



Year 7

Learning Cycle 1

Preparing for Assessment

Student Name: _____

Instructions on how to use your learning cycle booklet:



At Poltair we **SORT** it!

The aim is for all students to be fully prepared and ready for all assessments in all subjects.

To help them with this we have a whole school revision/study strategy – SORT.

There will be three learning cycles throughout Year 7. At the beginning of each learning cycle students will be issued with a booklet that details all knowledge they will be expected to know and recall in the assessments.

Each day, for home learning, students will be set a task of memorising a part of a knowledge organiser from two subjects.

Summarise	Organise	Recall	Test
Summarise and condense any class notes, revision guides and revision.	Organise your revision materials by topic/subtopic. Traffic light your PLC sheets to identify areas of weakness or gaps (Red/Amber) that need to be prioritised.	Use active recall and spaced repetition to memorise your knowledge organisers until you can recall the information eg. Look, cover, write or self-testing	Use low stakes online tests/quizzes and answer high stakes past paper/sample questions to check and apply knowledge and understanding
Strategies			
<ul style="list-style-type: none"> • Cornell Notes • Flash cards • Mind mapping • Revision clocks • Dual coding 	<ul style="list-style-type: none"> • How to use your PLC • How to schedule your home learning and stick to it! 	<ul style="list-style-type: none"> • Look cover & test • Leitner system • Blurt it • Transform it 	<ul style="list-style-type: none"> • Low stakes • Self-quizzing • Quiz each other • Online quizzes • High stakes • Exam style questions

Instructions on how to use your learning cycle booklet:

Learning cycle 1 will focus on all the SORT strategies:



Summarise	Organise	Recall	Test
<ul style="list-style-type: none">• Cornell Notes• Flash cards• Mind mapping	<ul style="list-style-type: none">• How to use your PLC• How to schedule your home learning and stick to it!	<ul style="list-style-type: none">• Look cover & test• Leitner system	<ul style="list-style-type: none">• Self-quizzing

Using the PLC

- Review each key idea on the PLC
- In the **Organise** column write R, A or G depending on your understanding. **Red** = no understanding, **Amber** = Some understanding but needs work, **Green** – Secure understanding
- When you complete a **Summarise** activity for each key idea, tick the S column
- When you complete a **Recall** activity for each key idea, tick the R column
- When you **Test** by self-quizzing or complete an online-quiz for each key idea, tick the T column

Videos explaining all of the SORT strategies can be found on the Student SharePoint

Home Learning timetable – when I am going to complete my home learning

	Mon A	Tue A	Wed A	Thu A	Fri A
Core activity	Reading	Complete Maths goal	Reading	Complete Maths goal	Reading
Subject 1	Geography	History	Science	Maths	Spanish
Subject 2	RE	Art	Food	English	Computing
	Mon B	Tue B	Wed B	Thu B	Fri B
Core activity	Complete Maths goal	Reading	Complete Maths goal	Reading	Complete Maths goal
Subject 1	Geography	Maths	Science	Spanish	English
Subject 2	Music	History	Drama	DT	

My computer passwords

Platform	User Name	Password
School system		
Complete Maths		
Educake		
Memrise		

Year 7 Learning Cycle 1 Personal Learning Check lists

English

Key Ideas	S	O	R	T
What is a myth?				
Who is Medusa and how is she presented in Perseus and Medusa?				
How important is conflict in Persephone and the underworld?				
How can we use imagery and vocabulary to describe characters in a vivid and developed way?				
How does Gaiman establish a gothic setting?				
How does Gaiman present the protagonist Coraline?				
How does Gaiman establish the other world?				
How does Gaiman present duality?				

Maths

Key Ideas	S	O	R	T
I Understand place value				
I can order numbers and use correct symbolism				
I can work with terminating decimals and corresponding fractions				
I can express one quantity as a fraction of another				
I know key terminology for algebra				
I can use algebraic notation				
I can simplify expressions by collecting like terms and multiplying over a bracket				

Science

Key Ideas	S	O	R	T
I can state the scientific lab rules				
I can identify the independent, dependent and control variables in an investigation				
I can describe the particle model for solids, liquids and gases				
I can describe the changes of state				
I can construct and interpret graphs to show a cooling curve				
I can describe and explain why particles move from a high to low concentration				
I can compare the properties of pure and impure substances				
I can define solutions, solvent and solutes				
I can identify separating techniques and describe how they are used				
I can measure the melting and boiling points of unknown substances to identify them				

Year 7 Learning Cycle 1 Personal Learning Check lists

Geography

Key Ideas	S	O	R	T
I can recognise the 3 types of Geography, Physical, Human and Environmental				
I can explain the formation of the coastal erosional landform - sea stack				
I can explain the challenges of pirate fishing				
I can explain the threats facing the Anuta Tribe				
I can recognise the challenges faced by people living in unplanned settlements – Barra Di Tijuca				
I can suggest how favelas can be improved and justify my choices				
I know define sustainability				
I can explain how Dubai is sustainable				

History

Key Ideas	S	O	R	T
I know the difference between History and the Past				
I know the definition of chronology				
I know the definition of change				
I know the definition of continuity				
I understand the Feudal System				
I am able to discuss the jobs the peasants did				
I can discuss the different homes in the Middle Ages				
I can discuss the childhood in the Middle Ages				
I understand about the crime in the Middle Ages				
I understand about the punishment in the Middle Ages				
I know about the church in the Middle Ages				
I know the definition of Miasma				
I know about the public health in the Middle Ages				

Spanish

Key Ideas	S	O	R	T
I understand the rules for correct Spanish pronunciation				
I can confidently introduce myself in Spanish				
I can confidently talk about the people in my family				
I can confidently talk about my pets				
I understand the rules for adjective agreement and word order				
I understand the meaning of all of the question words				
I can form the verb <i>tener</i> in the present tense (to have)				
I can form the verb <i>ser</i> in the present tense (to be)				
I know how to form regular verbs in the present tense				

Year 7 Learning Cycle 1 Personal Learning Check lists

Computing

Key Ideas	S	O	R	T
I can explain what good practice when communicating online				
I can explain cyberbullying and what should be done if someone is being cyberbullied.				
I can identify safety issues in a computer room				
I can explain what makes strong and weak passwords				
I can explain the term audience in terms of online information				
I can explain how privacy settings can help keep you safe online				
I can explain the benefits of using Excel spreadsheets to work with numbers				
I can explain cell reference in Excel				
I can explain the terms, Cell, Row, Column and Range in Excel				
I can explain the function of the Excel commands: <ul style="list-style-type: none"> ○ =SUM() ○ =MIN() ○ =MAX() ○ =AVE() 				

Art

Key Ideas	S	O	R	T
I understand tone, texture, shape, pattern, scale, line and composition.				
I understand how Van Gogh used line to create tone, texture and pattern.				
I experimented with a range of materials to create tone, texture and pattern.				
I can explain how to develop my ideas.				
I can explain how my ideas are linked to Van Gogh.				
I can explain how to create a mono print.				

DT

Key Ideas	S	O	R	T
I understand how materials choices can make a difference to our environment-				
I can identify the sources of natural materials				
I am able to design products and explain how they can be sustainable.				
I can name and describe a number of workshop processes				
I can name and describe a number of common hand tools.				
I can explain how to work safely in a workshop				

Year 7 Learning Cycle 1 Personal Learning Check lists

Food

Key Ideas	S	O	R	T
I understand how to ensure a hygienic and safe kitchen.				
I can explain the importance of knife safety and knife skills to prevent injury.				
I can identify the five different sections of the eat well guide.				
I understand the importance of a healthy diet.				
I can name and describe a number of common pieces of equipment in the kitchen				
I can describe the difference between the bridge hold and claw grip.				

RE

Key Ideas	S	O	R	T
I can define denomination				
I can identify the main differences between Catholic and Protestant beliefs				
I can explain the functions of the different parts of the Trinity				
I can assess the impact of the Ten Commandments on the actions of Christians				
I can explain how Christians use different sources of authorities in their lives				



Characters

1a = Theseus A hero. He was sent by his mother to Athens to find his father, an epic journey during which he encountered many adventures.

