

# Year 7 Knowledge Organiser

## Spring Term (1) 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: 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.

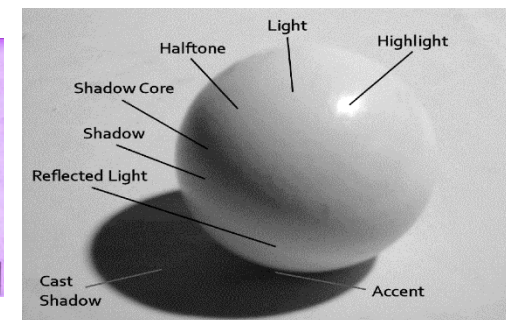
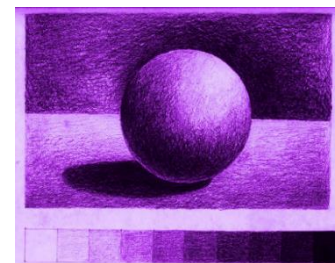


Explore mixing colours, adding black to make shades and white to make tints.



Euan Uglow. 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.

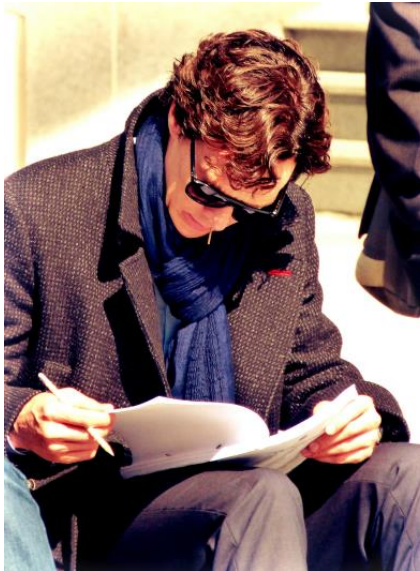
## Topic: Stage Voice

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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Year: 7

Subject: English

Topic: English Speaking Board and News Reporting

I need to know: how to deliver a speech about an area of the curriculum, present a news story and present an argument about an issue..

Learning Outcomes <i>The learner will:</i>		Assessment Criteria <i>The learner can:</i>
1	Deliver a talk in relation to a curriculum topic, using audio and/or visual support.	1.1 Structure a talk of approximately 4 minutes. 1.2 Present a talk using notes if necessary. 1.3 State information based on own research. 1.4 Use clear or audible voice to communicate information in Standard English. 1.5 Show an awareness of the audience. 1.6 Use audio and/or visual support.
2	Present a real-life news story.	2.1 Plan a news story for approximately 2 minutes. 2.2 Present the news story. 2.3 Use clear or audible voice to communicate information in Standard English.
3	Express an argument about a topical national or local issue.	3.1 Introduce the argument. 3.2 Support the argument. 3.3 Summarise the argument. 3.4 Use clear or audible voice to communicate information in Standard English. 3.5 Show an awareness of the audience.
4	Listen, respond and exchange views.	4.1 Provide appropriate responses to questions. 4.2 Ask relevant questions based on someone else's work. 4.3 Offer own views in relation to own or someone else's work.

#### Present an Argument:

Learners present an argument about a topical local, national, or global issue and communicate it to the group and the assessor.

Suitable subject matter includes: *Graffiti in the local area; Air Pollution; The Cost of Train Travel; Wind Farms – a Benefit or an Eyesore?; Representation of Disability in the Media; Do Activists Make a Difference?*

**5Ws of news gathering  
Who, What, When,  
Where and Why**

#### Curriculum talk:

Learners deliver a talk with knowledge and enthusiasm on a curriculum topic in any subject. This is 4 minutes long.

For example, they may choose to talk about topics such as: *Women's Suffrage; A Region in Asia; or Magnetism.*

They should support their talk using relevant visual material.

#### Present a News Story:

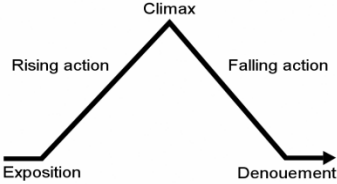
Learners adopt the role of a television reporter 'on the scene' and present a real news story, past or present, for 2 minutes.

Suitable topics on which to base a news story include: *Politics; Health; Technology; and the Environment.*

#### Listening, Responding and Exchanging Views:

Learners listen and respond to questions from the group and the assessor in relation to the first three activities.

They should also actively contribute to the group discussion by asking questions and offering comments.

Creative Writing KO		SKILLS		
		<p><b>Writing:</b></p> <p><b>SPAG – Applying Spelling, punctuation and grammar effectively. Minimum expectations: capital letters, full stops, commas &amp; apostrophes. Challenge: colons, semi-colons, parenthesis, exclamation marks, ellipsis</b></p> <p><b>Sentence structures – applying a variety for effect – simple, compound and complex. PANIC sentence openers &amp; being able to apply these.</b></p> <p><b>Paragraphing – TIPTOP rules &amp; being able to apply these effectively.</b></p> <p><b>Freytag’s narrative structure – able to apply the narrative structure</b></p>		
<b>Vocabulary to create emotions</b>	<b>Definition</b>			
<b>Uplifting</b>	Inspiring happiness or hope	<b>Terminology</b>	<b>Definition</b>	<b>Exam Question Requirements</b>
<b>Joyful</b>	Expressing great pleasure or joy	Narrative structure	Exposition, Rising Action, Falling Action, Climax, Resolution	Either use the picture as stimulus for an engaging descriptive piece of writing OR Write a story inspired by the prompt given to you
<b>Hopeful</b>	Feeling or inspiring optimism for the future	Exposition	a comprehensive description and explanation of an idea or theory:	
<b>Despair</b>	Complete loss of all hope	Rising Action	is a series of relevant incidents that create suspense, interest and tension in a narrative	
<b>Distress</b>	Extreme anxiety, sorrow or pain	Falling Action	is what occurs directly after the climax	<b>Success Criteria for a well thought out story</b>
<b>Melancholy</b>	A feeling of pensive sadness with no obvious cause	Climax	the most intense, exciting, or important point of something; the culmination	1. Unusual, intriguing description 2. Showing not telling 3. Repetition 4. Pathetic fallacy 5. Symbolism 6. Confident style in your writing 7. Paragraph Links 8. Varying sentence types for effect 9. Remaining in the same person/tense Starting sentences in a variety of ways PANIC:
<b>Optimistic</b>	Looking at the positive aspects of life	Resolution	the action of solving a problem or contentious matter	With a preposition, adverb/adjective, noun, ‘ing’ word (verbs), connectives
<b>Pessimistic</b>	Looking at the negative aspects of life	Cliff-hanger	that leaves the character in a seemingly impossible situation	
<b>Pensive</b>	Thoughtful mood	Withholding information	suppress or hold back (an emotion or reaction or event in a story).	
<b>Frustrated</b>	Feeling of annoyance	Plot	the main events of a play, novel, film, or similar work, devised and presented by the writer as an interrelated sequence.	<b>Punctuation Rules to Apply</b>
<b>Inferior</b>	Lower in rank status or quality	Character	the mental and moral qualities distinctive to an individual in a story	Capital Letters: For Proper Nouns – Name of place/person & at the start of a sentence Full Stops: end of a sentence that is not a question or statement Comma: separates lists/phrases/words & when using sentence adverbs (‘however’, ‘moreover’ etc.) from the rest of the sentence, & to indicate a sub-clause in a sentence Apostrophe: ~ to show that letters have been left out. & to show possession.
<b>Sentimental</b>	feelings of tenderness, sadness, or nostalgia	Setting	the place or type of surroundings where something is positioned or where an event takes place	
<b>Powerful</b>	Having great power or strength	The Senses	Sight, Sound, Touch, Taste, Feel – embedding these elements into a story	
<b>Insignificant</b>	Too small or unworthy to be considered important	Pathetic Fallacy	ascribing human conduct and feelings to nature	
<b>Nostalgia</b>	A longing for the past	Symbolism	the use of symbols to represent ideas or qualities	



# Step by Step Success Criteria for creating a really engaging short story

## Introduction:

How can we make it engaging?

