Knowledge Goals Homework Booklet 2 (Autumn Term 2 2024)

Year 7 and 8

Name: _____



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Suggested Homework Schedule

	Subjects to Revise		
Monday	English	History	
Tuesday	Mathematics	Geography	
Wednesday	Science	French	
Thursday	Computer Science	Food Technology	
Friday	Music	Physical Education	
Saturday	Tier 2 Vocab	Drama	
Sunday	Design and Technology	Art and Design	

To help you get organised, we have planned out your weekly homework slot for each subject.

Subject Homework Frequency Information



Subject	Homework
Art	Once per half term
Computer Science	Once per half term
Design and Technology	Weekly
Drama	One per half term
English	Weekly
Food Technology	Fortnightly
French	Fortnightly
Geography	Weekly
History	Fortnightly
Mathematics	Weekly
Music	Once per half term
PSHE	Once per half term
Physical Education	One per half term
Religious Studies	One per half term
Science	Weekly

HOW TO SELF TEST



Mind mapping

- Mind mapping is simply a diagram to visually represent or outline information.
- Use information gathered from your Knowledge Goals booklet to create mind maps, make sure to use colour and images and keep writing to the bare minimum.



HOW TO MIND MAP VIDEO

How should students use the Knowledge Goals booklets?

Your **Knowledge Goals** booklet provide the essential knowledge that you need to learn in each subject this half term.

You are expected to spend **30 minutes per subject per week** 'learning' the content.

You will be assessed during lessons using 'low stake' quizzing.

Your teacher may choose to set you additional homework.

Parent information on knowledge retrieval:



Flash cards

Use your Knowledge Goals booklet to make flash cards. Write the questions on one side and on the other record the answer.

Test yourself or work with a friend to make sure you know all of the key information for each topic.

HOW TO FLASH CARD VIDEO



How can parents support?

- Read through the booklet with your child if you don't understand the content then ask them to explain it to you – 'teaching' you helps them to reinforce their learning.
- Test them regularly on the spellings of key words until they are perfect. Get them to make a glossary (list) of key words with definitions or a list of formulae.
- Read sections out to them, missing out key words or phrases that they have to fill in. Miss out more and more until they are word perfect.

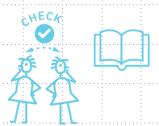
Retrieval Practice



HOW TO DO IT

Put away your class materials, and write or sketch everything you know. Be as thorough as possible. Then, check your class materials for accuracy and important points you missed.

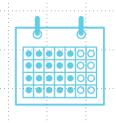






HOW TO DO IT

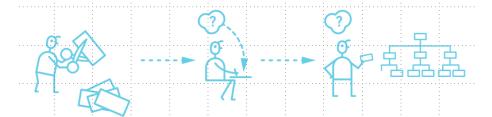
Take as many practice tests as you can get your hands on. If you don't have ready-made tests, try making your own and trading with a friend who has done the same.







You can also make flashcards. Just make sure you practice recalling the information on them, and go beyond definitions by thinking of links between ideas.





HOLD ON!

Retrieval practice works best when you go back to check your class materials for accuracy afterward.



Literacy: Tier 2 Vocabulary



Tier 2	Vocabulary	
	Key word	Definition
1	alleviate	To make easier to endure; lessen; mitigate.
2	benign	Having no harmful influence or effect.
3	compulsory	Required; mandatory; obligatory.
4	deteriorate	To make or become worse or inferior in condition, character, quality, value, etc.
5	encounter	To come upon or meet with, especially unexpectedly.
6	ferocious	Savagely fierce, as a wild beast, person, action, or aspect; violently cruel.

These words are all tier 2 words; in other words, they are seen as 'academic vocabulary' and if you know them, can understand them and use them, you will do better in your exams and be able to communicate more precisely and effectively in life.

DEAL Year 7 (Autumn Term)



Book Title	Author	Gen	ire		Overview		Image
You are a Champion	Marcus Rashford	Non-Fictio	n (BAME)	In You Are a Champion: Unlock Your Potential, Find Your Voice and Be the BEST You Can Be, Marcus Rashford MBE draws on stories from his own life to show you that success is all about the mindset. You'll find out how positive thinking can change your life, build mental resilience, learn how to navigate adversity and discover the unstoppable power of your own voice. You already have the tools you need to achieve your dreams; you just might not know it yet.			MARCUS RASHFORD YOU ARE A CHAMPION POM TO BE THE BEST FOOD CAN BE
British Values	Toleran	ce	Indiv	idual Liberty	Rule of Law	Democracy	Mutual respect
Cirque du Freak	Darren Shan	Non-fiction Adventure Thril	, Fantasy	is a smart kid a obsessed over v caught the boys was a guy name with his huge an all into vampire Steve tries to talk Crepsley is distract week later while and paralyzes him (become a vampir spiders poison	e Darren and Steve are playing n. In order for him to survive, D	eve is a trouble maker and is e day a flier for a freak show o go. At the freak show there to go on stage and do tricks of Madam Octa. Steve, who is is a vampire. After the show, could be a vampire. While Mr. his pet spider, Madam Octa. A with the spider, it bites Steve Darren has to become blooded afford the Antidote to cure the and leave his normal life to	DARRENSHAN Cirque bu Freak
British Values	Tolerar	nce	Ind	ividual Liberty	Rule of Law	Democracy	Mutual respect

DEAL Year 8 (Autumn Term)



Book Title	Author	Ge	nre		Overview		
Refugee Boy Benjamin Zephaniah Modern Fiction (Novel) (BAME)	Refugee Boy Benjamin Zephaniah Modern Fiction (Novel) (BAME)	Benja Zepha Moderr	e Boy amin aniah a Fiction (BAME)	The whole story centers around the 14 year-old Alem Kelo. He is a boy born of an Ethiopian father and an Eritrean mother at a time when the two countries were at war with each other. His father takes him to London to be safe. There he has to fight for his status as a refugee. Alem and his father had to leave Ethiopia or die, so Alem's father (Mr Kelo) decides to leave Alem in England until there is peace.			REFUGEE BENJAMIN
British Values	Toleran	ce	Indiv	dual Liberty Rule of Law Democracy		Mutual respect	
Another Twist in the Tail Catherine Bruton Modern Fiction (Novel)	Another Twist in the Tail Catherine Bruton Modern Fiction (Novel)	the Catherin Moderr	Twist in Tail e Bruton i Fiction vel)	Another Twist in the Tale' is a rip-roaring sequel to Charles Dickens' 'Oliver Twist', set in Victorian London and featuring Oliver's longlost twin sister. Rediscover the Artful Dodger, Fagin and Oliver Twist himself, along with a host of fantastic new heroes and villains in this brilliantly imagined sequel to Dickens' much-loved classic!			- CHINES
British Values	Tolerar	nce	Indi	idual Liberty Rule of Law Democracy			Mutual respect

Year 7 and 8 Knowledge Goals: Art and Design Sweet Treats



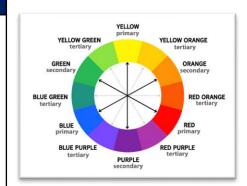
Colour Theory - Facts

- 1. A colour wheel helps us to organise knowledge about colour.
- 2. Primary colours are: red, yellow & blue. They can't be made by mixing other colours and are used to mix all other colours.
- 3. Secondary colours are made by mixing two primary colours. They are green, orange and purple.
- 4. Tertiary colours are made by mixing a primary and a secondary colour together.
- 5. Complementary colours are opposite each other on the colour wheel. They create contrast.
- Harmonious colours are next to each other on the colour wheel, they work in harmony. They can be broken down into warm and cool colours.
- 7. A tint is when you add white to a colour to make it lighter.
- 8. A shade is when you add black to a colour to make it darker.
- 9. You can also make a colour darker by adding a small amount of its opposite colour.

Colour Theory - Keywords

Still life Proportion Composition Foreground Observation Midground Light Background Cross hatching Shadow Weight of line Tone Colour Form Primary Line Secondary Texture

Value



Artist Example (Complementary Colours)



Green and Red are opposite on the colour wheel

Artist Example (Harmonious colours)

Harmonious colours sit next to each other on the colour wheel. In this painting you can see blue and purple, blues and greens. Also reds and purples. All harmonious.



Brushstrokes - Examples

Diagnotiones Examples					
Pointilism	Flat block colour	Broad & chunky	Impasto		

Additional Resources





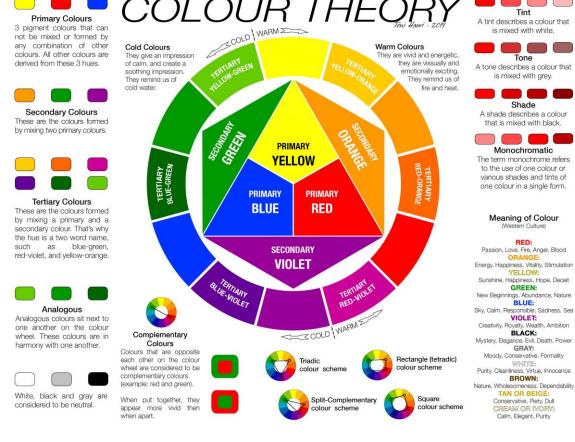




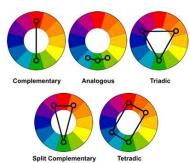
Year 7 and 8 Knowledge Goals: Art and Design Sweet treats.