1b = Minotaur The monstrous son of Minos, king of Crete, with the body of a man and the head of a bull. He was kept in a twisting labyrinth underneath the king's palace and would only eat human flesh.

1c = Perseus A hero. Polydektos fell in love with his mother – Danae – and tricked Perseus into fetching the head of the Gorgon Medusa.

1d = Medusa A fearsome Gorgon (monster figure), turned from a beautiful woman into the ugliest creature ever seen by Athena. Her gaze could turn a man to stone.



1e = Persephone Demeter's flawlessly beautiful daughter. She was snatched away into the Underworld by Hades.

1f = Hades God of the underworld, where he ruled with Persephone over the infernal powers and over the dead, aided by the dog Cerberus. He was brother of Zeus, Poseidon and Demeter.

1g = Hercules One of the most famous Greco-Roman legendary heroes and son of Zeus. Famous for his strength and his 12 labours.

1h = Poseidon God of the sea, storms and horses.

Plot

2a = Theseus and the Minotaur

To feed the monstrous son of King Minos, each kingdom of Greece was forced to send seven men each year. King Aegeus' son, Theseus, was chosen, much to his father's distress. Princess Ariadne, Minos' daughter, became infatuated with Theseus. Telling Ariadne that he returned her love, he asked her to help him defeat the Minotaur and, as a result, they would run away and get married. She gave him her crown to light his way, a golden thread to find his way out of the maze and a bronze sword to kill her brother, the Minotaur. Defeating the Minotaur mercilessly, Theseus escapes the labyrinth and takes Ariadne, to Naxos, where he abandons her.

2b = Perseus and Medusa

Believing that Perseus would be an obstacle to the courtship of his mother, Polydektos tricks Perseus into retrieving the head of the Gorgon Medusa. He is marked out as a favourite of the Gods by Athene and Hermes, travels to the Graiai to ask them to direct him to some nymphs and is helped by the nymphs who give him winged sandals, a sword and to add to his own shield of polished bronze. Finding Medusa in her cave, in a valley littered with stone people, Perseus challenges her. Keeping his eyes on the shield, his arm guided by Athene, he swings his sword and decapitates the Gorgon. He escapes with his grim trophy: Medusa's head.

2c = Persephone and the Underworld

Astounded by the beauty of Persephone, Hades immediately falls in love with her and asks Zeus for his approval to make her his bride and queen. Zeus refuses but Hades devises a plan to take her nonetheless. Waiting until she is separated from her mother, Demeter, while picking flowers one day, he snatches her and takes her to the Underworld. Demeter (Goddess of the harvest and agriculture) is so enraged that she stops the earth from growing crops and plants. Worried that nothing will grow again, Zeus orders Persephone's return from the Underworld. However, she has eaten pomegranate seeds – the food of the dead – so a compromise is reached. She returns to earth for six months and returns to Hades for rest. This myth explains the changing seasons and why, in the darker months, little grows.

Vocabulary	Subject Vocabulary	Sentences
<p>3a = betray (verb) To not be loyal to a person or your country; do hurt someone by going against a promise or doing something morally wrong</p>	<p>3h = myth (noun) A traditional story, especially one concerning the early history of a people or explaining a natural or phenomenon, and typically involving supernatural beings or events</p>	<p>4a = Simple, Compound, Complex</p> <p>Simple: one independent clause containing one main verb and putting forward one idea <i>The Gorgon screamed.</i></p> <p>Compound: two independent clauses linked with a coordinating conjunction (and, but, or) <i>She kissed him and she slipped away.</i></p> <p>Complex: an independent clause and one or more subordinate (or 'dependent') clauses <i>To her surprise, she was alone. She sat up, contemplating where Theseus could be.</i></p>
<p>3b = viciously (adverb) In a deliberately cruel or violent way</p>	<p>3i = allegory (noun) A story that can be interpreted to reveal a hidden meaning, typically a moral or political one</p>	
<p>3c = divine (adjective) From or connected to God or the heavens</p>	<p>3j = abstract noun (noun) A noun referring to an idea, feeling, quality, or state rather than a concrete object e.g. love, admiration</p>	<p>4b = Sentence starters</p> <p>Double adjective Anxious and alone, he looked around the maze.</p> <p>The more... the more... The more she tempted him, the more his resolve grew.</p> <p>Description; detail She was hideous; her face was nightmarish and her teeth rotten.</p> <p>Simile Like an eagle, he flew majestically through the air.</p>
<p>3d = withering (verb) Become dry, shrivelled, shrunken or wrinkled; to decay or waste away</p>	<p>3k = simile (noun) An expression including the words "like" or "as" to compare one thing with another</p>	
<p>3e = avaricious (adjective) Extremely greedy; desperately wanting something you don't have</p>	<p>3l = exposition (noun) Background information at the start of a plot to introduce setting, time, characters' backstories, prior events</p>	
<p>3f = preyed (verb) To hunt and kill, usually for food</p>	<p>3m = climax (noun) The point of the most tension or drama in a narrative</p>	
<p>3g = honour (noun) Great respect and glory; special attention for someone who has done something admirable</p>	<p>3n = resolution (noun) The ending and conclusion of a story's plot</p>	
5. Freytag's Pyramid		

Year 7 Knowledge Organiser – Coraline

Characters

1a = Coraline The main protagonist. A young, adventurous girl who finds a locked door when she is exploring her new house and enters another world. When she realises the other mother – the witch-like creator of the other world – has kidnapped her parents, she challenges her in order to get them back. Coraline develops as a character throughout the novel, learning to be brave and to appreciate her family.

1b = Coraline's Mother and Father Busy and hard-working parents who turn down Coraline's requests to play and do not indulge her whims, much to Coraline's frustration.

1d = The Old Man Upstairs Coraline's neighbour, who is too busy training his mouse circus to give Coraline much attention.

1e = Miss Spink and Miss Forcible Coraline's eccentric neighbours and retired theatre actresses. After reading Coraline's tea leaves one afternoon, Miss Spink gives Coraline the stone with the hole through it which will later prove to be extremely useful.

1f = The Other Mother The antagonist. A supernatural 'beldam' who looks like Coraline's real mother with black button eyes. She creates the other world to lure Coraline away from the real world, kidnaps her real parents and attempts to trap Coraline in her world – along with the souls of other children she has kidnapped – forever.

1g = The Other Father At first, a more attentive, warmer version of her Coraline's father who is revealed to be a creation of the other mother who has instructed him to harm Coraline. Completely under the other mother's control, he cannot fight against her.

1h = The Cat A haughty-looking cat who Coraline spots in the real world while exploring and who talks to Coraline in the other world, helping her defeat the other mother.

1i = The Ghost Children Two girls and a boy whose souls have been hidden by the other mother and who have been trapped in the other mother's world for a long time—centuries, in some cases.

Plot

2a = Chapter 1 Coraline explores her new house and meets her eccentric neighbours. She discovers a locked door in the drawing room and is curious to see what is behind it. She opens the door to find a brick wall but later finds it open when she follows a spider-like creature scuttling down the corridor. She dreams of rats singing an unsettling song.

2b = Chapter 2 Coraline goes for a walk in the dense mist that has descended around the house. The crazy old man upstairs tells Coraline that the mice have a message for her: "Don't go through the door." Bored, Coraline visits Miss Spink and Miss Forcible, who read her tea leaves to predict her future and give her a stone with a hole in it as a talisman.


2c = Chapter 3 Coraline's mother takes Coraline shopping for school clothes. While Coraline's mother goes shopping for food, Coraline retrieves the black key for the door and notes that it 'feels colder than any of the other [keys]'. This time, when she opens the door, she enters a long dark corridor. At the other end, she finds another world, very similar to her own, and meets her other mother and other father, who resemble her own parents but they have black buttons for eyes. She finds rats in her bedroom who sing a song similar to the one sung by the mice in her dreams. She ventures outside.

