivers, oceans, ecosystems and hazards.
Human geography	How and where people live, such as population, development and settlement.
Population	The number of people living in a place.
Population distribution	The pattern in which the population is spread out and located.
Choropleth map	A map which uses differences in shading or colouring to show information.
Development	The standard of living and quality of life in a country.
Development indicator	Particular pieces of information used to measure development in a country.
Life expectancy	The age people can expect to live.
Birth rate	The amount of babies born per 1,000 women each year.
Death rate	The amount of people who die per 1,000 people each year.
Literacy rate	The percentage of people that are able to read and write.
Gross National Income (GNI)	The amount of money that a country makes.
Your teacher will give you any more key words that you learn about.	



### Arrow Tasks:

These questions will be asked of you in lesson to help extend and further your understanding. Can you come up with some answers to these questions?

- How are coasts linked to continents, even though continents are land based?
- Why is the UK still going to be in Europe even after it has left the EU?
- Why are development indicators not always an accurate way of measuring development?

**Homework Tasks:** These are some examples of homework tasks you might get for this topic to help develop your geographical skills. Your teacher will explain the tasks in more detail, especially if they give you one not listed here.

- Creating a map labelling the different continents of the world.
- Research a particular physical or human feature in each country and produce a short project on it.
- Sometimes this term you may do a task in a lesson for one country and then be asked to do the same task for the other country for homework.

## Topic: India vs China

### Continents

Continents are large, continuous, discrete masses of land, generally separated by expanses of water. There are seven continents in the world

- Africa
- Antarctica
- Asia
- Europe
- North America
- South America
- Oceania



### China and India

China and India are both located in Asia and are the two countries with the biggest populations in the world. China's population is about 1.4bn, and India's 1.3bn.



### Physical and Human Geography

These are the two types of geography you have studied so far, and will continue to do so in this unit. You will make physical geography maps of both India and China. How do they compare to each other? You will also make produce maps looking at the population distribution. You can see more about this in the box below.



### Development

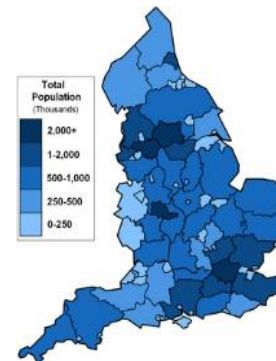
Development refers to the quality of life and services available in a country. They can be measured using a number of factors. Their main ones are:

- Life expectancy
- Birth rate
- Death rate
- Literacy rate
- Gross National Income (GNI)

### Population Distribution

Population distribution refers to the pattern of where people live. We often analyse population distribution using a choropleth map. This is a map using different colours to show data. There are a few simple steps to making a choropleth map.

1. Divide your data into 4-5 categories
2. Produce a key with different colours for each category
3. Shade each area on the map according to the population in that area and the corresponding colour.



The best choropleth maps use different shades of one colour, rather than different colours.

### Links to Further Resources

World Factbook – China  
<https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html>

World Factbook – India  
<https://www.cia.gov/library/publications/the-world-factbook/geos/in.html>

Continents Game  
<https://world-geography-games.com/continents/>

Development  
<https://www.bbc.co.uk/bitesize/guides/zvp39j6/revision/1>

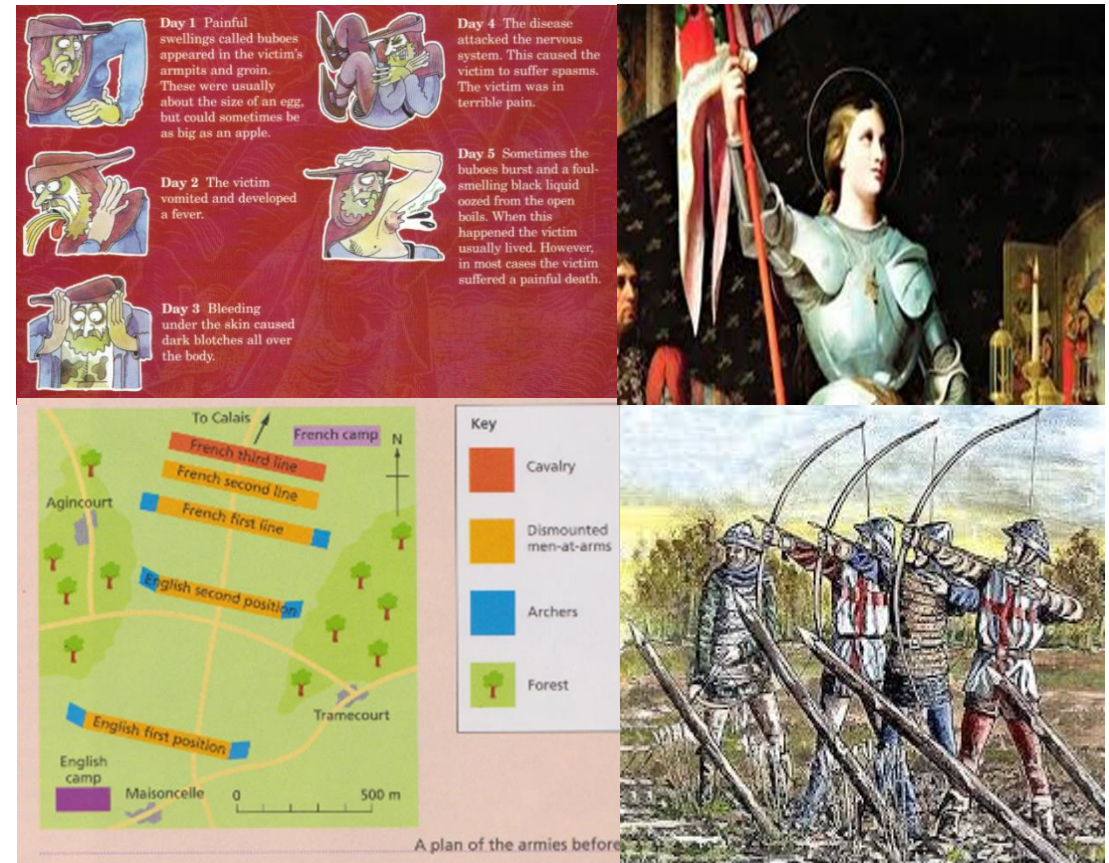
Development and Population  
<https://www.bbc.co.uk/bitesize/guides/zbswxnb/revision/1>

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## Topic: Black Death and 100 Years War

**I need to know:** The epidemic of the Black Death struck and killed 33-50% of England's population as people did not know what was actually causing it or how to treat it. Belief in God, miasma (bad air) and the supernatural were all thought to be both causes and methods of prevention and treatment. The 100 Years War saw a series of battles between the French and English as both countries wanted to have control of areas of France, Agincourt was a key battle and Joan of Arc a key individual.

Key Words	Definitions
Buboe	Swelling under the armpit or groin
Pestilence	Name for the Black Death in the 1340s
Epidemic	Widespread disease
Miasma	'Bad air' that was believed to cause disease
Leeches	Slug-like creatures used to suck blood as a 'cure' - a form of 'bloodletting'
Edward III	King of England who started the 100 Years War in an attempt to take control of France
116	The actual length of the 100 Years War between England and France
Joan of Arc	Young female leader of some French armies
Orleans	Location in France in which Joan led her army to victory against the English
Agincourt	Location in France of a famous English victory
1415	The year of the Battle of Agincourt
Henry V	King of England who won at Agincourt
Longbows	The powerful weapons used by the English at the Battle of Agincourt
Dysentery	An illness that causes dehydration
Cavalry	Soldiers on horseback



### Arrow Tasks:

Could the people in 1348 have done anything better to try and prevent the spread of the Black Death?

Is there any way that the French could have won the Battle of Agincourt?