Tier	Tier 3 Vocabulary			
	Key word	Definition		
1	composition	The arrangement of elements within an art work.		
2	colour theory	Facts about colour & how we can use it.		
3	value	Determines the lightness or darkness of a colour.		
4	tone	(Similar to 'Value') Describes how light or dark something is.		
5	complementary	Complementary colours are opposites.		
6	harmonious	Harmonious colours are next to each other on the colour wheel. They are similar to each other.		
7	brushstroke	A mark made by a paintbrush drawn across a surface.		
8	refine	Make changes to improve.		
9	hue	A colour or shade.		
10	texture	The feel, appearance, or consistency of a surface or substance.		
11	blending	The action of mixing or combining things together e.g. blending one tone into another.		
12	tint/shade	Tint is adding white. Shade is adding black.		







Year 7 and 8 Knowledge Goals: Computer Science



The Internet and World Wide Web

The **internet** is a vast network of computers all connected together. The **World Wide Web** is a service provided on the internet. It is the websites, web pages, and links found on the internet. **Email** is an internet service that allows people who have an email address to send and receive electronic messages.

- A **web browser** retrieves the website's code from the web server. It converts this code into the view that we see on the screen (e.g. the images, text, and videos).
- A web page is a document that is accessible through the internet on a web browser.
- A search engine is a website that allows you to look up information on the World Wide Web.
- Parts of a web address:
 - 'URL' stands for 'Uniform Resource Locator'. For example, the URL for the home page of Facebook is www.facebook.com.
 - The "www" part tells us that it is a website.
 - · The "facebook.com" part is known as the domain name.

Wired v Wireless				
Wire	ed Networks	Wirel	ess Networks	
Advantages	Disadvantages	Advantages	Disadvantages	
Faster connection (little to no	Cables can be a trip hazard and look unpleasant	No trailing wires/no trip hazard	Lower bandwidth	
interference)		It is quick	Wireless	
Higher More expensive and to conribandwidth time-consuming to new de	and cheap to connect new devices	connections can be weakened by walls and ceilings		
	add devices, as each device needs cables	Allows portability	Less secure	
Better security	Devices are in fixed positions (no portability)	No trailing wires/no trip hazard	Lower bandwidth	

Computer protocols: email and web address protocols:

http://www.facebook.com

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An '@' symbol must be used.

The email address must be unique. All website addresses start with 'http://' followed by 'www'.

All website addresses are unique. They use dots to separate each part of the address.

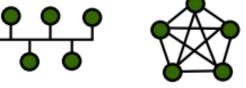
Network cables - To connect together different devices, you need cables.

Hub - A hub connects a number of computers together.

Server - A server is a powerful computer which provides services.

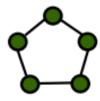
Router - When a network needs to be connected to another network over a large area, a router is needed.

Topologies • • • •

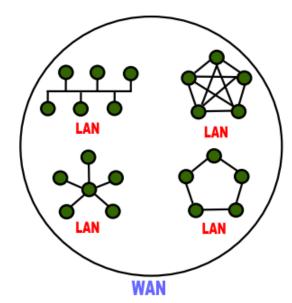


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Year 7 and 8 Knowledge Goals: Computer Science



Tier	Tier 3 Vocabulary			
	Key word	Definition		
1	computer network	Two or more computers connected together to allow them to communicate.		
2	server	A powerful computer that provides service to a network.		
3	bandwidth	The amount of data that can be moved from one point to another in a given time		
4	protocols	A set of rules to allow communication.		
5	packets	A small amount of data sent over a network.		
6	web browser	A piece of software (code) used to view information on the World Wide Web.		
7	IP Address	An internet protocol address is a unique address that identifies a device on the internet or a local network.		
8	LAN	Local Area Network.		
9	WAN	Wide Area Network.		
10	PAN	Personal Area network.		

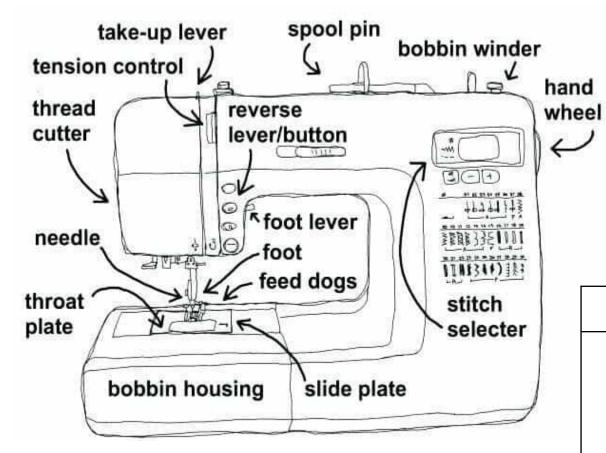
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Year 7 And Year 8 Knowledge Goals: Design and Technology (Fleece Hat)









Man Made Fibres Man-Made or Synthetic Fibres: The fibres that are synthesized in laboratory are called Man-Made or Synthetic Fibres. Example: Nylon, Polyester, Makmal, Fur etc. NYLON Polyester



Woven fabric	Knitted fabric	Non-Woven fabric

Year 7 and 8 Knowledge Goals: Design and Technology (Fleece Hat)



Autur	Autumn Term: Tier 3 Vocabulary					
	Key word	Definition				
1	stitch	A piece of thread sewn in cloth.				
2	sew	To join two pieces of cloth together by putting thread through them with a needle.				
3	thread	A length of a very thin fibre.				
4	micro fleece	A thin, soft and warm synthetic fabric.				
5	needle	A thin metal pin, used in sewing, that is pointed at one end and has a hole called an eye at the other end for thread.				
6	pin	A small thin piece of metal with a point at one end, especially used for temporarily holding pieces of cloth together.				
7	tack	Long, loose stitches that are used to hold two pieces of cloth together temporarily before they are sewn together in a neater and permanent way.				
8	polyester	An artificial material that is a kind of plastic, often used for making clothes, bags, tents, etc.				
9	knit	To make cloth or clothing by connecting yarn into rows with two long needles, or to do this with a machine.				
10	weave	To make cloth by repeatedly crossing a single thread through two sets of long threads on a loom.				
11	natural	A type of fabric made from plant or animal fibres.				
12	man made	A type of fabric that is made artificially, such as polyester or rayon.				

Notes						
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Test yourself



Year 7 and 8 Knowledge Goals: Drama



Pantomime Characters

- 1. Pantomime is communication by means of gesture and facial expression.
- Originally from Roman times, it is entertainment often accompanied by music.
- 3. Pantomimes are comedies and often involve slapstick scenes.
- Pantomimes always include 'stock' characters.
- 5. Audience participation happens throughout, e.g., 'oh no he didn't, oh yes he did!'.
- 6. Normally, a pantomime is an adapted fairytale, so it is usually a magical love story. Something goes wrong (caused by the baddie) but the ending is always happy and results in true love.

Pantomime Stock Characters



Panto Dame



Panto Baddie



Principle Boy



Principle Girl



Panto Comic or Comedy Duo



Panto Fairy

What are....?

Props

An object used in a rehearsal or performance

Costumes

Clothes an actor wears when performing.

<u>Set</u>

The scenery and furniture on stage.

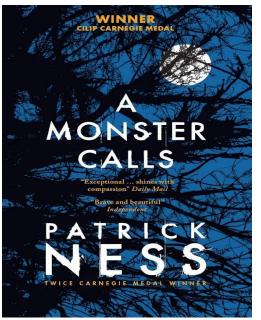
Year 7 and 8 Knowledge Goals: Drama

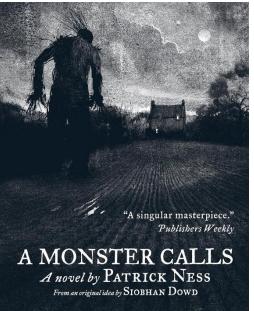


Tier	3 Vocabulary	
	Key word	Definition
1	physical Techniques	Drama techniques that use your body or face.
2	facial expressions	A way to show emotions and feelings using your face.
3	body language	A way to show emotions and feelings using your body.
4	gait	The way you walk.
5	stance	The way you stand using your legs and feet.
6	posture	The way you stand using your body.
7	vocal techniques	Drama techniques that use your voice.
8	volume	How loud or quiet your voice is.
9	pitch	How high or low your voice is.
10	tone	A way to show emotion using your voice.
11	intonation	The rise and fall of words and sounds in your voice.
12	projection	How far you can carry your voice.
12	projection	How far you can carry your voice.