2d = Chapter 4 In the garden of the other world, Coraline meets the cat who now talks to her. The cat seems reluctant to be friends with Coraline and says she is wise to bring protection with her to the other world. Visiting the other Miss Spink and Forcible, she finds them performing never-ending, elaborate acts in front of an audience of terriers. Coraline's other mother and father tell her that she can stay forever in the other world if she allows them to replace her eyes with buttons. She declines and returns home.

2e = Chapter 5 Coraline returns home to find no sign of her parents. Buying her own food and using her father's computer – something she is not normally allowed to do – she wonders where her parents are. She goes to bed and is woken by the cat pawing at her face. He leads Coraline to a mirror where she sees her parents – trapped and unable to reach her. She calls the police to report her parents' kidnapping but is not believed. Coraline tells the cat a story about her father's bravery – saving her from a bees' hive and returning to it to retrieve his glasses, despite the danger. Coraline and the cat return to the other world, where the other mother explains that her parents have left because they have become bored of her. A rat collects the black key from the real world and the other mother locks the door – trapping Coraline.

2f = Chapter 6 Coraline wakes up feeling disoriented. She goes to her other father's study where he tells her that he is not allowed to talk to her when the other mother is absent. She finds a snow globe with two little people in it on the mantelpiece. Walking outside, she realises that the world is not complete – she walks until there is whiteness all around her and eventually returns to the house. The cat tells Coraline that the rats in this world are the other mother's spies. Returning to the house, the other mother asks Coraline to play a game but Coraline refuses, nor will she love her. The other mother happily eats live beetles then locks Coraline in a mirror.

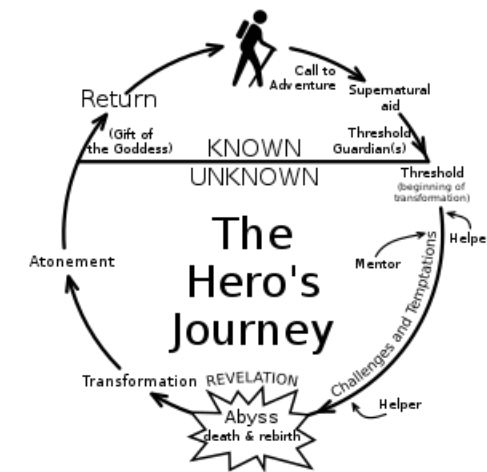
Year 7 Knowledge Organiser – Coraline

Plot	Authorial Intent
<p>2g = Chapter 7 While she is in the mirror, Coraline hears three voices. These belong to children who have been imprisoned by the other mother for so long they have forgotten their names. The children explain that the other mother stole their hearts and souls and one of them urges her to run away. Another suggests that she could find their souls as she looks for her parents. She falls asleep and hears one voice telling her to look through the stone.</p>	<p>Neil Galman wrote this novel for a purpose and uses the story and characters to send a message to his readers...</p>
<p>2h = Chapter 8 Coraline's other mother retrieves her and Coraline notices that her hair is writhing around her head like snakes. Coraline proposes a challenge: if she loses, she'll stay in the other world and replace her eyes with buttons, but if she wins then the other mother must let Coraline, her parents, and the children go. The game begins and Coraline searches for the children's souls and her parents. She finds one soul – using the stone with the hole in it. Next, she finds a horrifying creature in a sac, holding another soul, which she retrieves.</p>	<p>3a = To celebrate... courage and resilience in the face of adversity.</p>
<p>2i = Chapter 9 Coraline moves outside, where mist has appeared. She sees her other mother – now very angry – who gives her the key to the empty flat. Despite the warnings of the ghost children, she enters and finds a grub-like creature, once the other father, who has been punished by the other mother by being left in the flat to die. He warns Coraline to run as he has been forced to harm her. He lunges at Coraline, who escapes and tries to tell herself that she is brave.</p>	<p>3b = To recognise... that relationships with those people closest to us – even at their most frustrating and challenging – should not be taken for granted.</p>
<p>2j = Chapter 10 Coraline heads to the other crazy old man's flat and is faced with rats singing an eerie song. The other crazy old man appears to be bundled in a coat, and he tries to persuade her to stay in the other world. He soon falls apart and is revealed to be hundreds of rats – the largest of which holds the last marble with the soul in it. She follows it, falls and begins to cry hopelessly. The cat appears with the decapitated rat and the marble. One of the children warns Coraline that the other mother is furious. The cat becomes visibly frightened, saying that the other mother is sealing up ways in and out of the other world. She picks him up, reassuring him that she will get him out.</p>	<p>3c = To criticise... deception and selfishness, and to highlight how these flaws can corrupt and leave someone bitter and lonely.</p>
<p>2k = Chapter 11 Going back into the house, Coraline finds the other mother, who tells her that she loves her. She shows the other mother the marbles with the souls inside and tells herself not to look at the mantelpiece and the snow globe. Coraline pretends that she thinks her parents are hidden in the tunnel between the worlds and the other mother opens the door, gloating. Coraline throws the cat at the other mother's face, grabs the snow globe and runs into the corridor. With the help of the ghost children, she manages to close the door but hears something falling to the floor.</p>	
<p>2l = Chapter 12 Coraline is awoken by her real mother. In her pocket, she finds three marbles, the stone with the hole in it, the black key, and the snow globe, now empty. She ties the key around her neck. That night, she dreams she is at a picnic with the three children. They warn her that Coraline's challenge with the other mother is not yet over. That night, she is awoken by a scuffling sound: the other mother's severed hand.</p>	
<p>2m = Chapter 13 Coraline's tea leaves are read again by Miss Spink and Forcible, who tell her they are making the shape of an outstretched hand. That night, the hand scratches at the window and she realises that, even with the key around her neck, she is in danger. She borrows a sheet from her mother the next day, saying she wants to have a picnic with her dolls. She spreads the sheet over the well, placing the key in the middle, lures the hand to her and traps it with heavy planks once it falls in. She falls asleep contentedly that night, listening to the music of the mice circus.</p>	

Vocabulary	Subject Vocabulary
4a = haughty (adjective) Acting in a way that shows arrogance and belief that you are better than others	4i = novel (noun) An extended printed story about imaginary characters and events.
4b = ominous (adjective) Giving a worrying impression that something bad is going to happen	4j = protagonist (noun) The main character in a novel, play or film.
4b = unkempt (adjective) Having an untidy, messy appearance	4k = antagonist (noun) The principal opponent of the main character,
4c = triumphantly (adverb) In a way that shows great happiness or joy because of an achievement or victory	4l = setting (noun) Where or when a story is set, usually introduced at the exposition (beginning) of a story along with the characters.
4c = deception (noun) The act of misleading someone; hiding the truth	4m = genre (noun) A type or category of book. If a writer wants to write a certain genre of book, they use certain conventions (important features that appear in most books in the genre). 'Coraline' belongs to the fantasy genre.
4d = manipulate (verb) Control or influence a person cleverly or unfairly	4n = conflict (noun) In literature, a struggle between two opposing forces that a character must overcome to achieve their goal
4e = fiendish (adjective) Extremely cruel or evil	4o = gothic (noun) In literature, writing that creates mystery and fear; characters and settings that are crafted to unsettle the reader
4e = nefarious (adjective) Wicked and evil	4p = magic-realism (noun) In literature, a novel written in a realistic style which includes impossible or unlikely events.
4f = eccentric (adjective) Slightly strange and peculiar, relating to someone's actions, beliefs or way of living	4q = intertextuality (noun) The relationships or links that may be found among different books or texts.
4g = grotesque (adjective) Odd or unnatural in shape, appearance, or character	4r = language (noun) Words or methods (techniques) used by writers to present their meanings or create effects.
4h = beldam (noun) Old-fashioned word meaning an ugly or evil old woman	

5. The Hero's Journey

In the study of how narratives (stories) are structured, the hero's journey - or the monomyth - is the structure of stories that involve a hero who goes on an adventure, is victorious in a decisive crisis, and comes home changed or transformed.



6. What, How, Why Paragraphs

WHAT is the writer saying about character/theme/setting?

HOW are they revealing information and creating effects for the reader?
Quotation?
Language methods?

WHY have they chosen to do this?
Purpose? Context?

