

Year 7 Knowledge Organiser

Summer Term (1) 2022

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
Transition groups only
A guide to revision strategies

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

Topic: **Narrative, issues based artwork (2D or 3D).**

I need to know: How to think three dimensionally, draw, design and manipulate materials using skills and techniques to make three dimensional forms from 2D drawings.

Key Words	Definitions
Tone	<i>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.</i>
Shades	<i>Mixing a small amount of black to a pure colour will make a shade.</i>
Tints	<i>Mixing a small amount of white to a pure colour will make a tint.</i>
Pigment	<i>A substance or compound that gives something a particular colour.</i>
Ground	<i>A ground or primer is the background surface on which you paint. It separates your painting from the supporting paper, canvas or board.</i>
Impasto	<i>The technique of applying paint or pigment thickly so that it stands out from a surface.</i>
Layering	<i>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.</i>
Weight	<i>The weight of a tone refers to its dominance within the composition or painting as a whole.</i>
Composition	<i>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.</i>
Chiaroscuro	<i>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.</i>
Line	<i>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.</i>
Form	<i>In relation to art the term form has two meanings: it can refer to the three dimensional presence of the work – its physical nature; or within a work of art it can refer to the element of shape among the various elements that make up a work.</i>
Modelling	<i>Refers to the manipulation of plastic, malleable materials such as clay.</i>
Joining	<i>Refers to the connection of flat, two dimensional surfaces to give the appearance of a three dimensional form. See examples opposite.</i>
Construction	<i>Refers to the complexity of a variety of methods coming together to create a three dimensional form.</i>
Low Relief	<i>Low Relief refers sculptural elements that are on top of a flat surface, like the friezes on the Parthenon or carvings on the side of old buildings. Low relief means they barely stand out from the background, almost like it's carved just around the edges.</i>

Arrow Tasks: Compare and reflect upon the work of Picasso, Rivera, Wyndham Lewis, and Piper. All of these artists have been heavily influenced by the experience of conflict. Consider the way visual grammar of line, shape, colour, tone, texture have been used to convey the horrors of war.

Links to further resources: <https://www.museoreinasofia.es/en/collection/artwork/guernica>



[Pablo Picasso](#). 1937. Guernica. 349.3 cm x 776.6 cm



Student work: Card mural construction



Student work: Card construction



https://www.ted.com/talks/iseult_gillespie_why_is_this_painting_so_shocking/transcript

Topic: **Narrative, issues based artwork (2D or 3D).**



Diego Rivera. 1928. Distribution of Arms.



John Piper. 1942. All Saints Chapel.



Percy Wyndham Lewis 1934-7. The Surrender of Barcelona



Pablo Picasso

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 tones and matching the tone to form. The application of tone to accentuate atmosphere. Using shape to describe symbolic relationships.*

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

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

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

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

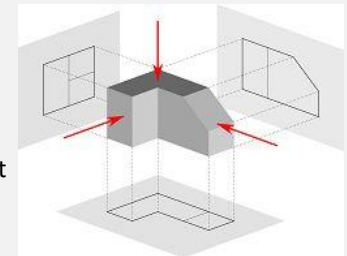
Communication: *Represent, truth, analyse, evaluate, talk, show...*

Legacy: *Material, pigment, permanence, honesty, heritage, culture, accuracy, 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 **Independent Learning:** *Identify questions, research, explore issues, evaluate different perspectives, influences, reasoned arguments and evidence.*

Further thinking (why does this matter?):

On a functional level, it is important to us that we can visualise what a 3D object might look like from a 2D plan, side and front view. This simply helps us to make things in 3D.



On a more complex level, this helps us to translate information from 2D to 3D and vice versa; enabling us to perceive space and our relation to and in it. This enables the artist, designer or architect to be creative, improvise, and break the rules; whilst ensuring the construction will hold its own weight, remain safe and be exciting for those exploring its spaces and surfaces.

Subject: Drama

Year: 7 Summer Term

Topic: Devising with the theme of refugees.

- I need to know: How to undertake background research to help communicate ideas. Create a sensitive performance as part of an ensemble.

Key Words	Definitions
Still image	A picture you create in a group.
List Poem	A poem created from list of objects.
Mirroring	Performing the same movements as another actor, at the same time.
Flocking	Moving as a group.
Unison	Performing in harmony with others.
Ensemble	Working as a larger group.
Cross-cutting	Performing two scenes together.
Flashback	A scene showing past events.
Flashforward	A scene showing future events.
Dramatic tension	A moment where the audience are on the "edge of their seats".
Sound-scape	Creating different sounds together.
Narration.	Telling a story.



Wider Reading: Look at the following websites:

Refugee council and refugee action.

Read "Refugee Boy" by Benjamin Zephaniah.

Research "Mountain Language" by Harold Pinter.



Arrow Tasks: Considering the structure of the piece and its' impact on the audience.

What We Do:

- Use original stories to devise a piece of drama with depth and sensitivity.
- Communicate a character's story to the audience, using a variety of drama techniques.
- The final piece uses more advanced drama techniques to create work that encourages the audience to think about a current issue.

Links to further resources: www.refugeecouncil.org.uk/truth

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Topic: 'Refugee Boy' by Benjamin Zephaniah

I need to know some of the ideas associated with books written about non-fiction events. I need to be able to see how writers engage and entertain and be able to use some of those techniques in my own non-fiction writing.

Key Words

- Refugee: a person who has been forced to leave their country in order to escape war, persecution, or natural disaster.
- Asylum: a place of shelter or safety. An asylum seeker is someone who has come to the country because it is a safe place for them, where their life will not be in danger.
- Ethiopia: Africa's oldest independent country and its second largest in terms of population.
- Eritrea: won independence from Ethiopia in 1993 after a 30-year war, but has been plagued by repression at home and tense relations with its neighbours.
- The Refugee Council: a UK based organisation which works with refugees and asylum seekers.
- Political asylum: the protection granted by a state to someone who has left their home country as a political refugee. The Home Office: a department of the Government which is responsible for immigration, security and law and order
- Persecution: hostility and ill-treatment, especially because of race or political or religious beliefs; oppression

Key themes:

War and conflict: Alem is forced to become a refugee due to the war between Eritrea and Ethiopia. Whilst living in England, he encounters conflict every day and compares it to the war in Africa.

Love: Alem's parents love him and Mr Kelo leaves Alem in England to protect him from the dangers of war. Alem's friends and foster family also love him and protest against the decision to send him back to Ethiopia or Eritrea.

Hope: Alem continuously has hopes that peace will be declared between Ethiopia and Eritrea and that he will be able to return safely to Africa to live with his family.

Injustice: Alem is not welcome in either Ethiopia or Eritrea because he is mixed-race and is threatened at gun-point by soldiers who tell his family to leave. However, a judge (who has never been to either country) decides that it is safe for Alem to return. This leads to Alem's friends protesting against the decision.

Isolation: Alem is left alone in England at the beginning of the novel. Throughout the book, Alem is faced with isolation and loneliness and there are many barriers which make him feel like an outsider

Key characters

- Alem: the protagonist of the novel. Alem is not safe in either Ethiopia or Eritrea because he is mixed-race.
- Mr Kelo: Alem's father. He is Ethiopian.
- Mrs Kelo: Alem's mother. She is Eritrean.
- Mr and Mrs Fitzgerald: Alem's foster parents.
- Ruth: Mr and Mrs Fitzgerald's daughter.
- Sheila: a social worker who supports Alem.
- Mariam and Pamela: they are from the refugee council. They help Alem to apply for asylum.
- Robert: Alem's friend from school. His real name is Roberto Fernandez.
- Sweeney: a bully from the care home.
- Stanley: a boy in the care home that shares a room with Alem. Mr Hardwick: the hotel manager who finds Alem alone.
- Nicholas Morgan: a barrister for Alem.
- Buck: one of the students from Alem's school.
- Asher: is a very friendly to Alem

Big questions:

- Was Alem's father right to leave him in London? How do you think he felt doing it? What would you have done in that situation?
- How do you feel when people use language you do not understand?
- What is important to an average 14-year-old in the UK? What is important to Alem? Explain why Alem might feel differently?
- What have you learnt about the treatment of asylum seekers after reading this book?

Suggested activities:

- Find out about the countries that refugees come from. What has happened in those countries that means people have to leave to live?
- How do the media represent asylum seekers in the UK? How would Alem react to the headlines?
- Write an imaginary letter to the government asking that Alem be given asylum in Britain, and explain why.

Links to further resources: https://media.bloomsbury.com/rep/files/BenjaminZephania_readingGuide.pdf
<https://www.bbc.co.uk/news/topics/cg41ylwvxmdt/refugees-and-asylum-seekers>
<https://www.bbc.co.uk/bitesize/clips/zbrd2hv>

Topic: 'Coraline' by Neil Gaiman

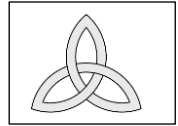
I need to know some of the ideas associated with fantasy fiction. I need to begin to understand how to analyse a piece of text for the language used and the structures applied to it by the writer. I need to understand how writers entertain, scare and enthrall their readers.

Key Words	Definitions	Big questions of the text	Key characters
Fantasy	<p>The activity of imagining impossible or improbable things</p> <p>fiction based on imagined future scientific or technological advances and major social or environmental changes, frequently portraying space or time travel and life on other planets.</p> <p>an imagined state or society in which there is great suffering or injustice, typically one that is totalitarian or post-apocalyptic.</p> <p>be a warning or indication of (a future event).</p> <p>pull or twist out of shape</p> <p>a story, poem, or picture that can be interpreted to reveal a hidden meaning, typically a moral or political one.</p> <p>an instance of a wrong or misinterpreted perception of a</p>	<ul style="list-style-type: none">How does Coraline define bravery? In what ways does Coraline demonstrate bravery? What is your definition of bravery?Do the mirrors Coraline encounters in the real world and the other world reflect reality or illusion? How do you know? What is the significance of mirrors in Coraline?On page 120, Coraline says, "I don't want whatever I want. Nobody does. Not really. What kind of fun would it be if we just got everything we wanted? Just like that, and it didn't mean anything. What then?" Do you agree or disagree with her? How would you respond to her question?What is courage?How does Neil Gaiman use the features of a scary novel to entertain and interest his readers?What kind of a novel is this? How do we know?	<ul style="list-style-type: none">Coraline Jones – The young explorer. She is curious, intelligent, resourceful, and courageous. Coraline is not afraid to face anyone; she is the most adventurous person in the book.
Science fiction			<ul style="list-style-type: none">Mrs. Jones – Coraline's mother. She is very busy most of the time, and sometimes a little inattentive, but she loves and cares about Coraline.
			<ul style="list-style-type: none">Mr. Jones – Coraline's father. He works at his house on the computer. He cares about Coraline very much and is kind, brave, and helpful.
			<ul style="list-style-type: none">The Cat – A black cat from Coraline's world. The cat acts as a mentor to Coraline and guides her through her journey.
			<ul style="list-style-type: none">The Other Mother – An evil witch, who created much of the Other World, and the primary antagonist of the novel. She looks similar to Coraline's real mother but taller and thinner. She cannot create, but only copy, twist and change things from the real objects.
Dystopia			<ul style="list-style-type: none">The Other Father – A creation of the Other Mother in the image of Mr. Jones, the Other Father is used to help trick Coraline into staying in the Other World
			<ul style="list-style-type: none">Miss Spink and Miss Forcible – A pair of retired actresses who live in the flat under Coraline's.
			<ul style="list-style-type: none">Mr. Bobo – A retired circus performer living in the flat above Coraline's; he is commonly referred to as the Crazy Old Man Upstairs. mice to train, and doesn't listen to what he says to be messages from the mice.
Foreshadow			<ul style="list-style-type: none">The three ghost children – The spirits of three children who were previous victims of the Other Mother.
Distort		<div>Key themes</div> <ul style="list-style-type: none">The Importance of Overcoming One's Fears.IdentityThe Potential of Imagination.The Power of Choice.Deception and Illusions.The Harm of Manipulation.The Truth about Family	
Allegory			
Illusion			

