



SELF-QUIZZING

Why should I self-quiz?

effectively limitless. easily become overwhelmed. Your long-term memory, on the other hand, is memory. Everybody's working-memory is limited, and therefore it can very Your mind is split into two parts: the working-memory and the long-term

stop your working memory becoming overloaded. in long term memory. These facts and processes can then be retrieved to You can support your working memory by storing key facts and processes

to help you master your subject and be successful in lessons. knowledge organiser has the key information that needs to be memorised This booklet contains knowledge organisers for all of your subjects. Each

How often should I self-quiz?

work with it more than once! There are many different ways to learn the order to learn the information in your knowledge organiser, you will need to Research shows that regular testing improves knowledge retention; in material in your knowledge organiser.

How to use my Knowledge Organiser

any missing information in your green pen. organiser, and try to write out as much as you can from memory. Check the knowledge organiser to see if you are right; correct any mistakes and fill in 1. Cover - Write - Check: Cover up one section of the knowledge

were some parts you struggled with. include content from the previous week's homework – especially if there Repeat this process at least twice to fill your page. You could also

the knowledge organiser. Check accuracy, correct in green pen and then 2. Draw a mind map, jotting down everything that you can remember from repeat.

double sided with a question on one side and the answer on the other. clock face into 10 minute sections. Add notes from the knowledge organiser Revision clock – draw a clock and add the topic in the middle. Break the 4. Use your knowledge organisers to create flashcards. These could be in each section. Cover the clock and recite the information aloud.

Alternatively, a keyword on one side and a definition o

FACT

id you know

Research show s students remembe 50% more w hen 50% test they test themselves after themselves after









HOMEWORK SCHEDULE

You should complete at least one hour of Home Learning per school day.

This will consist of:

- Knowledge Organiser and Online Learning as directed by your teachers
- If you have no tasks set, carry out Knowledge Organiser activities as per the
- Knowledge Organiser timetable below.
- Two periods of 20 minutes reading each week

Subject 3	Subject 2	Subject 1	20 Minutes Per Subject	
PE	RE	English	Monday	
History	Music	Science	Tuesday	We
D&T	RE	Maths (MyMaths)	Wednesday	ek 1
MFL	Science	Maths	Thursday	
Art	Geography	English	Friday	

		We	ek 2		
20 Minutes Per Subject	Monday	Tuesday	Wednesday	Thursday	Friday
Subject 1	Science	English	RE	Maths (MyMaths)	Science
Subject 2	RE	Music	ICT	Drama	Geography
Subject 3	PE	History	Food/ IT	MFL	Art

Children learn 4,000 to 12,000 words per year through reading.

6 MINUTES A DAY REDUCES STRESS BY 68%.

Read 20 minutes a day and you'll read

1,800,000 words

per year.



WHAT ARE THE HOMEWORK EXPECTATIONS?

Each homework must meet the following 5 requirements:

- 2. You should include a minimum of words to summarise the topic. Do not copy the words from the 1. Write the complete title and date in full eg. Tuesday 9th September 2017 on each page, underlined
- 3. Make full use of the page for each topic by scaling your notes & images appropriately to use of all the space. text.
- 4. You must include diagrams, sketches or cartoon doodles to visually represent the topic, try to use humour.
- 5. Highlight key words and phrases, using underline, highlighter pens. Explain technical terms

HOW SHOULD I PRESENT MY WORK?

ruler and you should present your work as neatly as you are able to. work: dates and titles (which should be the name of the subject) need to be underlined with a Please remember that the same rules apply to the presentation of your homework as apply for your class

If you are self-quizzing correctly, there should be evidence of green pen on your page. Here are some examples of how to set out your work:



Y8 ART - Portraits



Y8 DRAMA - wonder.land

CHRIST THE KING - KNOWLEDGE ORGANISERS



Y8 DRAMA – Journey and identity

How do l improve my 🌈 performance?

What makes a good storyteller?

What Performance Techniques have I used?

A refugee is a person seeking safety who has fled their home country because they are afraid of

being persecuted (mistreated) due to their

religion, race, political beliefs or social behaviour.

-I come .



'We Refugees' by Benjamin Zephaniah

"I am the dream and the hope of the slave

Devised Theatre:

a process in which the whole actors to technicians, everyone is involved in the creative process

> A good storyteller captures the audiences attention and creates impact!

STOP RACISM

'Still I Rise'- Maya Angelou What is spoken word?

vocal poetic performance that sometimes uses song, rap, rhythm and music.

Journey and

Identity

.....

What is physical theatre? 🗦 a type of performance where physical movement is the primary method of storytelling. It often includes mime, gesture and modern dance to create e performance pieces. from a beautiful ple

Key Words:

Devising Refugee Collaborate Displaced Sanctuary Freeze Frame **Spoken Word** Identity Narration Prejudice Physicality Journey Movement Belonging Theatre Racism Storytelling Hope

TASK: Design the set for your devised piece of theatre. Consider colour, props, lighting and sound. What are they wearing? What belongings do they have with them?

	VQ Doodkers	Plation /Non Plation	adiective	word that gives more information about a noun	Key language devices			
< */	Y8 Reading I	Fiction/Non Fiction	adverb	word that gives more information about a verb	Key language devices			
			alliteration	renetition of the same first letter	used by writers:			
			anacdote	when a writer uses an incident from his or her personal ev	noriance to make a point, or			
Connect	ives you can use	Key terms:	anecuote	optortain the reader	perience to make a point, of			
for	comparison	Fiction – literature exploring	comparativos	adjustive that compares the quality of compthing				
		imaginary events and/or	connetation	the association that a particular image / colour / word has				
Similarly	In contrast	people	connotation	the association that a particular image / colour / word has	, ,			
Likewise	However	Non fiction – based on facts	emotive language / imager	y language of imagery that promotes an emotional reaction				
Equally	Whereas	and real life events e.g	exaggeration / hyperbole	deliberately over-estimating for effect				
In the sam	e Alternatively	newspaper	facts	something that can be proved to be true				
way		Compare – state the	formal language	ianguage used in formal situations where the speaker / wri	iter wisnes to create a good			
As with	On the other	similarities and differences		Impression				
A5 WICH	hand	between 2 texts	Informal language	language that uses colloquialisms (everyday sayings) or sla	ng and so suits informal situations			
	nana	Summarise – state the key	irony	the humorous or sarcastic use of words to imply the oppos	ite of what is being said			
		points of what is written	metaphor	a description of something as though it were something el	se			
How to	write	Evaluate – offer your own	noun (abstract)	an abstract noun is something that you cannot touch, e.g.	emotions like joy or fear			
about	tayte	critical opinion	noun (concrete)	a concrete noun is something that you can touch, e.g. a tal	ble or chair			
about	lexis.	critical opinion	noun (proper)	Nouns that are given capitals identify particular places, this	ngs, people or events			
	The character is presented	d as 🦙 🚽	onomatopoeia	impression language that uses colloquialisms (everyday sayings) or slang and so suits informal situations the humorous or sarcastic use of words to imply the opposite of what is being said a description of something as though it were something else an abstract noun is something that you cannot touch, e.g. emotions like joy or fear a concrete noun is something that you can touch, e.g. a table or chair Nouns that are given capitals identify particular places, things, people or events a word that sounds like what it describes				
Point	The writer makes us think The language of the text is	that s used to	opinion	a point of view that cannot be proved to be true or untrue				
	The structure of the text	is used to	paragraph	Paragraphs are used to sequence and organise the ideas, s	etting, timeframe etc. of a text.			
	The technique of is used t	to		The topic sentence is particularly important for signposting	g the main idea in the paragraph			
	The writer shows us that		personal pronoun	direct address to the reader, e.g. 'you'				
	For example	Such as	personification	when an object is given human characteristic				
F	One quote to show this is	For instance	perspective	A story can be told from the first, second or third person p	oint of view (or perspective).			
uidence	In the line ' In the text it says '	This is shown in the quotation	repetition	used to emphasise / reinforce a point				
	This is indicated in the line	e *	rhetorical question	a question that is asked to draw attention to a particular po	oint, rather than a genuine request for			
—	This is an example of a	The use of the feature is		information				
echnique	By using the technique	An example of a	sarcasm	language designed to insult or taunt				
	Bu using the writer show	ws that	appeal to senses	language or imagery connected to hearing / smell / taste /	sight / touch			
	This suggests/shows/impli The effect on the reader i	es/connotes/indicates is	sentence length	A variety of sentence lengths can be used for effect: e.g sh	ort sentences to create tension; long			
C ffect	This is used to show that			sentences to give detail				
	The connotations of this at	re	simile	a comparison introduced by 'like' or 'as'				
D	Overall, the writer is (rel	late back to the question and your ideas	superlative	adjective that expresses the highest quality or degree				
Nelate back	on this)	mate the text what they are trying to	triplet	using three different qualities to reinforce or stress a point				
to the question	convey)	To the next, what they are trying to	verbs	simply described as 'doing words', however many verbs ide	entify states or feelings rather			
	The author's intention was	to		than actions and can be very emotive / effective				

Y8 ENGLISH – Of Mice and Men 1

Year 8 English – Of Mice and Men by John Steinbeck

Key Context	Key Themes and Context	Key Quotations		
 John Steinbeck was born in Salinas, California in 1902. Although his family was wealthy, he was interested in the lives of the farm labourers and spent time working with them. He used his 	1. Steinbeck encourages us to empathise with the plight of migrant workers during the Great	 George – C1: "Guys like usthat work on ranches, are the loneliest guys in the world. They got no family. They don't belong no place" Lennie – C1: "Slowly, like a terrier who doesn't want to bring a ball to its master, 	George	frustrated, devoted, a dreamer
 On October 29 1929, millions of dollars were wiped out in the Wall Street Crash. It led to the People losing their life savings and a third of 	Depression. 2. The American Dream is shown to be impossible: reality defeats idealism. 3. The novella explores the	 Lennie approached, drew back, approached again." Slim – C2: "Aint many guys travel around together, he mused. I don't know why. Maybe ever'body in the whole damn world is scared of each other." 	Lennie	childlike, unassuming, physically powerful
 America's population became unemployed. A series of droughts in southern mid-western states like Kansas, 	human need for companionship and the tragedy of loneliness. 4. Steinbeck reveals the productory network of	 Candy – C3: "I ought to of shot that dog myself, George. I shouldn't of ought to let no stranger shoot my dog." George – C3: "We wouldn't ask nobody if we could. Jus' say, 'We'll go to her,' an' we would". 	Crooks	cynical, proud, isolated
Oklahoma and Texas led to failed harvests and dried-up land. Farmers were forced to move off their land: they could not repay the bank-loans which had helped buy the farms and	mankind: the powerless are targeted by the powerful. 5. Steinbeck explores the	 Crooks – C4: "Ever'body wants a little piece of lan'. I read plenty of books out here. Nobody never gets to heaven, and nobody gets no land." Crooks – C4: "A guy needs somebody to be near 	Candy	unloved, an outcast, aging
 which had helped buy the farms and had to sell what they owned to pay their debts. Racism/sexism were common, especially in Southern states due to economic climate, & history of slavery. 	tension between the inevitability of fate and the fragility of human dreams. 6. Steinbeck explores the contrasts of Nature Vs	 him. He whined, a guy goes nuts if he aint got nobody". Curley's wife – C5: And the meanness and the plannings and the discontent and the ache fo attention were all gone from her face. She was very 	Curley's Wife	a seductive temptress, objectified, lonely, nameless
Key Terminology Metaphor Symbolism	Man.	pretty and simple, and her face was sweet and young." Chapter 6 – A silent head and beak lanced down and plucked it out by the head, and the beak swallowed the little snake while its tail waved frantically.	Curley	insecure, unmerciful, jealous
SimileForeshadowingSemantic FieldRepetitionAnimal ImageryProtagonist			Slim	compassionate, wise, respected
Omniscient Narrator		DREAMS LONELINESS COMPANIONSHIP		