In the first chapter, the setting is presented as unpleasant. Gaiman describes features of the garden as nauseating, telling the reader that the toadstools "smelled dreadful" if they were stood on. This suggests that, despite being an intrepid explorer, Coraline might want to avoid the garden, as it is not an inviting and enjoyable place. The sensory imagery highlights the revolting nature of Coraline's new environment. Gaiman might have wanted to hint that there is something unsettling about Coraline's new house.

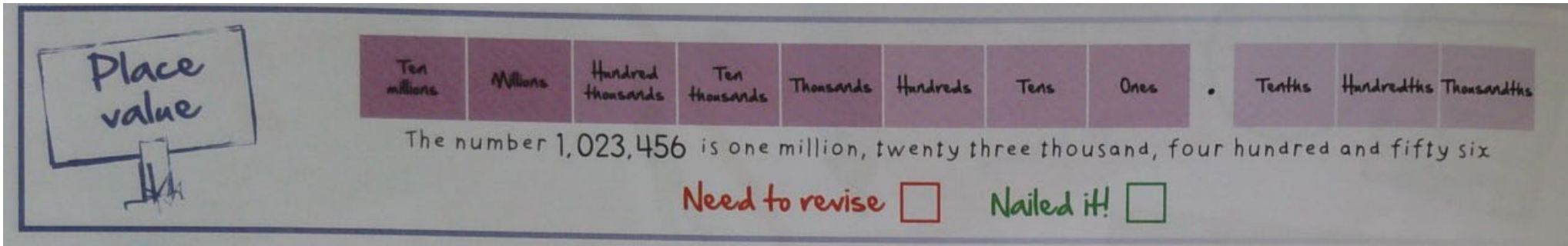
Year 7 Maths Knowledge Organiser Learning Cycle 1

1

Key words	Definition
Fraction	A numerical quantity that is not a whole number (e.g. $1/2$, 0.5).
Decimal	A system of numbers and arithmetic based on the number ten, tenth parts, and powers of ten.
Integer	An integer is a whole number (not a fractional number) that can be positive, negative, or zero
Negative/positive	Negative numbers are numbers that have a value less than zero and positive numbers have a value more than zero
Equivalent	Equal in value, amount, function, meaning
Multiplicative	Subject to or of the nature of multiplication.
Denominator	The number below the line in a fraction; a divisor.
Proportion	The relationship of one thing to another in terms of quantity, size, or number; ratio.
Numerator	The number above the line in a fraction
Formula	A mathematical relationship or rule expressed in symbols.
Expression	A collection of symbols that jointly express a quantity.
Equation	A statement that the values of two mathematical expressions are equal (indicated by =)
Variable	Able to assume different numerical values.
Term	Each of the quantities in a ratio, series, or mathematical expression.
Identify	The equality of two expressions for all values of the quantities
Inequality	The relation between two expressions that are not equal
Coefficient	A numerical or constant quantity placed before and multiplying the variable in an algebraic expression

Year 7 Maths Knowledge Organiser Learning Cycle 1

2 Place Value



Place value

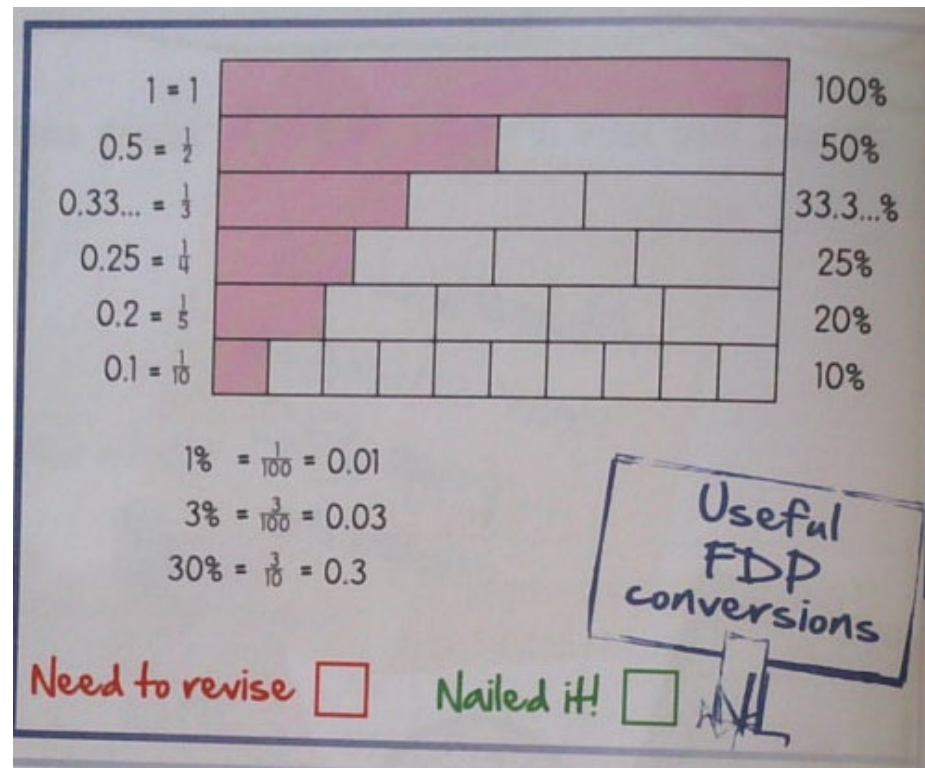
Ten millions	Millions	Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones	.	Tenths	Hundredths	Thousandths
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The number 1,023,456 is one million, twenty three thousand, four hundred and fifty six

Need to revise Nailed it!

3

Decimals and Fractions



$1 = 1$		100%
$0.5 = \frac{1}{2}$		50%
$0.33... = \frac{1}{3}$		33.3...%
$0.25 = \frac{1}{4}$		25%
$0.2 = \frac{1}{5}$		20%
$0.1 = \frac{1}{10}$		10%

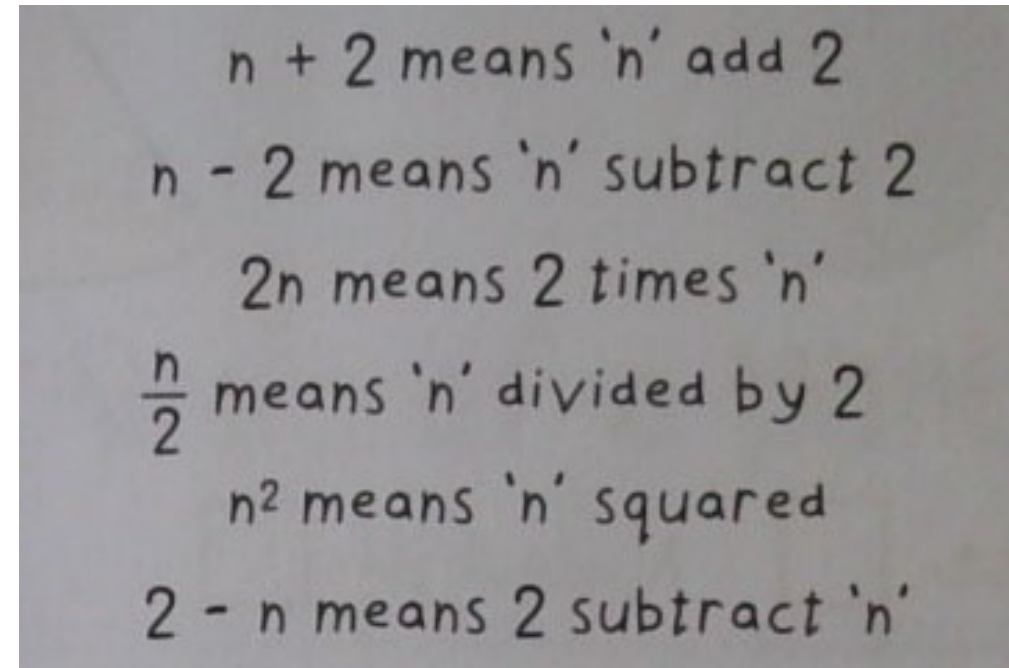
$1\% = \frac{1}{100} = 0.01$
 $3\% = \frac{3}{100} = 0.03$
 $30\% = \frac{3}{10} = 0.3$

Useful FDP conversions

Need to revise Nailed it!