Links to further resources: <https://www.youtube.com/watch?v=d6CrOG0XtMI>  
[http://www.bbc.co.uk/history/british/middle\\_ages/hundred\\_years\\_war\\_01.shtml](http://www.bbc.co.uk/history/british/middle_ages/hundred_years_war_01.shtml)

Top left: Symptoms of the Black Death

Top Right: Joan of Arc

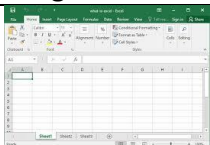

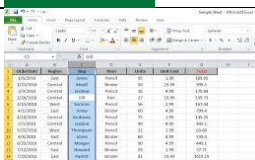
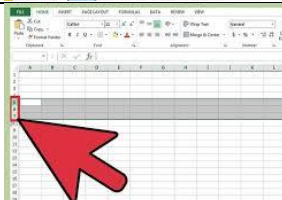
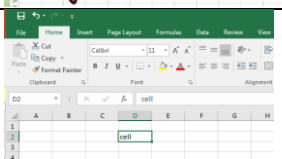
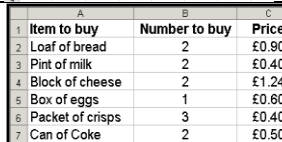
Bottom left: The layout of the Battle of Agincourt

Bottom Right English archers (longbows) at Agincourt



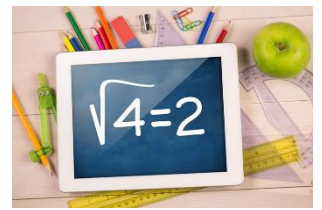
## Topic: Spreadsheets

I need to know: In this unit you will need to develop an understanding of and be able to write **formulae** and **functions**. You will be able to **format** a spreadsheet for a purpose. You will use a **database** to create **Charts** and **analyse** the **findings**.

Key Words	Definitions	Image
<b>Spreadsheet</b>	A spreadsheet is used for storing information and data.	
<b>Microsoft Excel</b>	The most common spreadsheet application, although there are other spreadsheets available.	
<b>Column</b>	Labelled with letters.	
<b>Rows</b>	Labelled with numbers	
<b>Cell</b>	Has a unique Cell Reference e.g. in this example it is D2	
<b>Label</b>	Is a piece of TEXT that you add to a spreadsheet to help describe the numbers.	

Functions	What does it do?	Example
<b>SUM</b>	Adds the values in the selected cells	<b>=SUM(B2:B25)</b>
<b>COUNT</b>	Counts how many of the selected cells have numbers in them	<b>=COUNT(B2:B25)</b>
<b>AVERAGE</b>	Finds the average value	<b>=AVERAGE(B2:B25)</b>
<b>SUM</b>	Adds the values in the cells	<b>=SUM(B2:B25)</b>
<b>MIN</b>	Finds the smallest value.	<b>=MIN(B2:B25)</b>
<b>MAX</b>	Finds the largest value.	<b>=MAX(B2:B25)</b>

Arrow Tasks: Can you collect **primary data** and make this more meaningful by creating a **spreadsheet** with the **raw data** and then **analysing** it using **charts**?



## Topic: Directed Number &amp; Fractional Thinking

## I need to know how to:

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>Select and use appropriate calculation strategies to solve increasingly complex problems.</li> <li>Use the four operations, including formal written methods applied to positive and negative integers.</li> <li>Recognise and use the relationship between operations, including inverse operations.</li> <li>Use square and square roots</li> <li>Use a calculator and other technologies to calculate results accurately and interpret them appropriately.</li> <li>Substitute numerical values into formulae and expressions, including scientific formulae.</li> <li>Understand and use the concepts and vocabulary of expressions, equations, inequalities, terms and factors.</li> <li>Simplify and manipulate algebraic expressions to maintain equivalence.</li> <li>Understand and use standard mathematical formulae</li> </ul> | <ul style="list-style-type: none"> <li>Move freely between different numerical, graphical and diagrammatic representations (for example, equivalent fractions, fractions &amp; decimals)</li> <li>Express one quantity as a fraction of another</li> <li>Order positive and negative integers, decimals and fractions; use the number line as a model for ordering of the real numbers</li> <li>Use the symbols <math>=</math>, <math>\neq</math>, <math>\leq</math>, <math>\geq</math></li> <li>Work interchangeably with terminating decimals and their corresponding fractions.</li> <li></li> </ul> <p>EXTENSION OF PRIOR LEARNING:</p> <ul style="list-style-type: none"> <li>Use conventional notation for the priority of operations</li> <li>Form and solve linear equations, including two-step equations.</li> <li>Finding the range and median</li> <li>Substitution into algebraic formulae</li> <li>Forming &amp; solving linear equations.</li> </ul> |
|---|---|

## Arrow Tasks

- Can you learn all the square numbers up to  $20^2$ ?
- Can you create your own equations for someone else to solve? (Make sure you can solve them yourself before letting someone else try!)

Key Words	Definitions
Ascending	Arranged from smallest to largest
Commutative	The " <b>Commutative Laws</b> " say we can swap numbers over and still get the same answer when we add and when we multiply
Descending	Arranged from largest to smallest
Difference	The result of subtracting one number from another. How much one number differs from another.
Equation	An <b>equation</b> can be solved, it has an $=$ sign.
Expression	An expression is one or a group of terms and may include variables, constants, operators and grouping symbols. It does not have an $=$ sign. E.g. $3(x + y) - 8 + 2y$
Index (plural indices)	An index (exponent, power or order) is a small number placed to the upper-right of a base number which shows how many copies of the base number are multiplied together.
Inverse	<b>Inverse</b> means the opposite in effect. The reverse of.
Negative	A <b>negative</b> number is any number less than zero. It is written with a minus sign.
Square Number	A number which can be represented in the shape of a square. It is the number that results from multiplying an integer by itself. Also called a perfect square.
Square root	a number when multiplied by itself gives the original number. Written using the symbol $\sqrt{\phantom{x}}$ .
Substitute	In algebra, <b>substitution</b> involves replacing letters, i.e. <b>variables</b> , with numbers to solve or simplify expressions and equations.

Links to further resources:

[www.mymaths.co.uk](http://www.mymaths.co.uk)      <http://www.amathsdictionaryforkids.com/>  
<https://parallel.org.uk/>  
<https://www.bbc.com/bitesize/subjects/zqhs34j>  
<https://nrich.maths.org/secondary>

Subject: Music

Year 7: Spring Term 2

"Music gives a soul to the universe, wings to the mind, flight to the imagination and life to everything"


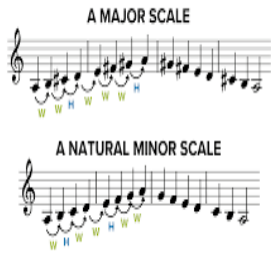
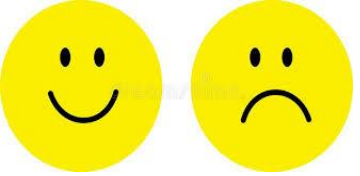
## Topic: NOTES OF THE KEYBOARD - TONALITY

**I need to be able to:** Recognise the layout of the musical keyboard, knowing where all the notes are (A-G). Perform using both hands, playing the melody in the right hand and supported with chords in the left hand. Change the tonality of the music from Major to Minor.