Notes			
		 1 1	







		1. Themes		2. Context			
1. Grief	The monster's tales help Conor make his way through each of the five stages of grief; denial, anger, bargaining, depression and acceptance.			Symbolise life and good fortune because of their healing properties. Associated with shelter, wisdom and eternity.			
2. Masculinity	E	Toxic = repressing emotions in the belief that it is 'unmasculine', believing only physical strength is acceptable way of self-expression.	2. Patrick Ness Lived in America until he was 28 years old. He was bullied and felt like an outcast at school. He wrote A Monster Calls which was published in 2011.				
3. Family	ŤiŤ	We meet the O'Malley family at a difficult time which results in lots of changes in roles and dynamics. Ness presents and explores an untraditional set up.	3. Siobhan Dowd	Dowd came writing the r	up with the idea for <i>A Monster Calls</i> . She started novel, but passed away before she could finish it.		
4. Monsters	7	Representing Conor's different ways of dealing with his mother's illness, their power seems overwhelming but are arguably purely there to support him through this difficult time.	4. Awards	The Carnegie Medal is awarded to outstanding new books for children. The Greenaway Medal is an award for illustration in children's books. A Monster Calls was the first to win both!			
5. Isolation	All the characters suffer from isolation, some from their own choices. The only way they can get through this difficult time is to be open, honest and supportive.			with illness a	Set in modern England, Ness is highlighting modern problems with illness and mental health. Conor is battling with a difficult truth, which he must eventually come to terms with.		
	3. Characters				4. Writer's methods and intentions		
1. Conor	The prooften	rotagonist of the story, Conor is struggling to emotionally cope with his mother's cance frustrated and wants to be independent in caring for his mum.	er. He is	1. Similes	Figurative language (comparing one thing to		
2. Conor's Mun		fearful of her future. Because of her cancer, she is dependent on Conor and his grand o protect Conor by hiding the painful truth that must come out somehow.	ma. She	and Metaphors	another) is used throughout to blur the lines between real life and the magical aspects, some things are easier to face or understand when not		
3. Grandma	Seems	s cold and impatient. She wants to take responsibility for Conor and his mum, and is pr	agmatic.		stated literally.		
4. The Monster	Intimi	dating and powerful. He guides Conor through his emotions with stories, acting as a	mentor.	A story with a hidden meaning. The monster wants Conor to learn from both hearing and			
5. Conor's Dad	Distan	nt from Conor, and often seems distracted by his life in America. This leads him to act s	elfishly.		telling stories to help him make sense of the real		
6. Harry	Conor	Conor's bully. He torments Conor, and is manipulative. He has two 'cronies', Anton and Sully.			world that is causing nim pain and confusion.		
7. Miss Kwan	7. Miss Kwan A kind teacher, who Conor finds patronising. She tries to provide support for Conor.			3. Pathetic Darkness and turbulent weather are use real and nightmare worlds, to reflect the			
8. The Queen	8. The Queen From the first tale. She is cunning and wants power but isn't everything she seems.			· anacy	mixture of emotions Conor is experiencing but isn't facing.		
9. The Prince	From	the first tale. Seemingly the hero at the beginning of the story, but kills the farmer's da	aughter.		isir cracing.		
10. Apothecary	From	the second tale. A miserable man shunned by society. He refuses to save the parson's	daughters.	4. Third person	We see everything Conor experiences but with a certain amount of distance so we have an		
11. The Parson	1. The Parson From the second tale. He has strong beliefs which he rejects when he thinks it will save his daughters.			narrative	objective view of and can see the help he needs.		



Writing WHAT? HOW? WHY? paragraphs: a visual guide

Patrick Ness presents the monster as being powerful and intimidating at the start of the novel. The narrator tells us that the monster's voice is "wild and untamed" and he fills the air with "angry bellows". These adjectives suggest that the monster is a timeless force of nature and a voice of authority who should be listened to. He demands attention. However, it is immediately obvious from Conor's reaction to the monster that he is neither intimidated by nor frightened of the monster's might and power despite his "roaring". Nevertheless, by the end of the first chapter, the reader is left with the impression that Conor will be forced to listen to the monster's truths.

_____ WHAT? _____

1. Mention the author



2. Refer to a character's situation or state of mind, rather than their appearance



the monster as being powerful and intimidating at the start of the novel.

HOW?

3. Embed a quotation/s within your own sentence



The narrator tells us that the monster's voice is "wild and untamed" and he fills the air with "angry bellows".

4. Keep your quotation short

"	,

WHY?

5. Explain exactly how your quotation supports your point:



These adjectives suggest that the monster is a timeless force of nature and a voice of authority who should be listened to. He demands attention.

6. Make a link to elsewhere in the text:



However, it is immediately obvious from Conor's reaction to the monster that he is neither intimidated by nor frightened of the monster's might and power despite his "roaring".

7. Add further detail and explain the impact on the reader:

Nevertheless, by the end of the first chapter, the reader is left with the impression that Conor will be forced to listen to the monster's truths.



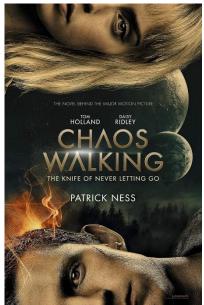
Autum	n Term: Tier 3 Voc	abulary
	Key word	Definition
1	Prose	The ordinary language people use when speaking or writing. Not poetry.
2	Narrative	A story.
3	Narrator	A person or character who recounts the events of a story or narrative.
4	Plot	The main events of a story or narrative.
5	Setting	The place or surroundings where events take place in a narrative.
6	Theme	Ideas or concepts that recur throughout a narrative.
7	Protagonist	The main character or hero in a novel.
8	Antagonist	The enemy of the main character.
9	Genre	A style or category of literature.
10	Hybrid	A novel which combines two different genres. E.g. fantasy/teen reality.
11	Allegory	A story that contains a hidden moral or political meaning.
12	Motif	A recurring object, image, sound or word in a novel.
13	Metaphor	A metaphor is a figure of speech which states one thing IS another thing in order to make a comparison.
14	Pathetic fallacy	Describing the weather or the seasons using human emotions to reflect the mood of a character

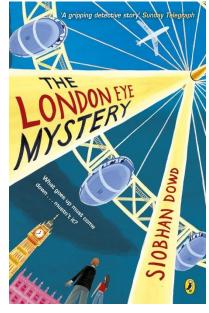


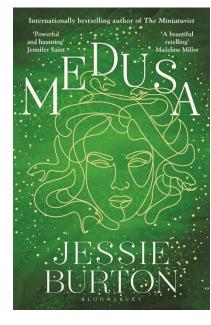
Autum	Autumn Term: Tier 2 Vocabulary					
	Key word	Definition				
1	Adversity	A difficult or unpleasant situation.				
2	Benevolent	well-meaning, kindly, generous.				
3	Malevolent	Someone who wants to do evil to others.				
4	Duality	Having two parts (dual) often with opposite meanings. E.g. good and evil. Two sides of the same coin.				
5	Grief	Intense sadness especially when someone dies.				
6	Inevitable	Certain to happen, unavoidable.				
7	Intimidating	Having a frightening effect on someone.				
8	Isolation	Being isolated or lonely.				
9	Mentor	A trusted advisor or guide.				
10	Pragmatic	Dealing with things sensibly and rationally, practical.				
11	Subvert	To disrupt or undermine. In literature it is presenting a character in a way which is unexpected.				
12	Turbulent	A state of conflict, disorder or confusion. Stormy, wild, violent.				
13	Catharsis	A release of strong emotions. From the Greek 'cleanse'				
14	Vulnerable	At risk or in danger of harm either physically or emotionally.				

Year 7 and 8 Knowledge Goals: 'A Monster Calls' (English) Linked Reading



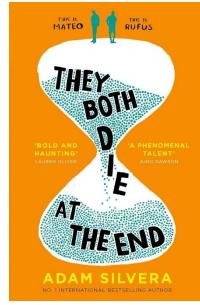


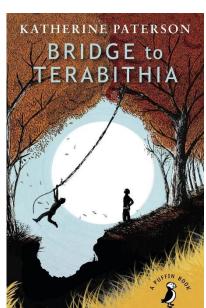


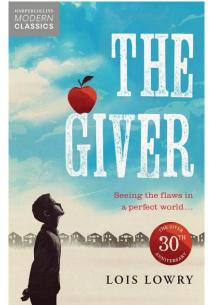


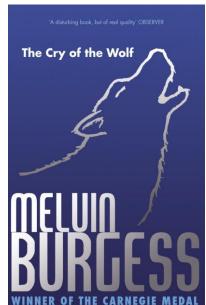






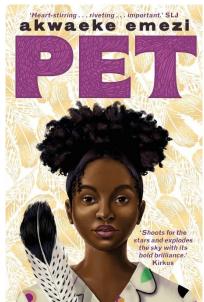












Year 7 and 8 Knowledge Goals: English (Narrative Writing)



Grammar: Word Class

- Adjective a word used to describe a noun e.g. 'mysterious castle'
- Adverb a word uséd to add description to a verb e.g. 'running nervously'
- Verb a word that conveys an action e.g. 'run' or 'hide'

• Grammar: Sentence Construction

- Repetition of a word or phrase within a sentence for a particular effect e.g. 'Fog covered the fields. Fog covered the streets. Fog covered the yard.'
- Punctuation Semi-colon used to link two main clauses e.g. 'The day was hot; the boy was tired.'
- Speech e.g." What time is it?" the girl asked."
- Dash can be used in place of a colon in a sentence e.g. 'After hours of deliberation, the child came to a decision – hide the key.'

Linguistic & Literary Devices

- Motif a dominant or recurring idea.
- **Symbol** the use of a symbol to represent something or someone else.
- Narrative perspective the point of view of a character in a text.
 - **Semantic field** a set of words or ideas linked by meaning.
- Tense change a change in tense e.g. from past to present

Language techniques

Adverb: Words which describe verbs

Alliteration: repeating the same consonant sound multiple times.

Contrast: description which emphasises the different between two things.

Metaphor: Saying one thing is something that it is not.

Onomatopoeia: Words which imitate sounds.

Pathetic fallacy: when the weather reflects the atmosphere.

Personification: giving an inanimate object human characteristics.

Semantic field: words that can be grouped together.

Sibilance: when a hissing sound is created within a group of words through the repetition of "s" sounds.