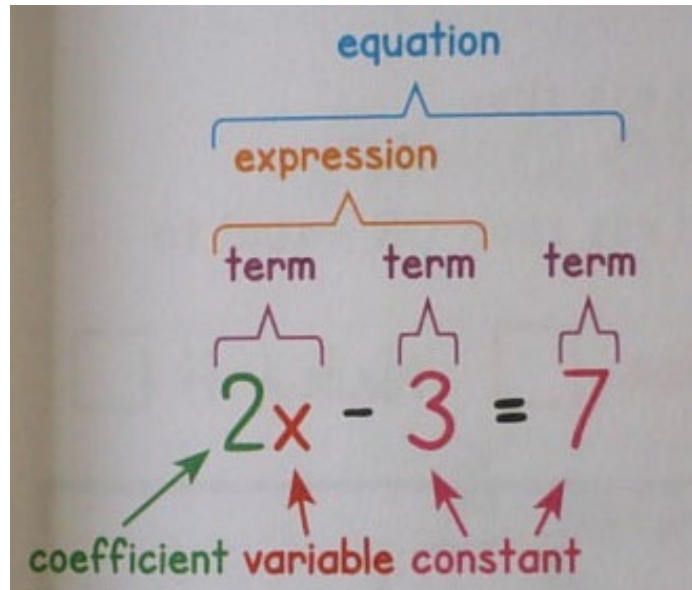
4

The Language of Algebra



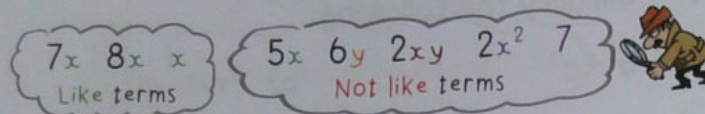
$n + 2$ means 'n' add 2
 $n - 2$ means 'n' subtract 2
 $2n$ means 2 times 'n'
 $\frac{n}{2}$ means 'n' divided by 2
 n^2 means 'n' squared
 $2 - n$ means 2 subtract 'n'

5 Algebra Terminology



6 Expand and Simplify

An important skill in algebra is simplification. You will often be asked to put something in its simplest form. One way to do this is collecting like terms.



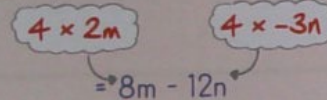
e.g. 1 Simplify $2 + 5a + 4a^2 - 3a + 1$

1 Identify the like terms: $2 + 5a + 4a^2 - 3a + 1$

2 Collect the like terms: $3 + 2a + 4a^2 + 5a - 3a = +2a$

Another important skill in algebra is expanding brackets. We multiply everything inside the brackets by the term outside the brackets.

e.g. 2 Expand $4(2m - 3n)$



We need to be able to combine both of the above skills.

e.g. 3 Expand and simplify $3(2a + 5) + 5(a - 2)$

1 Expand the brackets: $3(2a + 5) = 6a + 15$
and

$+ 5(a - 2) = +5a - 10$

2 Identify the like terms: $6a + 15 + 5a - 10$

3 Collect the like terms: $11a + 5$

7 Further reading, websites

www.completemaths.com

www.corbettmaths.com

www.mathsisfun.com

www.justmaths.com

Year 7 Science Knowledge Organiser Learning Cycle 1

1

Key words	Definition
Independent variable	The variable you change in an investigation
Dependent variable	The variable you measure in an investigation
Control variable	The variable you keep the same in an investigation
States of matter	Shows how solids, liquids and gases change state
Boiling	When a liquid turns into a gas
Melting	When a solid turns into a liquid
Freezing	When a liquid turns into a solid
Evaporating	When a liquid turns into a gas
Condensing	When a gas turns into a liquid
Sublimation	When a solid turns into a gas without becoming a liquid first.
Chromatography	Is a separation technique used to separate mixtures of soluble substances
Filtration	Is used to separate an insoluble solid from a pure liquid or a solution.
Distillation	Is a separation technique used to separate a solvent from a mixture.
Pure substance	A substance made of only one type of particle
Impure substance	A substance made from more than one element or compound (Mixture)

Year 7 Science Knowledge Organiser Learning Cycle 1

2 The particle model

Solid



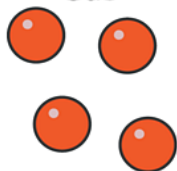
The particles in solids are very close together, therefore they cannot usually be compressed or squashed. The particles in solids are arranged in a regular way. The particles in solids move only by vibrating about a fixed position. This gives solids a fixed shape and means that they cannot flow like liquids.

Liquid



The particles in liquids are arranged in a random way, and are close together, touching many of their neighbours. There are some gaps, but liquids cannot usually be compressed or squashed. The particles of a liquid have enough energy to break free of some of the forces of attraction between the particles. So particles in liquids can move around and can move over each other, allowing liquids to flow and be poured.

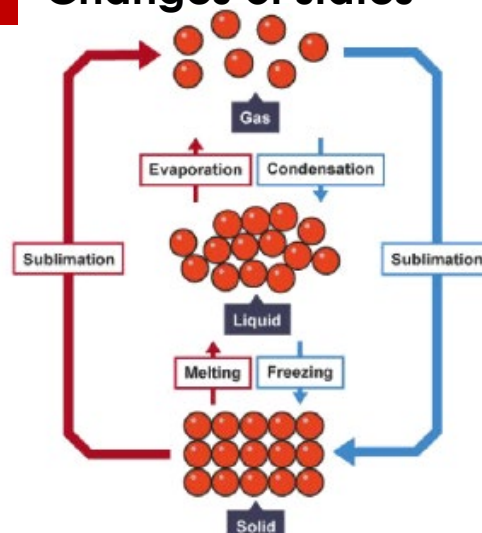
Gas



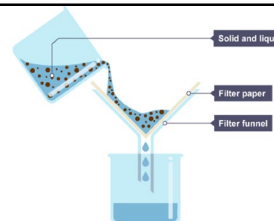
The particles in gases are widely spaced and randomly arranged, meaning they can be easily compressed or squashed. The particles in a gas have enough energy to overcome the forces of attraction between the particles, so are free to move in any direction. They move quickly in straight lines, colliding with each other and the walls of their container.

All information resourced from BBC Bitesize

3 Changes of states



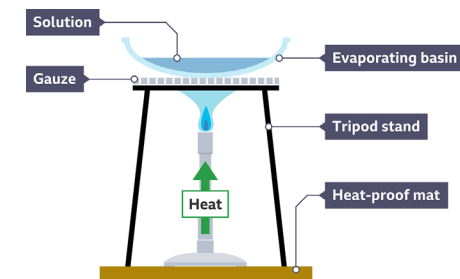
5 Filtration



Filtration is the process of separating solids from liquids using . The process can be used to separate an insoluble solid, for example stone or sand grains from a liquid. The liquid could be a pure liquid, for example water, or it could be a , for example, salty water. When a mixture of sand and water is filtered:

- the sand stays behind in the filter paper, it becomes the residue
- the water passes through the filter paper, it becomes the filtrate

4 Evaporation



Evaporation can be used as a technique to separate the solid from the in a . The solvent is the liquid, and when the solution is heated, the solvent evaporates. The solute is left behind as crystals. In a lab the heat is usually supplied by a Bunsen burner, and the solution is heated in an evaporating basin.

6 Further reading and websites

The particle model of matter:
<https://www.bbc.co.uk/bitesize/topics/z9r4jxs>
Pure and impure substances:
<https://www.bbc.co.uk/bitesize/topics/zych6g8>

Year 7 Geography Knowledge Organiser Learning Cycle 1

1a

Physical

All geography that occurs naturally for instance rivers, coasts and earthquakes.

Human

All geography that involves human activity for instance industry and population.

Environmental

All geography that involves humans working with, and changing, the natural world.



Geography is the study of Earth's landscapes, people, places and environments. It is the study about the world in which we live.