Suggested activities:

- Find another fantasy, scary or sci-fi novel to read. How many of the same techniques and ideas does the author use?
- As you read any fiction, think about what the key words of the extract are: why have they been used and what effect do they have?
- What order do the events get revealed in a book – why does the author decide to reveal them like that? What difference would it make if they had revealed information in a different order?

Links to further resources: <https://www.neilgaiman.com/>
<https://www.mousecircus.com/>
<https://www.readbrightly.com/best-young-adult-fantasy-books/>



Topic: What is so radical about Jesus?

I need to know:

- To explain what Christians mean by talking about God as Father, Son and Holy Spirit, using evidence from biblical texts.
- To understand how different biblical texts talk about God as Trinity and how these can be read.
- Make links between the concept of the Trinity and the roles and actions of God through the 'big story' of the Bible.
- To know how Christian communities might respond to the idea of God as Trinity.
- How Christians worship God as Trinity.
- What difference does belief in God as Trinity make for Christians?

Key Words and Definitions

- **Apostles' Creed:** A statement of Christian beliefs about the nature of God.
- **Ascension:**
- **Gospels:** The word 'gospel' means good news. The term is also used to describe first four books of the Bible (Matthew, Mark, Luke and John) where we read about the life of Jesus.
- **Holy Spirit:** Part of the Trinity that was sent to earth after Jesus ascended to heaven.
- **Incarnation:** The way in which God becomes 'flesh' of human in the form of Jesus.
- **Monotheism:** Belief in one true God.
- **Omnibenevolent:** All-loving.
- **Omnipotent:** All-powerful.
- **Omniscient:** All-knowing.
- **Paraclete:** Another term for the Holy Spirit.
- **Resurrection:** when someone who is declared dead suddenly returns to life.
- **Son:** Refers to Jesus as a person of the Trinity.
- **Trinity:** The three persons of God: God the Father,

God as Trinity

Christians are monotheists which means they believe in one God. However, they believe that God is made up of three persons:

- God the Father
- God the Son
- God the Holy Spirit

Christians are often blessed in church services by a minister with a reference to this belief. Catholics will often bless themselves by making the sign of cross and reciting this prayer:

'In the name of the Father, the Son and the Holy Spirit.'

Trinity Sunday

Some churches celebrate Trinity Sunday. Ask students to come up with ways they could celebrate – appropriate music, prayers, Bible readings and action in the community that a church might plan which could express the belief in the Trinity.

God as Father

Jesus taught his followers to refer to God as the Father. Thinking about God as Father refers to God as being omnipotent (all-powerful) and omniscient (all-knowing) part of God. It is also how God is seen as creator of the world. Jesus sometimes used the term 'Abba Father'. This shows God as omnibenevolent (all-loving). The idea that God wants a personal and loving relationship with people, like a father and child.

God as Son

Christians believe that Jesus was the Son of God. For many Christians. They see Jesus as God in human form. Jesus said, *'I and the Father are one'* (John 10:30). This belief is known as the incarnation. The idea that Jesus was both human and divine.

By looking at the character of Jesus, Christians believe that God revealed something of himself to humans.

God as Holy Spirit

Many Christians believe that after a period of time following Jesus' resurrection, he ascended (rose up) into heaven. They believe that God then sent the Holy Spirit into the world.

Christians believe the Holy Spirit does the following:

- Guides them.
- Gives them comfort and courage.
- Inspires and guides them.
- Helps to strengthen their faith.
- Can give them spiritual gifts.
- Pentecostal Christians worship God as Trinity, but they emphasise the need to allow the Holy Spirit to fill people with power, so that they can exercise the gifts of the Spirit

Christians believe that the Holy Spirit can intervene in the world in a miraculous way and is present during worship. They believe it connects them to God.

The Apostles' Creed

I believe in Jesus Christ, his only Son, our Lord, who was conceived by the Holy Spirit, born of the Virgin Mary, suffered under Pontius Pilate, was crucified, died, and was buried; he descended to the dead. On the third day he rose again; he ascended into heaven, he is seated at the right hand of the Father, and he will come to judge the living and the dead. I believe in the Holy Spirit, the holy catholic Church, the communion of saints, the forgiveness of sins, the resurrection of the body, and the life everlasting. Amen.

Topic: Mes Vacances

I need to be able to: recognise and use a range of verbs, nouns and adjectives. I need to be able to describe holidays

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)

Je vais- I go

Tu vas- You go

Il/elle va- You go

Nous allons- We go

Vous allez- You go (pl)

Ils/elles vont- They go

(Aller + infinitive to make the near future)

Example Je vais aller- I am going to go

Je voudrais aller- I would like to go

Je voudrais être- I would like to be

Je voudrais avoir- I would like to have

WOW!

Même si. Even if

A mon avis- In my opinion

Je me suis rendu compte que- I realised that

	français	anglais
1	Où vas-tu en vacances?	Where do you go on holiday?
2	Tous les ans, je vais en France	Every year, I go to France
3	Nous faisons du camping á la campagne	We go camping in the countryside
4	Nous faisons de la rando et des activités sportives	We do hiking and sporting activities
5	L'année dernier, Je suis allée en Italie	Last year, I went to Italy.
6	Je suis allée a un restaurant, J'ai commandé le plat du jour	I went to a restaurant, and I ordered the dish of the day.
7	Et j'avais dit à mère	And I said to my mum
8	« J'ai faim et j'ai soif »	"I'm hungry and I'm thirsty"
9	Je voudrais un café et un croque-monsieur	I would like a coffee and ham and cheese toastie
10	Mais je ne voudrais pas un Orangina	But I don't want an Orangina
11	Pour les grandes vacances, je vais rester en cornouilles	For the summer holidays, I am going to stay in Cornwall
13	et je vais faire de l'accrobranche	And I am going to do a treetop adventure
14	Mes rêves, ce serait aller au Canada	My dream, would be to go to Canada
15	Aussi je voudrais être footballeur Professionnel avec une voiture très cool	Also I would like to be a professional footballer with a cool car.
16	Ma sœur voudrait aller au Hawaii	My sister wants to go to Hawaii
17	Elle m'a dit "tu as combien d'argent ? »	She said « How much money have you got? »
18	Désolée, j'ai dix euros cinquante !	Sorry, I have 10 € 50
19	On y va Looe pour le moment	We will go to Looe for the time being !

Topic: Cornwall

I need to know: In this topic you will explore our wonderful county of Cornwall! You will investigate some of the key physical features found in Cornwall, the changing population of the county and how this has changed over time – impacting on both jobs, and culture. You will then investigate how and where the Cornish culture has spread across the rest of the world!

Key Words	Definitions
County	A territorial division of a country (e.g. Cornwall, Devon etc).
Physical Features	Natural features that you find on the Earth's surface.
Geology	The study of the Earth. Through studying rocks, we can understand how the Earth has changed through time
Population	The whole number of people living in a country, city, or area.
Economy	People produce goods and services, which other people buy. The economy means the whole network of people producing and consuming goods
Industry	An industry is a group of companies that are related based on their primary business activities. There could be primary, secondary, tertiary and quaternary industries.
Culture	The differences in way of life for a certain group. It includes ideas, attitudes, language and traditions.
Your teacher will give you any more key words that you learn about.	

Arrow Tasks:

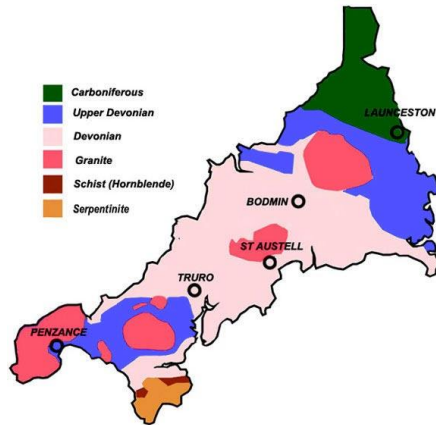
These tasks will be asked of you in lesson to help extend and further your understanding. Can you have a go at any now?

- Explain how and why the industry within Cornwall has changed. Predict what might happen in the future.
- Evaluate the impact that an aging population within Cornwall may have in the future.

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.

- Research into one Cornish myth or legend. Find out the story. Where in Cornwall did this supposedly take place? How does this link to Cornish Culture?

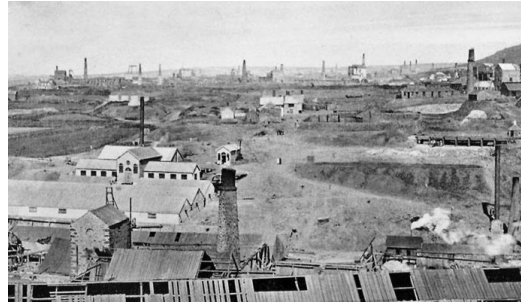
The Physical Geography of Cornwall



The geology of Cornwall is largely made up of igneous rock, such as granite. It has many in land physical features, such as high tors, rivers, lakes and moorland; as well as coastal features, such as beaches, bars, sand dunes and caves.