Simile: making a comparison using "like" or "as"



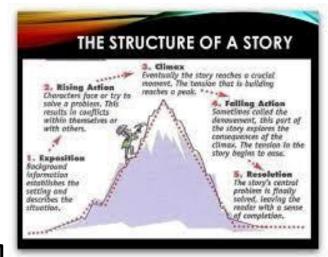
Narrative structure.

Exposition – background information about setting/character.

Rising Action - a series of relevant incidents that create suspense, interest, and tension.

Climax - turning point of a narrative work is its point of highest tension and drama.

Falling Action - occurs right after the climax, when the main problem of the story begins to resolve. Resolution - the main problem is resolved or worked out.



Characters

2

Characters are the lifeblood of creative writing, driving the plot and representing the human interest element for the reader to care about.

There are two forms of characterisation:

Direct – the narrator explicitly tells the reader details about the character; i.e.:

'Mr. Ramsay – he is absorbed in himself, he is tyrannical, he is unjust...'

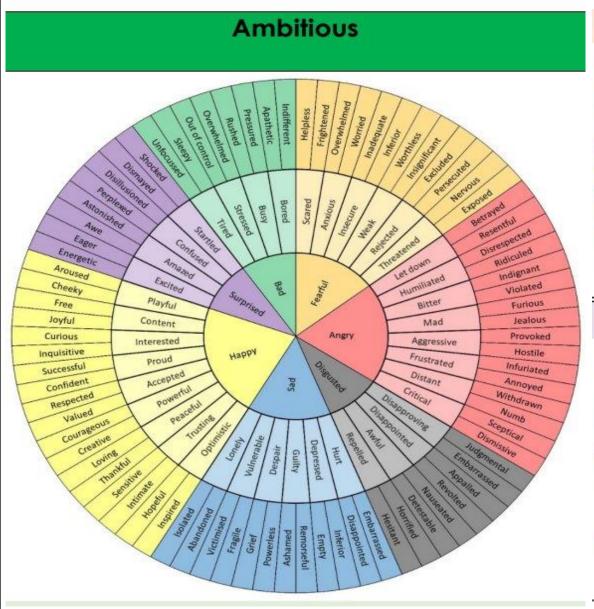
Indirect – the narrator implicitly reveals (shows) the reader the character's traits

'He dragged the last smoke from his ravelling cigarette and then, with callused thumb and forefinger, crushed out the glowing end.'

Indirect is always preferable because it involves the reader, forcing them to draw their own conclusions

Year 7 and 8 Knowledge Goals: English (Narrative Writing)





Paragraphs and Sentences

Effective, engaging writing is not thoughtless. Paragraphs and sentences must be used for effect: to guide the reader and develop the narrative through action (shorter sentences, faster pace) description (longer for slower rhythm), dialogue (its own paragraph), and

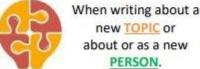
for single, sudden ideas meant to give the reader pause (a single sentence or single word paragraph). Adapt your use of both.

TiPToP Paragraphing

Paragraphs are just a group of sentences sharing the same idea. They structure your writing to make it easier for readers to follow. Always start a new paragraph when you change the focus of your writing.

PLACE.









Ideas for learning

Read some short stories and identify the narrative structure and linguistic devices used by the authors.

BBC Radio 2 - 500 Words - Top 50 Stories 2020: Age 10 to 13

Descriptive writing guide for English students - KS3 English - BBC Bitesize

Best Short Stories for Middle Schoolers, As Chosen by Teachers (weareteachers.com)







Year 7 and 8 Knowledge Goals: Food Technology



What are the functions of flour in cakes?

- Gives structure through coagulation of wheat protein (gluten)
- Self raising flour acts as raising agent
- Bulking agent

What are the functions of eggs in cakes?

- Holds air when whisked
- Binds ingredients together
- Adds colour and adds flavour
- Acts as an emulsifier

What are the functions of sugar in cakes?

- Browning adds colour
- Bulking agent holds air with fat mixture
- Attracts moisture texture
- Adds flavour sweetens

What are the functions of fat in cakes?

- Produce short textures in biscuits
- Adds colour and flavour and texture
- Traps air when beaten into mixture (aerates).
- Create emulsions
- Extends shelf life
- Binding agent

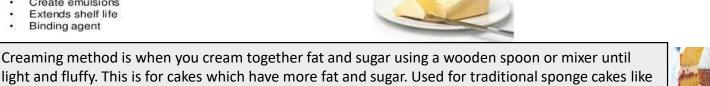












Whisking method is used for cakes made without using fat. Air is whisked through eggs and sugar until light and pale colour. Used for very light cakes such as Swiss role or Genoise sponge. Lower in fat but has a short shelf life.

Victoria sandwich cake. Will last a few days due to high fat and sugar content.

Rubbing in is to coat flour grains with fat by gently rubbing between the fingertips and thumbs, continuing until the mixture resembles coarse breadcrumbs. Short shelf life as not a lot of fat or sugar content.

Melting involves the fat and sugar being melted together before the eggs are added and the dry ingredients folded into the mixture. Often improve with age and have a long shelf life as high in fat and sugar.











Whisking method and decorated cakes are high skill at GCSE



Year 7 and 8 Knowledge Goals: Food Technology



Tier	3 Vocabulary	
Key	word	Definition
1	function	A purpose or duty.
2	creaming	To work (two or more ingredients, typically butter and sugar) together to form a creamy paste.
3	whisking	To mix or fluff i.e. beating eggs and sugar until light.
4	rubbing in	If you rub a substance in, you press it into something by continuously moving it over its surface.
5	melting	Becoming liquefied by heat.
6	Food groups	A food group is a collection of foods that share similar nutritional properties or biological classifications.
7	decoration	The process or art of decorating something.
8	springy	Springing back quickly when squeezed or stretched.
9	high skills	Having specialized training, knowledge and experience in order to carry out complex physical and mental tasks.

Notes		

Un chat

Year 7 and 8 Knowledge Goals: French



Un chien =

=

Un lapin =

Un cheval =

Un hamster =

Un cochon d'Inde =

Un poisson =

Un oiseau =

Une souris =

Une tortue =

Un serpent =

Un araignée =

Translate these into English Je suis timide =

Je Sais tilliae –

Je suis sportif =

Je suis active =

Je suis amusant =

Je suis sympa =

Je suis sociable =

Je suis généreuse =

Test yourself



Year 7 and 8 Knowledge Goals: French

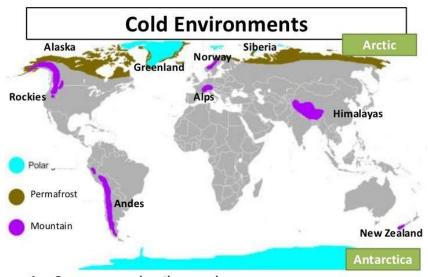


Tier 3	3 Vocabulary	
	Key word	Definition
1	infinitive	The basic form of the verb (jouer = to play)
2	gender	If a word is a feminine or masculine word
3	ER verbs	Verbs that end in ER in French (regarder)
4	first person	Talking about yourself (I play = je joue)
5	third person	Talking about another person (il joue = he plays)

Notes				

Year 7 and 8 Knowledge Goals: Geography





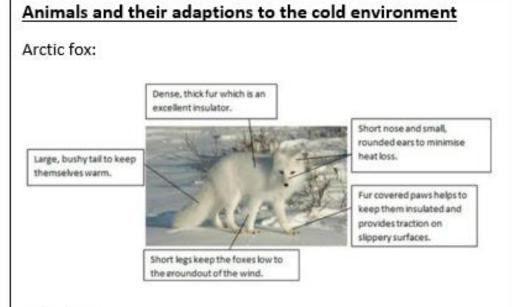
Threats to the cold environment

- Climate change
- Sea level rise
- Melting permafrost
- Over fishing
- Mineral extraction
- Deforestation

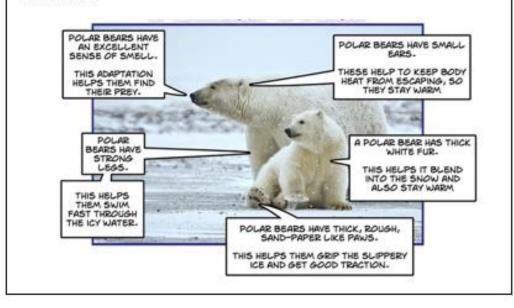
- 1. On your map mark on the areas shown.
- 2. Using an atlas find out which countries these cold areas are in.

Opportunities in the cold environment	Challenges of the cold environment
Mineral extraction – Oil, iron, coal,	Extreme temperature
gold	Relief - mountainous areas.
Energy – Fossil fuels, geothermal	Buildings – permafrost or unstable ground
Fishing – farmed and wild	Infrastructure - building roads, railways and pipelines
Tourism. Inc. eco-tourism	for water and electricity supplies is very difficult.

Scan the QR Code to find out more			
Frozen Planet series Svalbard Information Alaska Information			



Polar bear:



Year 7 and 8 Knowledge Goals: Geography



Tier	Tier 3 Vocabulary				
	Key word	Definition			
1	biodiversity	The variety of life in the world or a particular habitat. Fragile environment that is both easily disturbed and difficult to restore if disturbed. Plant communities in fragile areas have evolved in highly specialised ways to deal with challenging conditions. As a result, they cannot tolerate environmental changes.			
2	infrastructure	The basic equipment and structures (such as roads, utilities, water supply and sewage) that are needed for a country or region to function properly.			
3	mineral extraction	The removal of solid mineral resources from the earth. These resources include ores, which contain commercially valuable amounts of metals, such as iron and aluminum; precious stones, such as diamonds; building stones, such as granite; and solid fuels, such as coal and oil shale.			
4	permafrost	Permanently frozen ground, found in polar and tundra regions.			
5	polar	The regions of Earth surrounding the North and South Poles. These regions are dominated by Earth's polar ice caps, the northern resting on the Arctic Ocean and the southern on the continent of Antarctica.			
6	tundra	The flat, treeless Arctic regions of Europe, Asia and North America, where the ground is permanently frozen. Lichen, moss, grasses and dwarf shrubs can grow here.			
7	wilderness area	A natural environment that has not been significantly modified by human activity. Wilderness areas are the most intact, undisturbed areas left on Earth – places that humans do not control and have not developed.			