- Withhold information
- Short sentences for dramatic effect
- Question to start
- Open on a cliff-hanger – in the middle of the action
- Use pathetic fallacy (the weather to set the mood)
- Show what is happening: don't just tell

## Rising Action:

Key points for interesting writing:

- Not to give away too much information
- Imagery – E.g. – personification, imagery, simile and metaphor
- Use the senses throughout
- How for emotions = use adverbs to develop what feelings you want to create
- Building a mood using pathetic fallacy
- Vary sentence starters effectively: no I, the, it, she, he to open
- Use PANIC for opening sentence starters – Preposition, Adjective/adverb, Noun, 'Ing' words, Connective

## Climax:

- Dramatic scene
- Some kind of fight/argument
- Something needs to happen
- Something unexpected happens
- Something naughty

## Conclusion:

- Needs to link to the rest of your story
- Be memorable
- Can resolve the problem or leave it on a cliff-hanger
- Leave your story with something memorable
- Use a technique: ellipsis, question or exclamation mark

## WHOLE STORY:

- Develop detailed description across the story
- You want your reader to be engaged with your character/events
- Check SPAG
- Sentences are varied – simple, complex and compound
- Check you have not missed words out of the sentence
- TIPTOP your paragraphs
- It must be believable and engaging
- Edit for technical accuracy



## 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.

## 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 (singular, friendly)

Il joue= He plays

Elle joue= She plays

On joue= we play

Nous jouons= We play

Vous jouez= You play (plural, polite)

Ils jouent= they play (m)

Wow!

C'est une question épineuse- It's a thorny question

Si je pouvais- If I could

J'ai l'intention de- I have the intention to-

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/make

Vous faites= you do/make (plural)

Ils font= they do/make (m)

Elles font = they do/make (f)

Tier 3 Words

Conjugate- to change the verb from it's original form.

Connective- joining word

Negative- to make something sound not desirable

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 bike riding – Je fais du vélo et j'aime ça!

	français	anglais
1	Qu'est-ce que tu fais avec ton ordinateur? C'est une question épineuse.	What do you do with your computer? It's thorny question.
2	Qu'est-ce que tu fais avec ton portable?	What do you do with your mobile phone?
3	Je joue de temps en temps	I play from time to time
4	Je tchatte sur MSN souvent	I chat often
5	Je surfe sur internet tous les soirs	I go on the internet every evening
6	Je regarde des clips vidéo quelquefois,	I watch video clips sometimes
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	Le revers de la médaille est que, Je parle avec mes copains de temps en temps	The other side of the coin is that 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 ne fais pas du vélo en hiver parce que j'ai la flemme	I don't do cycling in the winter because I'm lazy.
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 si je pouvais je voudrais dépenser beaucoup d'argent	Then I like going shopping, if I could I would spend a lot of money
21	Le samedi matin, j'aime faire du sport	On Saturday mornings, I like doing sport
22	D'habitude, j'aime jouer au rugby cependant je ne joue jamais au golf	Normally, I like playing rugby however I never play golf
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 j'ai l'intention d'être dans une groupe.	When it's raining, they listen to music, I have the intention to be in a band
25	...mais je ne joue pas au foot, à vrai dire	...but I don't play football, to tell the truth



## Topic: Coasts

**I need to know:** In this topic, you will learn about different aspects of coastal geography, both human and physical. You will start by learning what the coast is, what you might find there and how it is formed. This will lead into more human elements, about what people can do at the coast and how we can protect it from the threats it faces.

Key Words	Definitions
Coast	The place where the land meets the sea
Coastal Landform	A physical feature that is found at the coast
Erosion	The wearing away of rocks, stones and cliffs by the waves
Transportation	The movement of sediment in the sea by the waves
Longshore Drift	The transportation of sand and other sediment along the shore by the waves
Cave	A large indent into a cliff as a result of erosion
Arch	The curved outline left when the sea erodes the inside of a cave
Stack	A pillar of rock left standing when the top of an arch collapses
Stump	The remains of a stack which the sea has eroded away
Tombolo	A strip of land between the coast and an island
Salt Marsh	A low-lying marshy area by the sea with salty water from the tide, often behind a spit
Bay	A smooth curve between two headlands
Headland	A part land by the coast that slightly juts out into the sea
Cliff	A very steep slope of rock at the coast
Spit	A strip of land that comes off of the edge of the coast into the sea
Peninsula	An area surrounded by water but connected to land at one side (e.g. Cornwall)
Economic	Impacts that are to do with money or jobs
Social	Impacts that are to do with people
Environmental	Impacts that are to do with the environment
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 do the processes you have investigated link to the features that you have previously looked at?
- What impact might longshore drift have on a beach/coastal community and how could this be stopped?
- What are the negatives of coastal communities relying on tourism for their jobs and income?
- Why do people continue to live at the coast despite the risks of erosion and flooding?

**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.

- Use an atlas or GIS (e.g. Google Maps) to locate and map some key UK coastal cities and towns
- Explaining what jobs are at the coast and what people can do their by annotating (labelling in detail) a picture of a coastal environment
- Revising for an end of topic assessment on coasts and possibly the 'Day in the Life' work

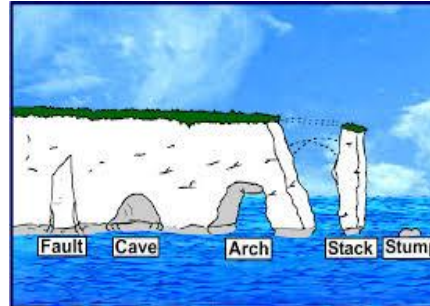
## Topic: Coasts

**What is the Coast?**

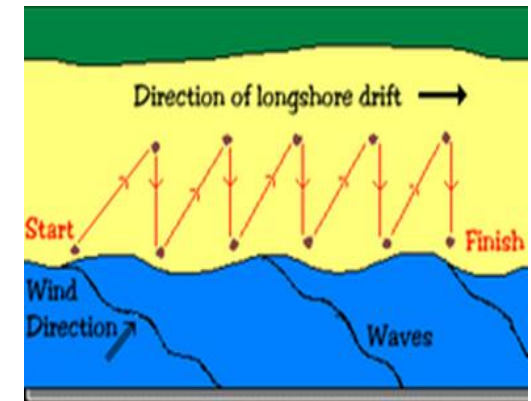
A coast is anywhere where the land meets the sea. There are a number of features and landforms found at the coast. Can you identify all of them?

**Erosion**

Erosion results in a particular set of features known as a cave, arch, stack and stump. This is a progressive set of features that form in that order from a headland. You will need to know how erosional processes form these features.

**Transportation**

Another way landforms are created is through transportation and deposition. Two such features are spits and tombolos. These are formed through a process called longshore drift.

**Tourism**

The coast provides huge opportunities for people. There are lots of different things to do at the coast, so many people go on holiday there. As a result, it provides many different jobs and opportunities for the people that live there.

**Sea Level Rise and Flooding**

Climate change is resulting in the level rising and this having negative impacts in many places in the world. The Maldives are a series of islands at threat of being completely flooded. There are many problems for the people and wildlife living there.

**Links to Further Resources**

Erosion video

<https://www.youtube.com/watch?v=7Th56dhs4Fc>

Sea Level Rise in the Maldives

<https://www.bbc.co.uk/bitesize/clips/zj23cdm>

Problems in the Maldives

<https://www.shorturl.at/blswj>

Information about defending the coast

<https://www.bbc.co.uk/bitesize/guides/z2ym82p/revision/1>

## Topic: Medieval Life

**I need to know:** The Middle Ages (1100-1500) saw the Church have a huge amount of power over the people while the epidemic of the Black Death struck and killed 33-50% of England's population. There was a range of entrainment (bowling, stoolball and more) available on 'Feast Days', towns started to develop and crimes were punished by trials by ordeal.

Key Words	Definitions
Buboe	Swelling under the armpit or groin
Pestilence	Name for the Black Death in the 1340s
Epidemic	Widespread disease
Stoolball	Game that involved throwing a ball at a woman on a chair!
Shin hacking	A game that involved kinking the shins of an opponent.
Purgatory	The place between heaven and hell that Catholics believed the soul went before it was cleansed and could go to heaven
Sins	Wrong actions in the eyes of the church
Doom painting	Pictures that showed how awful Hell was to try and persuade people to be good
Ordeal by fire	A test of guilt by being made to hold a red hot iron bar
Ordeal by water	A test of guilt by being held underwater
Fines	Money that had to be paid if committing sins or crimes

Arrow Tasks: What was the best thing about life in the Middle ages? What would make people happiest?

How different was life for villagers and townspeople?