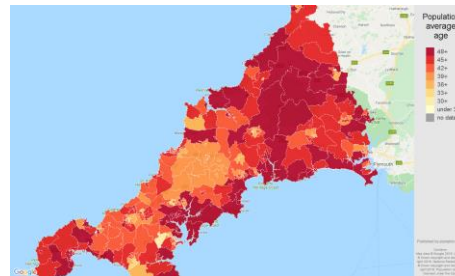
Cornwall Over Time



Traditional industries such as mining, fishing and farming happen much less in Cornwall now than in the past. Many of the jobs found in Cornwall now are in the 'service' industry. Around 25% of all the jobs in Cornwall are linked to the tourist industry.

The Human Geography of Cornwall

Cornwall is home to approximately 570,000 people. This number changes considerably in the summer months. Many of the people that live here are either younger families or retired people. This will impact the economy of Cornwall as many people who are of working age move out of the county in order to find higher paying work. This can be described as a push factor for Cornwall.



Cornish Culture

Cornwall has a very strong sense of identity. Cornwall even has its own language, though this is spoken very much. It has its only flag, dances and traditional food that is still popular to this day. What aspects of Cornish tradition do you know?

Cornish Culture Across the World

Some of Cornwall's culture has been shared around the world. One example is the Cornish pasty, which Mexican miners have eaten since the early 1800's!



Myths and Legends

Part of Cornwall's identity and culture is the numerous myths and legends within the county. Stories of giants, witches, mermaids, and knockers have been around for hundreds of years, and the tales are still told to this day. How does this affect the identity of an area?



Topic: Henry VIII

I need to know: Henry VIII became King of England in 1509 and is one of the most famous kings we have ever had. Henry changed religion in the country so that he could get out of his marriage with Catherine of Aragon and marry Anne Boleyn. Henry was desperate for a son so that the Tudor line could continue on the throne. Henry also closed the monasteries in order to take money from them as he had spent too much!

Key Words	Definitions
Catherine of Aragon	The wife of Henry VIII from 1509-1533. His first wife. Mother of Mary.
Anne Boleyn	The second wife of Henry VIII from 1533-1536 - she was killed. Mother of Elizabeth.
Catholic	The official religion of England when Henry became king.
Protestant	A different type of Christianity to Catholicism
Pope	The Head of the Catholic Church
Annulment	The cancellation of a marriage – it never happened.
Break with Rome	The series of events which saw Henry replace the Pope as head of the Church in England
Heir	The next in line for something e.g the throne of England
Monastery	The home of a group of monks
Dissolution of the Monasteries	When Henry VIII closed down all the monasteries in England so that he could have their money.
Pilgrimage of Grace	A protest by the people of Yorkshire against the religious changes.
Wolsey	Henry's chief advisor from 1515-29
Cromwell	Henry's chief advisor from 1533-1540

Arrow Tasks: What was the main reason for the Break with Rome?

How different would life have been if Henry had a son with Catherine of Aragon?

Links to further resources: <https://www.bbc.co.uk/bitesize/guides/zghrd2p/revision/1>



Top left: Famous portrait of Henry by Holbein
 Top right: Anne Boleyn. Henry's second wife after Catherine of Aragon
 Bottom left: Remains of a monastery closed by Henry VIII in 1536
 Bottom Right: Clement VII – the Pope who refused Henry a divorce

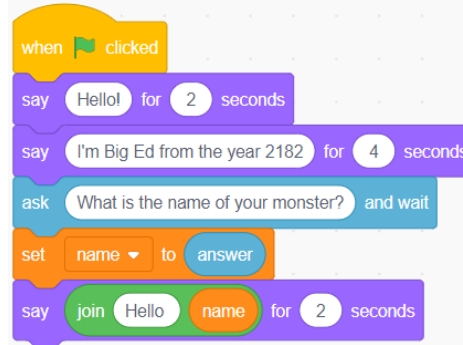
Computing | Programming | Key Concept– Computational thinking and problem solving

I need to know: In this unit you will need to develop your understanding of **Variables, Constants, Data Types, Sequence, Selection** and **Iteration**. You will also understand that an **algorithm** is a **set of instructions** that are followed precisely. You will be able to spot **errors** and **debug** them.

Key Concept– Sequence

The script on the right is an example of **sequence**. The instructions are followed one after another.

There are two **variables**– **Answer & Name**. **Answer** stores the input of the name that is typed. **Name** stores the same information as the **answer** variable.



Key Concept– Selection

The script on the right is an example of **selection**. There is a decision within the code:

If health = 'yes' then:

Say 'good to hear it'

else

Say 'I have another question'



Key Concept– Iteration

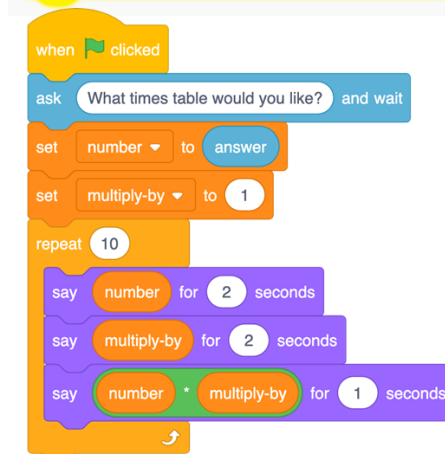
The script on the right is an example of **iteration**. When run, the program asks the user which times table they would like. The variable **answer** & variable **number** stores the **input**.

The **repetition** block is **repeating** the following x10:

Output variable **number** for 2 seconds

Output variable **multiply-by** for 2 seconds

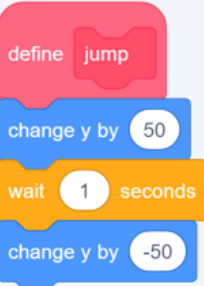
Output (**number * multiply-by**) for 1 second



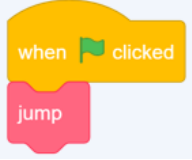
Algorithms	Are a set of instructions for solving a problem
Debugging	An part of programming is testing your program and 'debugging' (which means removing the bugs).
Variables	Is a named memory address that holds a value. The value held in a variable can change.
Constants	A constant allows a value to be assigned a name. Unlike a variable, the value assigned to a constant cannot be changed whilst the programming in running.
Data types	Data can be different types e.g. <ul style="list-style-type: none">• Integer (whole number)• Real/ float (decimal number e.g. 3.14)• Boolean (0 or 1, yes or no, on or off)• Character (a letter or number)• String (mixture of letters, numbers and punctuation)
Algorithm	Algorithms can be represented as pseudocode or a flowchart, and programming is the translation of these into a computer program.
Subroutine	Subroutines are a group of instructions that will run when called by the main program or other subroutines.
Decomposition	Breaking a problem down into smaller, more manageable subproblems
Lists	Unlike variables, lists allow you to hold multiple items of data under one name.

Computing | Programming | Key Concept– Computational thinking and problem solving

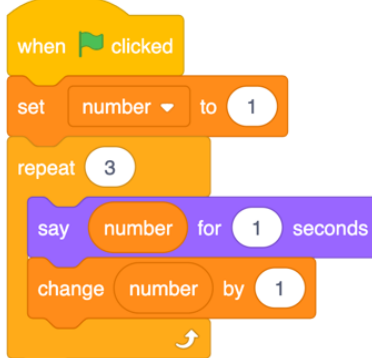
I need to know: In this unit you will need to develop your understanding of **Variables, Constants, Data Types, Sequence, Selection and Iteration**. You will also understand that an **algorithm** is a **set of instructions** that are followed precisely. You will be able to spot **errors** and **debug** them.



Subroutines are a group of instructions that will run when called by the main program or other **subroutines**.



An example of **count controlled iteration**– The Scratch Cat will say “1, 2, 3” leaving a second in between each number.



Forever: This will repeat the code until the game is stopped. It is a **condition-controlled iteration**.

Repeat (): This will repeat the code for a set amount of times as defined in the white space. It is a **count-controlled iteration**.

Repeat until: This will repeat the code until the condition becomes true. It is a **condition-controlled iteration**.

This block of code was used to create a shopping_list and then replace a list item in 'shopping list'. Which item was replaced with 'flour'?

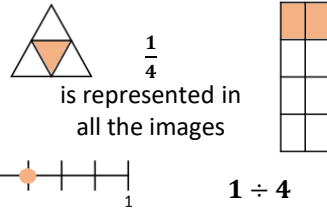
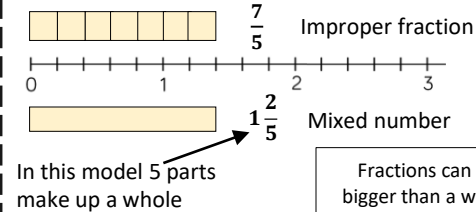
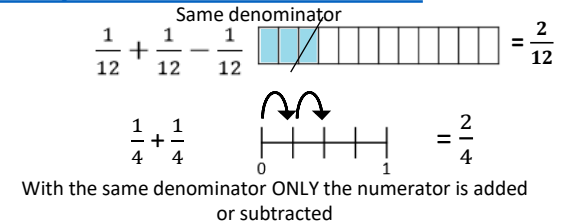


What do I need to be able to do?

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

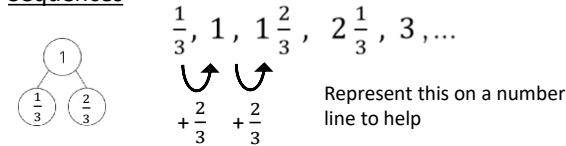
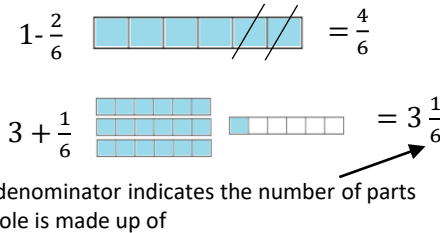
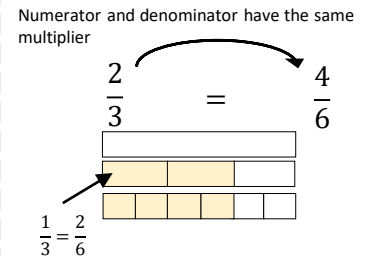
- Convert between mixed numbers and fractions
- Add/Subtract unit fractions (same denominator)
- Add/Subtract fractions (same denominator)
- Add/Subtract fractions from integers
- Use equivalent fractions
- Add/Subtract any fractions
- Add/Subtract improper fractions and mixed numbers
- Use fractions in algebraic contexts

[QUESTIONS FOR PRACTISE – CLICK HERE](#)

Representing FractionsMixed numbers and fractionsAdd/Subtract unit fractionsAdd/Subtract fractions

Same denominator

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

SequencesAdd/Subtract from integersEquivalent fractionsKeywords

Numerator: the number above the line on a fraction. The top number. Represents how many parts are taken

Denominator: the number below the line on a fraction. The number represents the total number of parts