Y8 ENGLISH – Of Mice and Men 2

Linking Themes and Context	Key Vocabulary	Definition	Example
 Steinbeck encourages us to empathise with the plight of migrant workers during the Great Depression. 	Isolation	The process or fact of isolating or being isolated. (Being alone / apart from others.	Curley's wife felt a sense of isolation as her husband did not like her talking to others on the ranch.
 The American Dream is shown to be impossible: reality defeats idealism. The novella explores the human need for companionship and the 	Loneliness	Sadness because one has no friends or company.	Curley's wife feels a sense of loneliness as she is not allowed to have friends and has no female company on the ranch.
 Steinbeck reveals the predatory nature of mankind: the powerless are 	Racism	Prejudice, discrimination, or antagonism directed against someone based on the belief that one's own race is superior.	Crooks was subjected to racism. He believed that people didn't listen to him as he was "just a nigger talkin'."
 targeted by the powerful. Steinbeck explores the tension between the inevitability of fate and the fragility of human dreams. 	Segregation	The action or state of setting someone or something apart from others.	Crooks feels separated from the other workers. "I ain't wanted in the bunkhouse, and you ain't wanted in my room."
 Steinbeck explores the contrasts of Nature Vs Man. The novella is an indictment of the way society treats the dispossessed. 	Migrant	A person who moves from one place to another in order to find work or better living conditions.	George and Lennie are migrant workers. They move from place to place to find work. Usually, migrants would travel alone.
	Cyclical	Occurring in cycles; recurrent.	The structure of OMAM is cyclical. There is a sense of things happening in an order then repeated giving the impression that things are inevitable.
	Hierarchy	A system in which members of an organisation or society are ranked according to relative status or authority.	Curley's father is at the top of the hierarchy as he is the boss of the ranch.
X	American Dream	The ideal by which equality of opportunity is available to any American, allowing the highest aspirations and goals to be achieved.	George and Lennie's dream of owning a farm and living off the "fatta the lan" symbolizes this dream.
JOHN STEINBECK DF MICE AND MEN	The Great Depression	A long and severe recession in an economy or market.	In October 1929, millions of dollars were wiped out in the Wall Street Crash. This led to the Great Depression, which crippled the country between 1930 and 1936.
	The Dust Bowl	An area of land where vegetation has been lost and soil reduced to dust and eroded, especially because of drought or unsuitable farming practice.	The dustbowl was a key reason why workers had to move so regularly due to land being dry and them not being able to farm there.

Y8 ENGLISH – Gothic Literature

Context of Gothic Literature

The term 'gothic' comes from the Germanic tribe 'the Goths,' who played a part in the fall the Roman Empire. The Goths are sometimes called barbarians. They destroyed a lot of Roman architecture and replaced it with buildings in the gothic style.

Medieval Europe is sometimes referred to as the 'Dark Ages' (although this can be contested for a number of reasons.) Some believe that people lived in fear due to superstition and ignorance and that not much learning took place in this time. Castles with gargoyles were built to ward off evil spirits, this architecture is known as 'Gothic' e.g. Notre Dame.

Figures from the Age of Enlightenment believed that scientific progress was the only way to advance society, and great discoveries were made in this time. They tried to rid Europe of superstition and ignorance through promoting reason and logic.

A group of poet, artists and thinkers called the Romantics challenged this because they believed that not everything can be explained by science, and too much reason rids the world of beauty and mystery.

The Gothic genre first emerged from the Romantic movement. It used art and ideas from the Dark Ages, wild emotion and nature to contrast with modern ideas about science and logic.

Gothic writing transformed into the format of the extremely popular Victorian ghost story.

Today, we use the term 'gothic' widely to describe art, style, clothing (e.g. Alexander McQueen couture) music and film (e.g. Tim Burton films). The style and genre are very much still alive.

Key Themes:

- Good and evil
- Death and murder
- The Sublime
- Terror/ Horror
- Violence and cruelty
- Wild landscapes
- Isolation and loneliness
- Humanity and inhumanity
- The unknown
- Life and death
- Remote settings
- Darkness
- The Supernatural

Typical Characters

- Mysterious aristocrats (a high social status)
- Persecuted maidens or feminine characters that are threatened
- Femme fatal/ threatening women who are unnatural
- Powerful, tyrannical male villains
- Supernatural beings: vampires, ghosts, werewolves and giants

The Castle of Otranto: The first Gothic novel 1764	e Castle of ranto: The first othic novel 1764 e Mysteries 1794 1794 1794 1794 1794 The Monk: Shocking society 1796 The Monk: Shocking society 1796 The Vampyr: 1816 Birth of the tale in Abbey		<u>Tales of the</u> and Arabeso Psychologica	<u>Grotesque</u> ue: 184 0 I terror	Carmilla: The Female Picture Gray: G philoso vampire 1871		<u>Picture of</u> <u>Gray</u> : Got philosoph	Dorian nic and / 1890	<u>The Turr</u> the Scree Confusio	<u>n of</u> w: on 1898	<u>Salem's Lo</u> King Goth	<u>ot:</u> iic 1975	<u>The Bloody</u> <u>Chamber:</u> Feminist Gothic 1977		<u>Beloved</u> America Gothic	: in 1987	<u>Fledgling:</u> Sci-fi 2006 Gothic
			/		Ļ_			/				\leq			\leq		Ļ
Î	1				.Î						Î	Î			Î		Î
The Mysteries 1794	The Vampyr:	1816 Northanger	1818 _{Wu}	hering 1847	The St	ange Cas	e of Dr Di	acula: Th	e 1897	Gormen	ghast	Interv	iew with a	Lind	en Hills:		?
of Udolpho: The dawr	Birth of the tale	e in Abbey: Aus	ten <u>Hei</u>	<u>thts:</u> Gothic	Jekyll a	nd Mr Hy	/de: va	mpire's v	ampire	trilogy: S	Stylised	Vamp	ire: Sensitive	A mo	odern		
of female Gothic	English	plays with (Gothic clos	e to home	Anticip	ating Fre	^{ud} 1886 ^{la}	nds at Wh	hitby	Gothic	1946	blood	-suckers 19	76 Infer	^{no} 1980	5	2020



Y8 ENGLISH – Gothic literature 2

			Gothic G	enre Word			KEY METHODS/	TECHNIQUES			
	Adjecti	ives			Νοι	ins		convention	abstract nouns	theme	suspense
People	Places		<u>Misc.</u>	<u>Feelings</u>	<u>Places</u>	<u>Objects</u>	Weather	repetition	pathetic fallacy	tension	foreshadowing
Aghast Defenceless	Claustro Deserted	phobic d	Alarming Ancient	Anxiety Curiosity	Alley Attic	Candle Chest	Clouds Darkness	connotations	tone	mood	atmosphere
Exposed Fearful Gaunt	Dismal Extinguis Ghostly	shed	Antique Curious Dusty	Despair Desperation Determination	Castle Cellar Chamber Church	Chimney Ghost Grave	Drizzle Fog Lightning Midnight	figurative language	characterisation	setting	symbol
Intimidating Looming	Macabre	e noly	Neglected Ornate	Hatred Suspicion	Graveyard Staircase	Raven Shadow	Rain Storm	juxtaposition	allusion	Sensory language	Narrative voice
Morose Obscure Pallid Ominou Suspicious Seclude Vulnerable Shadow		d s d y	Peculiar Shocking Shrouded Unusual	Terror Trepidation Unease Uncertainty	Street	Shroud Spectre	Tempest Thunder				
Vert		S			Adve	erbs					
Ver Movement Ascend Creep Descend Evade Hide Leap Lunge Peek Pursue Tiptoe Uncover		Sound Announce Cackle Creak Cry Gasp Howl Intone Murmur Shout Shout Shriek Whisper		Movement Abruptly Cautiously Creepily Eerily Furtively Ominously Reverently Suddenly Surreptitiously Suspiciously Tentatively			Sound Authoritatively Continuously Creakily Endlessly Morosely Silently Soundlessly Wordlessly				

Why not ...?

Since...

When you...

Y8 ENGLISH – Writing unit

English Knowledge Organiser: Trip of a Lifetime – Writing Unit





Y8 FRENCH – Food and Drink 1

HT4 - Qu'est-ce que tu manges?

Normalement, au petit déjeuner je mange des céréales avec du lait	1	Normally, for breakfast , I eat some cereals with some milk
Cependant hier j'ai mangé un pain au chocolat c'était délicieux !	2	However yesterday I ate pain au chocolat, it was delicious!
Souvent au déjeuner nous mangeons du poisson avec des légumes, à mon avis c'est bon pour la santé	3	Often at lunch we eat fish with vegetables, in my opinion it is good for your health. (it is healthy)
Comme dessert je prends du gâteau ou une tarte aux fraises, c'est trop bon !	4	As dessert, I have some cake or a strawberry tart, it's really good
Hier soir pour le dîner nous avons mangé des plats chinois	5	Yesterday evening for dinner we ate Chinese food
ce que j'ai beaucoup aimé, néanmoins ce n'est pas bon pour la santé	6	which I really liked, nevertheless it is not good for your health (It is unhealthy)
C'est bientôt mon anniversaire, je vais inviter tous mes amis chez McDo	7	It's nearly my birthday, I am going to invite all my friends to McDonalds
On mangera des burgers et des frites, après on ira au cinéma, j'ai trop hâte !	8	We will eat burgers and chips, after we will go to the cinema, I can't wait!

FOOD & DRINK

A. FOOD	
le pain	bread
le fromage	cheese
le jambon	ham
la viande	meat
le poulet	chicken
le boeuf	beef
le porc	pork
le poisson	fish
le thon	tuna
les pommes de terre	potatoes
les frites 🔬 🗤	chips
la lait	milk
la glace 📕	ice cream
le yaourt	yoghurt
le gâteau	cake
l'eau minerale	water
les biscuits	biscuits
les pâtes	pasta
le riz	rice

Positive opinions

CHRIST THE KING - KNOWLEDGE ORGANISERS

plus	<u>Negative opinions</u> Je n'aime pas Je déteste	J'aime J'aime beaucoup J'adore Je préfère
_ que	les a	<u>र</u> र +

le pain grillé	les céréales	le vin blanc/rouge	le jus d'orange	le sucre	le thé	le café	le dîner	le déjeuner	le petit déjeuner	les repas	B. LES I	
toast	cereal	white/red wine	orange juice	sugar 💦	tea	coffee	dinner	lunch	breakfast	meals	REPAS	

	_															
	propre	salé	sucré	sale	impoli	de mauvaise	peu varié(e)	cher(e)	fort(e)	épicé(e)	délicieux/	dégoutant(e)	barbant(e)	parfait(e)	frais/fraîche	D. AD
= Cafe =	clean	salty	sweet	dirty 🔷	impolite	poor quality	not much choice	expensive	strong	spicy	delicious	disgusting	boring	perfect	fresh	DECTIFS

C. FRUIT (& VEG
les fruits	fruit
les fraises	strawberries
les bananes	bananas
l'ananas	pineapple
le melon	melon
la pomme	apple
la pêche	peach
les poires	pears
les oranges	oranges
le citron	lemon
les legumes	vegetables
les oignons	onions
les haricots verts	green beans
les carottes	carrots
le concombre	cucumber
la laitue	lattura

de + les	de + la	de + le	NOS
des	de la	du	Æ

Intensifiers pain avec de la confiture.