Top: A typical village from the Middle Ages

Left: A look inside a typical peasant hut in the Middle Ages

Right: Symptoms of the Black Death that struck in the 1340s

Links to further resources: <https://www.bbc.co.uk/bitesize/guides/z7r7hyc/revision/1>



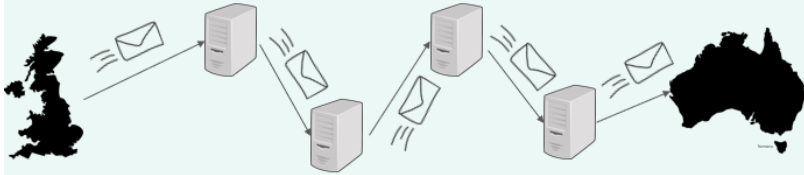
## Topic: Networks: from semaphores to the internet

**I need to know:** what a computer network is; Define 'protocol' and provide examples of non-networking protocols; List examples of the hardware for connecting devices to networks; Compare wired to wireless connections; Define 'bandwidth'; Explain how data travels across the internet; Describe how services are provided over the internet; Explain the term 'connectivity'; Describe how internet-connected devices can affect me.

### Message transmission: email

Just as a letter does not go directly from the sender to the recipient, the email does **not** travel from a sender's machine through a cable or "into the cloud" directly to the recipient's machine.

The message is passed on to many mail servers along the way, who help get the message to its destination.



**What is a computer network?** A computer network is when two or more computers are connected together to allow them to communicate.



### Server

- Some networks will have a server.
- A server provides services.
- There are many different types of server such as a file server which stores files (i.e. text, images, sound, or video) that can be accessed by all devices on the network.



### Computer protocols: email and web address protocols

What rules (protocols) exist for an email address?

- An '@' symbol must be used.
- The email address must be unique.

What parts of this web address show rules (protocols) being used?

- <http://www.bbc.co.uk>
- All website addresses start with 'http://' followed by 'www'.
- All website addresses are unique.
- They use dots to separate each part of the address.

### Network cables connect devices together

- Plastic plugs connect into sockets on devices.
- The cable is made up of copper wires.
- Data can be sent in both directions across a cable.



### Hub

- A hub connects a number of computers together.
- Ports allow cables to be plugged in from each connected computer.
- A message sent from computer A to computer B travels via the hub.





**What do I need to be able to do?**

**By the end of this unit you should be able to:**

- Understand properties of addition/ subtraction
- Use mental strategies for addition/subtraction
- Use formal methods of addition/Subtraction for integers
- Use formal methods of addition/Subtraction for decimals
- Solve problems in context of perimeter
- Solve problems with finance, tables and timetables
- Solve problems with frequency trees
- Solve problems with bar charts and line charts.

**Keywords**

**Commutative:** changing the order of the operations does not change the result

**Associative:** when you add or multiply you can do so regardless of how the numbers are grouped

**Inverse:** the operation that undoes what was done by the previous operation. (The opposite operation)

**Placeholder:** a number that occupies a position to give value

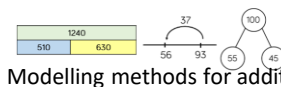
**Perimeter:** the distance/ length around a 2D object

**Polygon:** a 2D shape made with straight lines

**Balance:** in financial questions – the amount of money in a bank account

**Credit:** money that goes into a bank account

**Debit:** money that leaves a bank account



Modelling methods for addition/ subtraction

- Bar models
- Number lines
- Part/ Whole diagrams

The order of addition does not change the result



$$6 + 3 = 3 + 6$$

Addition is commutative

Subtraction the order has to stay the same

Remember the place value of each column.

Formal written methods

	H	T	O
+	1	8	7
+	5	4	2

	H	T	O
-	4	2	7
-	2	4	9

**Addition/ Subtraction with decimals**

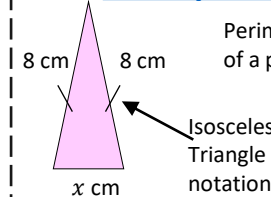
4	.	3	8
7	.	9	0
			+

0 can be used to fill empty places with value

The decimal place acts as the placeholder and aligns the other values

$$5.43 + \frac{8}{10}$$

Revisit Fraction – Decimal equivalence  
 $5.43 + 0.8$

**Solve problems with perimeter**

Perimeter is the length around the outside of a polygon

Isosceles Triangle notation

**Solve problems with finance**

Profit = Income - Costs

Credit – Money coming into an account

Debit – Money leaving an account

Money uses a two decimal place system.  
14.2 on a calculator represents £14.20

**Check the units of currency – work in the same unit**

**Tables and timetables****Distance tables**

London	Cardiff	Glasgow	Belfast
211	493		
556			
518	392	177	

This shows the distance between Glasgow and London.  
It is where their row and column intersects

**Bus/ Train timetables**

Harton	1005	1045	1130
Bridge	1024	1106	1147
Aville	1051	1133	1205
Ware	1117	1202	1233

Each column represents a journey, each row represents the time the 'bus' arrives at that location  
**TIME CALCUALTIONS** – use a number line

**Two-way tables**

	H	T
H	HH	HT
T	TH	TT

Where rows and columns intersect is the outcome of that action.

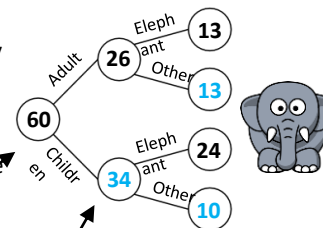
**Frequency trees**

60 people visited the zoo one Saturday morning.

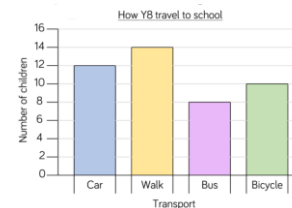
26 of them were adults. 13 of the adult's favourite animal was an elephant. 24 of the children's favourite animal was an elephant.

The overall total "60 people"

A frequency tree is made up from part-whole models. One piece of information leads to another



Probabilities or statements can be taken from the completed trees  
e.g. 34 children visited the zoo

**Bar and line charts**

Use addition/ subtraction methods to extract information from bar charts.

e.g. Difference between the number of students who walked and took the bus.  
Walk frequency – bus frequency

When describing changes or making predictions.

- Extract information from your data source
- Make comparisons of difference or sum of values.
- Put into the context of the scenario

**What do I need to be able to do?**

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

- Understand and use factors
- Understand and use multiples
- Multiply/ Divide integers and decimals by powers of 10
- Use formal methods to multiply
- Use formal methods to divide
- Understand and use order of operations
- Solve area problems
- Solve problems using the mean

**Keywords**

**Array:** an arrangement of items to represent concepts in rows or columns

**Multiples:** found by multiplying any number by positive integers

**Factor:** integers that multiply together to get another number.

**Milli:** prefix meaning one thousandth

**Centi:** prefix meaning one hundredth.

**Kilo:** prefix meaning multiply by 1000

**Quotient:** the result of a division

**Dividend:** the number being divided

**Divisor:** the number we divide by.

**Factors**

Arrays can help represent factors

10 x 1 or 1 x 10

5 x 2 or 2 x 5

**Factors of 10**  
1, 2, 5, 10

The number itself is always a factor

**Square numbers have an ODD number of factors**

**Factors of 4**  
1, 2, 4

**Factors of 36**  
1, 2, 3, 4, 6, 9, 12, 18, 36

Be strategic - Lay factors out in pairs can help you not to miss any

**Multiples**

Bar models can represent by something is a multiple.  
E.g. 20 is a multiple of 4

**Lowest Common Multiples**

**LCM of 9 and 12**

9, 18, 27, 36, 45, 54

12, 24, 36, 48, 60

LCM = 36

The first time their multiples match

**Metric conversions**

Useful Conversions

mm  $\xrightarrow{\times 10}$  cm  $\xrightarrow{\times 10}$  m  $\xrightarrow{\times 1000}$  km

g  $\xrightarrow{\times 1000}$  kg  $\xrightarrow{\times 1000}$  ml  $\xrightarrow{\times 1000}$  L

$\xrightarrow{\div 10}$   $\xrightarrow{\div 100}$   $\xrightarrow{\div 1000}$

**Multiply/ Divide by powers of 10**

3 x 100 = 300

0.03 x 100 = 3

Repeated multiplication and division by powers of 10 is commutative

$\div 10$  then  $\div 10 \rightarrow \div 100$

**Multiplication methods**

Less effective method especially for bigger multiplication

**Multiplication with decimals**

Perform multiplications as integers  
e.g. 0.2 x 0.3  $\rightarrow$  2 x 3

Make **adjustments** to your answer to match the question: 0.2 x 10 = 2  
0.3 x 10 = 3  
Therefore 6  $\div$  100 = **0.6**

**Division methods**

3584  $\div$  7 = 512

**Division with decimals**

The placeholder in division methods is essential – the decimal lines up on the dividend and the quotient