1b

Locating a place

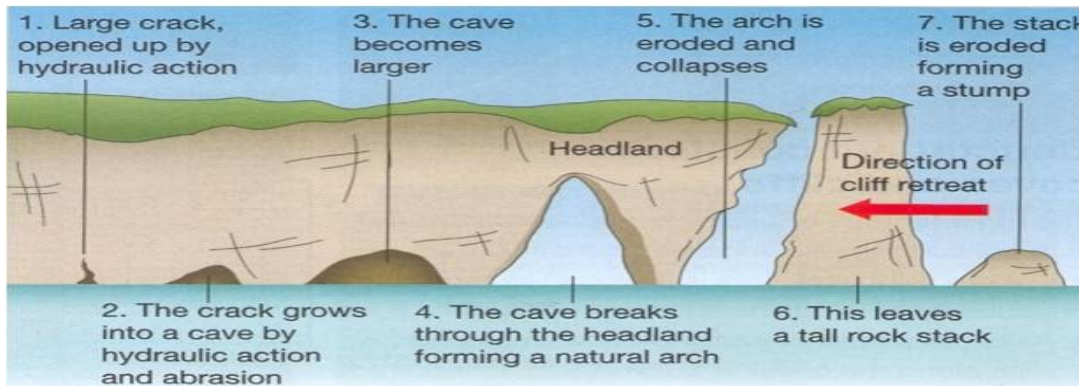
Uses geography keywords and or directions from places and features nearby.

E.g. India is in southern Asia which is bordered to the west by Pakistan and to the south by the Indian ocean

2a

Totem Pole Sea Stack

The Totem Pole is a sea stack that is popular amongst rock climbers in the Tasman sea, Tasmania.



2b

Overfishing

Fishing is collapsing worldwide, with over 70% of our fisheries damaged badly. The over fishing of large predators like Tuna remove species that regulate the population of other fish in the area.

3

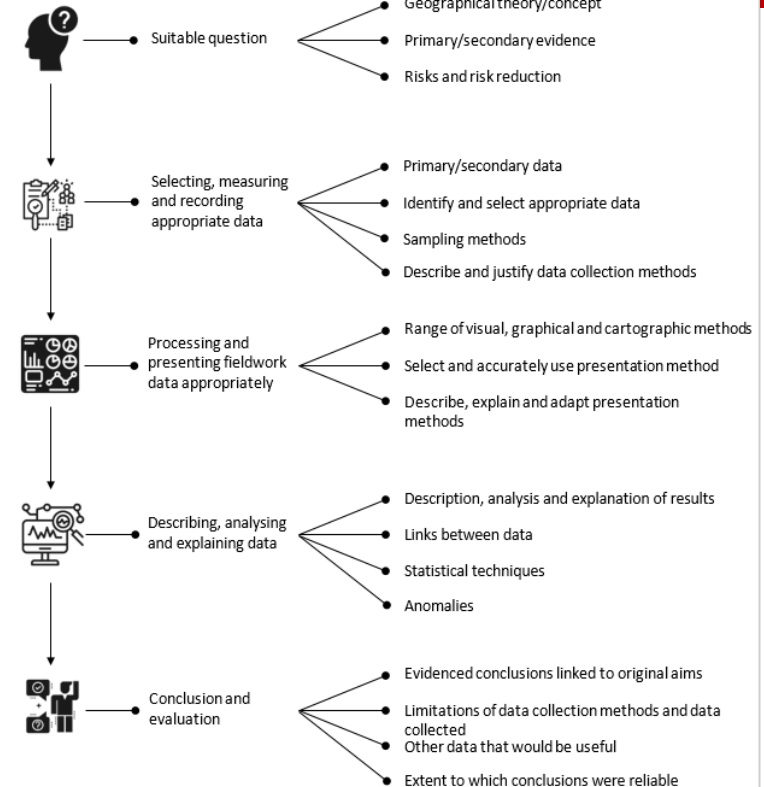
Tourism in Cornwall

Tourism can have huge effects socially, economically and environmentally.

Tourism brings in people and money to Cornwall, and has a significant impact on Cornwall's resident population. Tourist numbers are continuing to increase and the peak season is extending, increasing the impact on Cornwall.

4

Geographical Enquiry



Year 7 Geography Knowledge Organiser Learning Cycle 1

5

Oceans

The marine biome is the biggest biome in the world. It covers about 70% of the world's surface. It includes five major oceans, Pacific, Atlantic, Indian, Southern and Arctic.

Anuta Tribe

A population of 300 people live on an island 75 miles away from nearest island.

Threats to the tribe include – increasing sea level rise, increased storms, Increased risk of disease

Barra Di Tijuca – a favela in Rio De Janeiro

A favela is a slum dwelling in Brazil

It is an example of an unplanned settlement

Houses are made from anything people can find

Some favelas have grown into small towns

People who live there are very poor

It can be dangerous and full of crime



7

6a

Las Vegas

Las Vegas is a city found in Nevada, USA. It has a population of approximately 600 000 people.

Water Shortages

Las Vegas is experiencing water shortages as its population grows in one of the fastest growing regions in the USA. Water supplies are running out.

Water Conservation

Officials are promoting to residents the idea of 'dry landscaping'. A method of maintain gardens using less than a half or a third of the water

Dubai - an example of a planned settlement

It is located on the Persian Gulf

Dubai earned its money from oil

Revenue from oil has been used to build modern roads, schools and hospitals.

In 1960 20 000 people lived there

In 2006 1 million people lived there

The World and the Palm island are examples of planned settlement to provide luxury accommodation to tourists and residents



Solutions to improving shanty towns

Self-help schemes have also been supported. Local residents are provided with building materials like concrete blocks and cement in order to replace home-made shelters with permanent dwellings. These are often three or four storeys high, and with water, electricity and sewage systems installed.

Legal rights such as granting the favela residents rights to own their own properties. Low rents have also been offered.

Transport systems have been extended to include the favelas to give residents the opportunity to travel to work in the city centre and industrial areas.

Law and order has been improved in the favelas by trying to rid these areas of crime and drug abuse. Several large favelas have been improved in this way through federal 'Pacification Programmes'.

New towns like Barra da Tijuca, built 20 kilometres along the coastline, have been built to relocate some residents from city favelas.

6b

Is Dubai sustainable?

Sustainable means when you use something now and it is still there in the future

The hot dry climate means that water is a precious resource

Is Dubai sustainable? Cont.....

Dubai receives plenty of wind and solar energy

Marine environment Coastal engineering projects such as The Palm have a significant impact on marine ecology

Appropriate use of resources Vast quantities of steel, timber and other building materials have to be imported

6c

Year 7 History Knowledge Organiser Learning Cycle 1

1 Key terms and definitions

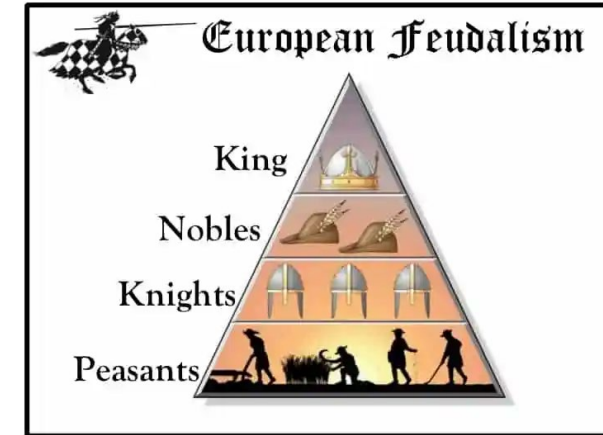
Key Word	Definition
History	Study of the past
Change	Something that is different
Continuity	Something that is the same
Feudal System	How they organised who controlled what
Peasant	Lowest in the Feudal System

2 What is History?

- History is the study of past events.
- There are often different versions of past events.
- It is the job of a historian to discover the truth.



3 European Feudalism



4 Crime and Punishment in the Middle Ages

- Crimes in the Middle Ages: Heresy, Treason, Theft
- Punishments in the Middle Ages: Execution, Weirgeld, Maiming



5 The Church in the Middle Ages

- Main way people found news in the Middle Ages
- Attendance was compulsory.
- The Bible was read out in Latin.