<u>KEY WORDS</u>	<u>MEANING</u>
<b>Keys</b>	Notes on the keyboard
<b>Finger Pattern</b>	A technique used to allow the free-flowing movement between notes
<b>Scale</b>	Any set of musical notes ordered by fundamental frequency or pitch
<b>Major</b>	When the music sounds happy
<b>Minor</b>	When the music sounds sad

### OTHER TECHNIQUES OF KEYBOARD PLAYING

**Chromatic** – moving up or down to the next closest note  
**Chords** – playing three notes at the same time in the left hand  
**Arpeggio** – playing three notes separately in the left hand  
**Timbre** – change the instrument on the keyboard (try Cello!)  
**I, IV and V** – the three different chords used (Primary chords)

INSTRUMENTS	SCALES	TONALITY
		

**LISTEN** to the Flight of the Bumblebee and watch on the screen. <https://www.youtube.com/watch?v=M93qXQWaBdE>

**Arrow Task:** When was the Piano invented? How did it start? Which Classical Period was famous for the Piano? Can you find out the name of a famous Pianist and what piece are they famous for?



**I need to know: To Understand the role that the skeleton plays in physical activity.**

## Skeletal System

### Key facts!

- There are a total of 206 bones
- Babies are born with 300 bones
- 33 Vertebrae
- The smallest bone in your body is in your ear



### Bones to be labelled For Task 1

Humerus

Femur

Tibia

Fibia

Cranium

Patella

Phalanges

Tarsals

Sternum

Scapula

Metatarsals

Ulna

Radius

### - Homework Task 1

: Label a skeleton with all the major bones listed in the table. Challenge: Can you show a front and back diagram.



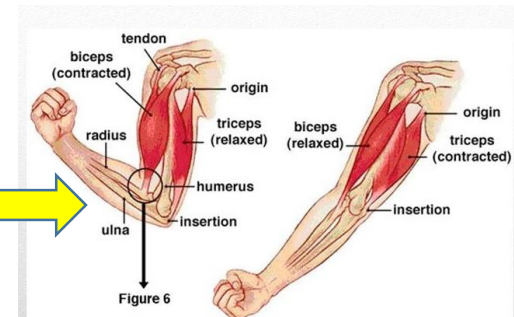
The skeletal system has 6 major functions:

1. Shape
2. Movement
- 3.
- 4.
- 5.
- 6.
- 7.

**Homework task 2:**  
Can you fill in the blanks above?

### Arrow /Extension Tasks

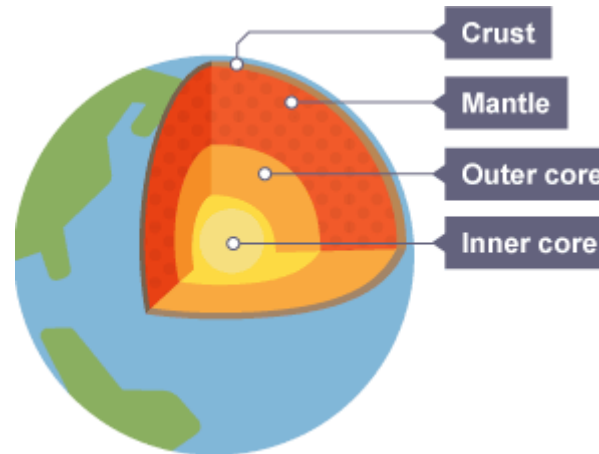
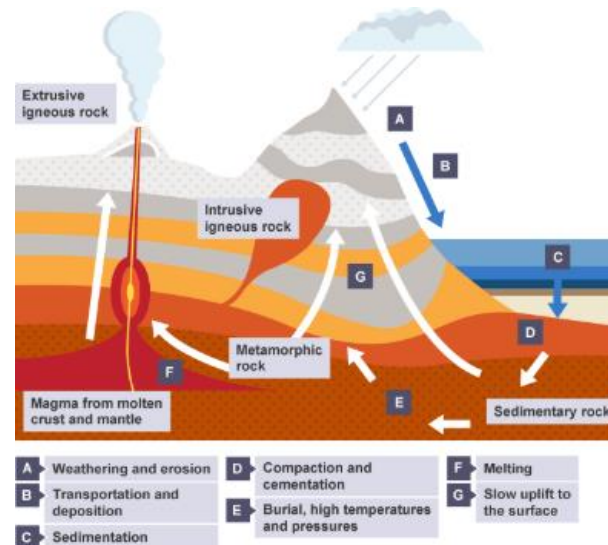
Investigate an action in sport e.g. Tennis serve or a kick in football. Label a diagram to show the actions of this movement and label the bones and joints in these actions



## Topic: Earth Structure

I need to be able to: Relate the features of the particle model to the properties of material in different states

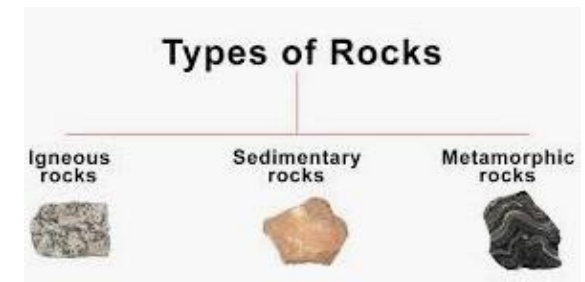
Key Words	Definitions
Rock Cycle	Sequence of processes where rocks change from one type to another.
Weathering	The wearing down of rock by physical, chemical or biological processes.
Erosion	Movement of rock by water, ice or wind (transportation).
Minerals	Chemicals that rocks are made from
Sedimentary Rocks	Formed from layers of sediment, and which can contain fossils. Examples are limestone, chalk and sandstone.
Igneous Rocks	Formed from cooled magma, with minerals arranged in crystals. Examples are granite, basalt and obsidian.
Metamorphic Rocks	Formed from existing rocks exposed to heat and pressure over a long time. Examples are marble, slate and schist.
Strata	Layers of sedimentary rock

**Why does it matter?**

What is your house made of? Why are these considered to be good building materials?

<http://www.understandconstruction.com/building-materials.html>

<https://geology.com/rocks/limestone.shtml>



Sedimentary, igneous and metamorphic rocks can be inter converted over millions of years through weathering and erosion, heat and pressure, and melting and cooling.

Arrow Tasks: Find out how sound waves enabled scientists to describe the inner structure of the Earth

Links to further resources: <http://www.cotf.edu/ete/modules/msese/earthsysflr/rock.html>  
<https://www.nationalgeographic.com/science/earth/inside-the-earth/rocks/>

# Topic: Energy Cost

I need to be able to: Compare the running costs of fluorescent and filament light bulbs;

Key Words	Definitions
Power	How quickly energy is transferred by a device (watts).
Energy Resource	Something with stored energy that can be released in a useful way.
Non-renewable	An energy resource that cannot be replaced and will be used up.
Renewable	An energy resource that can be replaced and will not run out. Examples are solar, wind, waves, geothermal and biomass.
Fossil Fuels	Non-renewable energy resources formed from the remains of ancient plants or animals. Examples are coal, crude oil and natural gas.

$$\text{Cost} = \text{power (kW)} \times \text{time (hours)} \times \text{price (per kWh)}$$

$$\frac{60\text{W}}{1,000} \times 1\text{h} = 0.06\text{ kWh}$$

$$0.06 \text{ kWh} \times 8 \text{ per day} \times 30 \text{ d per month} = 14.4 \text{ kWh per month}$$

Arrow Tasks: Research and describe the properties of plasma

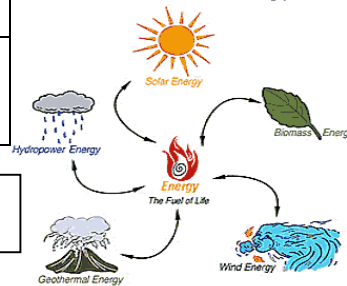
Explain changes of state in terms of intermolecular forces

Links to further resources: <https://www.bbc.com/bitesize/guides/zyfgr82/revision/3> <https://www.gcse.com/energy/kWh6.htm>