2.4  $\div$  0.02  $\rightarrow$  24  $\div$  0.2  $\rightarrow$  240  $\div$  2

All give the same solution as represent the same proportion.  
Multiply the values in proportion until the divisor becomes an integer

**Mean problems**

Lilly, Annie and Ezra have the following cubes

Lilly: 8 cubes, Annie: 8 cubes, Ezra: 8 cubes

24 in total

Finding the mean amount is the average amount each person would have if shared out equally

Lilly: 8, Annie: 8, Ezra: 8

The mean number of blocks would be 8 each

**Order of operations**

Brackets

Indices or roots

Multiplication or division

Addition or subtraction

If you have multiple operations from the same tier work from left to right

e.g. 10 - 3 + 5  $\rightarrow$  10 - 3  $\rightarrow$  7 + 5

6 x 4 + 8 x 2  $\rightarrow$  24 + 16 = 40

**Area problems**

Rectangle  
Base x Perpendicular height

Parallelogram/ Rhombus  
Base x Perpendicular height

Triangle  
 $\frac{1}{2}$  x Base x Perpendicular height

A triangle is half the size of the rectangle it would fit in

**Mean problems**

Lilly, Annie and Ezra have the following cubes

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The mean number of blocks would be 8 each

**Line notes**  
**E**very **G**ood **B**oy **D**eserves **F**ootball  
**F** **A** **C** **E**  
**G**reedy **B**ig **D**og's **F**all **A**sleep  
**A**ll **C**ows **E**at **G**rass

**Space notes**

**Stave**  
 5 lines where notes are placed to determine pitch

**Treble Clef**  
 Symbol placed on the stave. Used for high pitch (right hand on the piano)

**Bass Clef**  
 Symbol placed on the stave. Used for low pitch (left hand on the piano)

Orchestral Families						
Strings			Woodwind	Brass	Percussion	
Bowed	Struck	Plucked			Tuned	Untuned
Violin	Grand Piano	Harp	Piccolo	Trumpet	Xylophone	Bass Drum
Viola		Classical Guitar	Flute	French Horn	Marimba	Snare Drum
Cello			Oboe	Trombone	Vibraphone	Cymbals
Double Bass			Clarinet	Tuba	Timpani	Gong
			Bass Clarinet		Glockenspiel	Triangle
			Bassoon		Tubular Bells	Tambourine

### Woodwind Family

A selection of instruments divided into two sub families: Flutes and reed instruments. Flutes create a sound by air passing over a small hole, it creates a light breathy tone, reed instruments use a piece of bamboo reed to create a vibration (In turn creating sound).

### Brass Family

Brass instruments are made out of metal. The sound vibrations are created by the player's lips.

### Percussion Family

Instruments which are hit. These fall into two sub families: tuned (able to play different pitch) and untuned (Drum)

### String Family

String instruments are made from wood and have strings. They are usually played with a bow but can also be plucked. This is called pizzicato.

Name of note	Appearance	Rest	Value (Beats)
Semibreve			4
Dotted Minim			3
Minim			2
Dotted Crotchet			1 ½
Crotchet			1
Quaver			½
Semiquaver			¼

**Clef Symbol** - gives notes a place on the staff

**Time Signature** - top number shows how many beats per measure, bottom number shows which note gets the beat

**Bar Line** - divides the staff into measures

**Double Bar Line** - indicates the end of the song

**Space**  
**Line**  
**Measure**

Breaking down the Staff

Melody rhythms - use the syllables to create the rhythms

Tea Coffee Lemonade Coca-Cola Pineapple

**Beaming notes together**

Lower pitch

Higher pitch

**Sharp Symbol** #  
**Natural Symbol** ♮  
**Flat Symbol** ♭

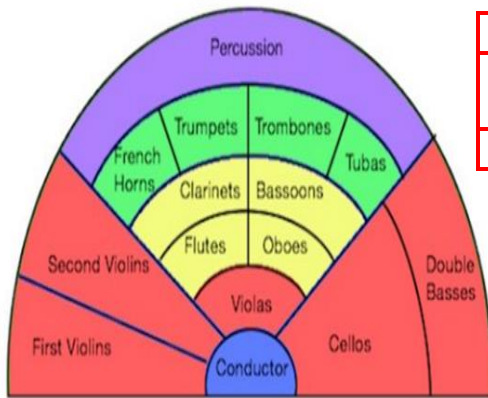
D sharp D natural D flat

Lower pitch → Higher pitch

Chromatic scale: C D E F G A B C D E F G A B C D E F G A B C D E F G A B C D E F G A B C

Middle C

# Music Department Knowledge Organiser



Key	
Major	Sounds happy
Minor	Sounds sad

Tempo	Definition
Lento	Slowly
Largo	Slow and stately
Adagio	Leisurely
Andante	At a walking pace
Allegro	Fast
Vivace	Lively
Presto	Very Quickly

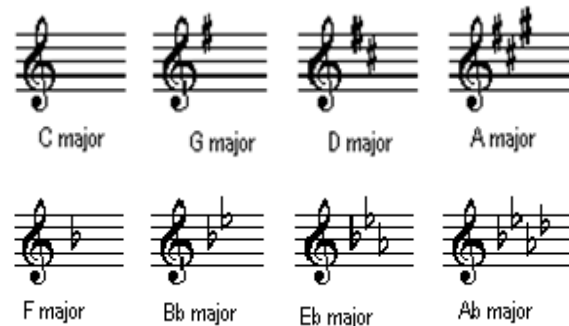
Element of Music	Definition
Pitch	How high or low the notes are
Tempo	The speed of the music
Dynamics	The volume of the music
Duration	The length of the notes
Silence	Nothing being played
Rhythm	A pattern of notes
Timbre	The colour/tone of the instruments
Texture	The layers of the music/thick and thin
Structure	Sections within the music/How the music is built

## Time Signatures

A time signature is two numbers that go at the beginning of a piece of music. The top number tells the performer how many beats are in a bar.

## Key Signatures

A key signature goes at the beginning of a piece of music and tells the performer what sharps and flats they need to play.



Musical Textures	Definition
Thick	Lots of instruments or patterns playing.
Thin	Only 1 instrument or melody line playing.
Monophonic	A single melody line
Polyphonic	Lots of different parts/instruments playing at the same time
Unison	Different instruments or parts play or sing the same notes
Homophonic	A melody with chords supporting it
Melody and accompaniment	A melody which is supported by other instruments

Rhythm	A pattern of notes
Compose	To write a piece of music
Bar line	A vertical line dividing the bars
Rest	Play nothing
Composition	Written piece of music
Orchestra	Collection of classical instruments playing together
Lyrics	Words to a song
Verse	A section of the song that melodically it stays the same but the words change, normally telling a story
Chorus	A section of a song that is catchy and stays the same
Step	Stepping to notes that are next to each other
Leap	Leaping over notes to get to another note
Repeat	Playing the same thing again.
Stylistic	Using the musical elements of the style appropriately

Dynamics	Symbol	Definition
Fortissimo	<i>ff</i>	Very Loud
Forte	<i>f</i>	Loud
Mezzoforte	<i>mf</i>	Moderately loud
Mezzopiano	<i>mp</i>	Moderately quiet
Piano	<i>p</i>	Quiet
Pianissimo	<i>pp</i>	Very quiet
Crescendo	$\text{>}$	Becoming gradually louder
Decrescendo	$\text{<}$	Becoming gradually quieter



**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

Fibula

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.