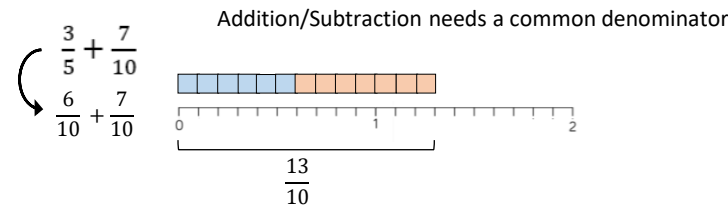
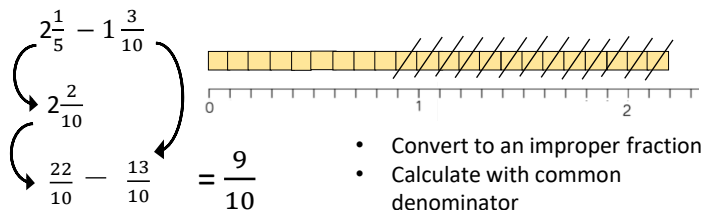
Equivalent: of equal value

Mixed numbers: a number with an integer and a proper fraction

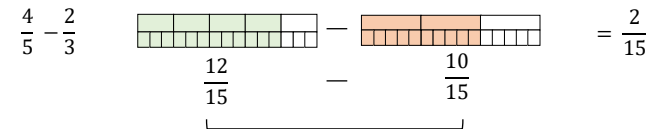
Improper fractions: a fraction with a bigger numerator than denominator

Substitute: replace a variable with a numerical value

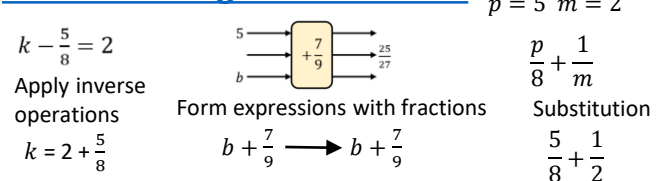
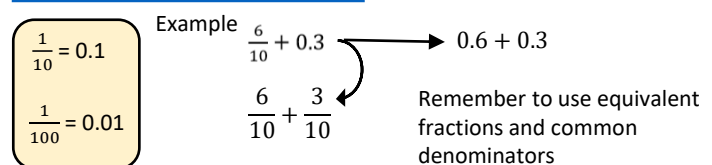
Place value: the value of a digit depending on its place in a number. In our decimal number system, each place is 10 times bigger than the place to its right

Add/Subtraction fractions (common multiples)Add/Subtraction fractions (improper and mixed)Partitioning method

$$2\frac{1}{5} - 1\frac{3}{10} = 2\frac{2}{10} - 1\frac{3}{10} = 2\frac{2}{10} - 1 - \frac{3}{10} = 1\frac{2}{10} - \frac{3}{10} = \frac{9}{10}$$

Add/Subtraction any fractions

Use equivalent fractions to find a common multiple for both denominators

Fractions in algebraic contextsFractions and decimals

What do I need to be able to do?

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

- Use letter and labelling conventions
- Draw and measure line segments and angles
- Identify parallel and perpendicular lines
- Recognise types of triangle
- Recognise types of quadrilateral
- Identify polygons
- Construct triangles (SAS, SSS, ASA)
- Draw Pie charts

QUESTIONS FOR PRACTISE – CLICK HERE

Keywords

Polygon: A 2D shape made with straight lines

Scalene triangle: a triangle with all different sides and angles

Isosceles triangle: a triangle with two angles the same size and two angles the same size

Right-angled triangle: a triangle with a right angle

Frequency: the number of times a data value occurs

Sector: part of a circle made by two radii touching the centre

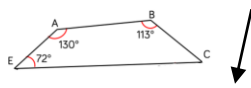
Rotation: turn in a given direction

Protractor: equipment used to measure angles

Compass: equipment used to draw arcs and circles.

Letter and labelling convention

The letter in the middle is the angle
The arc represents the angle

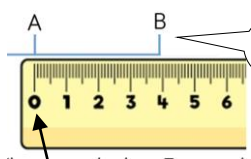


Angle Notation: three letters ABC
This is the angle at B = 113 °

Line Notation: two letters EC
The line that joins E to C.

Draw and measure line segments

Conversions 1cm = 10mm, 1m = 100cm




The line segment is 3.9cm
Which is 39mm

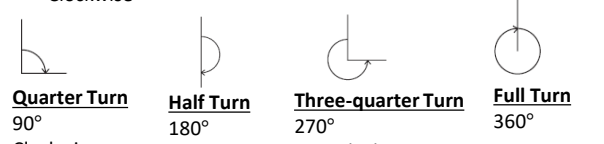
AB is a line segment (part of the line)

Make sure the start of the line is at 0;

Angles as measures of turn



Clockwise Anti-Clockwise



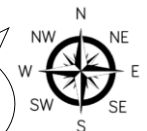
Quarter Turn 90°
Clockwise

Half Turn 180°


Three-quarter Turn 270°
Anti-Clockwise

Full Turn 360°


East to South is a quarter turn clockwise




Classify angles




Acute Angles
0° < angle < 90°



Obtuse
90° < angle < 180°




Reflex
180° < angle < 360°



Right Angles
90°

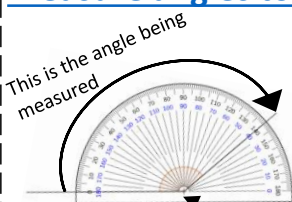
Right angle notation



Straight Line
180°

Measure angles to 180°

This is the angle being measured



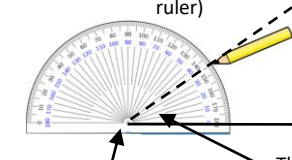
The base line follows the line segment

Make sure the cross is at the point the two lines meet

Read from 0° on the base line.
Remember to use estimation. This is an obtuse angle so between 90° and 180°

Draw angles up to 180°

Draw a 35° angle



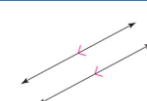
Make a mark at 35° with a pencil
And join to the angle point (use a ruler)

The angle

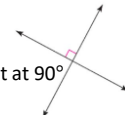
Make sure the cross is at the end of the line (where you want the angle)

Parallel and Perpendicular lines

Parallel lines
Straight lines that never meet
(Have the same gradient)

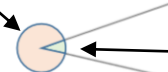


Perpendicular lines
Straight lines that meet at 90°



Angles over 180°

360° - smaller angle = reflex angle




Use your knowledge of straight lines 180° and angles around a point 360°


Measure the smaller angle first (less than 180°)

Properties of Quadrilaterals


Square
All sides equal size
All angles 90°
Opposite sides are parallel



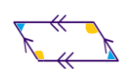
Rectangle
All angles 90°
Opposite sides are parallel




Rhombus
All sides equal size
Opposite angles are equal



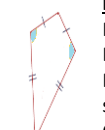
Parallelogram
Opposite sides are parallel
Opposite angles are equal
Co-interior angles



Trapezium
One pair of parallel lines



Kite
No parallel lines
Equal lengths on top sides
Equal lengths on bottom sides
One pair of equal angles



Draw Pie Charts

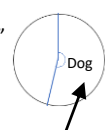
Type of pet	Dog	Cat	Hamster
Frequency	32	25	3

32 / 60

"32 out of 60 people had a dog"

This fraction of the 360 degrees represents dogs


32 / 60 X 360 = 192°




Use a protractor to draw
This is 192°

SAS, SSS, ASA constructions


Side, Angle, Angle



Side, Angle, Side



Side, Side, Side



If all the sides and angles are the same, it is a **regular** polygon

Polygons

3 - Triangle	5 - Pentagon	8 - Octagon
4 - Quadrilateral	6 - Hexagon	9 - Nonagon
	7 - Heptagon	10 - Decagon

Topic: SCALES AND MODES

I need to be able to: Perform different scales and modes, as well as recognise them within a piece of music. I will need to be aware of tonality when I play the following scales and modes: Major, Minor, Pentatonic, Chromatic, Dorian.

<u>KEY WORDS</u>	<u>MEANING</u>
Major Scale	A series of ascending/descending tones/semi-tones that sounds happy
Minor Scale	A series of ascending/descending tones/semi-tones that sounds sad
Pentatonic Scale	A five note scale found in Asian/Celtic Music
Chromatic Scale	A scale that ascends/descends in semi-tones
Dorian Mode	A modal diatonic scale, corresponding to the white notes from D to D, or any transposition of this.

OTHER TECHNIQUES OF PLAYING SCALES

Different rhythms – keeps the scale interesting

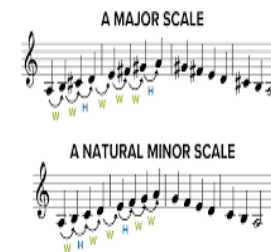
Arpeggio – playing the primary notes separately in the left hand

Thumb Crossing - the **thumb** is brought under the hand in order to pass the 3rd or 4th **finger** for playing the scale

Contrary Motion-melodic progression moving in opposite directions

Mind-set Tip

Happiness depends on your **mind-set** and attitude

MAJOR/MINOR**TONALITY**

LISTEN to The Sound of Music 'Do Re Me' to hear a Major Scale <https://www.youtube.com/watch?v=drnBMAEA3AM>

Arrow Task: Research cultures that use the Pentatonic Scale. Can you hear it within their music? Why does this music sound different to the music we are used to in the Western World?

Topic: Fitness for Sport

I need to know: The 10 components of fitness.

Fitness for Sport

Key Terminology!

- Health - a state of emotional, physical and social well-being.
- Skill- a learned ability to perform an action with a predetermined result with minimal energy and time.
- Fitness- A person's ability to meet the physical demands placed on them by the environment.
- Normative Data- the results for 'normal' people. Data collected from a large sample of people and most common results are established.

The 10 components of fitness For Task 1

Agility
Balance
Body Composition
Cardiovascular Endurance
Co-ordination
Flexibility
Muscular Endurance
Muscular Strength
Power
Reaction Time
Speed

Homework Task 1

Design a poster with the definition of each component of fitness and how you can test the component.

Homework task 2:

Can you explain why each component of fitness is important for being healthy and well and able to complete everyday tasks?

Arrow /Extension Tasks

- Can you split the 10 components of fitness into their correct category (health related fitness and skill related fitness?)
- Select 3 different components of fitness and conduct the test on yourself, what is your result? Can you find where you stand in line with the national averages.