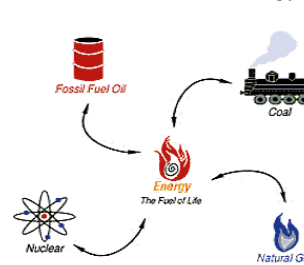
## Fossil Fuels



## Renewable Energy



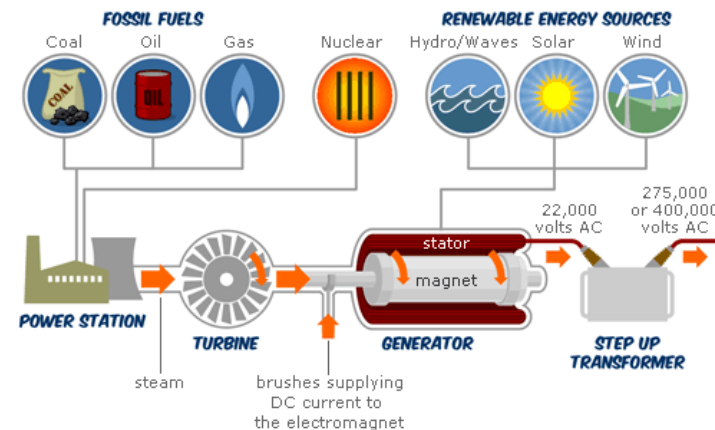
## Non-Renewable Energy



## Why does it matter?

Check all of the labels from all of the foods you have eaten as part of your dinner. Calculate how much energy is transferred in a single meal.

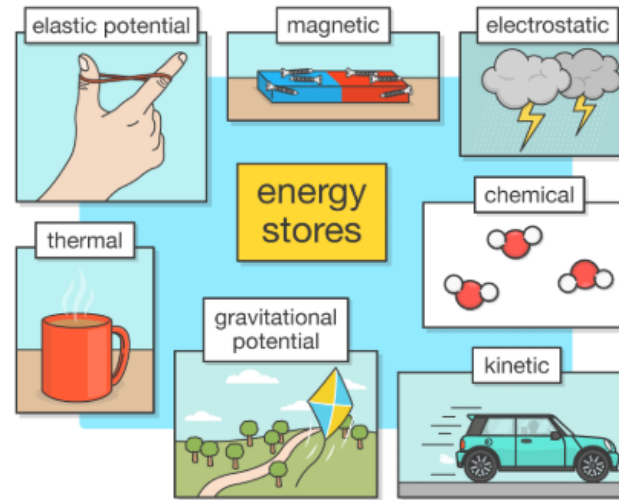
What extra information will you need to consider?



## Topic: Energy Transfer

I need to be able to: explain the energy transfers in a hand crank torch

Key Words	Definitions
Thermal Energy Store	Filled when an object is warmed up.
Chemical Energy Store	Emptied during chemical reactions when energy is transferred to the surroundings.
Kinetic Energy Store	Filled when an object speeds up.
Gravitational Potential Energy Store	Filled when an object is raised.
Elastic Energy Store	Filled when a material is stretched or compressed.
Dissipated	Become spread out wastefully

**Why does it matter?**

Challenge someone in your family to list all of the energy transfers they experience or notice during one day and ask them to list them when you get home.

HINT: You will need to explain what you know first so they know what they are looking for

**Gravitational potential energy**

When an object is moved higher, it gains **gravitational potential energy**. The amount of gravitational potential energy it gains depends upon:

- the mass of the object
- the extra height it gains
- the **gravitational field strength**

**Electrical energy**

Some objects carry electrical charges and create electric fields. These charged objects can exert forces on each other. You get an electric current when charged particles move through a wire.

**Magnetic energy**

Some objects can be magnetised and create magnetic fields. They can exert forces on other magnetised objects, or on magnetic materials.

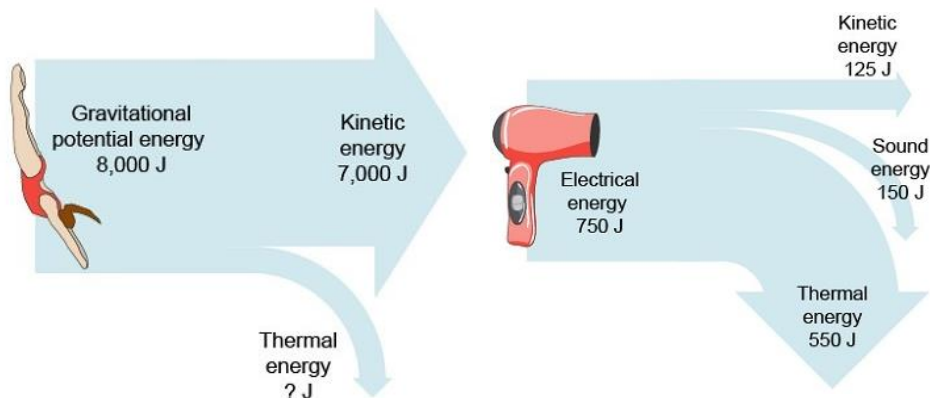
**Kinetic energy**

All moving things have **kinetic energy**, even very large things like planets, and very small ones like atoms. The amount of kinetic energy an object has depends upon:

- the mass of the object
- the speed of the object

**Elastic potential energy**

Some objects can change shape reversibly. Rubber balls, springs and elastic bands are like this. When a rubber ball is stretched or squashed, it can regain its shape again. **Elastic potential energy** is stored in stretched or squashed materials.

Arrow Tasks: Rearrange this equation to find **velocity**

$$E_k = \frac{1}{2}mv^2$$

Links to further resources: <https://www.bbc.com/bitesize/guides/z8hsrw/revision/1>

[https://www.hoddereducation.co.uk/media/Documents/Science/ScienceProgress\\_Physics\\_sample\\_1.pdf](https://www.hoddereducation.co.uk/media/Documents/Science/ScienceProgress_Physics_sample_1.pdf)

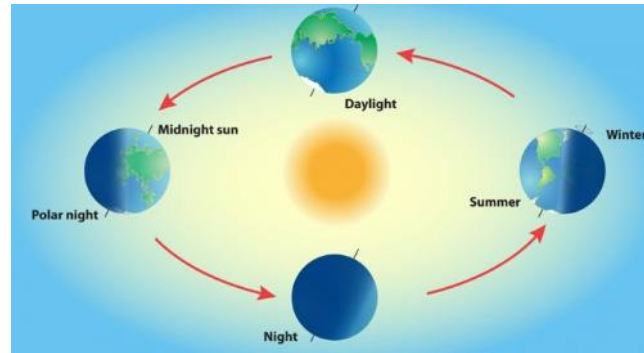


## Topic: Universe

I need to be able to: Explain why we have day and night and why day length changes when the seasons change

Key Words	Definitions
Galaxy	Collection of stars held together by gravity. Our galaxy is called the Milky Way
Light Year	The distance light travels in a year (over 9 million, million kilometres).
Stars	Bodies which give out light, and which may have a solar system of planets.
Orbit	Path taken by a satellite, planet or star moving around a larger body. Earth completes one orbit of the Sun every year
Exoplanet	Planet that orbits a star outside our solar system

### Day and Night

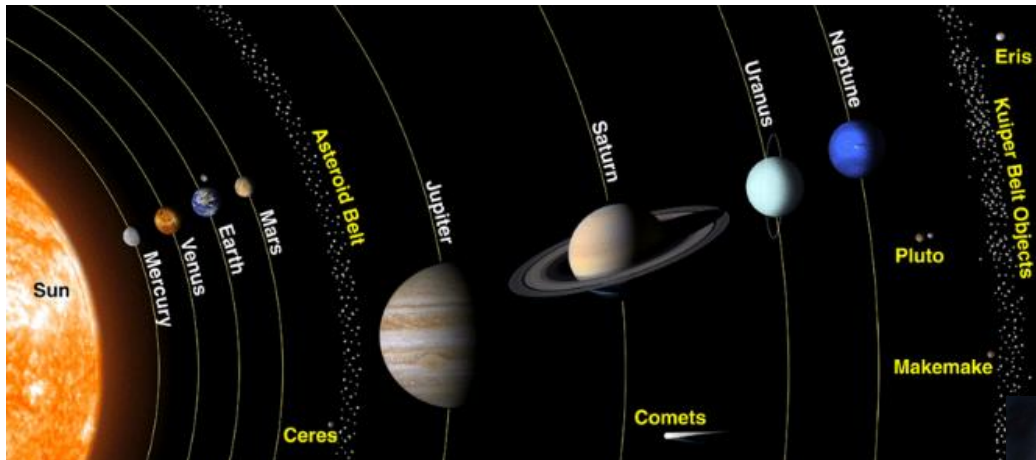


### Why does it matter?

How are satellites used every day? How many times have you used a satellite today?