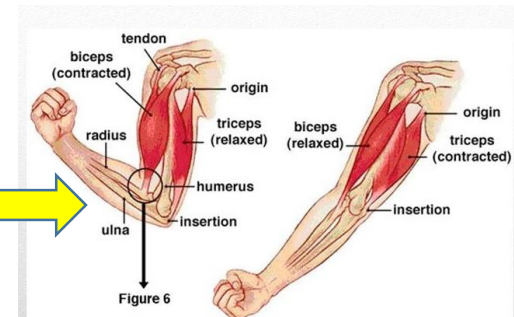
The skeletal system has 6 major functions:

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

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

### Arrow /Extension Tasks

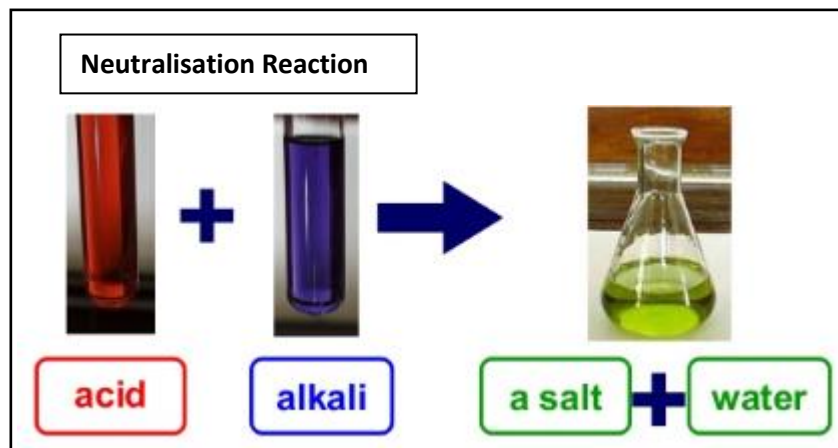
Investigate an action in sport e.g. Tennis serve or a kick in football. Label a diagram to show the actions of this movement and label the bones and joints in these actions



## Topic: Acids and Alkalis

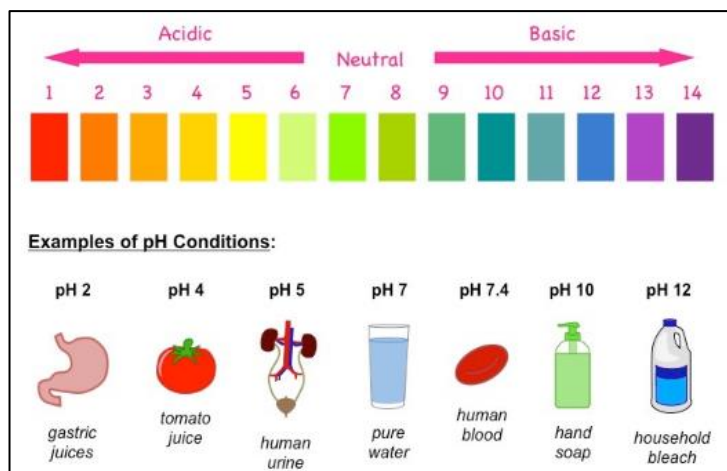
I need to be able to: Devise an enquiry to compare how well different indigestion remedies work

Key Words	Definitions
pH	Scale of acidity and alkalinity from 0 to 14.
Indicators	Substances used to identify whether unknown solutions are acidic or alkaline.
Base	A substance that neutralises an acid – those that dissolve in water are called alkalis
Concentration	A measure of the number of particles in a given volume.
Acid	A molecule which will donate hydrogen ions (pH 1-6)
Alkali	A soluble base. Will neutralise an acid (pH 8-14)

**Why does it matter?**

Go around your house and find as many products that contain acids or alkalis as you can

<http://acids-vs-bases.weebly.com/examples-in-everyday-life.html>



Arrow Tasks: Write an ionic equation to show neutralisation. Find out how titration can be used to find the concentration of an acid

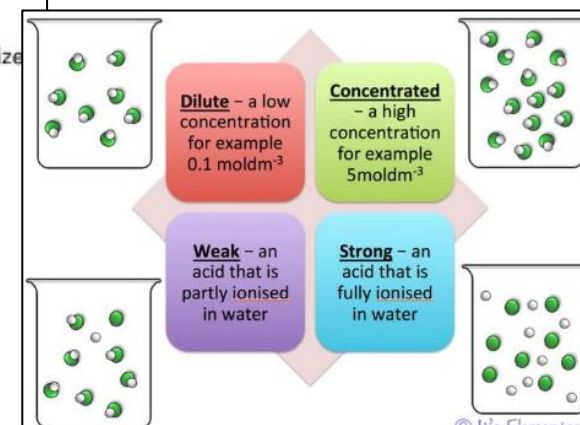
**Common Acids**

Sulfuric Acid	$\text{H}_2\text{SO}_4$	Battery acid
Nitric Acid	$\text{HNO}_3$	Used to make fertilizers and explosives
Phosphoric Acid	$\text{H}_3\text{PO}_4$	Food flavoring
Hydrochloric Acid	$\text{HCl}$	Stomach acid
Acetic Acid	$\text{CH}_3\text{COOH}$	Vinegar
Carbonic Acid	$\text{H}_2\text{CO}_3$	Carbonated water



The pH of a solution depends on the strength of the acid: strong acids have lower pH values than weak acids.

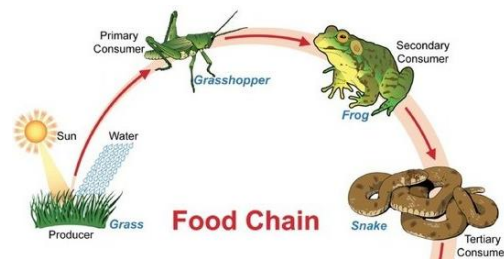
Mixing an acid and alkali produces a chemical reaction, neutralisation, forming a chemical called a salt and water.



## Topic: Interdependence

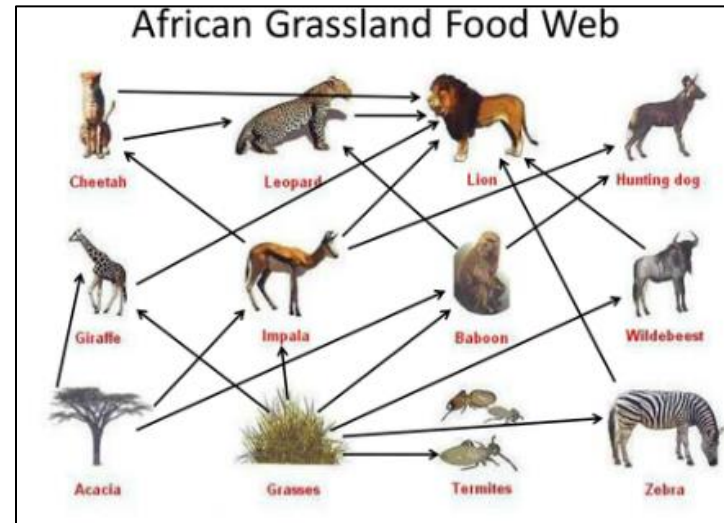
I need to be able to: Use a model to investigate the impact of changes of a population of one organism on others in the ecosystem

Key Words	Definitions
Food Web	Shows how food chains in an ecosystem are linked
Food Chain	Part of a food web, starting with a producer, ending with a top predator.
Ecosystem	The living things in a given area and their non-living environment.
Environment	The surrounding air, water and soil where an organism lives.
Population	Group of the same species living in an area.
Producer	Green plant or algae that makes its own food using sunlight.
Consumer	Animal that eats other animals or plants.
Decomposer	Organism that breaks down dead plant and animal material so nutrients can be recycled back to the soil or water



Arrow Tasks: Research and describe the impact of bioaccumulation on Orca populations and explain how this will impact the ecosystem

Links to further resources: <https://www.youtube.com/watch?v=5gDdliyH02E>

**Why does it matter?**

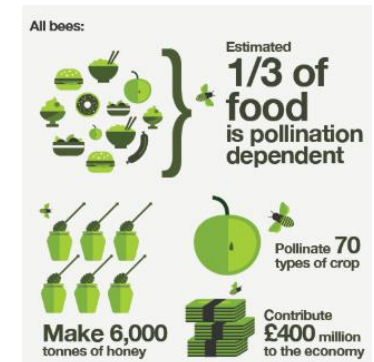
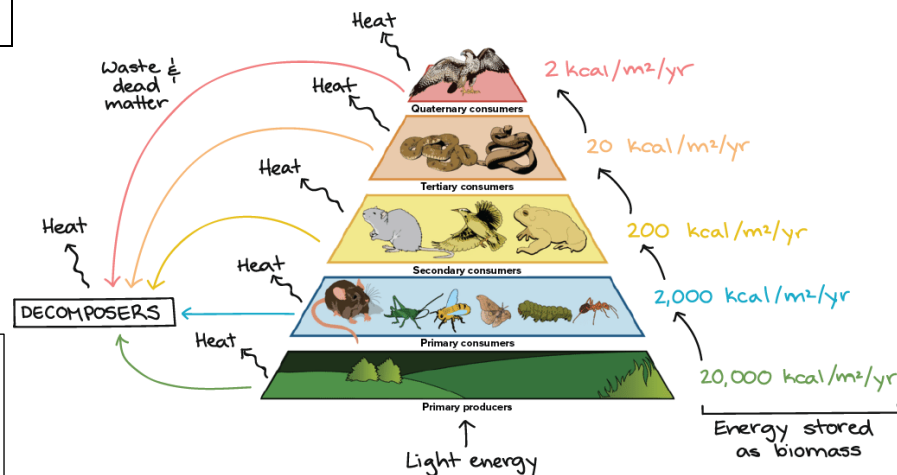
How have human activities impacted tiger populations? Why is it important that we understand the impact of humans? Should we protect their habitat?