Je mange du

Beaucoup = a lot Très = very Trop = too Assez = quite Un peu = a little



e.g. J'aime le poulet plus que le boeuf. I like chicken more than beef.

less than

Y8 FRENCH – Food and Drink 2

Y8 FRENCH – Food and Drink 3

CHRIST THE KING - KNOWLEDGE ORGANISERS

I. KEY VERBS (PRESENT)

J'aime

ie

le mange

eat

le bois

Idnink

They are

You are (pl)

We are

He/she is

J'adore

llove

le préfère

l prefer

Itis

Comme entrée s'il vous plaît Donnez-moi...

As a starter

please

Give me...

Avez-vous? Et avec ça?

having?

What are you Anything else? voulez/désirez? Qu'est-ce que vous

like?

What would you

Qu'est-ce que vous prenez? FOOD & DRINI

What are you having?

I'm having... Je prends...

Frequency Phra	Francisco Dia	une bouteille de	un litre de	un carton de	une boîte de	une tasse de	grammes de	cinq cent	un kilo de	F. LES QUA
ises		a bottle of	a litre of	a box of	a tin of	a cup of		500g of	a kilo of	NTITÉS

l'entrée

Starter

le plat principal

main course

E. AU RESTAURANT/MARCHE

un restaurant lo-

indien/italien cale/chinois

restaurant Indian/Italian local/Chinese/ l'ambiance

the atmosphere

le service

the service

la carte

les serveurs

the waiters the menu le dessert

dessert

day En général = in general Tous les jours = every Normalement = normally

> Aussi = also Et = and Connectives

G. LA SANTÉ

						4
santé	bon pour la	Ce n'est pas	un regime équilibré	surveiller mon poids	être en bonne santé	manger sainement
	your health	It's bad for	a balanced diet	to watch my weight	to be in good health	to eat healthily

Néanmoins = nevertheless Cependant = however De plus = Moreover

ESSENTIAL VERBS

TO BE am

You are (s)

AVOIR-	TO HAVE	ÊTRE-
J'ai	I have	Je suis
Tu as	You have (s)	Tues
II/elle a	He/she has	II/elle est
Nous avons	We have	Nous sommes
Vous avez	You have	Vous êtes
	(pl)	lls/elles sont
lls/elles ont	They have	

_	
_	
<u> </u>	
_	
_	
_	
-	
_	
_	
_	
_	
_	
U	
<u> </u>	

que j'aime le plus	What I like the
st	most is
que j'aime le	What I like the
oins c'est	least is
que je préfère	What I prefer
st	is

J'ai soif

I'm thirsty

J'ai faim

I'm hungry

Je voudrais

would like

S C

J'ai besoin de

Ineed

5 R З llya C'est

There is/are

R

C'était	J'ai choisi	J'ai préféré	J'ai aimé	J'ai pris	J'ai bu	J'ai mange	J. KEY VER
lt was	l chose	I preferred	l liked	Ihad - 🗡	I drank	late	tBS (PAST)

Y8 SPANISH - Introduction

iBuen		
Hola, ¿Qué tal? Yo estoy muy bien.	Hello. How are you?	Me, I am very good
Me llamo Miguel y tengo trece años.	I am called Miguel o	nd I have thirteen years old
Nací el seis julio pero	I was born on the six	th July but
el cumpleaños de mi hermana es el doce agosto.	My sister's birthday	is the 12 th August.
Mi hermana se llama María y	My sister is called N	laria and
tiene catorce años.	She has fourteen ye	ars old
Suelo llevar bien con mi hermana pero veces es muy tonta.	Usually I get on well very silly.	with my sister but sometimes she is
Soy de Madrid pero vivo en Barcelona. Sin embargo	I am from Madrid b	ıt I live in Barcelona. However
me gustaría vivir en Santiago en Chile.	I would like to live in	Santiago in Chile.

Y8 SPANISH – My family 1

CHRIST THE KING - KNOWLEDGE ORGANISERS



	adai cara
Here is	anuí está
my grandparents	mis abuelos
my parents	mis padres
my aunt	mi tía
my family	mi familia
my sister	mi hermana
my grandmother	mi abuela
my mother	mi madre
my friend (f)	mi amiga
my step sister	mi hermanastra
my father	mi padre
my uncle	mi tío
my grandfather	mi abuelo
my brother	mi hermano
my step brother	mi hermanastro
my friend (m)	mi amigo
MILIA	B. LA FA



D. LOS ANI	MALES
un conejo	a rabbit
un perro	a dog
un gato	a cat
un pez dorado	a goldfish
una serpiente	a snake
un pájaro	a bird
un hámster	a hamster
un cobayo	a guinea pig
un ratón	a mouse
una tortuga	a tortoise
una araña	a spider
un caballo	a horse

MI FAMILIA

POSSESSIVE ADJECTIVES

his/ Her	YOUR	MY	
su	đ	⊒.	Singular
su	đ	⊒.	Feminine Singular
sus	tus	mis	Plural (Masculin and Feminine)

F. LOS O	SOF
Tengo	l have
Tienes	You have
Tiene	He/she has
los ojos	Eyes
los ojos azules	blue eyes
los ojos verdes	green eyes
los ojos grises	grey eyes
los ojos	brown eyes
marrones	



your	W	tus	2 De	
hair	lat a	ojos	qué	
and	olour	t		
eyes	are.	pelo	r sor	
-0			-	

	No tengo pelo.	el pelo ondulado	el pelo liso	el pelo rizado	el pelo largo	el pelo corto	Soy pelirrojo/a.	el pelo negro	el pelo rubio	el pelo castaño	el pelo	Tiene	Tienes	Tengo	E. EL P	
hair.	I don't have any	wavy hair	straight hair	curly hair	long hair	short hair	I have red/	black hair	blonde hair	brown hair	hair	He/she has	You have	l have	ELO	and the second se

-		
C	,	
-		
п		
C	2	
-	t.	
-	2	
<		
Π	1	
Þ	>	
G)	
Z	3	
п		
Π		
2		
Π	1	
2		
v		

				1
	z	Ŧ	MP	P
Red	rojo	roja	rojos	rojas
Yellow	amarillo	amarilla	amarillos	amarillas
Green	verde	verde	verdes	verdes
Orange	naranja	naranja	naranja	naranja
Blue	azul	azul	azules	azules
White	blanco	blanca	blancos	blancas
Black	negro	negra	negros	negras
Brown	marrón	marrón	marrones	marrones
Purple	morado	morada	morados	moradas
Pink	rosa	rosa	rosa	rosa
Grey	gris	gris	grises	grises

CHRIST THE KING - KNOWLEDGE ORGANISERS

Y8 SPANISH – My family 2

CHRIST THE KING - KNOWLEDGE ORGANISERS Y8 GEOGRAPHY – Tectonic hazards

Topic 7: Tectonic Hazards



2. Plate tector	nic theory key words
Plate	A large rigid section of the earth's surface
Plate Margin	The boundary of two plates
Tectonic	The structure of the earth and processes within.
Continental Drift	Gradual movement of continents across time
Convection	Movement in a fluid of rising less dense heat and sinking denser cooler liquid.
Subduction	Denser oceanic plate sinks below less dense continental plate at a destructive margin.

3. Plate Margins

Plate Margin	Plate movement	Hazards
Destructive	Together	Volcanoes and earthquakes
Constructive	Apart	Volcanoes and earthquakes
Conservative	Past one another	Earthquakes
Collision	Together	Earthquakes





A simple cross section of a volcano



Fertile soil Tourism Precious minerals Geothermal energy Social factors
Tourism Precious minerals Geothermal energy Social factors
Precious minerals Geothermal energy Social factors
Geothermal energy Social factors
Social factors





6

8. Volcanic Hazards	
Lava	Molten rock which erupts from the ground
Ash	Small pieces of shattered roc, minerals and gas thrown from the volcano
Volcanic Bomb	balls of molten rock that solidify as they fall
Lahar	Mud flows, made from pyroclastic materials, rocks and water.
Pyroclastic flow	Pyroclastic flows spill down the sides of the volcano. It is carrying heavier materials such as gas and rock.

10. Managing Volcar	nic Eruptions
Dams	Blocking the path with a concrete wall
Channels	Digging channels to direct lava flow away from settlements
Water	Cools the lava to turn rock from molten to solid to slow the flow
Education	Teach people how to behave during a hazard to protect lives and communities
Evacuation	Remove people quickly and safely from a hazard
Monitoring	Observing the movement of the earth's crust for evidence of tectonic activity

11. MT St Helen	s eruption, 1980
Location	Washington State, NW USA.
Warning signs	Bulge, earthquakes, ash and steam
Management	5 mile red zone
Impacts	57 deaths, 250 homes destroyed, 47 bridges destroyed, 185 miles of road ruined, thousands of trees killed

Y8 GEOGRAPHY - Biomes

Geogr	aphy Topic <u>8</u> • B	iomes			6. Plant and anima	al adaptation
1. Biomes key words					Drip Tip	Allow h
Biome	A large, naturally occurring major habitat	3. Key	component biome	s of a	Buttress roots	Wide ro tall tree
Ecosystem	A community of living organisms and their connections with climate and soil		Climate]	Epiphytes	Plants w water ra
Food chain	Links between organisms which feed on each other				Camouflage	Blendin avoid pr
Food web	A series of interconnected food chains	_	-/ \r	-1	Strong grip	Allow an avoid pr
Decomposer	Fungi and bacteria break down dead organic matter to release nutrients	Fauna	_∖ /	Flora	Nocturnal	Avoid la
Fauna	The wildlife of a particular place					
Biodiversity	The volume and variety of plants and animals within a biome		Soil		7. Causes of deforestation	
Habitat	The natural home of an organism	4. Features of a	food chain		Logging	
Deforestation	The removal of trees, often on a large scale	Producer	Produce energy fre	om their	Mining	
Ecotourism	Tourism designed to support local social and	Primary	Get energy from p	roducers	Ranching	
	economic development whilst conserving the local environment.	Consumer			Settlement	
2. Biomes of the wor	ld	Secondary consumer	Get their energy fr consumers	om primary		
Tundra	Low growing plants and shrubs in cold and windy conditions	Predator	An animal that hur other animals for f	nts, kills and eats food	9. Features of a	Hot Desert
Taiga	Cone-bearing evergreen trees able to cope with cold winters		5. Layers of the rainfo	rest	Found in belts 3	odegrees no
Temperate deciduous forest	Trees which lose their leaves in autumn to retain moisture during winter	4			Hot in the day, o	ooler at nig
Mediterranean	Shrubs, herbs and olive trees able to cope with high temperatures and summer droughts			e Emergent Layer	Plants have sha leaves	low roots, v
Hot Desert	Few plants and animals in areas of extreme high temperature and low rainfall	2	Th	e Canopy	Animals produce Many rodents a	e little urine, re nocturnal
Tropical Rainforest	Dense vegetation suited to a warm, wet climate		Th	e Understory		
Tropical grassland	Area which copes with long, dry periods followed by thunderstorms.	Y.	Th	e Forest Floor		

6. Plant and animal adaptations in tropical rainforests		
Drip Tip	Allow heavy rain to drop to lower layers	
Buttress roots	Wide roots which allow trees to anchor tall trees	
Epiphytes	Plants which get nutrients from air and water rather than soil	
Camouflage	Blending in with the environment to avoid predators	
Strong grip	Allow animals to live in the canopy to avoid predators	
Nocturnal	Avoid large predators in the day	

8. Impacts of deforestation
Loss of habitats
Soil erosion
CO2 emissions

9. Features of a Hot Desert
Found in belts 30 degrees north and south of the equator
Dominated by high pressure systems
Hot in the day, cooler at night. Low rainfall.
Plants have shallow roots, waxy leaves and spines or thin

can store water effectively.