<https://www.ucsusa.org/nuclear-weapons/space-weapons/what-are-satellites-used-for>

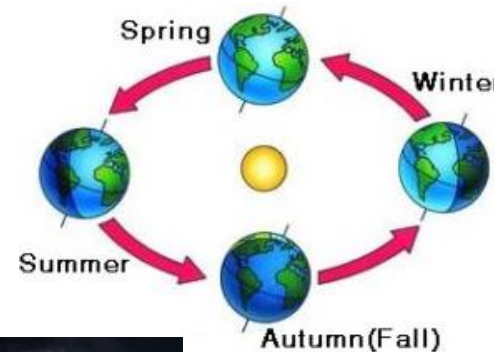
<http://www.asc-csa.gc.ca/eng/satellites/everyday-lives/10-ways-that-satellites-helped.asp>



Arrow Tasks: Find out how to use a shadow stick to work out your longitude

<https://www.space.fm/astronomy/earthmoonsun/shadowstick.html>

### Seasons



The solar system can be modelled as planets rotating on tilted axes while orbiting the Sun, moons orbiting planets and sunlight spreading out and being reflected. This explains day and year length, seasons and the visibility of objects from Earth.

Our solar system is a tiny part of a galaxy, one of many billions in the Universe. Light takes minutes to reach Earth from the Sun, four years from our nearest star and billions of years from other



Links to further resources: <https://nineplanets.org/>

<https://www.youtube.com/watch?v=fKTu6B4Rgek>

[Return to contents page](#)

## Topic: Mi Tiempo libre

I need to be able to: recognise and use a range of verbs, nouns and adjectives. I need to be able to describe myself and aspects of family life

Key Words	Definitions
Verb	Words which tell you the action
Subject pronouns	Words that tell you who is doing the action.
Noun	A place, person or a thing.
Gender	In Spanish, nouns and adjectives can be either masculine or feminine.
Adjective	Words which describe nouns. In Spanish adjectives are the same gender as the noun which they describe.
Definite article	'the'
Indefinite article	'a' 'some'
Singular (s)	One
Plural (pl)	More than one
Positive phrase	'is', 'do' 'does'
Negative phrase	'is not', 'does not', 'don't', 'never'
Possessive adjectives	My (in Spanish, there are 2 forms; singular and plural)

**-AR verb endings**Cant<sup>ar</sup> = to singCanto = I singCantas = you singCanta = he/she/it singsCantamos = we singCantáis = you sing (pl)Cantan = they sing

To form a regular -AR verb, remove the -ar from the infinitive of the verb and add the special endings (in red above)

Hacer = to do/to make

THIS VERB IS IRREGULAR, IT HAS A DISTINCTIVE PATTERN;

Hago = I do / I make

Haces = you do / you make

Hace = he/she does / he/she makes

Hacemos = we do / we make\

Hacéis = you do/you make (pl)

Hacen – they do they make

Arrow Tasks: Find out about the most popular sports and typical sports in Spain.

Find out about and present information, in Spanish about Spanish sports personalities. If you present in class, merits awarded!

There will be more specific vocabulary.

This will be given to you by your class teacher.



	Español	inglés
1	¡Buenos días! Tengo que hablar de las cosas que me gustan hacer.	Hello! I have to talk about the things I like to do.
2	A ver, me gusta mucho navegar por internet, mandar mensajes y también escribir correos.	Let's see, I really like to surf the Net, send messages and also write emails.
3	Los fines de semana, me gusta salir con mis amigos ¡Es guay! ...y a veces me encanta ver la televisión pero no me gusta nada jugar con los videojuegos porque es aburrido.	At the weekend, I like to go out with my friends, it is cool! ...and at times I love to watch tv but I really don't like playing computer games because it is boring.
4	¿Y tu? ¿Te gusta escuchar música?	And what about you? Do you like to listen to music?
5	En mi tiempo libre, canto Karaoke, ¡es genial!	In my free time, I sing karaoke, it is great!
6	Normalmente monto en bici y saco fotos, a veces toco la guitarra.	Normally, I go bike riding and I take photos, sometimes I play the guitar.
7	Todos los días, escucho música - nunca bailo, no me gusta bailar.	Every day, I listen to music, I never dance, I don't like to dance.
8	¿Y tu? ¿Qué haces cuando tienes tiempo libre?	And you? What do you do when you have free time?
9	Pues...mi hermano no toca la guitarra porque no le gusta, dice que es aburrido	Well...my brother does not play the guitar because he does not like it, he says it is boring.
10	Cuando llueve me gusta ir al cine o a la piscina. Cuando hace calor me chifla ir a la playa o al parque.	When it rains I like to go to the cinema or to the swimming pool. When it is hot I love to go to the beach or to the park.
11	No nieva mucho donde vivo pero me gusta hacer el esquí cuando nieva.	It does not snow much where I live but I like to ski when it snows.
12	Un día, quisiera ir a Argentina porque nieva mucho en invierno.	One day, I would like to go to Argentina because it snows a lot in winter.
13	Los deportes me interesan mucho. Hago equitación y juego al fútbol. Hago atletismo en verano	I am very interested in sports. I go horse-riding and I play football. I do athletics in Summer.
14	¿Qué deportes haces tú por lo general?	What sports do you usually do?
15	Mi padre juega al voleibol con su equipo y mi madre juega al baloncesto, mi hermano hace natación y mi abuela hace artes marciales.	My dad plays volleyball with his team and my mum plays basketball, my brother swims and my grandmother does Martial Arts.

Jugar = to play		<p>This verb is called a <b>stem changing</b> verb.</p> <p>It follows the pattern for the verb endings but look closely at the spellings... for the 'we play' and 'you play' (plural)</p> <p>You need to <b>know</b> this verb by heart.</p>
juego	I play	
juegas	You play	
juega	He/She/It plays	
jugamos	We play	
jugáis	You play (pl)	
juegan	They play	

### El alfabeto (y la pronunciación)

A	B	C	D	E	F	G	H	I	J
aah	beh	theh	deh	eh	efeh	heh	acheh	ee	hota
K	L	LL	M	N	Ñ	O	P	Q	R
kah	eleh	eyeh	emeh	eneh	enyeh	oh	peh	koo	ereh
RR	S	T	U	V	W	X	Y	Z	
erreh	eseh	teh	oo	oobeh	Oobeh dobleh	ekis	Ee gri-egga	theta	

## Topic: Steady hand game project

**I need to be able to:** Design and make an electronic circuit that will be placed into a handmade wooden box. The circuit will be designed to enable an alarm to sound when the circuit has been completed .

Key Word	Definition
Electronic Components	Electronic parts that make up a circuit
CAD Circuit Wizard	Computer Aided Design , <b>Circuit wizard</b> allows you to design a circuit without having to use any tools. It is all computer generated.
Task Analysis	To analyse the electronic project top ensure that you are aware of what is ex-
Research:	The systematic investigation into and study of materials and sources in order to establish facts and reach new conclusions
Health and Safety:	To be aware of self and others safety within an engineering workshop environment.