<https://www.youtube.com/watch?v=LmMVUbW2Djw>

<https://www.youtube.com/watch?v=zOK7TbLqe-4>

[https://www.youtube.com/watch?v=U7ezlka\\_cC8](https://www.youtube.com/watch?v=U7ezlka_cC8)

<https://www.youtube.com/watch?v=eAD5XE4YCE0>





## Topic: Metals and Non-metals

I need to be able to: Use experimental results to suggest an order of reactivity for various metals

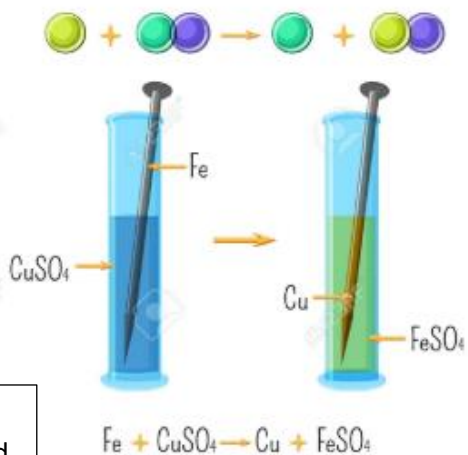
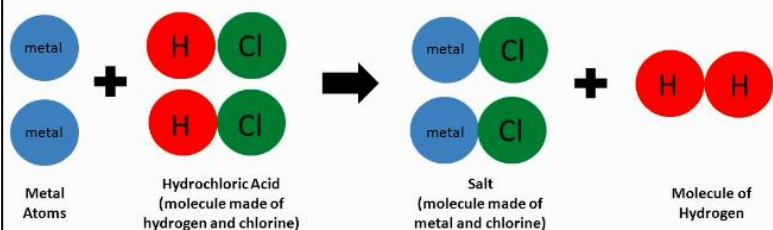
Key Words	Definitions
Metals	Shiny, good conductors of electricity and heat, malleable and ductile, and usually solid at room temperature.
Non-Metals	Dull, poor conductors of electricity and heat, brittle and usually solid or gaseous at room temperature.
Displacement	Reaction where a more reactive metal takes the place of a less reactive metal in a compound.
Oxidation	Reaction in which a substance combines with oxygen.
Reactivity	The tendency of a substance to undergo a chemical reaction.

Metal		Reaction with AIR	Reaction with WATER	Reaction with ACIDS
Potassium	K	Burn vigorously to form metal oxides	React with <b>cold water</b> $\text{H}_2\text{O}$ (l) to form $\text{H}_2$ (g) and (metal)OH (aq)	Strong reaction with <b>diluted acid</b> (aq) to form $\text{H}_2$ (g). Metal replaces H in compound to form a salt.
Sodium	Na			
Calcium	Ca	Burn with decreasing vigour down the series to form metal oxides	Only reacts with <b>steam</b> $\text{H}_2\text{O}$ (g) to form $\text{H}_2$ (g) and metal oxide	React with <b>concentrated acid</b> (l). Metal replaces H to make a salt. Some of the acid decomposes into $\text{NO}_2$ (g) and $\text{H}_2\text{O}$ (l).
Magnesium	Mg			
Aluminium	Al			
Zinc	Zn			
Iron	Fe	React slowly (when heated) to form an oxide layer	No reaction	No reaction
Lead	Pb			
Copper	Cu			
Mercury	Hg	No reaction	No reaction	No reaction
Silver	Ag			
Gold	Au			

**Why does it matter?** Which metal is found in the electric wires in your house? Find out why this metal is used?

<https://copperalliance.org.uk/knowledge-base/education/education-resources/copper->

- When **metals** react with **acids**, the **atoms** *rearrange*.
- This forms different **molecules**, these will have different **properties**.



potassium	most reactive	K
sodium		Na
calcium		Ca
magnesium		Mg
aluminium		Al
carbon		C
zinc		Zn
iron		Fe
tin		Sn
lead		Pb
hydrogen		H
copper		Cu
silver		Ag
gold		Au
platinum	least reactive	Pt

Metals	Non-metals
Metals on heating with oxygen form ionic oxides, which are basic in nature and which dissolve in water to form bases, which turn red litmus blue.	Non-metals on heating with oxygen form covalent oxides which are acidic in nature and dissolve in water to form acids, which turn blue litmus red.
Lustrous	Non-lustrous except graphite
Conductor of electricity and heat	Non-conductor of heat and electricity, except graphite
All are solid except mercury	Solid-liquid-gaseous
Electro positive. Loses electrons readily and becomes a positive ion	Electro negative: gain electrons and become negative ions.
Metals are reducing agents	Non-metals are good oxidizing agents

Arrow Tasks: Write a balanced symbol equation for the following reactions: Magnesium and Oxygen, Magnesium and Hydrochloric Acid, Copper Sulphate and Iron

Links to further resources:

<https://www.thoughtco.com/metals-versus-nonmetals-608809>

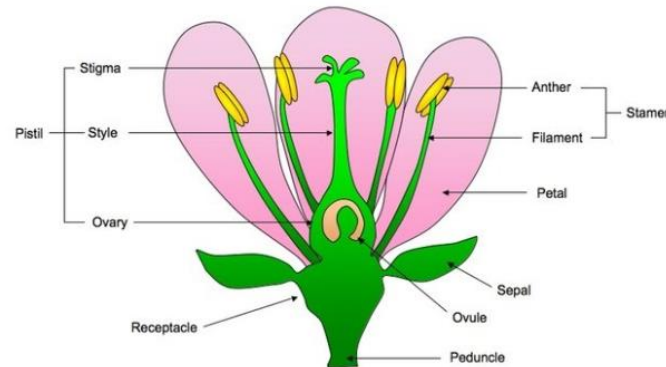
<https://www.bbc.com/bitesize/guides/zy7dgdm/revision/1>



# Topic: Plant Reproduction

I need to be able to: Use models to evaluate different types of seed dispersal

Key Words	Definitions
Pollen	Contains the plant male sex cells found on the stamens
Ovules	Female sex cells in plants found in the ovary.
Pollination	Transfer of pollen from the male part of the flower to the female part of the flower on the same or another plant.
Fertilisation	Joining of a nucleus from a male and female sex cell.
Seed	Structure that contains the embryo of a new plant
Fruit	Structure that the ovary becomes after fertilisation, which contains seeds.
Carpel	The female part of the flower, made up of the stigma where the pollen lands, style and ovary



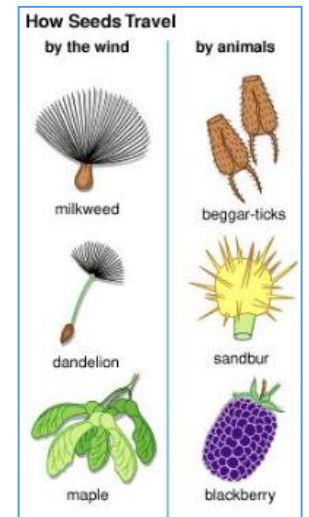
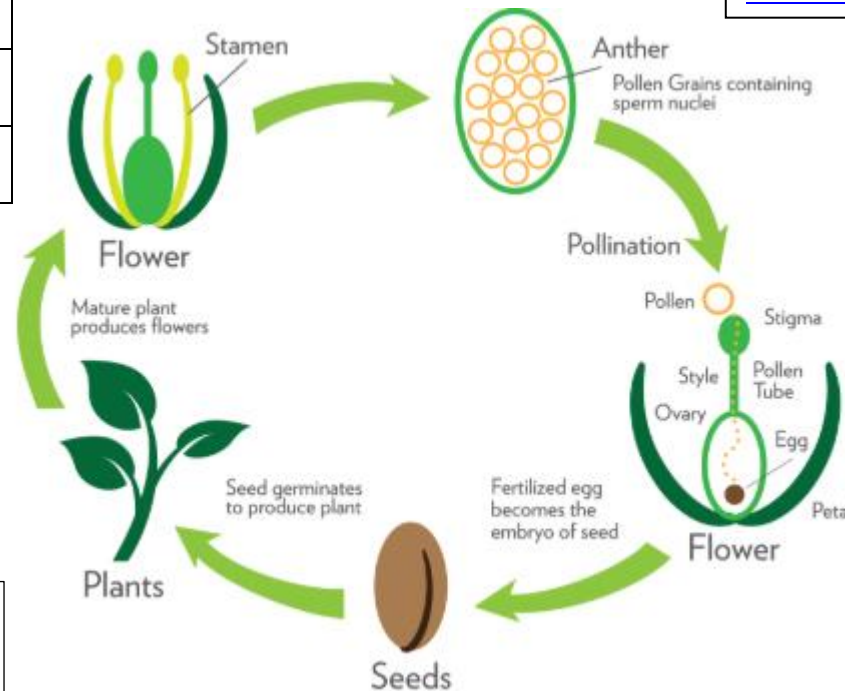
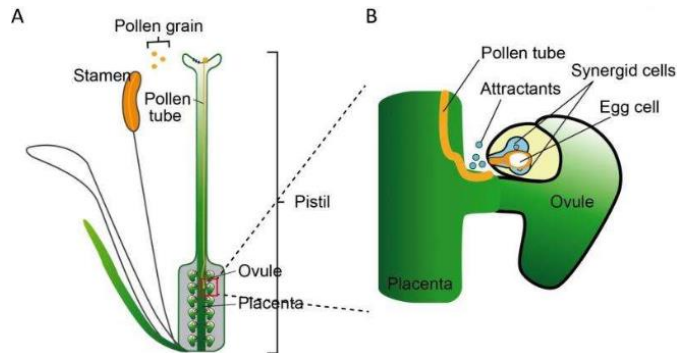
## Why does it matter?