10. Opportunities in Hot Deserts
Renewable energy production
Mining
Agriculture
Tourism

11. Coral reef key words	
Coral reef	Hard, rocky ridge formed on the seabed from external skeletons of many, tiny coral animals.
Coral	Very small animals with a hard exoskeleton
Fringing reef	Form in shallow water close and parallel to the shore
Barrier reef	Starts as a fringing reef but has been surrounded by deeper water as sea levels rise pushing the coral further from the shore.
Coral atoll	Circular coral reef formed on top of an underwater volcano
Coral bleaching	Warm water forces coral to expel algae which turns the coral white and puts the coral under stress.

12. Importance of coral reefs		
Food and fishing		
Medicine		
Coastal protection		
Tourism		
Ecology		

CHRIST THE KING - KNOWLEDGE ORGANISERS Y8 GEOGRAPHY – Economic Geography

Geography Topic 9: Economic Geography

	alth and resources of a country in terms of the that are produced and consumed there	Economy The we goods t	
	y	1. Sectors of Industr	
bed	Includes jobs in which people extract raw materials	Primary sector	
% emplo	Includes jobs in which people make products out of raw materials often in factories	Secondary sector	
	Includes jobs in which people provide a service for others	Tertiary sector	
	Includes jobs in which people research and invent things using advanced technology	Quaternary sector	
5. Ret Retail	Basic materials, e.g. wood or metal which can be used to make something	Raw materials	
Conve goods		3. Agriculture	Ī
Comp goods	Where crops are grown e.g. wheat and barley	Arable farming	
Clone	Where animals are raised e.g. cattle and sheep	Pastoral farming	
	Where crops are grown and animals kept	Mixed farms	
Out of parks	Where fruits, vegetables and flowers are grown	Market gardens	



5. Retail change in the UK		
Retail	The selling of goods in relatively small quantities	
Convenience goods	Goods bought nearly everyday such as bread, milk. Readily available from the majority of shops	
Comparison goods	Higher value goods purchased less often such as electrical goods, clothes. People go to several shops to compare before buying .	
Clone town	A town where the high street is dominated by chain stores	
Out of town retail parks	Areas of shops located away from the traditional CBD	

7. Economic advantages of tourism	8a. Bene	efit
Supports employment, for example in hotels,	Creation	of
restaurants and snops	Improve	d e
Boosts local farming to supply hotels and restaurants	Investme	ent Is
Encourages improvements in road networks and the environment	Help exp	oloi
Brings income for the local economy, which can be spent on improving public services		

A person who moves from

one place to another

A person who leaves a country to move to another one A person who moves to a

country from another country A person who moves to

another country without proper clearance Someone who moves for

money

Where a migrant is from

Where a migrant moves to

9. Migration

Migrant

Emigrant

Immigrant

Illegal Immigrant

Economic Migrant

Origin country

Host country

s of TNCs	8b. Costs of TNCs
fjobs	Poorer working conditions
education and skills	Damage to the environment
ts in infrastructure	Profits go to companies overseas, not locals
it natural resources	Natural resources may be over- exploited



4. Factors in determining factory locations		6. Globalisation & trade	
Costs	Buying/leasing land, equipment, wages, training, taxes	Globalisation	The increasing links between countries around the world as a result of the movement of goods, services, and money.
Capacity of the workforce	Availability of local labour with the right skills	Transnational Corporation (TNC)	A company that has its headquarters in one country, but operates around the world
Capability of the region Raw materials available, availability of road/rail connections	Raw materials available, availability of	Containerisation	A system of transporting products by using freight containers (usually on ships)
	road/rail connections	Trade	Buying and selling raw materials, goods and services
Culture of the region	re of the region Ability to attract talented workforce,	Imports	Goods and services taken in by a country
Customers Close by to the markets	Close by to the markets	Exports	Goods and services sold to another country
		Balance of trade	The difference in value between a country's imports and exports
Physical Landscape	Flat land/space for expansion	Trade link	A connection between two countries to allow the movement of goods and services

4.7

K.O. TWO – The British Empire 1. The Empire - key words A large group of countries Empire ruled by a single nation A system of profit from slavery Trade involving 3 countries – Britain, Triangle Africa and The West Indies Bringing goods into the country Import Export Moving goods out of the country 2. Slave trade - capture and middle passage Men, women and children Capture kidnapped and sold. Conditions Chained in rows on their backs on board in the dark for months Food Weak watery porridge every meal brought in buckets below deck Cholera, Typhus, skin rubbed Disease raw. Deaths common. 3. Slave trade - life on the plantations Auctions Sold to the highest bidder on a stage along with other goods e.g. cotton, tools, cloth Work 6 days a week. At least 12 hours a day without pay. Back breaking field work picking cotton in gangs. Small wooden huts, no Living conditions amenities, straw bed. Punishments Whipping, hanging, amputations, chains.

4. Abolition of Slavery			
Why?	 Economic reasons White kindness Black activism Religious reasons 		
How?	Abolitionism movement campaigned and pushed the British government to end slavery in the British Empire in 1833.		
Opposition	Plantation owners and investors demanded financial compensation from the government		
Key individuals and groups	The Quakers William Wilberforce Olaudah Equiano		
5. India case study	/		
Gaining control		By 1668 Britain had three trading posts. Surat, 1612, Madras, 1638, Bombay, 1668 British trading stations in India were run by one company - the East India Company.	
The Indian Mutiny		The Bengal Army had fought faithfully for Britain BUT it was on the British terms. In 1857 they rebelled. They shot British Officers and marched to Delhi.	
The Amritsar April 13, 1919, British troops fire Massacre unarmed Indians in an open space Bagh in Amritsar killing several h wounding many hundreds more		April 13, 1919, British troops fired on a large crowd of unarmed Indians in an open space known as the Jallianwala Bagh in Amritsar killing several hundred people and wounding many hundreds more.	
6 Ireland case stu	udu		
6. Ireland case study			
Causes	Between 1845 and 1852, a fungal disease affected farms across Ireland. This completely destroyed the potato crop which was the staple diet of the population at the time.		
Events	Th As fro	The potato harvest failed for seven years! As a result, about 60% of the population faced starvation or died from malnutrition	
Consequences	Fal dis	Fall in Population: Fell by 2 million. 1 Million from hunger and disease & 1 Million emigrated mostly to America and Britain.	

Y8 HISTORY – The British Empire

7. Writing to argue - key words						
To an extent/ how far	How much you agree/ disagree with an argument					
On one hand	Presenting one point of view					
On the other hand	Presenting an alternative point of view					
Judgement	Outlining and explaining your view in conclusion					
PEEL	Point, Evidence, Explain, Link					

8. Timeline of key dates						
1783	133 Africans are thrown overboard alive from the slave ship Zong so that the owners can claim compensation money from their insurance company.					
1807	The Act to end the transatlantic slave trade (trade triangle)					
1833	The Abolition of Slavery Act					
1845	The start of the Irish potato famine					
1852	The end of the Irish potato famine					
1857	The Indian Mutiny					
1919	The Amritsar Massacre					



Surgery

Gas attacks

Plastic surgery

6. Inter war years - Germany

Propaganda

organisation

Hitler

Flexibility Use of technology Symbols

promises to voters

bread and hope.

Y8 HISTORY – Britain and Europe 1901-39

K.O. THREE - BRITAIN AND
EUROPE 1901-39

1. Key words							
Trench warfare	System of open top interlinking tunnels used by both sides						
Alliances	Formal friendships and support						
Armistice	Agreement to stop fighting						
Assassination	To murder someone important						
Field hospital	An outside makeshift hospital near the trenches						
The Nazi Party	The National Socialist German Worker's Party						

2. Causes of WW1						
The Alliance system	The Triple Alliance and the Triple Entente					
Arms Race	Competition to build armies and Dreadnoughts					
Schlieffen plan	German plan for war					
Assassination	Murder of Archduke Franz Ferdinand in Sarajevo					

Living and fig			
Layout	out Zig zag lines, fire steps, duck boards, sandbags, dugouts, bell		
Food Monotonous and boring – bully beef, tinned food, a tot of rum before going over the top.		reasons	
Rats	Grew fat on the bodies of fallen soldier's dead bodies	Wall street	
Lice Clothing and skin was infested with lice and fleas all the time.		depression	

4. Local history – case studies						
Arnold Cenotaph	Arnot Hill Park. Names of the war dead of both World Wars.					
Arnold Cenotaph	Personal research into different names on the cenotaph from WW1.					
Arnot Hill Auxiliary hospital	Opened in 1915. Looked after TB, frostbite and soldiers recovering from surgery 20 beds soon extended to 40					
Arnot Hill Auxiliary hospital	Dr Harvey Francis was Chief Medical Officer. Performed some surgery too. Had a very good reputation. Soldiers were entertained by the staff Closed in 1919.					
5. Medicine in the trenches – case study						
Injuries	Physical and mental. Blood loss. Gun shot wounds. Bombs. Machine guns. Tanks. Shell Shock					

Basic surgery to safe life conducted in field hospitals

Mustard, Chorine and Phosgene gas all used. Gas warning bells and gas masks used. Often could see

Crude and time consuming with not always good results. This was a brand-new type of surgery.

Oct 1929 stock market in the USA crashed. America recalled all

German loans. Germany fell into economic depression e.g. 6m unemployed. Turned to Nazis in desperation as they offered work,

cloud of gas heading towards the trench.