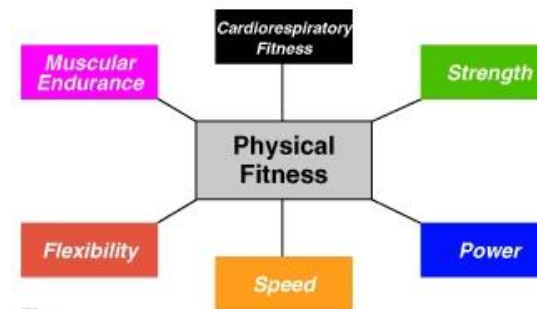


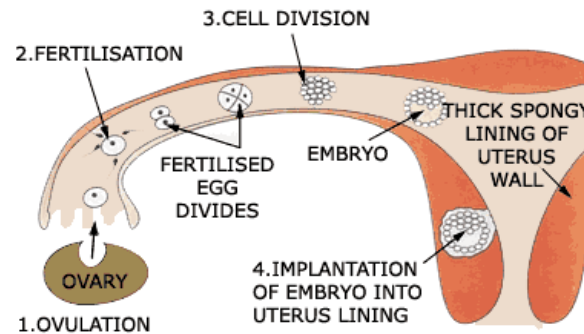
Fig 1

Links to further resources: [The components of fitness – definitions, examples and tests - Keeping fit and healthy in sport - OCR - GCSE Physical Education](#)
[Revision - OCR - BBC Bitesize](#)
[Performance Evaluation Tests - more than 101 available \(brianmac.co.uk\)](#)

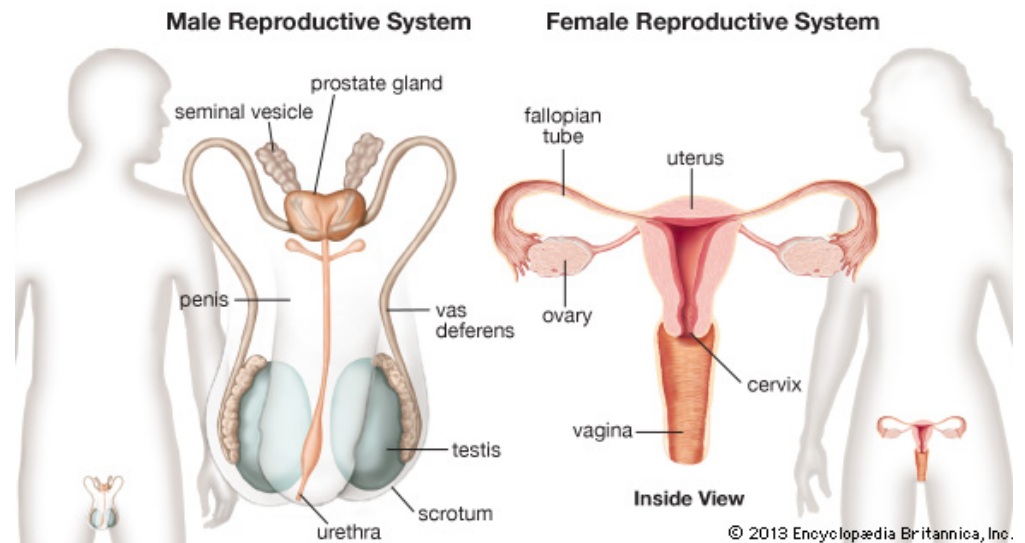
Topic: Human Reproduction

I need to be able to: Describe and explain the role of the male and female reproductive system

Key Words	Definitions
Gamete	The male gamete (sex cell) in animals is a sperm, the female an egg.
Fertilisation	Joining of a nucleus from a male and female sex cell.
Ovary	Organ which contains eggs.
Testicle	Organ where sperm are produced.
Oviduct	or fallopian tube: Carries an egg from the ovary to the uterus and is where fertilisation occurs.
Uterus (womb)	Where a baby develops in a pregnant woman.
Ovulation	Release of an egg cell during the menstrual cycle, which may be met by a sperm.
Menstruation	Loss of the lining of the uterus during the menstrual cycle.
Penis	Organ which carries sperm out of the male's body.
Vagina	Where the penis enters the female's body and sperm is received.
Foetus	The developing baby during pregnancy.
Gestation	Process where the baby develops during pregnancy.
Placenta	Organ that provides the foetus with oxygen and nutrients and removes waste substances.

**Why does it matter?**

Remember: If you have any questions about reproduction, sex, puberty or relationships ask a trusted adult. This can be a parent, carer, teacher or tutor.



Arrow Tasks: Research the role of the following reproductive hormones: FSH, LH, Oestrogen, Progesterone, Testosterone

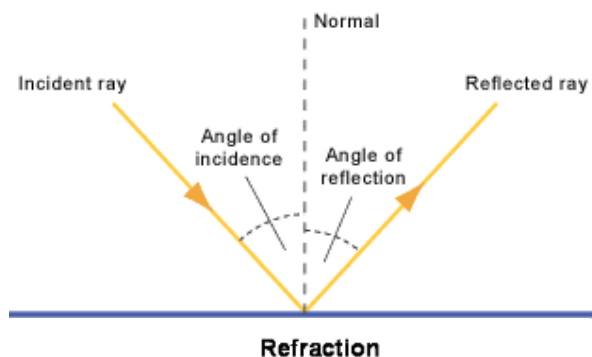
Subject: Science

Year: 7 Summer Term 1

Topic: Light

I need to be able to: Use ray diagrams to model how light travels through lenses and other transparent materials

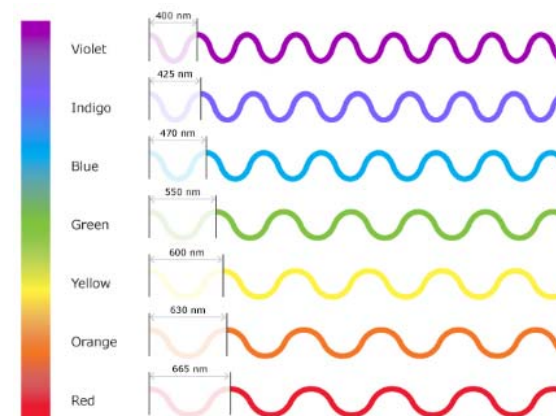
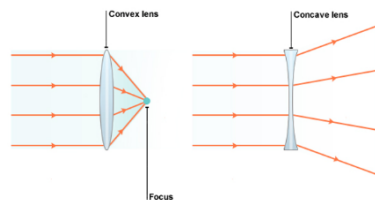
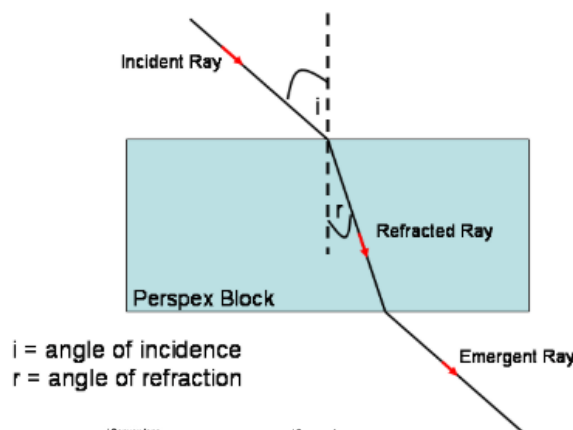
Key Words	Definitions
Incident ray	The incoming ray
Reflected ray	The outgoing ray
Normal Line	From which angles are measured, at right angles to the surface.
Angle of Reflection	Between the normal and reflected ray
Angle of Incidence	Between the normal and incident ray
Refraction	Change in the direction of light going from one material into another.
Absorption	When energy is transferred from light to a material.
Scattering	When light bounces off an object in all directions
Translucent	A material that allows all light to pass through it
Transparent	A material that allows some light to pass through it
Opaque	A material that allows no light to pass through it
Convex Lens	A lens that is thicker in the middle which bends light rays towards each other.
Concave Lens	A lens that is thinner in the middle which spreads out light rays.



Why does it matter?



CAREFULLY hold your glasses (or those of a friend or family member/carer – ASK FIRST) between a lamp and a wall and observe how the lenses focus the light



Arrow Tasks: Explain how a rainbow forms

<https://www.physicsclassroom.com/class/refrn/Lesson-4/Rainbow-Formation>

Links to further resources: <https://www.khanacademy.org/science/in-in-class-12th-physics-india/in-in-ray-optics-and-optical-instruments/in-in-refraction-and-plane-surfaces/a/refraction-and-light-bending>

Subject: Science

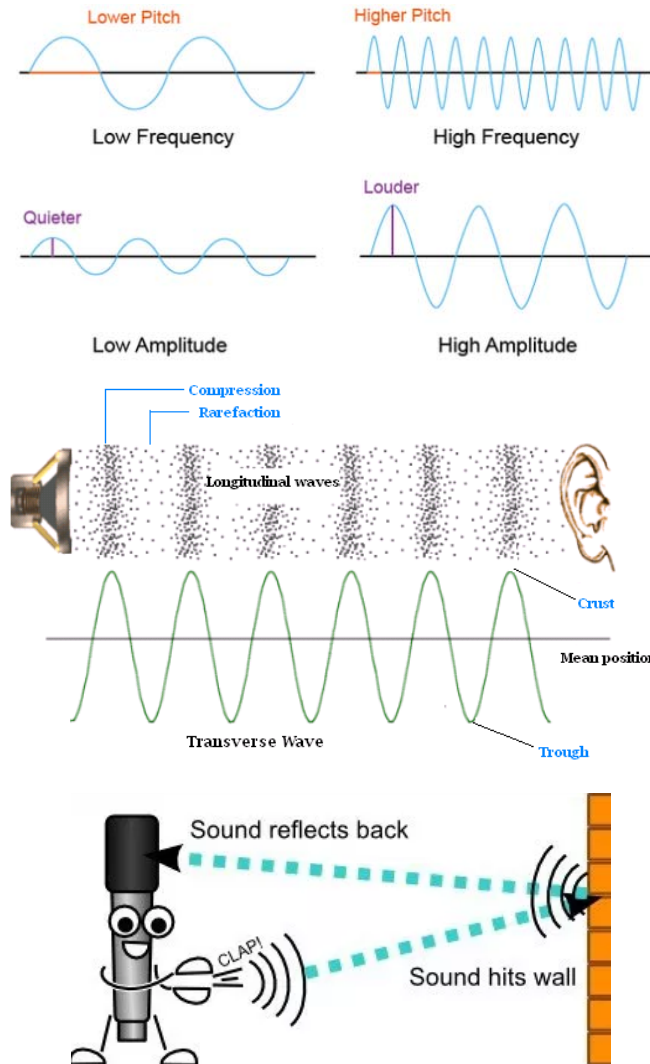
Year: 7 Summer Term 1

Topic: Sound

I need to be able to: Relate the changes on an oscilloscope trace to changes in pitch and volume

Key Words	Definitions
Vibration	A back and forth motion that repeats
Longitudinal Wave	Where the direction of vibration is the same as that of the wave.
Volume	How loud or quiet a sound is, in decibels (dB).
Pitch	How low or high a sound is. A low (high) pitch sound has a low (high) frequency.
Amplitude	The maximum amount of vibration, measured from the middle position of the wave, in metres.
Wavelength	Distance between two corresponding points on a wave, in metres.
Frequency	The number of waves produced in one second, in hertz
Vacuum	A space with no particles of matter in it.
Oscilloscope	Device able to view patterns of sound waves that have been turned into electrical signals.
Absorption	When energy is transferred from sound to a material.
Auditory Range	The lowest and highest frequencies that a type of animal can hear.
Echo	Reflection of sound waves from a surface back to the listener

Arrow Tasks: Explain why the speed of sound is different for different materials in terms of particles



Why does it matter?