**Arrow Tasks:** Research the circuit and components used for this steady hand game and see if you could make any changes. Draw out the circuit and show the differences.

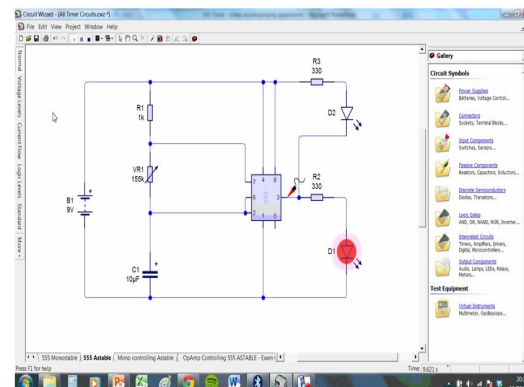
**Soldering Iron**



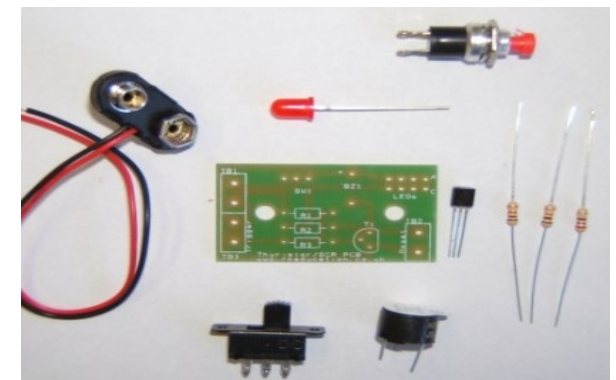
**Workshop Safety, Personal Protective Equipment**



**Computer Aided Design (CAD) Circuit Wizard**



**Electronic components**



### Topic: Food

I need to be able to: understand and apply key cooking skills to produce good quality recipes. To ensure all food is made safely by applying hygiene, health and safety procedures and improve product outcomes by using evaluation techniques and targets.

Key word	Definition
Quality control	The description to achieve to know when a skill has been performed correctly.
Weighing	To measure the weight using scales of an ingredients to ensure the recipe ratio is correct.
Sensory evaluation	To test the aesthetics ( appearance, texture, aroma, flavour if a product
Risk assessment	To identify all the hazards in a method to ensure measures are taken to reduce the risk.
Hygiene	Steps to take to reduce the risk of pathogenic bacteria multiply or contaminating a product.
Pathogenic bacteria	Bacteria that can grow and contaminate food causing food poisoning.
Nutritional function	The 5 nutrients (protein, carbohydrate, fat, vitamins, minerals) their function in the body and best foods sources.

**Arrow Tasks**—Explain how you could change the recipe to make it healthier - reduce fat, sugar, fat. Increase the fibre, include 5 portions of fruits and vegetable.



**Rubbing in**—Using your finger tips and thumbs to rub the fat and the flour together.

Quality control – breadcrumb texture



**Kneading**— Using your hands to stretch the dough to develop long stretchy elastic strands of gluten in bread dough. Quality control—gluten window



**Creaming** - To combine the butter and sugar together . It incorporates air to make cakes rise. Quality control – pale fluffy light texture.



**Cutting**—To use a sharp piece of equipment such as a knife, grater, cutter to make a product smaller or a specific shape. Quality control – brunoises, julienne, paysanne, macedoine, jardinière



## Topic: Ball Hurler

### I need to be able to:

- understand the design process and the working properties of plywood and softwood.
- gain practical skills in using the hand tools, machines and equipment needed to work with wood.
- learn about basic wood joints, triangulation and potential energy.
- be aware of health and safety in the workshop and understand the importance of risk assessment.

### Stages of the Design Process:

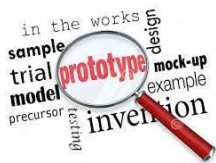
Context      Design Brief      Task Analysis      Research  
Investigation      Specification      Design & Development  
Making      Testing      Evaluation

### Key Words

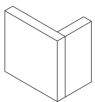
#### \* Design process



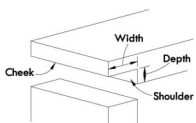
#### \* Prototype



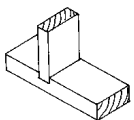
#### \* Butt joint



#### \* Rabbet joint



#### \* Housing joint



#### \* Dowel



### Definitions

The steps a designer/maker goes through from identifying a problem and need for a product to its final making, testing and evaluating and improving.

A first version, / test model to trial a product before making a final version which could be made in larger quantities.

The simplest joint to make - in which two pieces of material are joined by simply placing them together without overlapping or interlocking.

A joint formed by fitting two pieces of material together where one or both pieces have a cut recess / groove to increase the strength of the joint.

Similar to the Rabbet, but where one or both pieces of material have a slot cut in, across the Grain, to a width normally equal to the thickness of the shelf or partition it is to hold.

A cylindrical rod of material, used to connect two pieces of material or to strengthen a joint.

### Materials, tools and equipment used in the ball hurler project



Pillar drill / drill press



Linisher (belt sander)



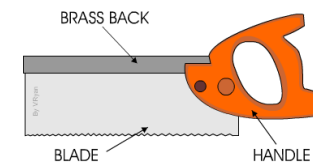
#### Softwood

Softwoods come from **coniferous** trees which are evergreen, needle-leaved, cone-bearing trees.



#### Plywood

Plywood is a strong wooden board consisting of two or more layers of hardwood or softwood **laminated** (pressed together and glued) with the direction of the grain alternating to give strength.



Tenon saw

The deep straight blade makes the tenon saw ideal for cutting wood joints



Chisel and mallet

Used for making the housing joint

**Arrow Task:** What is triangulation and why is it useful when making a ball hurler? What is potential energy and how is it used in the ball hurler?

Links to further resources: <http://www.technologystudent.com>  
<http://www.mr-dt.com/>  
<http://wiki.dtonline.org/index.php/>

[Return to contents page](#)



## Topic: Cushion Cover

### I need to be able to:

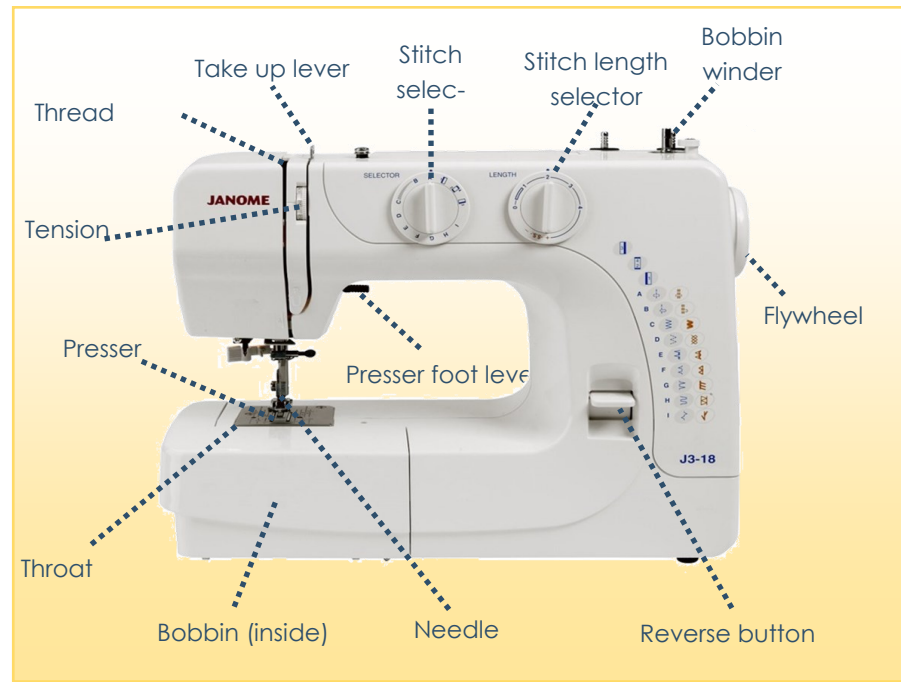
- understand the key parts of a sewing machine and the threading path.
- apply hand and machine sewing techniques.
- understand the function of seams & hems and be able to apply to your product.
- gain an awareness of the work of famous artists and be able to consider the need for aesthetics within a textile product.
- be aware of health and safety when using textile materials and equipment.