7. Historic environment and causation - key words					
Key features	Specific factual details about something				
Historic environment	The physical world – an area of interest e.g. town, site, battlefield, region				
Short term cause	Something that happens shortly before an event				
Long term cause	Something that happens a long time before an event				
Catalyst	A trigger cause that happens immediately before an event				

8. Timeline of key dates					
1914	The start of World War One				
1916	The Battle of the Somme				
1918	The Armistice 11am 11 th November				
1919	The Treaty of Versailles 28 th June				
1923	The Munich Putsch 9 th November				
1929	The Wall Street Crash 24 th October				
1933	Adolf Hitler made Chancellor of Germany January 30th				
1939	The start of World War Two				



Y8 HISTORY – Challenges 1939-45

K.O. FOUR – CHALLENGES		3. Blitz and evacuation			6. Holocaust						
1939 - 45				Γ	Holocaust		Destruction or slaughter on a mass scale				
		Air raid warning siren	g Alarm would go off to warn of incoming Nazi planes		Γ	Antisemitism		Prejudice	against Jewish people		
1. Key words						Genocide		Killing of a whole ethnic group with the aim of destroying them			
Evacuation	Organised removal of children from	Air raid shelter	Underground areas of safety to hide in		F	Ghettos		Jewish sea	gregation into the most run-down areas of cities.		
	cities to the countryside.		during the bombings		F	Einsattzgruppen		Mobile killing units			
Blitz	Nighttime bombing of key British cities			4	+	Eutomaination at		Concentra	tion comp that considires in more killing		
		Evacuee	A child who was evacuated to the countryside			Extermination ca	amp	Concentra	ruon camp that specializes in mass killing		
Dunkirk	Port in France where British troops were evacuated from.						7. Ti	meline of ke	v dates		
Pearl Harbour	Japanese kamikaze attacks on the American Naval base	4. Atomic Boml	b				1 st September 1939		Germany invaded Poland. Start of WW2.		
Hiroshima	Japanese city destroyed by the 1 st atomic bomb	Causes	Pearl Harbour. Desire to end the war. Arms ra Russians. Wanted to test the bombs.	he war. Arms race with the			1st September 1940		The evacuation of children to the countryside began		
		Events				ttle Boy	7 th S	eptember	The Blitz began		
Nagasaki	Japanese city destroyed by the 2 nd atomic bomb.	Events	Plutonium and Uranium.	nium.			1940	, 	Dualid		
Denisillin	Einst antibiatic mass produced for the	Short term	rm Up to 126,000 immediate civilian deaths at Hiroshima and up to			and up to	1940))	Dunkirk		
Pencilin	first-time during WW2	consequences	80,000 at Nagasaki. Radiation burns, extreme incinerated people, and later nuclear fallout.	rns, extreme heat which :lear fallout.		Dece 1941	ember I	America entered the war after the Japanese attack on Pearl Harbour			
		Longtorm	ang term Increase in deaths due to cancer. Genetic deformities in		in	6 th A	ugust	Atomic Bomb dropped on Hiroshima			
2. Dunkirk		consequences newborn babies.		,	1945	5					
Causes Nazi Blitzkrieg tactics pushed the British						9 th A 1945	ugust 5	Atomic Bomb dropped on Nagasaki			
army back to the sea		5. Medicine and	5. Medicine and WW2				2 nd S	eptember	End of WW2		
Events	British navy and little ships evacuated soldiers off the beaches	Surgery	Archibald McIndoe used pioneering plastic surgery techniques on pilots suffering horrendous burn injuries.			iniques on					
Short term consequence	Presented as a victory to the general public	Antibiotics	cs Scientist Alexander Fleming discovered penicillin. This was the first antibiotic and was mass produced in America.			vas the					
Long term consequence	Narrowly avoided destruction of entire army. Loss of vehicles, horses and ammunition	Blood transfusions	Blood storage facilities improved, and thousands of civilians ons stepped forward to donate blood for blood transfusions for injured service men and women.			lians s for					

Y8 ICT

	Vocabulary
Absolute cell reference	Cell reference that does not adjust to its new location when copied or moved.
Autofill	Automatically replicates data and formulae into cells.
Autosum	A function that automatically adds the values in a range.
Break even	To not make a profit, not make a loss, but arrive at an outcome of zero.
Chart	A graphical way to show data.
Filter	Allows you to display only certain data to make it easier to find specific information in a table.
Formula	Equation that performs a calculation on values in a worksheet.
Function	A built-in formula that makes it easy for you to perform common calculations.
Goal seek	A process that automatically works out a specific required value by changing the value in a related cell.
Hide/unhide	Show or reveal selected rows or columns.
Model	a computer program that is designed to simulate what might (or what <i>did</i>) happen in a situation.
Print area	Setting the print area restricts what is going to be printed. This is important when trying to fit a large spreadsheet on to one page while printing.
Range	A group of cells on a worksheet identified by the cell in the upper left corner and the cell in the lower right corner, separated by a colon. For example, A1:B20.
Relative cell reference	Cell reference that adjusts automatically when moved or copied.
Replicate	Another word meaning "to copy", especially for formulae.
Sort	Arranging the contents of a range in ascending (A to Z) or descending (Z to A) order.
Spreadsheet	A grid of rows and columns containing numbers, text, and formulas. Used to solve number-based problems.
What if?' questions	Types of questions that explore different possible events or situations.
Worksheet	The workspace where you enter data.

		Spreadsheet	Functi	ONS		
AVERAGE	Shows of value	the average es in a range	=SUN	Adds up the total value of the cells in a range		
MAX	Display value fi	s the biggest rom the range	=MIN	Displays the smallest value from the range		
IF	A logic making	al function that It tests to see IF(A1>75,"Pa	can be if a con ISS", "F	helpful in decision- dition is true or false, e.g. ail")		
If the value in it will display	Fail. Tex	s greater than 7 t strings must b	75, it will be inside	ll display Pass . If it is not, quotation marks.		
COUNTIF	A logic that me =0	al function that eet criteria you OUNTIF(A1:A	counts specify, 25, "ap	the cells within a range e.g. ples")		
This will show the word app	v the nun les.	nber of cells fro	m the ra	ange A1:A25 that contain		
AVERAGEIF	A logic cells w	al function that ithin a range th	display: at meet	s the average of values in criteria you specify, e.g.		
	=AVER	AGEIF(B5:B30),"male	e",D5:D30)		
This will show the same row	v the ave	rage value from in column B th	the cell at conta	ls in column D that are on ins the word male .		
=SUMIF	A logica	al function that within a range	displays	s the sum total of values et criteria you specify, e.g		
	=SUN	MF(D2:D20,"1	loyota'	',E2:E20)		
This will add the same row	up and di as the ce	splay the total ells in column D	values f	rom column E that are on ning the word Toyota .		
Numerical o	operator	s				
> gre	ater than		<	less than		
>= gre	ater than	or equal to	<=	less than or equal to		
= equ	ual to		<>	not equal to		
Goalseek		A process that a	automat	ically works out a required		
Goal Seek Set exti: 426	* *	In the example	to the le	eft, we are setting the		
To price: 300 By phanging cell: 425 OK	This can be very useful when working on an incomplete model.					



-



Knowledge Organiser- ICT



Asset Table:

Create an asset table to show the range of images, assets and information you have collected for the project - listing where you got it from and describing any legal issues.

Planning:

•

٠

٠

٠

To inform

Create a work plan which lists all of the tasks involved in the whole project. Estimate how long each task will take and create a chart or diary to record how long they REALLY take to complete. Build in some contingency time in case things go wrong! Explain why you had to use it if things don't go according to plan all the time.

Target Audience:

You need to know your target audience. Who are they? What kind of things do they do? What are their likes and dislikes? What are they interested in? Getting an understanding of these individuals helps you create with ease and make something you know will relate to them.

Terminology

- The reason for which a graphic is made or created. Purpose An attribute, quality or characteristic of a graphic. Properties
- Plan
 - A detailed proposal for doing or achieving something.
- Create To make or produce something.
- A formal assessment of something. Think strengths, weaknesses and Review improvements

A note by way of explanation or comment added to a text or diagram Annotate



Client Requirements:

graphics use?

.tiff

.jpg

.png

.bmp

.gif

.pdf

•

Your client is the person you will be working for. They will tell you what to plan, design or create for them. The client will set out requirements that they want you to follow when you plan the project.

What type of file formats do digital

Y8 ICT













<u>what do I need to be able to do?</u>

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

- By the end of this unit you should be able to:
- Convert between FDP less than and more than 100.
- Increase or decrease using multipliers.
- Express an amount as a percentage.
- Find percentage change.
- Keywords 11 11 Percent: parts per 100 - written using the 70 symbol. 11 Decimal: a number in our base 10 number system. Numbers to the right of 11 the decimal place are called decimals. Fraction: a fraction represents how 11 many parts of a whole value you have. Equivalent: of equal value. 11 **Reduce**: to make smaller in value. 11 Growth: to increase / to grow. 11 Integer: whole number, can be positive, negative or zero. 11 Invest: use money with the goal of it increasing in value over time (usually н
- II in a bank).











KING - KNOWLEDGE ORGANISERS

TH

Е

CHRIST

tells us what sort of beats they are



Musical knowledge 3: pitch notation

Definitions

Y8 MUSIC

- <u>.</u> Rhythm = long and short notes, and the gaps between them:
- 2 goes up and down): Melody = tune. This has pitch as well as rhythm (i.e. it



describing melodies



Range – the distance from the lowest note to the highest: wide or narrow Sequence – a pattern that repeats, chord (moving in chord shapes) Scalic (moving in a scale) or broken Register- how high or low the notes nding or descending len are

Ornaments (extra notes added to leaps (jumping to a note further away) Steps (going to a next-door note) or

4

Melodic ostinato/riff: a repeating decorate

pattern

How to read pitches

<u>1</u> higher the pitch. the lines and spaces of the stave. The The blobs of the notes are arranged on higher the blob on the stave, the



Notes alternate being on a line and in പ

2

ω ledger line, like middle C shown above. have their own little line called a space Notes higher or lower than the stave

	l		l						
١									
Every			Boy		Deserves		Football		
	,	•	,	•	•	2		•	
					CD				

when doing this! spell 'FACE'. Remember to go upwards Football', and the notes in the spaces You can remember the notes on the lines with 'Every Good Boy Deserves

Musical knowledge 4: a cappella

Definitions and theory

- <u>.</u> instruments A cappella = music sung by voices alone: no
- 2 be major (sounds happy) or minor (sounds sad) Key = the set of notes used to create the music. Can
- ω notes: Inversion = when you shuffle the order of the chord



d is in the These are all C major chords because they have C E and G in ۲ them.

surrounding notes

Accents - notes that are louder than the Arco - on a violin or cello, using the bow

bass

the fifth of the

inversion second

- now

8 0

C major chord in

Types of voices

- <u>1</u> Soprano = the highest female voice
- 2 Treble = a boy's unchanged voice
- Alto = a lower female voice
- ω Tenor = a high male voice
- S 4 Bass = a low male voice

Articulation

Articulation is how the notes are played/sung.