CAREFULLY fill glasses with different volumes of water to produce sound with different pitches (ASK first!). See if you can play Twinkle Twinkle little Star!

Speed of Sound

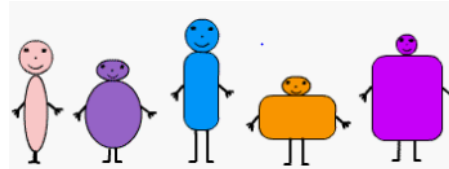
Medium	Speed (m/s)
Air at 0°C	331
Air at 20°C	343
Water at 20°C	1482
Lead	1960
Glass	5640
Steel	5960

Links to further resources: <https://www.dkfindout.com/uk/science/sound/>

Topic: Variation

I need to be able to: Interpret data relating to variation and explain how it may lead to the survival of a species

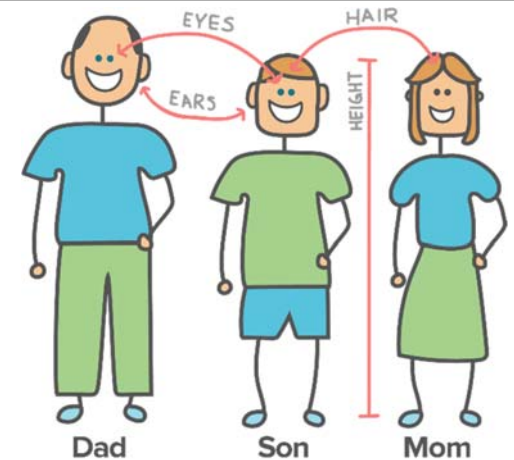
Key Words	Definitions
Species	A group of living things that have more in common with each other than with other groups.
Variation	The differences within and between species.
Continuous Variation	Where differences between living things can have any numerical value.
Discontinuous Variation	Where differences between living things can only be grouped into categories.



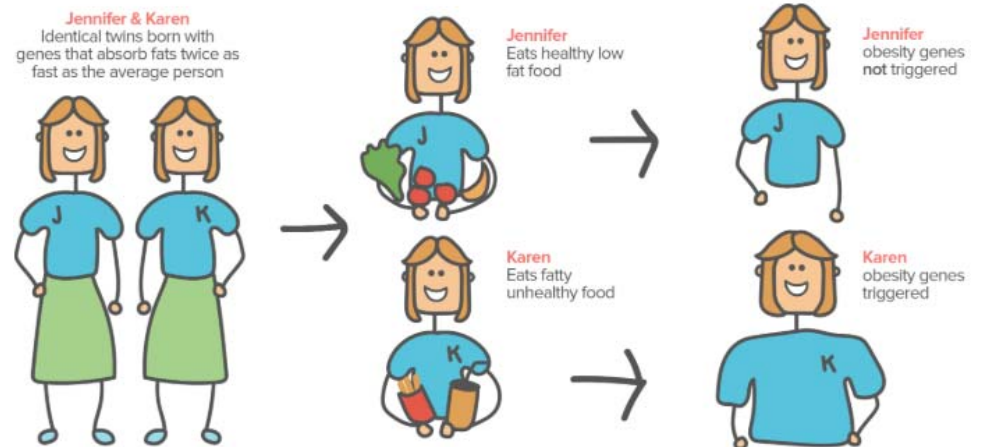
What is variation?

All people are human. They belong to the same **species**. Your friends and classmates may have different eye colour and hair colour. Some will be boys and some will be girls. Some will be tall and some will be shorter. The presence of differences between living things of the same species is called **variation**.

Variation between different species is usually greater than the variation within a species.



	Continuous variation	Discontinuous variation
Properties	<ul style="list-style-type: none"> - No distinct categories - No limit on the value - Tends to be quantitative 	<ul style="list-style-type: none"> - Distinct categories. - No in-between categories - Tends to be qualitative
Examples	<ul style="list-style-type: none"> • height • weight • heart rate • finger length • leaf length 	<ul style="list-style-type: none"> • tongue rolling • finger prints • eye colour • blood groups
Representation	Line graph 	Bar graph
Controlled by	A lot of Gene and environment → range of phenotypes between 2 extremes, e.g. height in humans.	A few genes → limited number of phenotypes with no intermediates e.g. A, B, AB and O blood groups in humans



Why does it matter? Find out if there are any interesting patterns of inheritance in your family or in your friend's family

Arrow Tasks: Describe the theory of evolution by natural selection <https://www.youtube.com/watch?v=0SCjh186grU>

Links to further resources: <https://www.khanacademy.org/science/ap-biology/heredity/environmental-effects-on-phenotype/a/genes-environment-and-behavior>

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Summer 1: Year 7 Spanish 'Mis vacaciones'

I need to be able to: talk about holidays I need to try and use 3 tenses.

Key Words	Definitions
Verb Infinitive	Words which tell you the action Original form of verb ending in -ar,-er,-ir
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	One
Plural	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 – Mi /mis
Time Frame	There are 3 time frames, past, present, future. One of the past tenses is called the preterite tense, it describes a complete action in the past (did do...)

Preterite tense (A past tense)

The preterite tense verb endings are:

Bailar = to dance

Bailé = I danced

Bailaste = you danced

Bailó = he/she danced

Bailamos = we danced

Bailasteis = you (pl) danced

Bailaron = they danced

Comer = to eat

Comí = I ate

Comiste = You ate

Comió = he/she ate

Comimos = we ate

Comisteis = you(pl) ate

Comieron = they ate

Escribir = to write

Escribí = I wrote

Escribiste = you wrote

Escribió = he/she wrote

Escribimos = we wrote

Escribisteis = you wrote (pl)

Escribieron = they wrote

Near Future Tense

Voy a- I am going to

Vas a- You are going to

Va a- He/she is going to

Vamos a- We are going to

Vais a- You are going to

Van- They are going to

+ **Infinitive**

There will be more specific vocabulary.

This will be given to you by your class teacher.

Arrow Task:

Plan a holiday to a Spanish speaking country. Include dates, transport, accommodation, and activities. Present your ideas as a mind-map or on PowerPoint. Use the near future tense.

	español	inglés
1	¿Adónde fuiste de vacaciones el verano pasado?	Where did you go on holiday last summer?
2	El año pasado fui a España, fue fantástico.	Last year I went to Spain, it was fantastic.
3	¿Con quién fuiste?	Who did you go with?
4	Mi familia y yo, fuimos a Francia, ¡lo pasé bomba!	My family and I went to France, it was great fun!
5	...no fui con mis amigos, fui con mis padres.	...I didn't go with my friends; I went with my parents.
6	¿Cómo fuiste...en avión?	How did you travel... by 'plane?
7	Sí fuimos en avión y en autocar.	Yes, we went by 'plane and by coach.
8	¿Qué divertido!	What fun!
9	¿Qué hiciste?	What did you do?
10	Bailé, compré unos regalos, descansé en la playa y nadé en el mar.	I danced, I bought some gifts, I relaxed on the beach, and I swam in the sea.
11	...pero no visité monumentos, no monté en bici.	...but I did not visit monuments, I did not go bike riding.
12	¿Qué hiciste el último día?	What did you do on the last day?
13	Primero saqué muchas fotos con mi cámara nueva, fue muy guay luego tomé el sol.	First of all I took lots of photos with my new camera, it was really cool and then I sunbathed.
14	Todos los días hizo buen tiempo, no llovió, fue flipante.	It was good weather every day, it did not rain, it was awesome!
15	¿Qué vas a hacer el año que viene?	What are you going to do next year?

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:

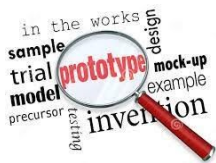
Context Design Brief Task Analysis Research
Investigation Specification Design & Development
Making Testing Evaluation

Key Words

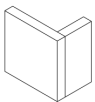
* Design process



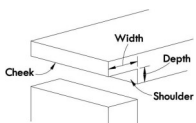
* Prototype



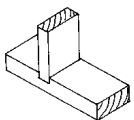
* Butt joint



* 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)



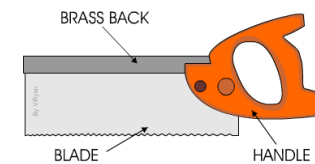
Softwood

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:

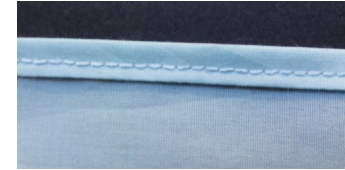
<http://www.technologystudent.com>
<http://www.mr-dt.com/>
http://wiki.dtonline.org/index.php/Main_Page

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Topic: Cushion Cover

I need to be able to:

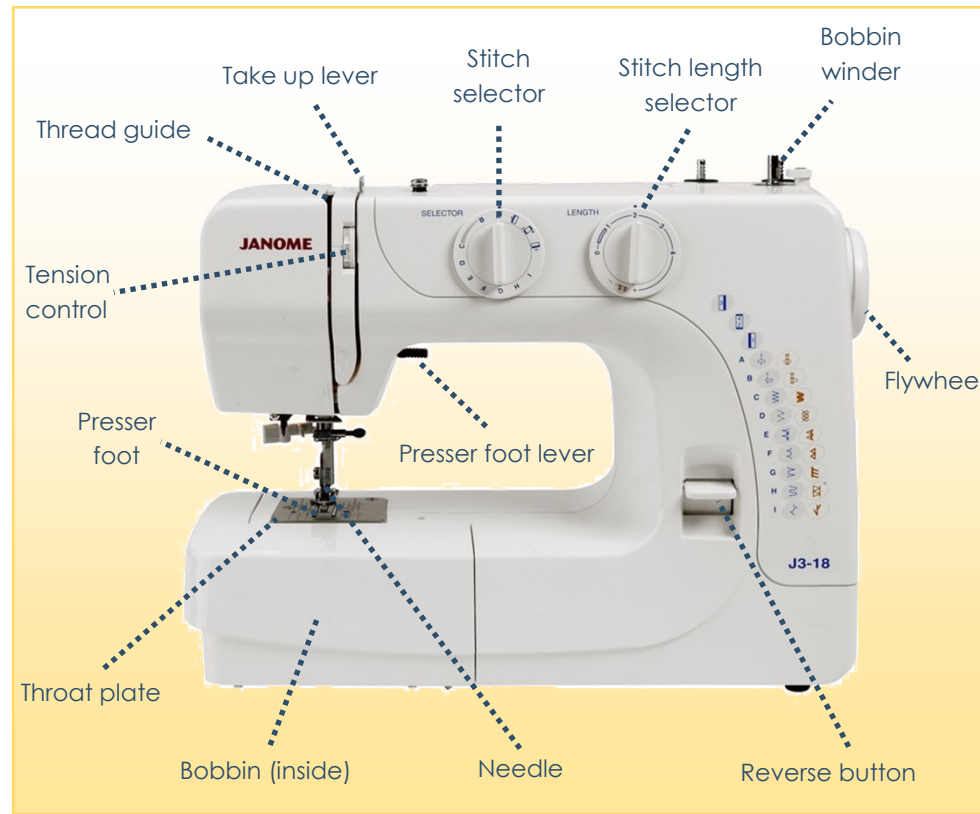
- understand the key parts of a swing machine and the threading path.
- apply hand and machine sewing techniques.
- understand the function of seams & hems and be able to apply to your product.
- gain an awareness of the work of famous artists and be able to consider the need for aesthetics within a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



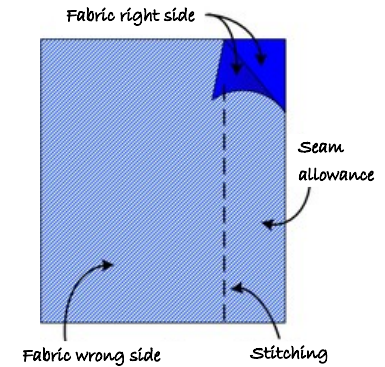
What is a hem?

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.

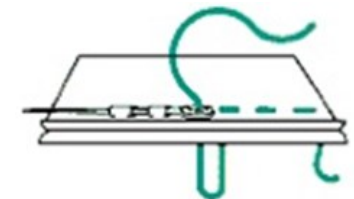


Arrow Task: Can you think of alternative methods you could use to join your pieces of fabric together, when constructing the cushion cover? What would be their strengths and do those methods have limitations?



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/

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Topic: 'Refugee Boy' by Benjamin Zephaniah

I need to know some of the ideas associated with books written about non-fiction events. I need to be able to see how writers engage and entertain and be able to use some of those techniques in my own non-fiction writing.

Key Words

- Refugee: a person who has been forced to leave their country in order to escape war, persecution, or natural disaster.
- Asylum: a place of shelter or safety. An asylum seeker is someone who has come to the country because it is a safe place for them, where their life will not be in danger.
- Ethiopia: Africa's oldest independent country and its second largest in terms of population.
- Eritrea: won independence from Ethiopia in 1993 after a 30-year war, but has been plagued by repression at home and tense relations with its neighbours.
- The Refugee Council: a UK based organisation which works with refugees and asylum seekers.
- Political asylum: the protection granted by a state to someone who has left their home country as a political refugee. The Home Office: a department of the Government which is responsible for immigration, security and law and order
- Persecution: hostility and ill-treatment, especially because of race or political or religious beliefs; oppression

Key themes:

War and conflict: Alem is forced to become a refugee due to the war between Eritrea and Ethiopia. Whilst living in England, he encounters conflict every day and compares it to the war in Africa.

Love: Alem's parents love him and Mr Kelo leaves Alem in England to protect him from the dangers of war. Alem's friends and foster family also love him and protest against the decision to send him back to Ethiopia or Eritrea.

Hope: Alem continuously has hopes that peace will be declared between Ethiopia and Eritrea and that he will be able to return safely to Africa to live with his family.

Injustice: Alem is not welcome in either Ethiopia or Eritrea because he is mixed-race and is threatened at gun-point by soldiers who tell his family to leave. However, a judge (who has never been to either country) decides that it is safe for Alem to return. This leads to Alem's friends protesting against the decision.

Isolation: Alem is left alone in England at the beginning of the novel. Throughout the book, Alem is faced with isolation and loneliness and there are many barriers which make him feel like an outsider

Key characters

- Alem: the protagonist of the novel. Alem is not safe in either Ethiopia or Eritrea because he is mixed-race.
- Mr Kelo: Alem's father. He is Ethiopian.
- Mrs Kelo: Alem's mother. She is Eritrean.
- Mr and Mrs Fitzgerald: Alem's foster parents.
- Ruth: Mr and Mrs Fitzgerald's daughter.
- Sheila: a social worker who supports Alem.
- Mariam and Pamela: they are from the refugee council. They help Alem to apply for asylum.
- Robert: Alem's friend from school. His real name is Roberto Fernandez.
- Sweeney: a bully from the care home.
- Stanley: a boy in the care home that shares a room with Alem.
- Mr Hardwick: the hotel manager who finds Alem alone.
- Nicholas Morgan: a barrister for Alem.
- Buck: one of the students from Alem's school.
- Asher: is a very friendly to Alem

Big questions:

- Was Alem's father right to leave him in London? How do you think he felt doing it? What would you have done in that situation?
- How do you feel when people use language you do not understand?
- What is important to an average 14-year-old in the UK? What is important to Alem? Explain why Alem might feel differently?
- What have you learnt about the treatment of asylum seekers after reading this book?

Suggested activities:

- Find out about the countries that refugees come from. What has happened in those countries that means people have to leave to live?
- How do the media represent asylum seekers in the UK? How would Alem react to the headlines?
- Write an imaginary letter to the government asking that Alem be given asylum in Britain, and explain why.

Links to further resources: https://media.bloomsbury.com/rep/files/BenjaminZephania_readingGuide.pdf
<https://www.bbc.co.uk/news/topics/cg41ylwvxmdt/refugees-and-asylum-seekers>
<https://www.bbc.co.uk/bitesize/clips/zbrd2hv>

What do I need to be able to do?

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

- Add/Subtract unit fractions (same denominator)
- Add/Subtract fractions (same denominator)
- Use equivalent fractions
- Draw and measure lines
- Measure angles
- Identify parallel and perpendicular lines
- Identify polygons

Keywords

Numerator: the number above the line on a fraction. The top number. Represents how many parts are taken

Denominator: the number below the line on a fraction. The number represent the total number of parts

Equivalent: of equal value

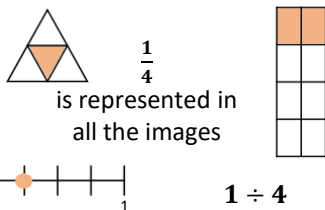
Place value: the value of a digit depending on its place in a number. In our decimal number system, each place is 10 times bigger than the place to its right

Polygon: A 2D shape made with straight lines

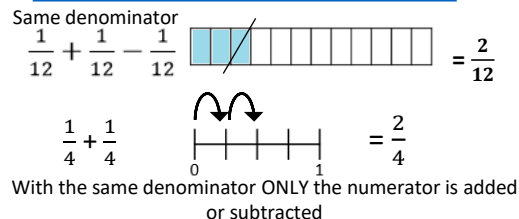
Rotation: turn in a given direction

Protractor: equipment used to measure angles

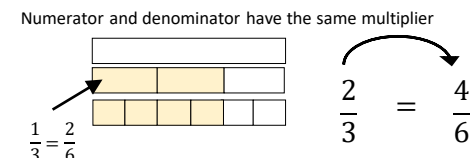
Representing Fractions



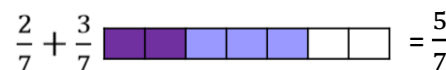
Add/Subtract unit fractions



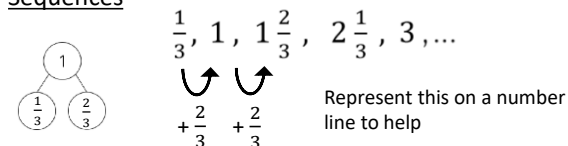
Equivalent fractions



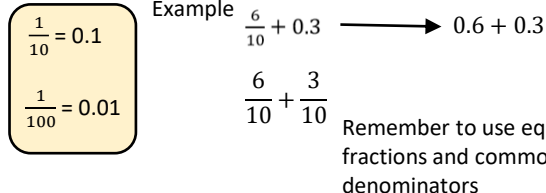
Add/Subtract fractions



Sequences



Fractions and decimals



Addition Subtraction

Column method

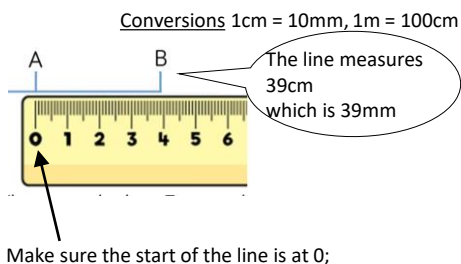
Multiplication

Grid method
Formal method

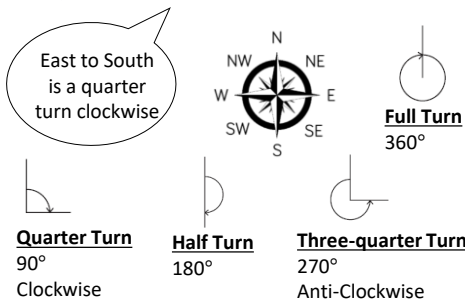
Division

Bus stop method

Draw and measure lines



Angles as measures of turn

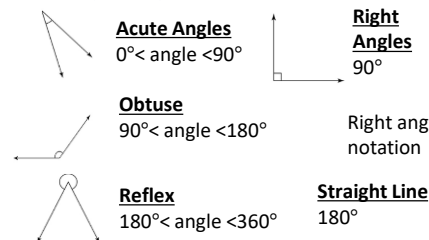


Polygons

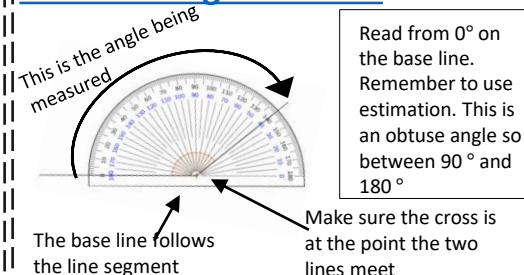
3 - Triangle
4 - Quadrilateral
5 - Pentagon
6 - Hexagon
8 - Octagon

If all the sides and angles are the same, it is a **regular** polygon

Classify angles



Measure angles to 180°



Parallel and Perpendicular lines

Parallel lines
Straight lines that never meet
(Have the same gradient)

Perpendicular lines
Straight lines that meet at 90°

Keyword	Definition
The Solar System	The Sun together with all the planets and bodies that revolve around it.
Earth	The 3 rd planet from the Sun, the planet we live on.
season	A particular period of the year characterised by weather, temperature etc
winter / summer / autumn / spring	The four seasons of the year.
planet	A large heavenly body revolving around the sun and reflecting light
orbit	To move / travel around
weather	The state of the atmosphere with respect to wind, temperature, cloudiness, moisture and pressure.
Tectonic plates	Plates that make up the Earth's surface.