Notes		

Year 7 and 8 Knowledge Goals: History



The Norman Conquest, the Medieval Church and the murder of Thomas Becket

Dates to remember:

William the Conqueror complied [had made] the DOMESDAY BOOK in 1086

William died in 1087 after falling from his horse

Thomas Becket was murdered in Canterbury CATHEDRAL on the 29th December 1170

How did William the control two million angry Saxons after winning at Hastings?

Concepts and ideas relevant to your study:

Feudal System This describes how society was organized. The king was at the top. His lords

were beneath him and the peasants were at the bottom. The king give his lords

LAND and in return they promised to fight in his army [military service]

Pope The head of the Catholic Church in Europe. He was like a king of the church

Purgatory This was the place between heaven and hell where your SINS were judged. Too

much sin meant you went to Hell.

Catholic/Christianity People in 1066 were VERY religious. They believed in Heaven and Hell. The

Church taught people how to live a good life. Everyone went to church on

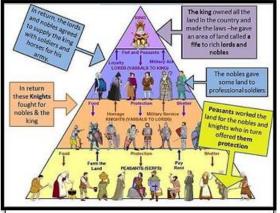
Sunday

Archbishop The Archbishop of Canterbury was in charge of the church in England. He

reported to the POPE in Rome, who was God's representative on earth.

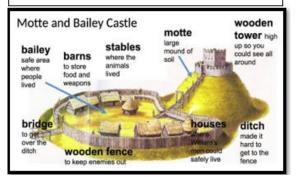
Cathedral The most important churches in a Christian country. Usually found in important

cities, like York



Method of Control #1 - The Feudal System

Method of Control #2 – He built wooden Motte and Bailey castles all over England. In important areas like large towns, he built stone castles instead





Method of Control #4 - The Domesday Book



In 1086 William decided he needed to know how much land he owned and how much TAX he could get from it. He sent men to 13,000 villages in England to find out how many people lived there, how much money they had, and even how many animals they owned. All this information went into the DOMESDAY BOOK [said – Doomsday]. This book meant William could keep track of everyone and make sure they paid their taxes.

And now.



Henry II and the Murder of Thomas Becket

- On the 29th December 1170 the Archbishop of Canterbury was murdered in Canterbury Cathedral, by FOUR of the king's knights.
- Henry II was king of England at the time of Becket's murder
- The King said that priests [men of god] should be punished the same way as everyone else if they committed a crime. Becket said that the church should decide not the king.
- The king got so angry with Becket that some of his men thought they would get a reward if they killed him. They were showing their LOYALTY to the king.

Year 7 and 8 Knowledge Goals: History



Why was the Medieval Church important?

- Medieval people had a hard life. The Church was there to help them. It gave them a reason to live and taught them how to lead a GOOD LIFE.
- The Church taught that heaven and hell were real and that SINNERS people who did bad things, would
 go to hell after they died, while good Christians would go to heaven. Hell was full of pain and torture and
 heaven was full of joy. Obeying the TEN COMMANDMENTS helped you get to heaven.
- The Church controlled people's lives and was extremely powerful at this time. Everyone believed in God



THE POPE was in charge. He was the most powerful Priest in Europe and mostly lived in Rome. He was considered to be God's representative on earth.

The ARCHBISHOPS, ABBOTS & the BISHOPS were next in the pyramid of importance. Archbishops like Becket, were often in charge of whole countries, whereas Bishops were usually in charge of cities. They were rich and powerful.

PARISH PRIESTS & Monks were at the bottom. They worked in village and town churches, or in Monasteries.

They were usually hard working.

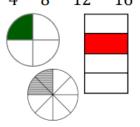
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Year 7 and 8 Knowledge Goals: Maths



Key Concept

$$\frac{1}{4} = \frac{2}{9} = \frac{3}{12} = \frac{4}{16}$$



= 0.25

Key Words

made up of a numerator (top) and a denominator (bottom). Equivalence: Two fractions are equivalent if one is a multiple of the other. Simplify: Cancel a fraction down to give the smallest numbers possible.

Simplify $\frac{3}{24}$

a fraction

Fraction: A fraction is

3		1
24		8
	÷ 3	

$$\frac{6}{7} \rightarrow 7)6.00000$$

Examples

Write 0.34 as

1	1 10	1 100	1 1000
0 •	3	4	
:	$=\frac{34}{100}$	$=\frac{17}{50}$	

What is
$$\frac{3}{5}$$
 of 45

$$45 \div 5 \times 3 = 27$$

Examples

Ordering Decimals

0.3, 0.21, 0.305, 0.38, 0.209 Add zero's so that they all have the same number of decimal places.

0.300, 0.210, 0.305, 0.380, 0.209 Then they can be placed in order: 0.209, 0.21, 0.3, 0.305, 0.38

Multiplying/Dividing by powers of 10

 3.4×100

100	10	1	$\frac{1}{10}$
		3	4
3 🕶	4	0	•

Key Concept

Mixed numbers

These are made up of a whole number and a fraction.

$$4 \times 5 + 3$$

Examples



Make the denominators the same

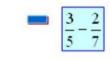


$$+\frac{10}{35} = \frac{31}{35}$$



Just multiply the tops and bottoms

$$=\frac{3\times2}{5\times7}=\frac{6}{35}$$







Flip the second fraction and change to a times

$$\frac{3}{5} \times \frac{7}{2} = \frac{21}{10}$$

Tip

- A larger denominator does not mean a larger fraction.
- To find equivalent fractions multiply/divide the numerator and denominator by the same number.

Key Concept

Multiply/Divide by powers of 10

10 000	1000	100	10	1 (1 10	100	1000
				•	•		



X 10 digits move LEFT 1 space X 100 digits move LEFT 2 spaces X 1000 digits move LEFT 3 spaces



Dividing

digits move RIGHT 1 space ÷ 100 digits move RIGHT 2 spaces ÷ 1000 digits move RIGHT 3 spaces



Year 7 and 8 Knowledge Goals: Maths



	Tier 3 Vocabulary			
Key v	vord	Definition		
1	Numerator	The top number on a fraction.		
2	Denominator	The bottom number on a fraction.		
3	Improper fraction	A fraction where the Numerator > Denominator.		
4	Mixed Number	A combination of a whole number and a fraction.		
5	Integer	A whole number		
6	Decimal	A number that contains digits small than units.		
7	Scale	The conversion to convert between drawings and real life sizes		

Notes:		

Quiz QR Code	Quiz Link
	<u>QUIZ LINK</u>

Year 7 and 8 Knowledge Goals: Music



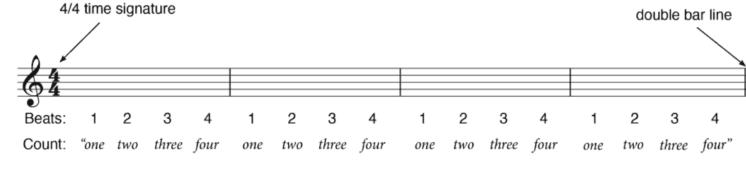
Understanding Rhythms

- 1. Each musical note has a name and a 'value'; this is the duration of the note, or how many beats it lasts for.
- Notated music is divided into sections called 'bars'.
- 3. The time signature of 4/4 means there are 4 beats in every bar of music.
- 4. Notes with different values can go into each bar, but if the time signature is 4/4 then the total value of notes must be exactly 4.
- 5. Putting different note values together into bars will create **rhythms**.
- 6. You can play rhythms on pitched or unpitched instruments.