Sustained - notes that are held on Finger-picking – on guitar or uke, playing individual notes one at a time guins Pizzicato – on a violin or cello, plucking the from one pitch to another without Slurred -Legato – notes that join smoothly together Staccato Stab – a short, accented chord Strummed – on a guitar or ukulele, playing the notes of a ating the new note ARTICULATION on a voice/wind instrument, going short, detached notes chord

Y8 MUSIC

CHRIST THE KING - KNOWLEDGE ORGANISERS


Y8 MUSIC



Y8 PE - Trampolining



Y8 PE - Netball



Components of Fitness

Health Related Components

-	
Cardiovascular	The ability to exercise the entire body for long periods of time
Fitness	without tiring
Muscular Endur-	The ability to use voluntary muscles many times without getting
ance	tired
Muscular	The amount of force a muscle can exert against resistance
Strength	
Flexibility	The range of movement possible at a joint
Body Composi-	The relative ratio of fat mass to fat-free mass in the body

Skill Related Components

Agility	The ability to change the position of the body quickly while main-
Balance	The ability to retain the body's centre of mass above the base of
Coordination	The ability to use two or more body parts together
Reaction Time	The time it takes to respond to a stimulus
Power	The ability to do strength performance quickly
Speed	The amount of time it takes to perform a particular action

Y8 PE - Rugby



Y8 PE – Table Tennis

Key Words:	Table Tennis	
Attack	Ready Position:	Cranium
DIOCK	Ready Positional is the middle of the table	oranian
Reaction	Be positioned in the middle of the table	Clavicle
Deceive	 Hold the bat with one hand using the hand shake grip 	Sternum
Positioning	Your feet need to be shoulder width apart	Humanua
	Knees need to be bent so you are lower to the table	Humerus
Skills:	As your opponent strikes to ball you need to bounce so	Radius
Serve	that you are in the best position to react to the ball	Ulna
Forehand	After striking the ball, you need to return to the ready	
Backhand	position as soon as possible.	Femur
Topspin		Patella
Backspin		
	Service Rules:	Tarsals
	The ball must be 'presented' to your opponent so that	Metatarsals
Famous	they can see it during the entire serving action	Phalanges
players:	The ball must be held in the flat of your palm to prevent	r natanges
	any additional spin being applied	
MA.	The ball must be thrown up at least 6 inches before striking it	
	The ball must bounce on your side of the table and then	1. Long
Ma Long	on your opponents side of the table	IT CONS
	In singles, you can serve the ball to any part of the table	2. Short
The second	You only get one chance to serve. If you miss the table,	
1 CAR	miss the ball, or hit the net then you lose the point	3. Flat
	If a let occurs then you may retake your serve	
Douglas		4. Irregular



Protect the vital organs in the body. E.g. ribs

Odd shaped bones which protect. E.g. vertebral column

Y8 PE - Football

Football	Key Skills				
Key Words:	1	Short pass	A short side foot pass enables a team to quickly pass a ball and help maintain pos-		
Dummy Cruyff Turn Drag back Swence	2	Long pass	A long pass is an attacking skill that allows players to switch the direction of the attack very quickly to create space, find a team-		
5. Curl 6. One-touch 7. Pass and move 8. Jockeying	3	Control	Good control of the football is an essential skill to maintain possession of the ball from the opposition and, if done accurately, gives the player more time to make the correct next decision		
9. Step overs 10. Nutmeg		Block tackle	The block tackle is an essential skill for winning the ball backin football. It is main- ly used when confronting an opponent head on and it is important to complete it with good timing and technique to prevent		
Formations will alter to suit a teams strengths/ counter an opponents threat		Throw-in	injury or fouls The throw-in is the legal way to restart the game if the ball has gone out of play from		
	6	Heading	The header can be an attacking or defen- sive skill and is used to try and win the ball		
•~ •	Striking the ball				
		Chip The play strikes the ball at the bottom and the ball goes over a player			
		Lob A player strikes a bouncing ball from underneath the ball, sending it over a player			
		Curl The player strikes the ball with the inside of their foot hitting the balls lightly to the side to create a curve			
	Swerve The player strikes the ball with the outside of their boot to create swerve				



Y8 PE - Handball

		Handball
Key Words:		Rules:
3 seconds on the ball	Players are only allowed to have possession of the ball for 3 seconds.	A match consists of two perio Each team consists of 7 player players. Outfield players can touch the that is above the knee.
Contact	Contact is allowed in handball.	Once a player receives posses sion or shoot. If a player holds possession th seconds, after they can dribble
Goalkeep- er	Goalkeeper can leave the D but not in possession of the ball.	dribbling). Only the goalkeeper is allower of the goal area. Goalkeepers are allowed out of possession if they are outside
Corners	Awarded if the ball comes off a defender and goes behind the goal.	
Penalty throw	Awarded if a defender steps into the D.	HANDBALL Play advances towards the go the red side on the attack, during an Olympic hando
Skills:		THE PITCH
Shooting	Players can shoot from outside of the D or by performing a jump shot.	Each team: 6 outfield players Can use
Dribbling	Players can move with the ball by bouncing but only for 3 seconds.	
Passing	Passing is done with one hand or two and can include a shoulder pass and bounce pass.	THE BALL Men Women
Famous Play	/er	19on 🔥 17.5on
Heidi Loke is	a Norwegian line player.	¥475g ¥375g



Respiratory System

1) Respiratory System

Function – to get OXYGEN in and CARBON DIXOIDE out.

Oxygen is transported around the body via the blood and pumped around the body by the heart.



2) Respiratory System and Cardiovascular System

The respiratory system (lungs) works with the cardiovascular system (heart and blood vessels) to increase the supply of oxygen and remove carbon dioxide efficiently.

GASEOUS

EXCHANGE Occurs in the ALVEOLI



3) KEY TERMS

Tidal Volume (TV): the amount of air that is inspired and expired normally. Breathing Rate (f): the number of breaths taken in a minute normally. Lung Capacity: the amount of air (volume) the lungs can hold. Minute Ventilation (VE): the volume of air that is inspired or expired in one minute.

 $VE = TV \times f$

(measured in 1/min)

4) Breathing Rates

In an attacking

in a 1, 2 or 3 step rhythm and throws

move on goal, player runs forward

at the goal

AT REST: breathing rate is slow and shallow (normal)

DURING EXERCISE: breathing rate increases and depth of breathing increases. Allows more air in.



Y8 PE - Basketball

Key Words:		Basketball	Principles of Training				
Drive			1. Specificity	Ensuring that the training is relevant and specific to the sport you are training			
Charge	Rules:			for			
Кеу	Team	players/substitutions — Each team is allowed 5 players					
Baseline	on cou	rt at one time. There is no limit on the amount of substi-	2. Progressive	Training frequency, intensity, time and type must be increased over time to			
	tutions	s you are able to make in each game and each team can	Overload	ensure the body is pushed beyond its normal rhythm			
Side line	have a	maximum of 12 players per squad.					
	Shot c	lock— When a team has possession and the ball is in	3 Individual	Training must be related to an athletes age, gender, injury status and fitness			
Skills:	court,	they only have 24 seconds to shoot. If they don't shoot	Needs	level			
Dribbling	within	this time the ball is turned over to the opposition.					
S in S in S	Goalte	nding — You are not allowed to stay under the basket					
Jumping	You an	e only allowed in the 'key' for 3 seconds before having to	4. Reversibility	Systems and progress are reversed if training stops or is reduced			
Passing	come	put.					
Catching	Backco	purt Violation — You are not allowed back into your own					
Shooting	half af	ter crossing the midcourt line.	5. Rest and	Physical adaptations occur during the recovery and rest periods of the training			
Shooting		_	Perovenu	cycle			
\frown			Recovery				
		Basketball Positions and Roles					
hacketball	1.	Usually, the tallest and strongest player.	6. Overtraining	If an athlete doesn't have sufficient rest periods then their body doesn't have			
players	Centre	 They are positioned under the basket to get re- 		time to adapt and overall fitness declines			
players.	2	bounds and block shots.					
122.4	2.	 Osually, the second tallest and strongest players on the team 					
	For-	Their role is to guard against higger players on the					
	ward	 Then fold is to guard against bigger players on the opposition toom 	FITT Principle				
ALC N		They need to be able to score from all ranges on the		•			
29		court.	1. Frequency	This is increased by training a greater number of times each week			
Kobe Bryant	3.	 Usually, the shortest players on the team. 	2. Intensity	This is increased by lifting a greater resistance when weight training, or			
Con C	Guards	They are the team's best shooters from three-point		training at a higher percentage of your maximum heart rate			
Stad at		range.	3 Time	This can be when you train for longer periods or when you reduce recovery			
22		Responsible for driving the ball down the court and	o. mile	time between sets of everyise			
		setting up teammates.					
		Also known as the 'Coach on the Court' as they	4. Type	This is where you offer a variety of training types and experiences for the			
Cebron James		dictate what will happen.		athlete by combining different training methods			

Y8 PE – Health and Fitness

Key W	ords:	Health and Fitness				
Interva Weight Contin	al t uous	Fitness Tes	t	Component of fitness meas- ured		
Plyometric Circuit Fartlek		12 minute	cooper run	Cardiovascular Fitness		
		Vertical jun	nptest	Power		
		30 metre sj	print test	Speed		
Skills:		Illinois Agil	ity test	Agility		
Lifting		Sit and read	ch test	Flexibility		
weight	is	Sit up test		Muscular Endurance		
long pe	eriods	Hand grip o	lynamometer	Muscular Strength		
Sprinting Jumping health. This is		of fitness is importa	nt to maintain good cardiovascular			
				eart to pump blood around the body.		
1	Cardiova	ascular Fitness	The ability of the h	eart to pump blood around the body.		
1 2	Cardiova Power	ascular Fitness	The ability of the h	eart to pump blood around the body. eart, lungs and blood to transport orm strength performances quickly		
1 2 3	Cardiova Power Speed	ascular Fitness	The ability of the h The ability to perfo The ability to put b	eart to pump blood around the body. Heart, lungs and blood to transport form strength performances quickly body parts into motion quickly		
1 2 3 4	Cardiova Power Speed Agility	ascular Fitness	The ability of the h The ability to perfo The ability to put b The ability to chan	eart to pump blood around the body. Heart, lungs and blood to transport form strength performances quickly body parts into motion quickly ge the position of the body quickly		
1 2 3 4 5	Cardiova Power Speed Agility Flexibilit	ascular Fitness	The ability of the h The ability to perfo The ability to put b The ability to chan The range of motio	eart to pump blood around the body. Heart, lungs and blood to transport form strength performances quickly body parts into motion quickly ge the position of the body quickly on (ROM) at a joint		
1 2 3 4 5 6	Cardiova Power Speed Agility Flexibilit Muscula	ascular Fitness ty	The ability of the h The ability to perfo The ability to put b The ability to chan The range of motio The ability to use v	eart to pump blood around the body. Heart, lungs and blood to transport form strength performances quickly body parts into motion quickly ge the position of the body quickly on (ROM) at a joint voluntary muscles repeatedly with-		

		Training Methods
1	Interval	Periods of exercise followed by periods of rest.
2		For example, sprint for 30m and then rest for ten seconds, before doing it again.
3		This is good for games players who require short bursts of sprinting.
4	Weight	This involves resistance training using weights aiming at improving strength and endurance of muscles.
5		You do a series of repetitions which makes up a set.
6		This is good for sprinters who want to build musde.
7	Continuous	This involves aerobic activity for long periods of time without stopping e.g. cycling, running, swimming.
8		To be classed as continuous training, the period of exercise must be 12 minutes without stopping.
9		This is good for long distance runners if the activity is running.
10	Plyometric	This is high intensity training where the athlete performs a series of ex- plosive jump movements, lengthening and then shortening the leg mus- cles.
11		This is good for basketball and volleyball players who will benefit from jumping high.
12	Circuit	This involves performing a series of activities in a circuit to develop ei- ther aerobic or anaerobic fitness.
13		This is good for all sports, depending on what is in the circuit.
14	Fartlek	This is also known as speed play.
15		It involves working at different speeds across different terrains and dis- tances. E.g. walk, jog, sprint
16		This is good for games players where different speeds are required.