Knowledge

The Earth is a planet in the Solar System. It is the planet we live on.

There are four seasons on Earth and these occur at particular times of the year characterised by the weather, light and temperature.

The Earth orbits the sun. One complete journey around the Sun is called an orbit. For Earth, one orbit takes 365 days = 1 year.

Every planet has a different orbit, as it takes different lengths of time for each planet to complete one full journey around the Sun.

There are different physical processes that can occur linked to the movement of the Earth's tectonic plates.

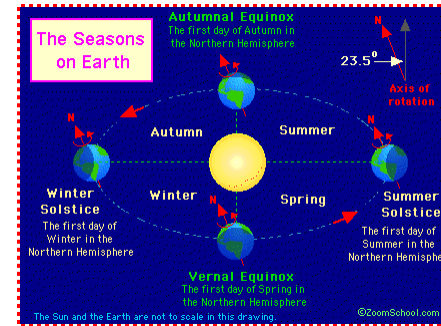
There have been natural disasters in many different countries, some of these are:

- Pompeii
- Montserrat
- St Helens volcano eruption
- Indian ocean boxing day tsunami

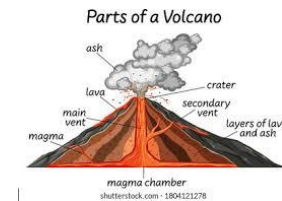
What happened in these places? What was the impact then and now?



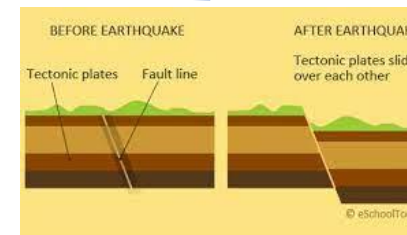
Pompeii



The four seasons—**spring, summer, autumn, and winter**—follow one another regularly. Each has its own light, temperature, and weather patterns that repeat yearly.



Physical processes and hazards



Skills:
 Use Geographical vocabulary
 Use Scientific vocabulary
 Use secondary sources
 Use ICT
 Identify places where natural disasters have occurred
 Identify the impact of physical processes on the Earth, people

At the end of this unit you will be able to: Explain and describe what is meant by each physical process and what happens. Explain how the Earth's tectonic plates play a part in the physical processes that impact the Earth.

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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

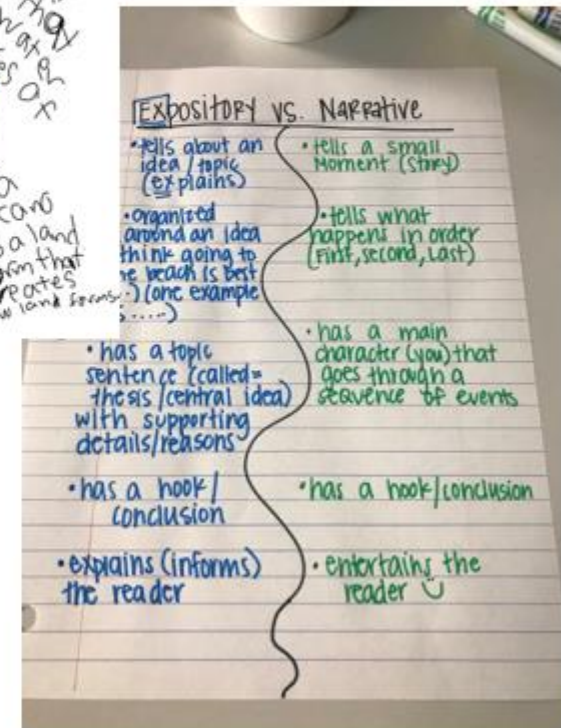
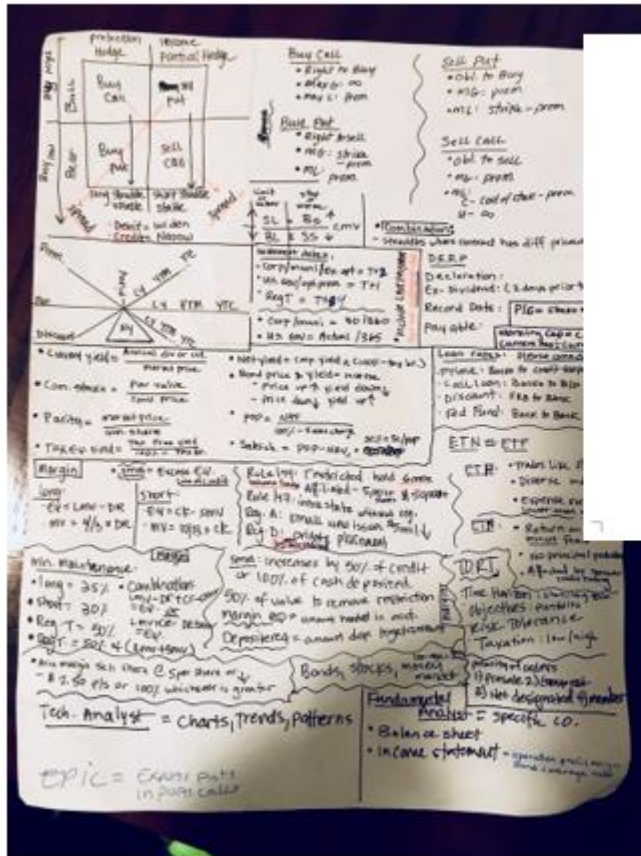
WHEN: beginning of 20 minute revision block

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

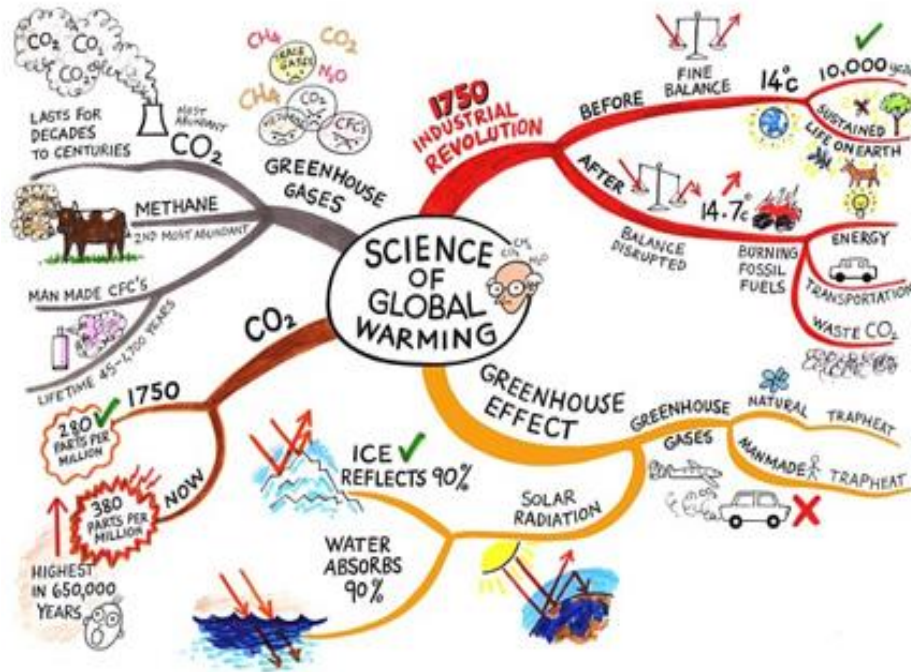
WHEN: to organise information from your exercise/text book.

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

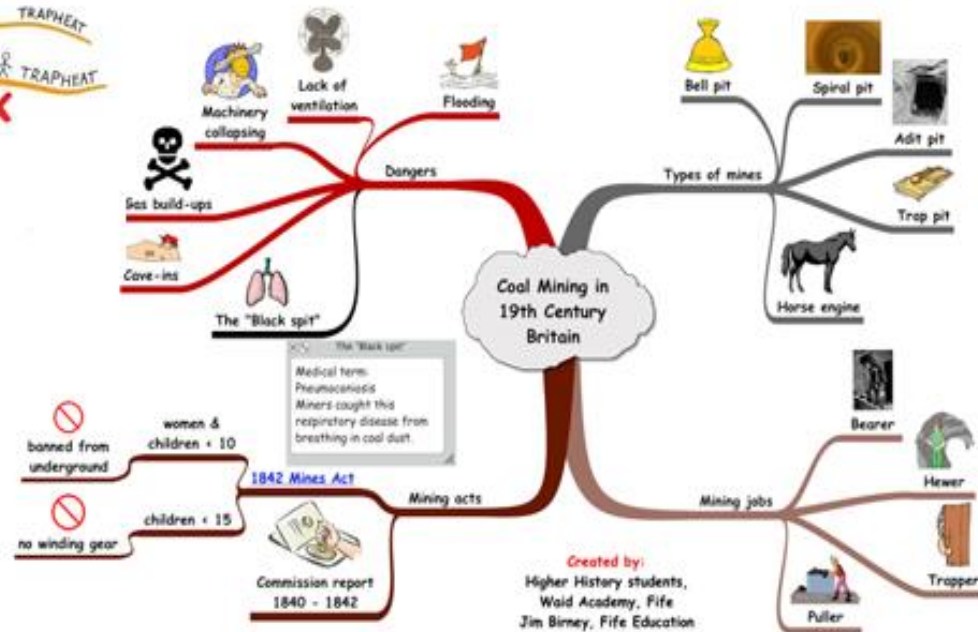


Top Tip: Use different colours for each branch of your mind map.

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.

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



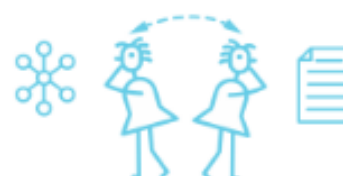
Don't study one topic for too long.
Switch between topics when studying.

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.
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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!