Overview-
<https://www.bbc.co.uk/bitesize/topics/zbn7jsg/articles/zwyh6g8>

Worst Jobs –

<https://www.youtube.com/watch?v=7jgu7EJ9A8A&t=1s>

Year 7 Spanish Knowledge Organiser Learning Cycle 1

1 Know your phonics!

When speaking in Spanish - accurate pronunciation is essential. Practise these sounds and remember the rules never change!

a - e - i - o - u
ca - ce - ci - co - cu
ca - que - qui - co - cu
ga - ge - gi - go - gu
ga - gue - gui - go - gu
rr - ll - v - h - j - ñ - z

Pronouncing words in Spanish:

<https://www.bbc.co.uk/bitesize/topics/zhy27nb/articles/zk78382>

2 Introductions

Practise your answers to all of these questions- use your books and Knowledge Organiser and Parallel Text for support.

¿Qué tal? / ¿Cómo estás?
¿Cómo te llamas?
¿Cómo se escribe (your name)?
¿Cuándo es tu cumpleaños?
¿Cuántos años tienes?
¿Qué tienes en tu mochila?
¿Cuántas personas hay en tu familia?
¿Tienes mascotas?
Háblame de tu familia

3 Vocab learning techniques

Your Knowledge Organiser includes all the topic specific vocabulary for this unit, this is also accessible on Memrise.

To effectively learn vocabulary, practise the suggestions below. What technique works best for you?

1. Look-cover-write-check This video demonstrates what to do: https://youtu.be/YFEzhGnJP_Q
2. Use the Parallel text. This video demonstrates what to do: <https://youtu.be/WcvVeNM6dWc>
3. Make Flashcards: <https://youtu.be/-SL9037YMKA>

4 The verb tener- to have

This is a key verb that you need to know in all sorts of situations, knowing this well will really help you to progress well in Spanish:

I have- tengo
you have- tienes
he/ she/ it (they neutral) has- tiene
we have- tenemos
you (plural) have- tenéis
they (plural) have- tienen

5 High frequency vocab

This vocab is commonly used all the time in Spain, the more of this you know, the better you will be able to communicate in any situation:

y = and	mi(s) = my
pero = but	tu(s) = your
también = also	su(s) = his/ her/their
sin embargo = however	por favor = please
quiero - I want	gracias = thank you
hay = there is/are	¿Y tú? = and you?

6 Further reading, websites

Pronouncing words in Spanish:

<https://www.bbc.co.uk/bitesize/topics/zhy27nb/articles/zk78382>

Introducing yourself:

<https://www.bbc.co.uk/bitesize/topics/zfgt6v4/articles/zhvppq3>

Talking about family and pets:

<https://www.bbc.co.uk/bitesize/topics/zfgt6v4/articles/zfryxyc>

Days and months in Spanish:

<https://www.bbc.co.uk/bitesize/topics/zfgt6v4/articles/zjh292p>



Year 7 Art Knowledge Organiser Learning Cycle 1 MARK MAKING- ON SURFACES AND IN SPACE

1

Key term	Definition
Tone	How the light falls on an object. From dark to light
Texture	What is the object made from?
Pattern	Repeating marks that can represent texture.



Vincent Van Gogh



2

Examples of Mark Making



3

What do I need to know?

The definition of mark making is not fixed or limited to the materials that you find in the art cupboard. Marks- lines, dots, scratches, scribbles, patterns, textures, rubs, bumps, brushstrokes, pixels etc.- can be made in all sorts of ways, with and infinite number of tools and techniques.

5

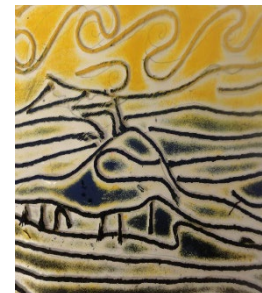
Useful websites.

- <https://www.vangoghmuseum.nl/en>
- <https://www.naturettl.com/best-landscape-photography-locations-cornwall-uk/>
- <https://www.cornwalls.co.uk/attractions>
- <https://www.nationalgallery.org.uk/artists/vincent-van-gogh>

4

What will I learn?

You will be introduced to a range of mark making materials. You will develop your drawing skills. You will learn how to print using string and card.



1

Key Words	Definitions
Online	While connected to a computer or under a computer control.
Communication	The imparting or exchanging of information by speaking, writing or using some other medium.
Password	A secret word or phrase that might be used to gain admission to a place.
Privacy settings	The part of the social networking website, internet browser, piece of software etc that allows you to control who sees information about you.
Cyberbullying	Like traditional bullying but takes place online. Can include discrimination and hate crimes.
Audience	The assembled spectators or listeners at a public event e.g. play

2

Can you spot x9 hazards in this classroom?



3

Tops tips for a good presentation in the class

- Keep your presentation simple.
- Prepare and practice.
- Start strong and tell stories.
- Show enthusiasm.
- Find a mentor or mimic other inspirational figures.
- Leverage body language, facial expressions and eye contact.

Which of these is the strongest password?

- Secure1
- **2MyStudioCardboard9**
- Password1234
- P@ssword123
- Enter

Why?

Email construction

Subject	Gives a short overview of what the email contains.
It is polite to...	<ul style="list-style-type: none"> • Use a salutation e.g. 'Dear Mrs Smith'. • End an email formally e.g. 'Thanks you...' or 'kindest regards'. • Avoid sarcasm

4

Disrespectful way to compose an email

Respectful way to compose an email

<p>Message</p> <p>From: Becky</p> <p>Subject: Hi Miss!</p> <p>Can we not have any homework this week because I didn't like the last one that you sent out and I really wanted to play online instead.</p> <p>Soz. Lol.</p>	<p>Message</p> <p>From: Mr Hopper</p> <p>Subject: Homework for Monday 8th</p> <p>Dear Class,</p> <p>This is a reminder that your homework project on volcanoes is due on Monday 8th. Please email me if you have any questions about the activity.</p> <p>Many thanks, Mr Hopper</p>
---	---

Year 7 Computer Science Knowledge Organiser Learning Cycle 1: Topic 2: Managing Data Using Excel

1 Spreadsheets are useful because you can perform mathematical investigations on the data:



Operators:

+ to add cells =A2+A3
 - to subtract =A5-A6
 / to divide =A2/B1
 * to multiply =A3*C6

Want a total? Use the SUM function

=SUM(B3:B23)

Want an Average? Use the Average function.

=AVE(B3:B23)

Want to find out the largest number or the smallest? Use the MIN and MAX function.

=MAX(B3:B23)
 =MIN(B3:B23)

Want to count the number of cells with data in them? Use the CountA function

=COUNTA(B2:B15)

2 A **Spreadsheet** (Excel) can help store and organise data. This makes it easier to understand trends and find out information.

Medals won at the 2016 Summer Olympics

Germany: 17 Gold, 10 Silver, 15 Bronze
 Great Britain: 27 Gold, 23 Silver, 17 Bronze
 China: 26 Gold, 18 Silver, 26 Bronze



	A	B	C	D	E	F
1		Gold	Silver	Bronze	Total	
2	Germany	17	10	15	42	
3	Great Britain	27	23	17	67	
4	China	26	18	26	70	
5	Russia	19	17	20	56	
6	United States	46	37	38	121	
7	Japan	12	8	21	41	
8	France	10	18	14	42	

This is a **Table** of data

3

Column headers are labeled A, B, C....

Rows are labeled 1,2,3

4 Spreadsheets have tools to quickly create different types of graphs, such as pie charts and bar charts



5

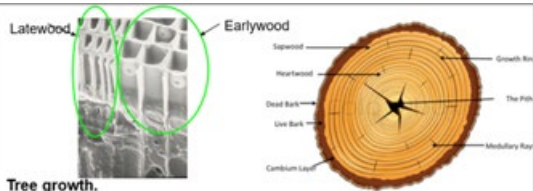
Cells are the squares in the table. They are referenced by using the Column letter then the Row number. This is cell C4

A collection of cells is called a **Range**. This range is A2:A6

Year 7 Design Technology Knowledge Organiser Learning Cycle 1

1

Materials and equipment



Tree growth.