Y8 RE - Sacraments

		Key Words	Sacraments	$\left \right $	Key Facts	
1	Grace	God's love, courage, care and understanding received through the sacraments.	Only by grace		By <mark>participating in the sacraments, we are showing our allegiance to God and our faith in Christ as the original sacrament.</mark>	
2	Love	Love comes in many forms. It is universal and unconditional regardless of circumstance.			The gift of grace that we receive through the sacraments are invisible to the physical world, but the sacrament is a physical way of	
3	Sacrament	From the Latin 'Sacrosanctum' – Military oath of allegiance. An outward sign of inward grace. There are seven sacraments in the Catholic Church.			showing others that we accept it. Once we have, we have a duty to be the Body of Christ on earth.	
4	Gifts of the Holy Spirit	Graces that God bestows upon Catholics, through the Holy Spirit who participate in the sacraments.			During his life Jesus encountered many people and those people received God's grace in hearing Jesus' words through his teachings and parables, his actions through miracles and treatment of	
5	Sacraments of Initiation	Are the foundations of leading a Christian life. They allow Catholics to enter into a life as children of			receive them we have the opportunity to feel God with all of our senses, just as those people in Jesus' time did.	
		dou. They are baptish, commation and Edenarist.	"It is only by God's grace that you have been saved!" - Ephesians 2:5; NLT		Jesus gave the sacraments to his disciples and told them to pass them on, baptising people and sharing his new covenant . This was	
		Key Quotes		4	passed on through popes and bishops and priests to Catholics today, lesus' new disciples	
1	"Grace is be	ing looked upon by God, our being is touched by his love" (Pope Benedict XVI)		\vdash	Jesus forgave sins, strengthened faith, fed the hungry and healed	
2	[a sacrament	is] " <mark>an outward sign of inward grace</mark> " (Catechism of the Catholic Church (<mark>CCC</mark>))		5	the sick. Through the sacraments Catholics too can do these for people today. They are the branches of Christ, doing his work.	
3	3 "All sacrament are an encounter with Christ, who is Himself the original sacrament" (Catechism of the Catholic Church (CCC))			6	Baptism allow a person to join with Christ and enter into a covenant with God. A person is spiritually cleansed with water to physically show they are embarking on a new journey with Christ.	
4	" <mark>Christ has r</mark> hands with through whic Christ has no	no body now on earth, but yours. Yours are the only which he can do his work. Yours are the only eyes h his compassion can shine upon the troubled world. o body now on earth but yours." (St Teresa of Avila)		7	Through Confirmation Christ gives us his Spirit. Catholics complete their baptism becoming strong, committed Christians. They receive the oil of Chrism a physical sign of spiritually receiving of the Holy Spirit.	
5	" <mark>I am the vine</mark> and I in them	e, and you are the branches <mark>.</mark> Those who remain in me, , will bear much fruit; for you can do nothing without me." (John 15:5)		8	The Eucharist is the 'source and the summit' that unites us with Christ, physically and spiritually through transubstantiation. We become the spiritual bread for others through our words and actions.	

Y8 D&T – Contextual project

Research

It helps designers to gain a better understanding of the problem that needs solving and equips us with the knowledge to be more successful when we start to design

Primary research	Collecting information/ data directly from people, first hand. Examples include interviews and observations, product analysis				
Secondary research	Gaining information/ data from existing sources or published information. Examples include books and the internet				
Product analysis	Examining an existing product to find out information about it. When analysing a product you may consider; how its made, wha its made from, what its function is, strengths and weaknesses, c to make, components used in manufacture, shape, colour, size				
Target market	The person/ group of people you are designing your product for				
Needs and wants	 Needs – what the target market needs a product to do in order for it to work Wants – desirable qualities that a target user would <i>like</i> a product to have For example: A target user needs a travel cup that will contain a liquid without it spilling but they may want it to have an adjustable handle to make it easier to carry 				
Material investigation	Experimenting with materials to find out their working properties				

Models and Prototypes

Designers make models and prototypes before deciding on a final design. Faults and improvements can be identified and corrected, before they manufacture a final product. Target user feedback can be gained along the way

 Models
 Models can be made whilst designing. They can be models of individual parts or the whole product. It helps designers see how parts/ a product will look and work

Prototype A prototype attempts to simulate the final design, aesthetics, materials and functionality of the intended design. It is the final step before a product is manufactured. A prototype is made after lots of modelling has taken place



Iterative design:

A design process that works on a continuous cycle until a solution is found. A designer will produce designs, model the design, evaluate the success of the design. The process starts again with the designer making alterations until a suitable solution is found



SCAMPER:

When designing you can use different aspects of SCAMPER to improve/ alter your design. For example if your design is too complex, you may choose to eliminate parts of it to simplify the design

scheme, regroup, redistribute ...

Y8 D&T – Mechanisms and Timber



Y8 D&T - FPN

<u>Year 8 – Fe</u> Spec	bod Preparation and Nutrition: diet, diet,	bics: Nutrition religious diets f	al needs of others, health issues as and food choices, food origins, org arming, food miles and seasonality	ssociated with a poor ganic and intensive v.		
Check the label on packaged foods	Eatwell Guide	2 Different ages have different nutritional needs				
Each serving (150g) contains	e a lave now mouth of what you but overall should come indin such houd group.	Age	Definition			
de a dult solence state Teper unie a solet per 1000 gent of the the term In fait, sait and sugars	s de la contraction de la cont	Young children	ildren have small stomachs and ry is important for calcium. They			
Est at Manual		Children	They are very active and growing rapidly. Need snacking should be avoided.	d a balanced diet, sugar and		
		es and calcium for skeleton. loss of iron). Teenagers deal with				
			Stop growing so needs don't vary much. Eatwee Metabolic rate slows through age. Muscle is lo	ell guide should be followed. Ist and fat gained.		
Eat less often and in small amounts	Por Core of the region, final and other proteins Distribution and use in small amounts Por day find processing mask, one of which is oily. Eat less Chorde lower sugge of NCIA and use in small amounts Por day find processing mask Chorde lower sugge of NCIA and use in small amounts Por day find processing mask Per day find processing mask and use in small amounts	Elderly	Usually less active and need less energy. Taste affects enjoyment. Calcium, vitamin D and B12	and smell can change which 2 are important.		
Souris: Public Health Drighend in association with the Welch Government	er c. final timelerie borten en final timelerie Agency in horizen indexi	lated Health Pro	oblems _			
Health Problem	Definition			Energy out: activity		
Malnutrition	Having intakes of energy and/or nutrients below or in excess of n	eeds for long perio	ds of time can affect health.	Energy In: food and drinks		
Over nutrition	The most common over nutrition problem is obesity caused by to	oo much energy bei	ng consumed, or high levels of inactivity.	Energy in > Energy out = Weight gain		
CHD & High Cholesterol	Coronary heart disease (CHD) is caused by a narrowing of the blo blood increase the risk of CHD.	ood vessels to the h	eart. This reduces the flow of blood to the heart.	. High levels of cholesterol in		
Type 2 Diabetes	Diet plays a strong role in preventing type 2 diabetes, a condition	that causes the lev	el of sugar (glucose) in the blood to become too	high.		
Anaemia	A condition caused by insufficient iron in the body. Common sym	ptoms include tired	Iness and lethargy.			
Bone Health	Calcium is important for strong bones. Vitamin D is needed for ca	alcium to be absorb	ed from food.			
Cancer	* There are some foods that are directly linked to cancer, but our overall diet is more important than these individually and a healthy balanced diet can reduce the risk of some types of cancer.					

Y8 D&T - FPN

3 Food choice and religious diets

	11-11	** *	Ă	≫¥	b	Ţ	MORE INFO
BUDDHISM	Preferable	to be vegetar	ian and refrain	from meat	~	~	Many people will not eat meat or fish, and monks have additional restrictions.
HINDUISM	×	×	×	×	~	×	Vegetarian diet, while fasting is observed on certain days and certain foods are forbidden.
ISLAM	*HALAL	×	*HALAL	~	~	×	Anything with pork and lard is forbidden, and Halal foods are allowed.
JUDAISM	*KOSHER NOT WITH DAIRY	×	*KOSHER NOT WITH DAIRY	NO SHELLFISH	NOT WITH MEAT	~	Certain foods are restricted during Passover such as leavened products i.e. bread. Eating and drinking during fast days are prohibited.
CHRISTIANITY / ROMAN CATHOLICISM	~	~	~	~	~	~	Meat is restricted on Fridays of Lent, Ash Wednesday, and Good Friday (fish is permitted). Fasting is practiced.
SIKHISM		Halal and *Kos	her in some sec	5	~	×	Lacto-vegetarian diet in temples, while not forbidden from meats (individual choice).

6	Intensive Farming	Organic Farming
Quantity (yield)	High yield, large amounts of food produced.	Lower yield of crops and more is lost and less is grown.
Pesticides	Keep pests away resulting in more crop.	Pesticides restricted, natural predators encouraged
Animals	Battery rearing of animals in enclosures , less humane and can cause disease to spread quickly through the animal population	Animals have a better quality of life with access to outdoors. Animals not given antibiotics.
Labour	Artificial chemicals and machines means fewer people are needed for work	More people are needed to work the farms.
Fertilisers	If too much is used, it can wash in to steams and lead to pollution.	Only natural fertilisers are used along with crop rotations.
Cost	Low cost of production but a high initial set up, maximum output is achieved resulting in a lower cost for consumers	Production is lower and more space is needed, resulting in higher cost produce for consumers.

5 Where our food comes from

This symbol means that the products have come from farmed animals that have been inspected to **VERY high** welfare standards –

providing them with physically and mentally stimulating environments from birth to slaughter.



This logo is stamped on to egg to certify that they are **British** and that the **hens have been vaccinated** against Salmonella. SSURED STAND

This symbol means that the food you buy has been **responsibly sourced** from **British** farmers, safely produced and comes from crops and animals that have been well cared for



This symbol means that the product is certified to **high organic standards** and provides an assurance of organic authenticity.

Key Terms Key terms Definition **Health Balanced** A balanced diet is based on the Eatwell Guide. An unbalanced diet Diet can lead to dietary related diseases. In many religions and cultures texts and teachings, include rules and **Dietary** law advice, state which foods should or shouldn't be eaten. Halal refers to foods that are allowed to be eaten according to Islamic law, and how and animal is slaughtered. Kosher Is a word used to describe food and drink that complies with Jewish religious dietary law, and refers to how and animal is slaughtered. Organic Food produced without the use of chemical fertilisers, pesticides or other artificial chemicals. A way of producing large amounts of crops, by using chemicals and Intensive farming machines as well as keeping animals indoors to restrict movement. Seasonal The times of the year when the harvest or the flavour of a food is at its peak. The distance food is transported from the time of its making, until it Food miles reaches the consumer.