Note Value

Notes	ı	Value		
0	Semibreve	Whole note	4 beats	
	Minim	Half note	2 beats	
	Crotchet	Quarter note	1 beat	
→	Quaver	Eighth note	½ beat	
A	Semi-quaver	Sixteenth note	1/4 beat	
Л	2 Quavers	2 Eighth notes	1 beat	
<i></i>	4 Semi- quavers	4 Sixteenth notes	1 beat	

4/4 Time Signature on Notated Music



Year 7 and 8 Knowledge Goals: Music



Tier 3 Vocabulary				
	Key word	Definition		
1	tempo	The speed of the music		
2	rhythm	A pattern of musical note values.		
3	pitch	How high or low a note is.		
4	unpitched	An instrument whose sound stays the same e.g. a drum		
5	duration	The length of a note.		
6	semibreve	A note lasting 4 beats		
7	minim	A note lasting 2 beats		
8	crotchet	A note lasting 1 beat		
9	quaver	A note lasting ½ beat		
10	semi-quaver	A note lasting ¼ beat		
11	time signature	How many beats in a bar		

Notes					
	 	1 1			

Year 7 and 8 Knowledge Goals: PSHE



Subject-specific vocabulary This generic term includes alcohol

Substance	and other drugs that may be legal or illegal		
Controlled substance	Drugs for which the manufacture, possession or use is regulated by the government		
Medicines	A drug or remedy that may be prescribed by a health professional or purchased over-the counter		
Side effects	An effect of a drug (including medicines) that is additional to its intended effect		
Dependency	A state in which a person relies upon a substance to feel or function as normal, this can be physical and/or psychological		
Cessation	The process of reducing and stopping the use of a substance. This may be done independently or with the support of others		

External support services

FRANK

talktofrank.com 03001236600

Information, help and advice about drugs

NHS Smokefree

nhs.uk/smokefree

NHS smoking cessation support service

We Are With You

wearewithyou.org.uk

Help and advice to reduce or stop the use of alcohol and other drugs

Turning Point

turningpoint.co.uk

Support service for a range of issues including substances and mental health

Nacoa

nacoa.org.uk 08003583456 Information and support for

anyone affected by a parent's drinking

Childline

childline.org.uk 0800 1111

Confidential support service

CALLS DO NOT APPEAR ON PHONE BILL

Substance-specific information

Caffeine

- a stimulant drug often found in drinks such as tea, coffee, soft drinks and energy drinks
- it is advised that children should only consume caffeine in moderation
- caffeine is not necessary for a healthy, balanced diet
- daily intake up to 3mg/kg of body weight does not raise safety concerns

Alcohol

- found in drinks such as beer, wine and spirits
- amounts of alcohol are measured in units
- an alcohol-free childhood is the healthiest option
- ✓ risks include accidents or judgement errors; cancers; high blood pressure; harms to relationships
- the law states that alcohol cannot be sold to under-18s

Nicotine and tobacco

- nicotine is an addictive substance found in tobacco and other products such as e-cigarettes
- tobacco is used in cigarettes, pipes, cigars, chewing tobacco and shisha
- risks include cancers; heart attack; stroke; reduced fertility
- the law states that nicotine and tobacco products cannot be sold to under-18s

Influences on decision-making

Example of influences

- · own perceptions, attitudes and beliefs
- · curiousity or thrill-seeking
- whether actions fit with one's own values or goals
- the attitudes and actions of friends, role models and celebrities

- family or community religious/cultural beliefs and expectations
- social and cultural norms

Strategies for managing peer influence

- assertive refusal with or without providing a further reason
- using humour to deflect from the situation
- removing oneself from the situation

- · using an excuse to avoid using a substance
- telling a 'white lie'
- discussing intentions with a trusted friend so they can support in pressurised situations
- planning with family members to help by coming to pick them up if away from home
- organising alcohol-free social events

Year 7 and 8 Knowledge Goals: Physical Education



Championships- 2018

Invasion Games

- **1. Invasion games** are team games in which you try to attack the other teams space.
- 2. There is normally two teams and two goals. The aim is to try and score the most goals in a set time period.
- 3. Success in invasion games is about;
- Using the space available for you.
- Passing to teammates in a better position than you.
- Moving into space or creating space for your teammates.
- Marking your opponents.
- 1. You should begin to learn the **rules and regulations** of this term's invasion games: Football, Netball & Hockey.
- 2. Good **sportsmanship** is fair and generous behavior or treatment towards others in a sporting context.
- The roles of different officials within the listed sports for this term.
- 4. Learn the skills of invasion games and transfer them to over sports.

Invasion Games – Autumn Term Focus Sports Star

ilivasion dames Autumn ferm rocus sports stai					
Football	Netball	Hockey			
Georgia Stanway- Born in Barrow	Helen Housby Born in Carlisle	Fiona Crackles- Born in Kirkby Lonsdale			
10					
Positions: Attacking	Positions: GA & WA	Position: Defender			
midfielder	First senior international	First senior international			
First National team- England	Debut: 2015	Debut : 2020			
U15'S 2014	Netball world cup 2019-	Olympic 2020- Bronze			
UEFA Women's	Bronze	Captained England's U18			
Championships 2022-	Won BBC sporting moment	team to bronze in the			
Winners	of the year- 2019	EuroHockey Youth			

all: Sedbergh anderers	Football : Kendal United	Netball : Kirkby Lonsdale	Hockey : Kendal

Commonwealth games 2018-

Gold

Year 7 and 8 Knowledge Goals: Physical Education



Autu	Autumn Term: Tier 3 Vocabulary				
	Key word	Definition			
1	agility	The ability to move and change direction quickly whilst maintaining control.			
2	passing	To give the ball to another member of your team using power whilst maintaining accuracy.			
3	receiving	Take possession of the ball from a teammate.			
4	intercepting	To gain possession of the ball during a pass by the opposition.			
5	defending	Protect your goal/area. Stop the other team from scoring.			
6	attacking	To try and score a goal/point in the other teams area.			
7	coordination	The ability to use different parts of the body together smoothly and efficiently.			
8	creating space	To pull a defender away to create a open area for a team-mate to move though to pass the ball into.			
9	set plays	Pre-designed movements used by a team when the ball is put into play.			
10	maintain possession	When the team in attack has control of the ball.			
11	cardiovascular endurance	The ability of the heart, lungs and blood vessels to get oxygen to the muscles and the ability of the body to use the oxygen.			
12	teamwork	Collaborative effort of a group to achieve a goal in the most effective and efficient way.			

Notes				
		1 1	 	

Year 7 and 8 Knowledge Goals: Religious Studies – Hinduism



Hinduism is the world's oldest religion, with roots and customs dating back more than 4,000 years.

- Today, with about 1 billion followers, Hinduism is the third-largest religion behind Christianity and Islam.
- Brahman is the Supreme Being, and beyond human understanding.
- A polytheistic religion there are around 33 million deities in Hinduism!
- Roughly 95% of the world's Hindus live in India.
- There is no one single founder of Hinduism. The religion has developed overtime.
- The **caste system** plays an integral role in Hindu society, it is similar to the British Class system but is potentially more fixed.

Brahman is an unchanging, universal spirit which can be thought of a consciousness and underlies all things. Atman is the essence of the individual

- For Hindus, the universe was created by Brahma, the creator who made the universe out of himself.
- After Brahma created the world, it is the power of **Vishnu** which **preserves the world** and human beings.
- As part of the cycle of birth, life and death **Shiva destroys** the universe. In this sense the world is created many times over, meaning time and space is cyclical and this world we live is just one of many!
- Unlike Christianity, Hindu creation accounts do not generally contain stories of a divine god/goddess creating a mundane/profane world separate from himself/herself.

The word **Trimurti means 'three forms'**. Although **Brahman, the Ultimate Reality**, is a key belief in Hinduism, Hindus worship all the different forms of the gods and goddesses. However, the three of the most significant forms of **Brahman** are:

- Brahma the Creator
- Vishnu the preserver
- Shiva the destroyer

Hindus believe in reincarnation, a process called samsara (as do Buddhists). It is a cycle of rebirth of the soul. This occurs repeatedly and the only escape is Moksha (enlightenment). The actions of a person in their mortal life determine their incarnation (how they will be reborn).

Karma is a concept where beneficial effects are derived from past beneficial actions and harmful effects from past harmful actions, which creates a system of actions and reactions throughout a soul's journey. Therefore suffering is a natural and generally accepted part of life. The concept of ahimsa (non-violence) is important to Hindus, as to harm others (commit moral evils) not only harms others but your own Karma to.

This is the **Om** symbol - the Hindu word or sound for God. Hindus will say this at the beginning and end of all prayers

A Hindu place of worship is called a **mandir**, but the majority of Hindus have a **shrine** at home where they perform personal and family worship. Worship in Hinduism is called **puja** (same as it is in Buddhism).

Hindu worship, knows as 'puja', typically takes place in the Mandir.

There is no set time and people can worship whenever they like.

They can also worship at home, and many have a special shrine dedicated to certain Gods and/or Goddesses.

Giving offerings is a major part of worship.

"Meditation is the royal road to the attainment of freedom, a mysterious ladder from earth to heaven.." Swami Sivananda

Yoga is a spiritual practice carried out by many Hindus and has become popular in western culture too.

Year 7 and 8 Knowledge Goals: Religious Studies – Hinduism



		Tier 2 Vocabulary
	Key word	Definition
1	Brahman	The great universal spirit, consciousness
2	Atman	The essence of an induvial – the soul
3	Reincarnation	The process of rebirth after death
4	Enlightenment	Awakened to the true reality of things – perfect freedom
5	Samsara	The process of continuous birth, death and rebirth
6	Shrine	A place regarded as holy or sacred. Usually created for worship, prayer or meditation
7	Puja	An act of worship by Hindus and Buddhists
8	Shiva	The god of destruction – part of the Trimurti
9	Vishnu	The preserver god, who rides a great eagle called a Garuda
10	Karma	The positive or negative effects of someone's actions
11	Polytheism	A belief or worship of more than one god
12	Om	The Hindu word or sound for God

Notes:			
	 	 	

Quiz QR Code	Quiz Link
	<u>Click Here</u>

Year 7 and 8 Knowledge Goals: Science (Periodic Table)



The periodic table is arranged in rows called periods and columns called groups, which can be used to locate any element.