Wood grows each year by putting on an additional layer of cells just below the bark layer. This is called the cambium layer.

The layer grows more when the tree is in warm and bright conditions because the leaves use sunlight for photosynthesis and generate growth.

In times of rapid growth the cells (tracheids) are wide and open creating a softer wood. In fast growing trees this means that the entire timber is relatively soft.

Trees that drop their leaves (deciduous) don't grow during the cold period have very narrow tracheids- during the winter. This results in the smaller dark rings- annular rings

Examples of Softwood

- Spruce
- Scots pine
- Douglas Fir



Colour

- White

Uses

- Wood pulp, General purpose joinery

Colour

- Red or Yellow

Uses

- Light poles, Exterior work, Railway sleepers

Colour

- light tan to reddish

Use

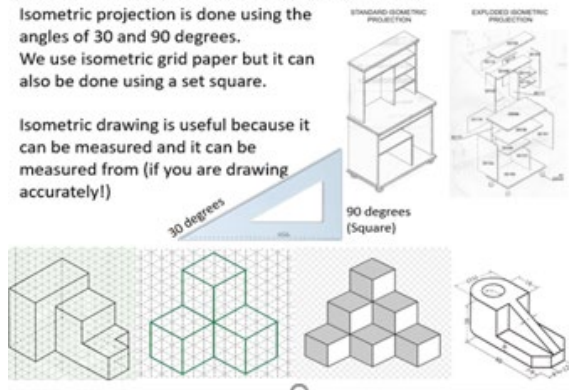
- timbers, plywood.
- railroad ties, mine timbers, house logs, post and poles, fencing, and firewood.

2

Isometric projection- 3 dimensional drawing.

Isometric projection is done using the angles of 30 and 90 degrees. We use isometric grid paper but it can also be done using a set square.

Isometric drawing is useful because it can be measured and it can be measured from (if you are drawing accurately!)



Tenon Saw- Used for cutting a straight deep surface or timber strips to length.



Coping Saw- Used for removing material inside some joints and for cutting curves.



Firmer chisel- used for general cutting and paring of wood



Try Square- Used for marking out 90 degrees for cutting shoulders or as a datum line.

3

The 6 Rs

The 6 Rs of sustainability is a tool widely used to help designers reduce the impact of their products on the environment can be used as a checklist for each product that is designed.

Reduce — How can the amount of materials and components used in the product be reduced?

Rethink — How can the design of the product be changed so that it is less harmful to the environment?

Refuse — Should the product be produced if it is not sustainably designed?

Recycle — Is the product made using recycled materials?

Reuse — Could the product be used in a different way once its current use has expired?

Repair — Is the product easy to repair? .

4

The Design process

Designers research so that:

- the best materials and components can be selected.
- The best solutions can be found by identifying problems.
- The users needs are well understood and can be met.

Designers write specifications so that:

- The requirements of the project are very clear.
- The different success criteria can be used to check against.
- The different features that are needed are included and can be tested.
- Different designs can be compared effectively.

Factors often used in specifications:

- **Aesthetics**- what it looks like
- **Cost**- maximum and minimum to make or buy.
- **Customer**- they specific type of user.
- **Environment**- where it will be used.
- **Size**- At least three overall measurements.
- **Safety**- Key features to keep users safe.
- **Function**- The main things it must do or be like.
- **Materials**- The main materials used in production.

5

Key words

Equipment: anything that is used to make the products, produce drawings or create something.

Material: What something is made from- can be wood, metal, plastic, textile, composite etc..

Process: Any 'doing' activity. This is likely to be about marking out, cutting materials and using machinery.

Design: Producing ideas for products and system that make thing better and solve problems.

Year 7 Food Knowledge Organiser Learning Cycle 1

1

Key Word	Definition
Hygiene	Keeping areas clean to prevent spreading of bacteria
Safety	Prevention of accidents
Hazard	A danger or risk
Balanced Diet	A balance of foods to ensure we stay healthy
Nutrients	Substances needed for our health that are found in food

Health and Safety in the kitchen

To ensure everyone is safe and not in danger or risk of injuries or accidents.

Hygiene

The kitchen is to be kept clean at all times. When washing up, hot soapy water is to be used to remove all grease and dirt on equipment

Food is eaten and digested in the body to allow the absorption of energy and nutrients.

2,3&5

Knife Safety



Bridge Hold



Claw Grip

Store in a wooden block or magnetic strip with blade facing downwards.
Wash knives separately and do NOT leave in the washing up bowl

4

Eat Well Guide – Government Guide to inform of how to eat a balanced diet



6

Nutrient	Source	Function	Deficiency
Protein (Macronutrient)	Meat, dairy products, eggs, tofu, nuts	Growth and repair	Stunted growth in children, weak bones and teeth
Carbohydrate (Macronutrient)	Bread, pasta, potatoes	Main source of energy for the body	Lack of energy
Fat (Macronutrient)	Vegetable oil, butter, cakes	Protection of organs, Layer of insulation (warmth)	
Vitamins (Micronutrient)	Fruit, vegetables, oils	Vitamins are needed to keep the body healthy e.g.. Vitamin A for night vision.	Wide range of illnesses and diseases
Minerals (Micronutrient)	Dairy products, fruit, vegetables	Minerals are needed to keep the body healthy e.g. calcium is needed for growth and maintenance of strong bones	Wide range of illnesses and diseases

Useful Sites

- <https://www.foodfactoflife.org.uk/>
- <https://explorefood.foodfactoflife.org.uk/>

Year 7 RE Knowledge Organiser Learning Cycle 1

1 Key terms and definitions

Denomination: a religious group that has slightly different beliefs from other groups that share the same religion

Source of Authority: Religious texts or bodies responsible for guiding people on how to live

Tradition: The beliefs, teachings and behaviour of a group. It may include scripture, oral teachings, laws and ritual practices.

Rational Thinking: Using reason and evidence to think through an issue and make a decision.

2 Differences between Protestants and Catholics

Christians share many beliefs, but they don't all agree on everything. This has resulted in the development of different groups within the religion called **denominations**.

Catholics see the Pope as the Head of the Church, and tend to have highly decorated churches to celebrate God. Services are very organised using key words and services. Protestants have different ways to worship, often using more modern methods. The Church of England is Protestant, and the Queen is the Head of the Church. (We go into more detail in lessons as this is simplified explanation).

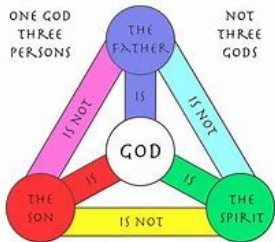
3 The Ten Commandments

God's Top Ten

1. Put God First
2. Worship Him Only
3. No Bad Words
4. Work 6 Rest 1
5. Obey Your Parents
6. Harm No One
7. Don't Cheat
8. If Its Not Yours, Don't Take It
9. Tell the Truth
10. Don't Be Jealous of Other People's Stuff

These are simplified. The importance of the Commandments is how the impact of the actions of those who follow them.

4 The Trinity



The Father:
The creator of all things in Heaven and Earth.

The Son:
Jesus Christ who came to Earth as a human being.

Holy Spirit
The power of God which draws people to Him.

Most Christians believe God is revealed in three forms. This is called the **Trinity**. The word 'trinity' comes from the word 'tri' meaning 'three' and 'unity' meaning 'one'.

5 Christian Sources of Authority

Christians generally regard the **Bible** as their holy text. They follow the rules it contains for living life and can turn to Jesus's teachings for moral guidance.

Christians might also use religious leaders, such as vicars or priests or conversation and support from their friends and families as sources of authority.

Many Christians also rely on **tradition** for guidance. The Christian Church has existed for two thousand years and many traditions and practices have developed over the years which people find reliable and helpful. Tradition must be supported and reinforced by the teachings in the Bible.

6 Further reading, websites

[Facts about Christianity – KS3](#)
[Religious Studies – BBC Bitesize](#) - [BBC Bitesize](#)