Next time you go to the supermarket, think about how much of the food on the shelf is pollinated by bees. Is pollination important in your life?

<http://www.bbc.co.uk/guides/zg4dwmn>

Why do you get hayfever?

<https://www.nhsinform.scot/illnesses-and-conditions/immune-system/hay->



Arrow Tasks: Find out the difference between an angiosperm and a gymnosperm. Go for a walk in the woods with a family member and take photos of all examples you find

Links to further resources: <https://www.bbc.com/bitesize/articles/zqbcxfr> <https://www.britannica.com/science/plant-reproductive-system>

## 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 activities 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	<b>My</b> - in Spanish, there are 2 forms; singular (mi) and plural (mis) <b>Your</b> - in Spanish, there are 2 forms; singular (tu) and plural (tus) <b>His /Her</b> - in Spanish, there are 2 forms; singular (su) and plural (sus)

Arrow Task: Find out about the most popular sports and typical sports in Spain OR Compare celebrations El Día de los Muertos and Hallowe'en.

**Ser = to be**

Soy = I am  
Eres = you are  
Es = he /she/it is  
Somos = we are  
Sois = you are (plural)  
Son = they are

**Ir = to go**

Voy = I go/am going  
vass = you go/ are going  
va = he /she/it goes / is going  
vamos = we go/ are going  
vais = you go / are going (plural)  
van = they go / are going

To **CONJUGATE** a verb means to change the **infinitive** of the verb so that it is clear **who** is talking, being talked about.

**'WOW' phrases:**

Yo amo cantando/jugando al fútbol / escuchando música = I love singing/ playing football/ listening to music

<https://www.spanishlearninglab.com/spanish-free-time-activities/>

Hacer = to do/to make

THIS VERB IS IRREGULAR, IT HAS A PATTERN OF ITS OWN;

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

To say that you have been doing something, use the phrase 'desde hace' + time;

Juego al baloncesto desde hace tres años

I have been playing basketball for 3 years.

There will be more topic 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, porque no me gusta bailar.	Every day, I listen to music, I never dance, because 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 desde hace cinco años y juego al fútbol. Hago atletismo en verano	I am very interested in sports. I have been horse-riding for five years and I play football. I do athletics in Summer.
14	¿Qué deportes haces tú por lo general? Normalmente nado pero el año que viene voy a hacer el footing.	What sports do you usually do? Normally I swim but next year I am going to go jogging.

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.
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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: 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	To test the aesthetics ( appearance, texture, aroma, flavour if a product
Risk	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



**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



**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.



## 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:

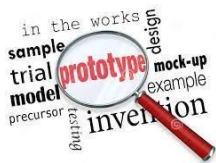
Context    Design Brief    Task Analysis    Research  
Investigation    Specification    Design & Development  
Making    Testing    Evaluation

### Key Words

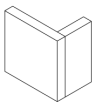
#### \* Design process



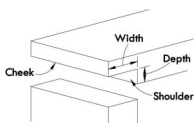
#### \* Prototype



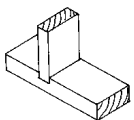
#### \* Butt joint



#### \* 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)



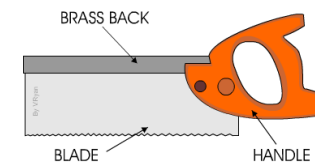
#### Softwood

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?

Link to further resources:

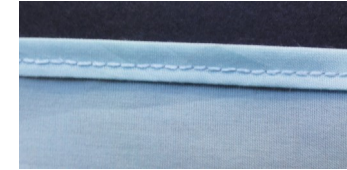
<http://www.technologystudent.com>  
<http://www.mr-dt.com/>  
[http://wiki.dtonline.org/index.php/Main\\_Page](http://wiki.dtonline.org/index.php/Main_Page)

**Return to contents page**

## Topic: Cushion Cover

### I need to be able to:

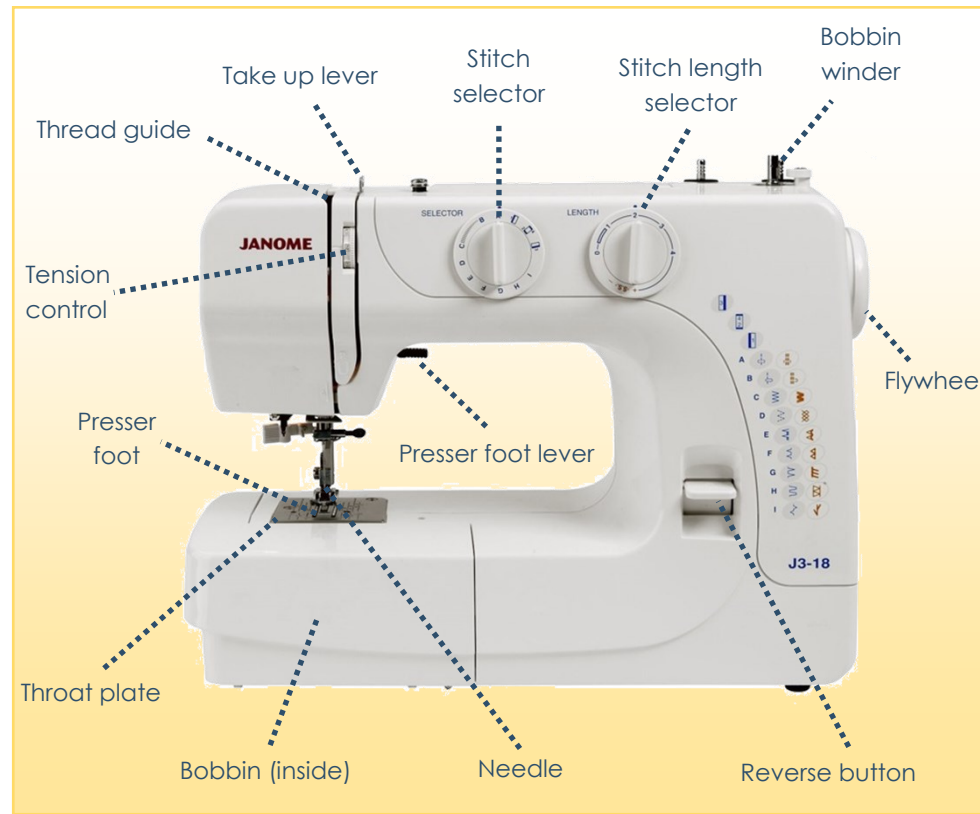
- understand the key parts of a swing machine and the threading path.
- apply hand and machine sewing techniques.
- understand the function of seams & hems and be able to apply to your product.
- gain an awareness of the work of famous artists and be able to consider the need for aesthetics within a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



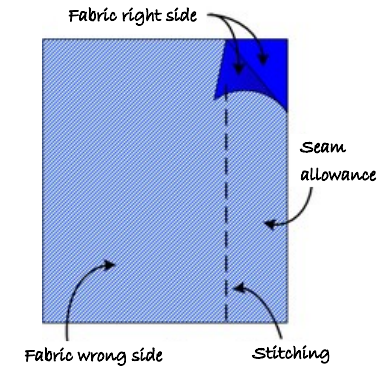
### What is a hem?