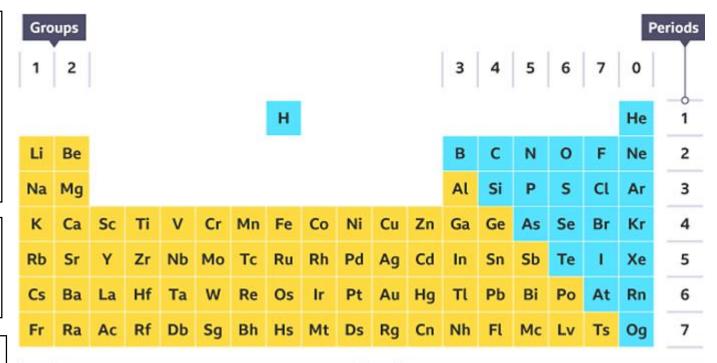
Physical property:

A property of an element or compound which can be directly observed or measured. For example, melting point, electrical conductivity, appearance at room temperature.

Chemical property

The way an element or compound reacts with other chemical substances.

All element **symbols** start with a capital letter, but when a symbol has 2 letters in it the second letter is always lower case. For example, the element symbol of magnesium is Mg, not MG.



Some of the groups have different names.

- Group 1 are called the alkali metals.
- Group 7 are called the Halogens
- Group 0 are called the Noble
 Gases

Test yourself





Metals



Non-metals

Properties of metals

- High melting and boiling points meaning they are solid at room temperature
- Good conductors of heat and electricity
- Lustrous (shiny in their appearance)
- Malleable (bendy/can be molded into different shapes)
- Sonorous (Makes a ringing sound when hit)
- High density

Properties of non metals

- Often have low melting and boiling points
- Poor conductors of heat and electricity
- Dull in their appearance
- Weak and brittle





Year 7 and 8 Knowledge Goals: Science (Periodic Table)



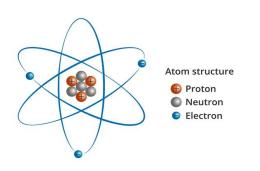
Tier	3 Vocabulary	
	Key word	Definition
1	group	A column in the periodic table
2	period	A row in the periodic table
3	sonorous	Able to make a ringing sound when hit.
4	malleable	Capable of being hammered or pressed into a new shape without breaking.
5	dense	A measure of how heavy something is compared to its size.
6	ductile	Able to be drawn out into a thin wire.
7	brittle	Something which is brittle is easily broken or shattered
8	symbol	A letter or letters abbreviation for a chemical element.
9	hypothesis	A suggestion that is made based on some evidence.
10	conductor	A material which allows heat or electricity to move easily through it
11	insulator	A material which does not allow heat or electricity to flow through it easily
12	element	A pure substance which is made from only one type of atom.

Notes			
		 	
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Year 7 and 8 Knowledge Goals: Science (Atoms, Elements and Compounds) (6) Settlebeck

Atoms are:

- building blocks of all chemicals in the universe.
- made up of protons, neutrons and electrons.



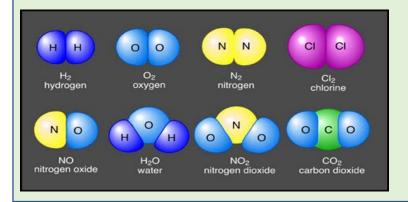
Atomic mass is the number of protons and neutrons in the nucleus of an atom. This can change, even for atoms of the same element.

Atomic number is the number of protons in the nucleus of the atom. This is different for each element. But every atom of that element has the same atomic number.

Scan the top QR code to hear more about chemical formula and what they mean.
Scan the middle QR code to test your knowledge of chemical formula.
Scan the bottom QR code to test your understanding of all of this topic.

Tip – relative just means compared to the others. You don't need to include any units.

Name	Relative Charge	Relative Mass	Place found in the atom
Protons	+1	1	Nucleus
Neutrons	0	1	Nucleus
Electrons	-1	Very small	Shells or energy levels



A **molecule** is when there is more than one atom chemically combined. They can be either elements or compounds. All compounds are molecules but not all molecules are compounds (e.g. 0_2 , N_2 , H_2).

Atom	Ion
 Electrically neutral 	 Electrically charged
 Same number of protons 	 Different number of
and electrons	protons and electrons
 Number of protons 	 May contain one or more
defines its element	atoms

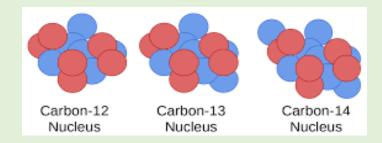
An ion is an atom which has lost or gained a negatively charged electron to leave it with an overall charge.

Element	One type of atom.	
Compound	Two or more types of elements and/or compounds that are chemically bonded .	
Mixture	Two or more types of elements and/or compounds that are NOT chemically bonded.	

Year 7 and 8 Knowledge Goals: Science (Atoms, Elements and Compounds)



Tier 3 Vocabulary				
	Key word	Definition		
1	atom	The building blocks of everything		
2	compound	A chemical made of two or more different atoms, chemically combined		
3	electron	A negatively charged particle found inside the atom		
4	element	A substance made up of identical atoms, these are all found on the Periodic Table		
5	formula	A series of letters and numbers which show the type and number of atoms in different chemicals		
6	ion	An atom which has lost or gained an electron to be left with an overall charge (positive or negative)		
7	isotopes	Variations of atoms of the same elements which have a different number of neutrons		
8	mixture	More than one type of atom which is not chemically combined		
9	molecule	Something made up of at least two atoms that are chemically combined		
10	neutron	A particle found inside the nucleus of an atom with no charge		
11	nucleus	The centre of an atom where protons and neutrons are found		
12	proton	A particle found inside the nucleus of an atom with a positive charge		



An **isotope** is a variation of an element where the atom has a different number of neutrons. The number of protons must always be the same. For example all carbon isotopes have 6 protons.

Writing chemical formula

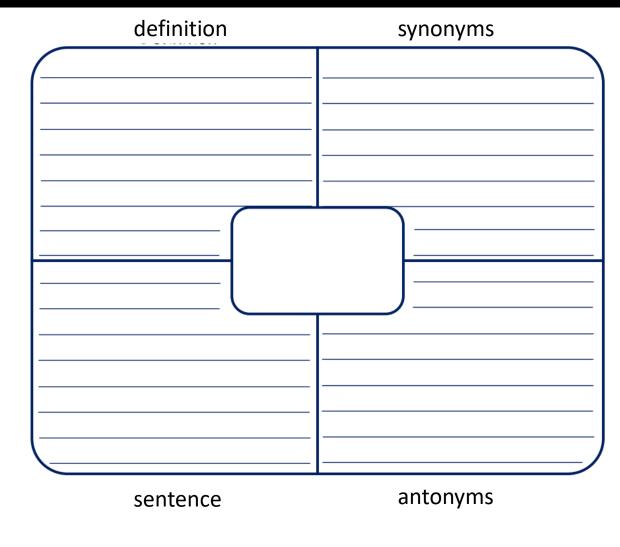
To save ourselves time, and so scientists speaking different languages can understand our work we use chemical symbols and formulae when writing out different chemicals. There are different rules that **must be followed** when doing this.

- 1. The first letter of each element must be a capital, other letters after this must be lower case.
- 2. Numbers written in subscript (smaller and to the bottom right) show how many of each atom there is. If there is no number it means there is **one** atom. The symbol would not be there at all if there was zero of those atoms.

For compounds, the rules can get quite complicated when it comes to putting the elements in the right order. For now, you won't go far wrong if you stick to writing the element furthest left on the Periodic Table first.

Literacy: Tier 2 Vocabulary – Frayer Model





Synonyms are words with the same or similar meaning:

- words such as happy, cheerful and merry.
- words such as sad, miserable and heartbroken.

Antonyms are words with opposite meanings:

- words such as angry and peaceful.
- words such as funny and serious.

You can use a **thesaurus** to find **synonyms** and **antonyms** for words.

Scan to view thesaurus

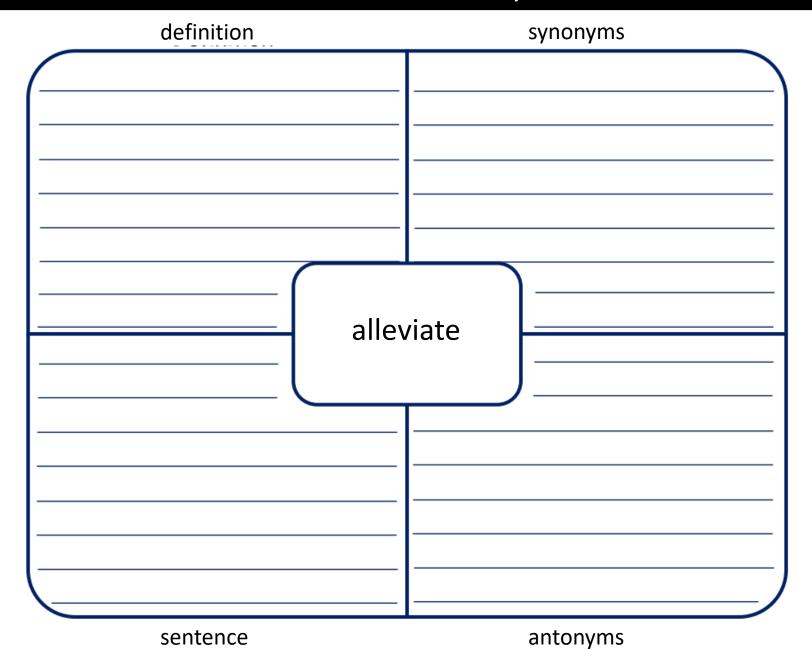
click to view thesaurus



Have a go at creating a Frayer Model for each of the 6 tier 2 words from this term (blank templates are at the back of the booklet for you to complete this activity).