What is a hem?

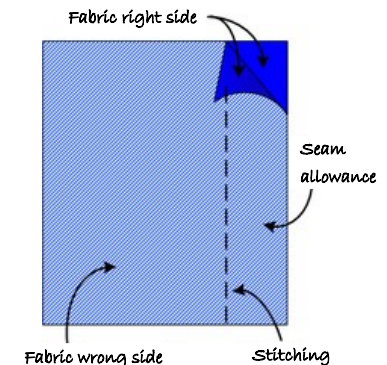
A finishing method where the edge of a piece of fabric is folded narrowly and sewn to prevent unravelling or fraying.

Key Words	Definitions
* Thread	A large number of very thin fibres spun together and usually wound on spools, used in sewing.
* Sewing Machine	A machine used to sew fabric and other materials together with thread.
* Tacking	A temporary stitch used to hold fabric together.
* Pins	Designed to hold fabric in place, prior to sewing.
* Needle	A very thin piece of polished metal used for sewing. It has a sharp point at one end and a hole (eye) in the other for thread to go through.
* Gutta	A resist technique which creates a barrier once dry.
* Silk Paint	A type of fabric paint which can be used neat or can be diluted/blended.
* Poly-cotton	A fabric that is made up of cotton and polyester fibres.



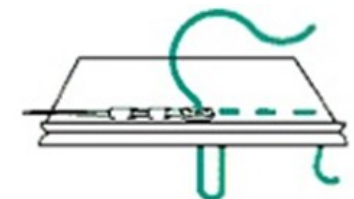
Arrow Task: Can you think of alternative methods you could use to join your pieces of fabric together, when constructing the cushion cover? What would be their strengths and do those methods have limitations?

Link to further resources: [www.instructables.com/lesson/Hemming-and-Seam-Finishing/](http://www.instructables.com/lesson/Hemming-and-Seam-Finishing/)



What is a seam?

A line of stitching that joins two or more layers of fabric.



Tacking



## A Guide to Revision

We hope you find these pages about revision useful. You will need to use these skills throughout your time at school, from Year 7 all the way through to Year 13. Developing these skills early means they will become second nature and revision will become easy!

We want you to achieve the best possible results throughout your time at school and achieve results that will not only increase your life chances but also take you to the next step on your chosen career pathway. Speak to any one of your teachers for more advice on revision.

### Points to remember

- Revision is re-looking at information you have learnt previously.
- The idea is that you know the information that will be tested and can remember it for the exam.
- Your attitude is important.
- You only fail if you give up.
- If you fail to plan, you plan to fail.

Believe in yourself, be positive.  
If you think you can succeed you will.

### Attendance

- Every lesson counts and your attendance is vital.
- Try your best in all lessons and make them work for you.
- It is what you are getting out of it that matters.
- This is YOUR result, so make it count.
- You will get out of it what you put in - so do your best.

## Revision materials you'll need



These are to help you organise your revision and keep everything in one place.

**Top Tip:** Revision materials are available from the school shop in the library.

You can also buy these items very cheaply from a local pound shop!

## Revision Strategies

Revision Planner							
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Morning							
Afternoon							
Evening							

- Plan your time – create a revision timetable
- Break revision into chunks
- Find a quiet space to revise



- Revise in 20 minute blocks
  - This is the optimum concentration time
  - Have a short break between blocks



- Avoid distractions!
  - Turn off your phone
  - Turn off the TV



## Brain Dump

**WHEN:** beginning of 20 minute revision block

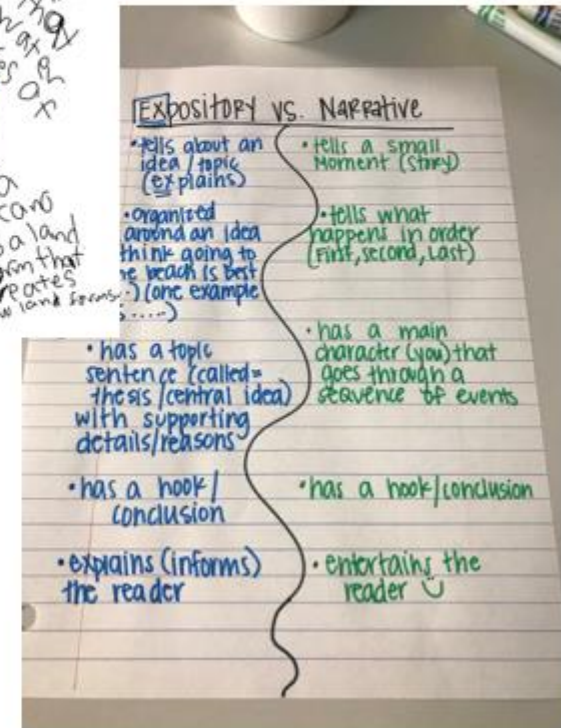
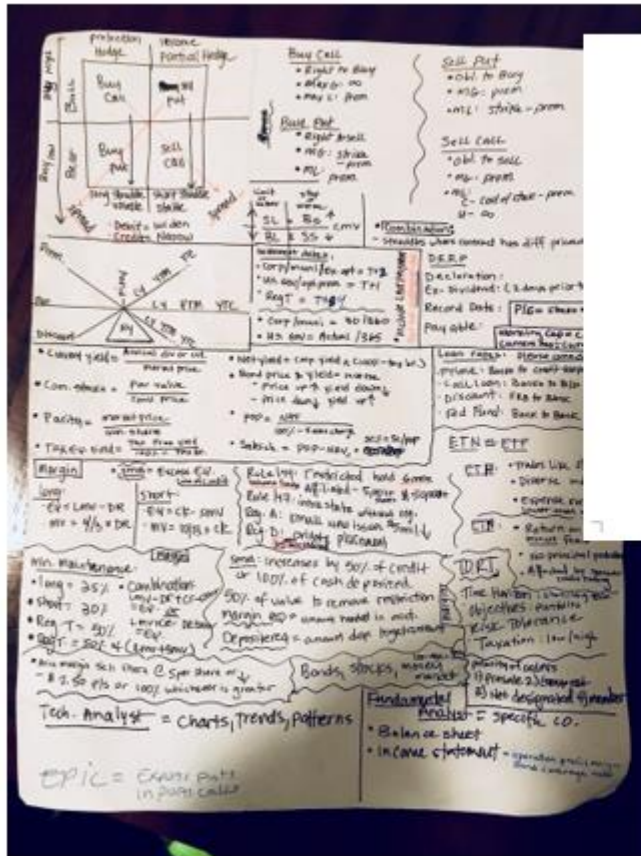
**HOW:**

- Take a blank piece of paper
- Write down (DUMP!) everything you know about the topic
  - No books
  - No notes
  - Be as messy as you like
- Time limit of 60 seconds
- Now revise the topic (15 minutes)
- Finally, go back to your DUMP and add everything you have learnt
  - Use a different colour pen

**IMPACT:** you should be able to add 7-15 new things to your DUMP



## Examples of Brain Dumps



**Top Tip:** Repeat a brain dump regularly.

This will help identify which aspects of a topic you have **forgotten** to include. These are the areas you need to **focus on** when revising!