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.
* Surface Design	A technique that changes the surface of fabric. This would include: painting, dyeing, printing/stamping, stencilling.
* Poly-cotton	A fabric that is made up of cotton and polyester fibres.

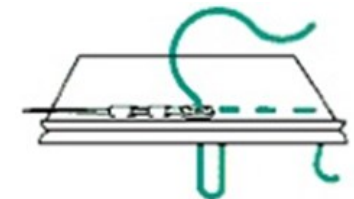


Arrow Task: Can you think of alternative methods you could use to join your pieces of fabric together, when constructing the cushion cover? What would be their strengths and do those methods have limitations?



### What is a seam?

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



### Tacking

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

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## 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

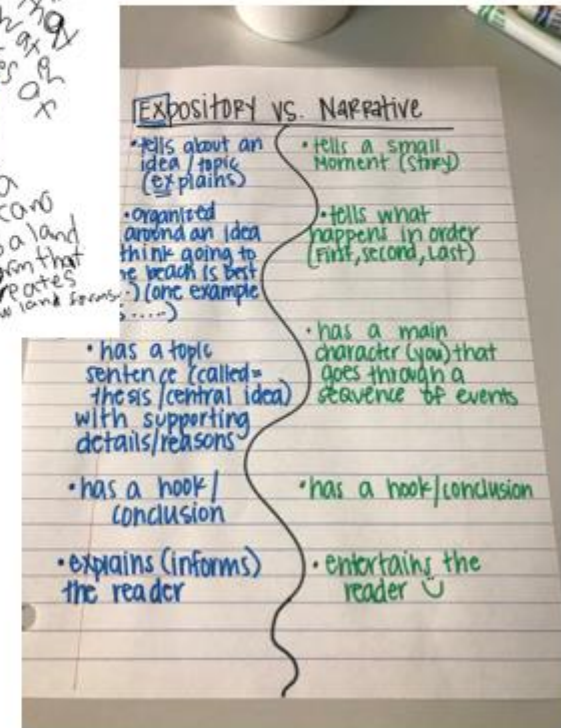
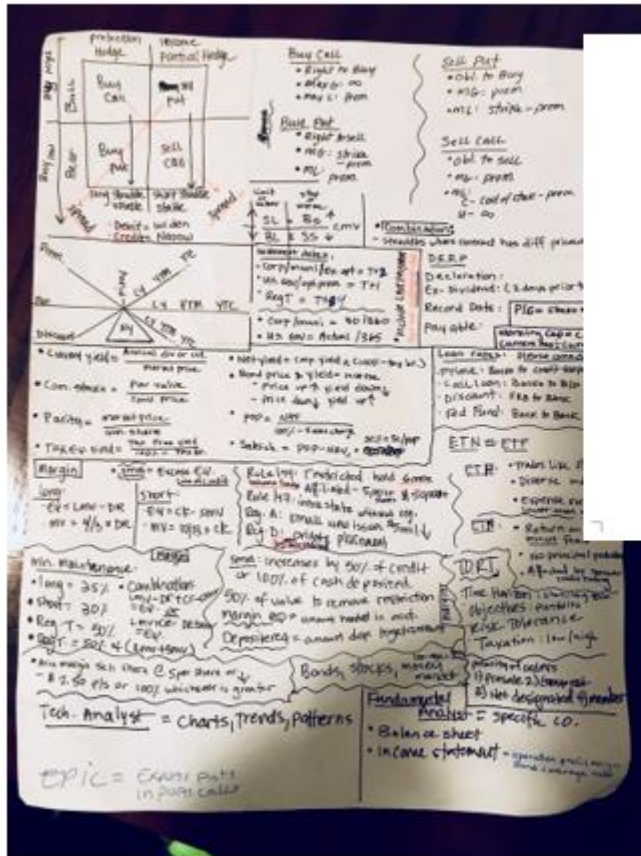
**WHEN:** beginning of 20 minute revision block

**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.

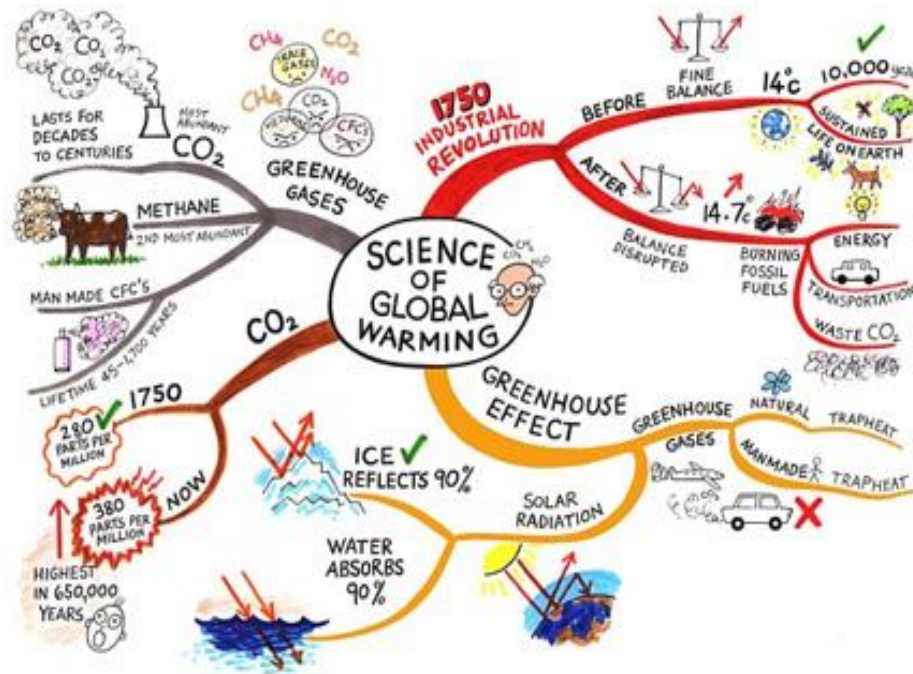
**HOW:**

- 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

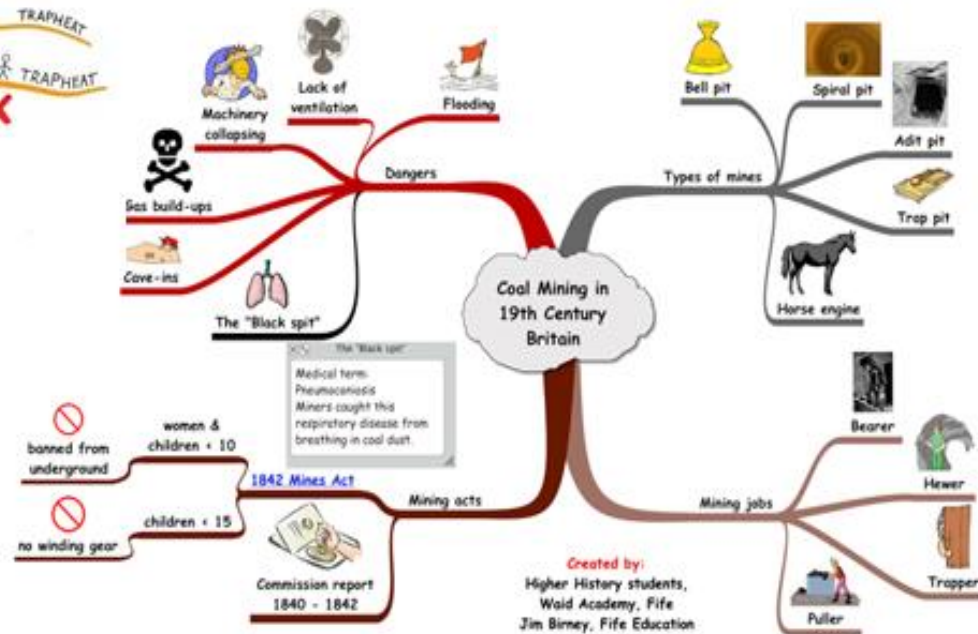


**Top Tip:** Use different colours for each branch of your mind map.

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.



# 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



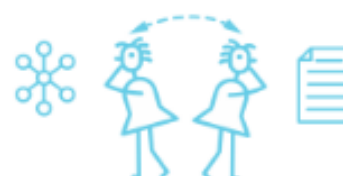
Don't study one topic for too long.  
Switch between topics when studying.

### 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!