Frayer Model: Alleviate





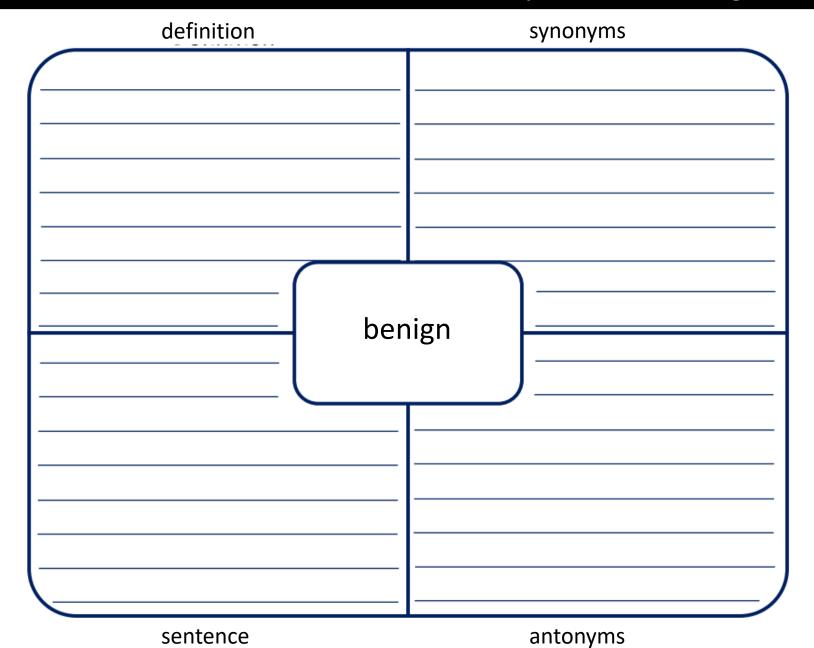
Complete a Frayer Model for the word **alleviate**.



Scan to view thesaurus

Frayer Model: Benign





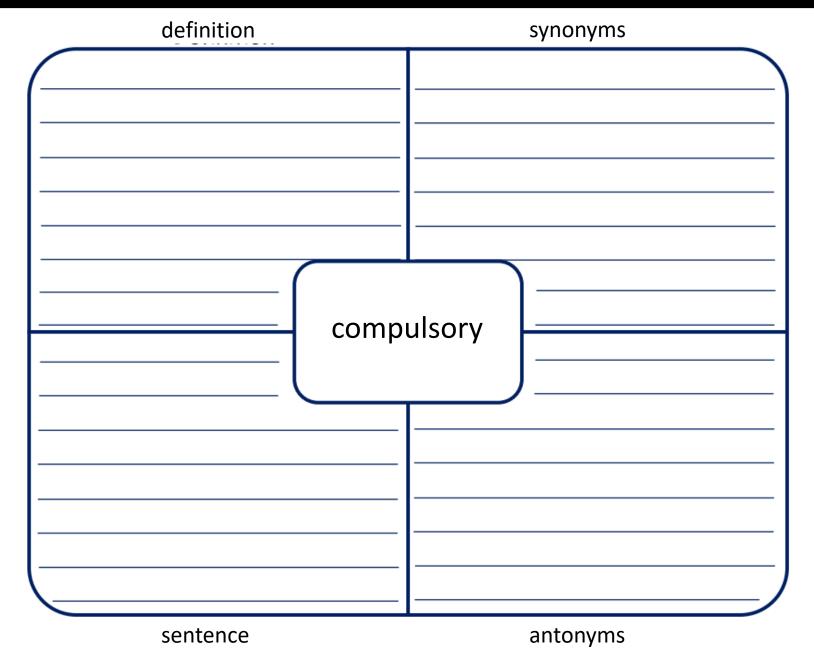
Complete a Frayer Model for the word **benign**.



Scan to view thesaurus

Frayer Model: Compulsory





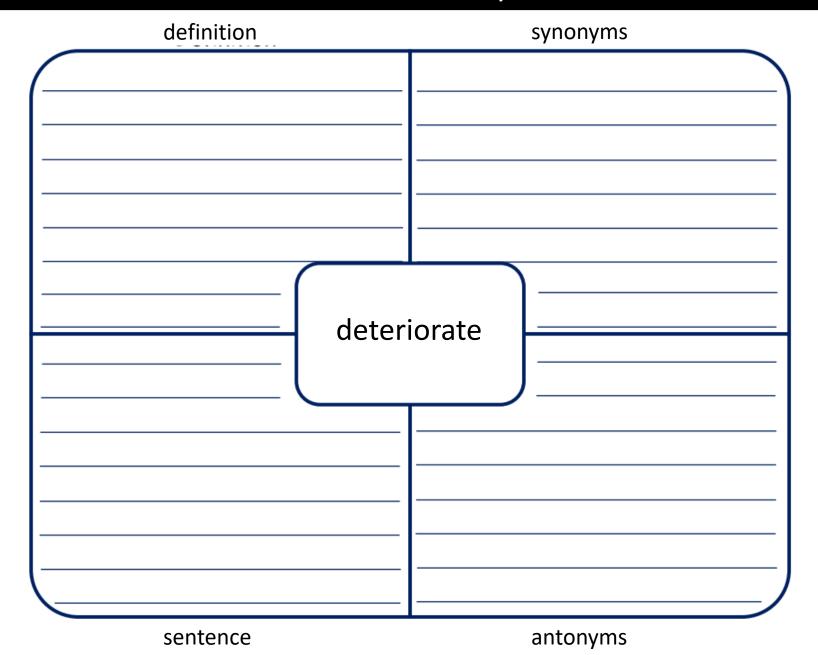
Complete a Frayer Model for the word **compulsory**.



Scan to view thesaurus

Frayer Model: Deteriorate





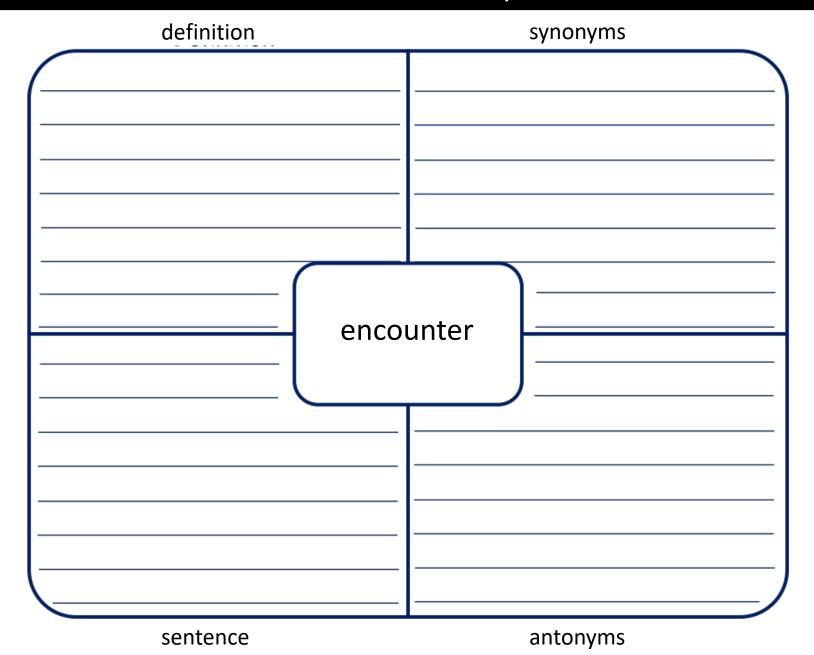
Complete a Frayer Model for the word **deteriorate**.



Scan to view thesaurus

Frayer Model: Encounter





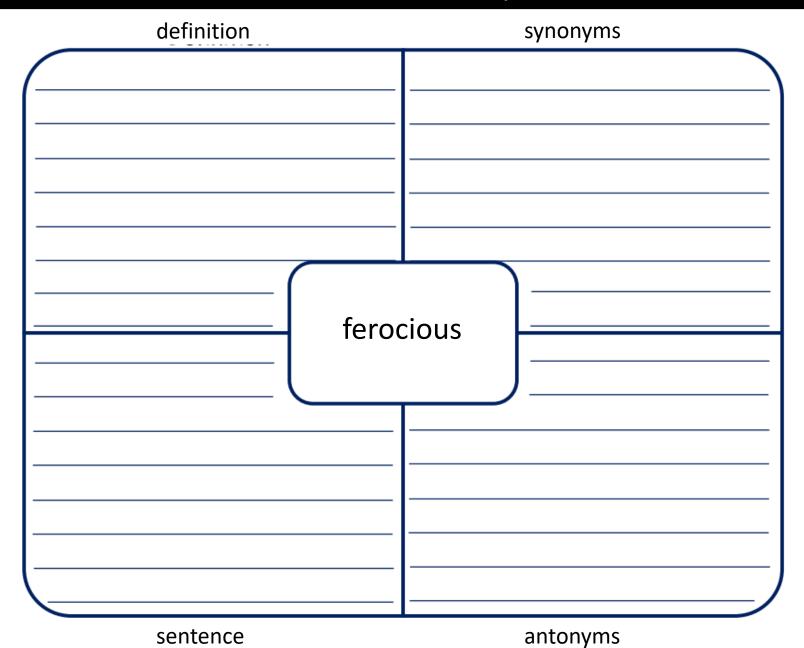
Complete a Frayer Model for the word **encounter**.



Scan to view thesaurus

Frayer Model: Ferocious





Complete a Frayer Model for the word **ferocious**.



Scan to view thesaurus