# MIND MAPS

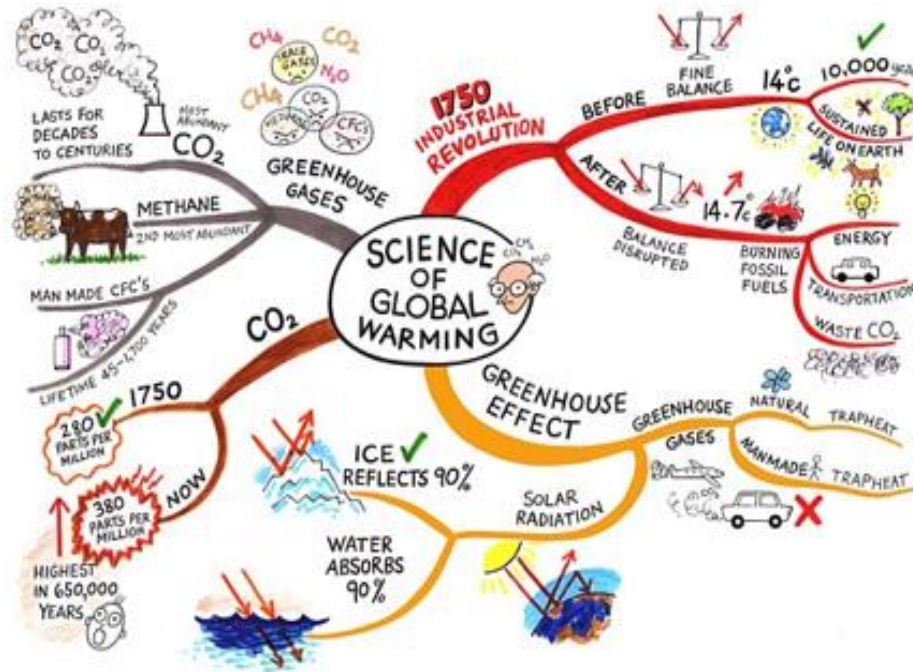
**WHEN:** to organise information from your exercise/text book.

**HOW:**

- Put the topic in the centre of a blank page
- Add big branches with the main ideas/themes of the topics
- Add small branches to these with more detail
- Try to write only 1 or 2 words per branch
  - Focus on the key points only
- Add an image to each branch (dual code)
- Revisit your mind map next time you DUMP

**IMPACT:** whole topic with the key ideas on a single page.

## Examples of Mind Maps

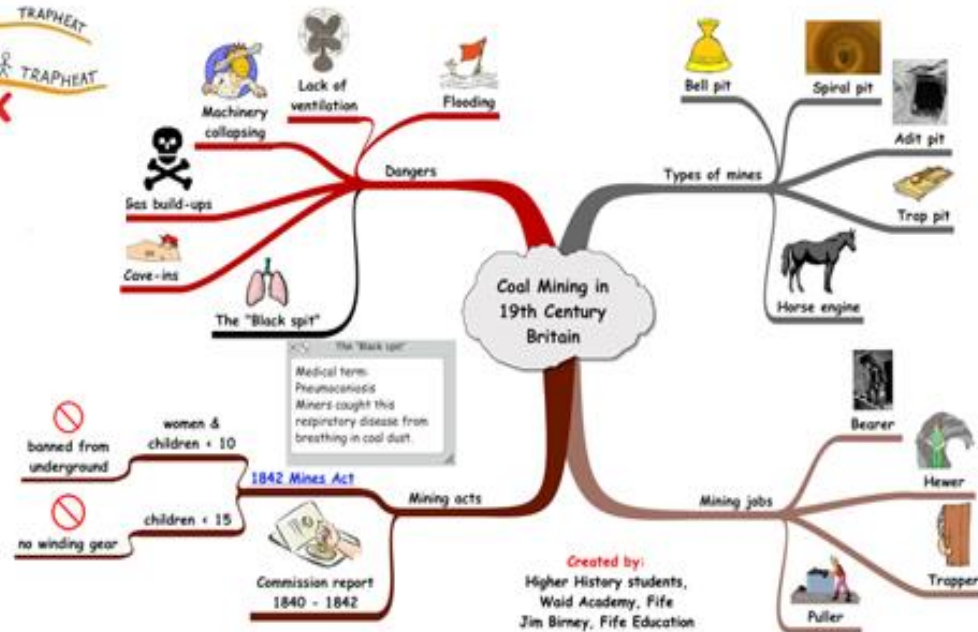


**Top Tip:** Use different colours for each branch of your mind map.

This helps your brain distinguish between each of the different information stems.

**Top Tip:** Use 'dual coding' in your mind maps.

Dual coding means using both words and images to record the information you need to remember.



# FLASH CARDS

**WHEN:** to organise information from your exercise or text book.

**HOW:**

- Put a key question on one side
- Bullet point the key points that answer the question on the other side
- Put a formula / word on one side
- Put the definition on the other side
- You might be able to group key formulae/words together
- Bullet point the key points of a topic on one card (use both sides)

**IMPACT:** great for targeting key questions/formulae/words that you are finding hard to remember. Easy to carry around.

## Examples of Flash Cards



**Top Tip:** Once you have created your flash cards, take a photo with your phone.

Create revision folders in your gallery so that you can revise in the car, on the bus... in fact anywhere when you've got a few spare minutes!



# Mnemonics

**WHEN:** remembering a list of things or items in a particular order

**HOW:**

- Create a song, rhyme or poem using the first letter of each word in a sequence

For example:

- Richard of York gave battle in vain (to remember the colours of the rainbow)
- **Red Orange Yellow Green Blue Indigo Violet**



- Write out the first letter of each word in a sequence or list then make up your own rhyme

**IMPACT:** great for remembering sequences and orders of words relating to a topic.

Top Tip: Be **creative** when using mnemonics.

The sillier the rhyme, the more likely you are to remember it! **Repeat** the rhyme **regularly** to make sure it goes into your long term memory



## Liskeard's Six Effective Learning Strategies

Check out the link on our school website for more information:

<http://www.liskeard.cornwall.sch.uk/students/six-strategies-for-effective-learning>

### 1. SPACE IT OUT



Don't just revise what you've just learnt.  
Study older information to keep it fresh.

### 2. RETRIEVE



Without using your books, write or sketch  
everything you know. Then check it!

### 3. ELABORATE



Think about the detail.  
Describe, Explain, Compare, Question...

### 4. INTER-LEAVE



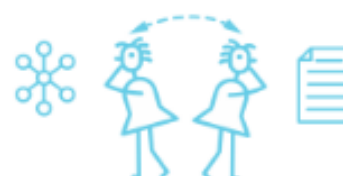
Don't study one topic for too long.  
Switch between topics when studying.

### 5. USE EXAMPLES



Collect examples you have used in  
class, or found yourself.  
Link the examples to what you are studying.

### 6. DUAL CODE



Turn your words & notes into diagrams or pictures.  
Turn your diagrams & pictures into words or notes.

## Revision Websites

In addition to the website links within the subject pages, there are as a wide range of resources available online. Below is just a small section of those available.

<https://www.educationquizzes.com/ks3/>

Interactive resources for a wide range of subjects

<https://www.bbc.com/bitesize/levels/z4kw2hv>

Resources for a wide range of subjects

<https://mathsmadeeasy.co.uk/ks3-revision/>

Great for maths, also offers English and science resources

<https://www.senecalearning.com/>

Quick fire interactive questions across a range of subjects

**Top Tip:** Ask your teacher for a list of the topics you need to revise.

Websites contain a lot of information, some of which that will not be relevant to your course. Make sure you revise everything you need to know!