Y8 SCIENCE - Forces

Friction and drag

- Friction is a force which will slow down a moving object due to two surfaces rubbing on one another
- The greater the friction, the faster an object will slow down, or the greater the force it will need to overcome the force of friction. For example, it is easier to push a block on ice than on concrete, as the ice is smoother and causes less friction
- When an object is moving through a fluid, either liquid or gas, the force which slows it down is known as drag
- The fluid particles will collide with the moving object and slow it down, meaning that more force is needed to overcome this
- Both drag and friction are contact forces as the two surfaces in friction, and the object and fluid particles in drag, come into contact with one another
- Both drag and friction are forces so they are measured in Newtons (N)

A solid moves through a liquid.

Turning forces

- · A moment is the turning effect of a force, it is measured in Newton meters
- We can calculate a moment with the equation:
- The size of the moment will increase as the distance from the **pivot** or the size of the force increases
- When an object, such as a seesaw, is balanced, the clockwise and the anticlockwise moments will be equal and opposite, which is known as equilibrium
- When forces are equal and opposite to each other, there is no resultant force



Hooke's law

- Some objects, like springs, can be stretched, the amount that they stretch is known as their extension
- A force needs to be applied to the spring for it to be stretched, we can achieve this by adding masses which exert the force weight
- · A spring will continue to stretch until it passes it's elastic limit
- If an object obeys Hooke's law it will have a linear relationship: if the force applied to the spring is doubled, the extension will double too
- · If an object does not obey Hooke's law, it will not have a linear relationship



as you pull it

This graph shows the relationship between force and extension

Gas pressure

- Gas pressure is caused by the particles of a gas colliding with the wall of the container which they are in
- The more often that the particles collide with the wall of the container, the higher the pressure of the gas will be
- Gas pressure can be increased by:
- Heating the gas so the particles move more quickly and collide with the container with a higher energy
- Compressing the gas so there are the same amount of particles within a smaller volume meaning that there are more collisions
- Increasing the amount of particles within the same volume so there are more collisions
- Atmospheric pressure is the pressure which the air exerts on you all of the time, nearer the ground there are more particles weighing down on you so the pressure is greater
- The higher you go, the smaller the atmospheric pressure, this is because there will be less particles weighing down on you

Pressure in solids

- The pressure which is exerted on a solid is known as stress
- The greater the area over which the force is exerted over, the lower the pressure, this is why snowshoes have a large area to prevent you sinking into the snow
- Pressure can be calculated using the following equation:

pressure = force area

Pressure in liquids

- Liquids are incompressible
- The particles in a liquid are already touching, meaning that there is little space between them to compress
- Liquids will transfer the pressure applied to them, this is seen in hydraulic machines
- As the ocean gets deeper, the pressure will increase, this is because the pressure depends on the weight of the water above
- The greater the number of water molecules above, the higher the pressure will be

Keyterms Make sure you can write definitions for these key terms. air resistance atmospheric pressure contact force elastic limit Hooke's law incompressible drag equilibrium extension friction gas pressure linear relationship resultant force moment newton plvot pressure stress

A solid moves through a gas. A solid mov ad in Newtons (N)

Y8 SCIENCE - Forces

CHAPTER 8: FORCES KEYWORDS

ימרשי זימייכי מורמ		
The effect of a force applied to a solid	Stress	18
Single force which can replace all the forces acting on an object and have the same effect	Resultant force	17
The ratio of force to surface area, in N/m ² and how it causes stresses in solids	Pressure	16
The point about which a lever or see-saw balances or rotates	Pivot	15
Unit for measuring force (N)	Newton	14
A measure of the ability of a force to rotate an object about a pivot	Moment	13
	relationship	
When 2 variables are graphed and show a straight line through the origin	Linear	12
Cannot be compressed	Incompressible	11
double		
A law that says that if you double the force on an object, the extension will	Hooke's Law	10
Caused by the particles of a gas colliding with the wall of a container	Gas pressure	9
A force which will slow down an object due to 2 surfaces rubbing on one another	Friction	00
The amount of stretch in an object	Extension	7
When the moments are equal and opposite	Equilibrium	6
force is removed		
The point beyond which a spring will not return to its original length when the	Elastic limit	თ
The force slowing down an object as it moves through a liquid or gas	Drag	4
A force when 2 objects are touching	Contact force	ω
	pressure	
The pressure caused by the weight of the air above a surface	Atmospheric	2
The force on an object moving through the air (also known as drag)	Air resistance	1
Definition	Keyword	
		ľ

Y8 SCIENCE FORCES 2

The turning effect of a force	What is a moment?	The point about which a lever or see-saw balances or rotates	Pivot
Using a ruler, apply weights to the spring and measure the extension	How do you measure the extension of a spring?	Unit for measuring force (N)	Newton
The point at which the spring will not go back to its original length when the force is removed	What is the elastic limit of a spring?	A measure of the ability of a force to rotate an object about a pivot	Moment
When you double the force, the extension doubles	State Hooke's Law	When 2 variables are graphed and show a straight line through the origin	Linear relationship
When forces stretch an object	How is tension caused?	Cannot be compressed	Incompressible
When forces squash an object	How is compression caused?	A law that says that if you double the force on an object, the extension will double	Hooke's Law
Reaction force	What force does a solid provide to an object?	Caused by the particles of a gas colliding with the wall of a container	Gas pressure
Change the shape of an object or the direction it moves in	What are the 2 things a force can do to an object?	A force which will slow down an object due to 2 surfaces rubbing on one another	Friction
Steady speed or not moving	What 2 things can be happening to an object when its resultant force is zero?	The amount of stretch in an object	Extension
The difference between the two forces	How do you calculate resultant force?	When the moments are equal and opposite	Equilibrium
When an object moves through water or air, pushing particles out of the way	When does drag occur?	The point beyond which a spring will not return to its original length when the force is removed	Elastic limit
Water resistance and air resistance	Name 2 drag forces	The force slowing down an object as it moves through a liquid or gas	Drag
On a rough surface	When is friction greatest?	A force when 2 objects are touching	Contact force
A contact force between two moving objects	What is friction?	The pressure caused by the weight of the air above a surface	Atmospheric pressure
Retrieval Answer Newtons (N)	Retrieval Question What is the unit of measurement for a force?	Definition The force on an object moving through the air (also known as drag)	Keyword Air resistance

Y8 SCIENCE FORCES 2

Keyword	Definition	Retrieval Question	Retrieval Answer
Pressure	The ratio of force to surface	What is the unit of	Newton metres (Nm)
	causes stresses in solids	moment?	
Resultant force	Single force which can	State the equation for	Moment (Nm) = force (N)
	replace all the forces acting	calculating a moment	x perpendicular distance
	on an object and have the		from the pivot (m)
	same effect		2 2 3
Stress	The effect of a force applied	What is a pivot?	The turning point
	to a solid		
	Stress = force/area		
What causes	Water molecules pushing	What is the law of	The sum of the clockwise
liquid pressure?	on each other and on	moments?	moments is equal to the
	surfaces		sum of the anticlockwise
			moments
What does	Cannot be compressed	Describe what is meant	Where the weight of an
incompressible		by the centre of gravity	object acts through a
mean:			specific point
How does liquid	Increases the deeper you go	What is gas pressure?	The force that gases exert
pressure change			when they collide with the
as you go dive			walls of a container
deeper in the			
Describe why an	If up thrust balances the	What happens to	They get closer together,
object float	weight of an object	particles in gas when	collide more often and the
		they are compressed?	pressure increases
Define up thrust	The pressure on the bottom	How does atmospheric	It decreases the higher up
	of object that is submerged	pressure change with	you go
	in water	altitude?	
What is the unit	Newtons per metre squared	Where on Earth does air	Near the ground
of measurement	(N/m2)	have the greatest	
for stress?		density?	
State the	Stress (N/m2) = force (N) \div	What is the equation to	Fluid pressure (N/m2) =
equation for	area (m2)	calculate fluid pressure?	force (N) ÷ area (m2)
calculating			
stress?			
What happens to	Decreases	In which direction does	Downwards (on the
the stress as the		stress act?	ground)
area of an object			
increases?			

Y8 SCIENCE - Energy

Work

- In physics, work done is the energy transferred when a force is used to move an object a certain distance
- Like energy, work is measured in Joules (J)
- Work can be done in a a range of situations e.g. lifting a book work is done against gravity, when you slide a book along a table work is done against friction
- · We calculate work with the equation:

work done (J) = force (N) × distance moved (m)

- · A simple machine makes it easier to lift things, they reduce the force needed
- A force multiplier uses a smaller input force (what you apply) to to generate a larger output force (what is created)
- If you increase the distance from the pivot, less input force is needed to be used for the same output force as before
- A lever is an example of a force multiplier, a longer lever will require a less input force than a shorter lever to produce the same output force



Radiation

- · Radiation is a method of transferring energy without the need for particles
- An example of radiation is thermal energy being transferred from the Sun to us through space (where there are no particles)
- This type of radiation is known as infrared radiation, it is a type of wave just like light
- . The hotter an object is the more infrared radiation it will emit (give out)
- The amount of radiation emitted and absorbed depends on the surface of the object:
- Darker matte surfaces absorb and emit more infrared radiation
- Shiny and smooth surfaces absorb and emit less infrared radiation, instead reflecting this
- The amount of infrared radiation being emitted can be viewed on a thermal imaging camera



Energy and temperature

- · The temperature of a substance is a measure of how hot or cold it is
- Temperature is measured with a thermometer, it has the units of degrees Celsius (°C)
- The thermal energy of a substance depends on the individual energy of all of the particles, it is measures in Joules (J)
- As all particles are taken into account, a bath of water at 30 °C would have more thermal energy than a cup of tea at 90 °C as there are many more particles
- · The faster the particles are moving, the more thermal energy they will have
- · When particles are heated they begin to move more quickly
- · The energy needed to increase the temperature of a substance depends on:
 - · the mass of the substance
 - · what the substance is made of
- how much you want to increase the temperature by

Conduction

- Conduction is the transfer of thermal energy by the vibration of particles, it cannot happen without particles
- This means that every time particles collide they transfer thermal energy
- Conduction happens effectively in solids as their particles are close together and can collide often as they vibrate around a fixed point
- Metals are also good thermal conductors as they contain electrons which are free to move
- In conduction the thermal energy will be transferred from an area which has a high thermal energy store (high temperature) to an area where there is a low thermal energy store (low temperature)
- Gases and liquids are poor conductors as their particles are spread out and so do not collide often, we call these insulators



Convection

- Convection is the transfer of thermal energy in a liquid or a gas, it cannot happen without particles
- As the particles near the heat source are heated they spread out and become less dense, this means that they will rise
- More dense particles will take their place at the bottom nearest the heat source creating a constant flow of particles
- This is known as a convection current
- Convection cannot happen in a solid as the particles cannot flow, they can only move around a fixed point



Ø	Keyterms	Make sure you ca	n write definitio	ns for these key terms.									
		conduction	convection	convection current	force multiplier	Input force	Insulator	Infrared radiation	lever	output force	simple machine	temperature	
				thermometer	r thermal condu	uctor therm	al energy store	thermal imaging	camera	work done			
	*********		***********			***********	***********			*************	***************		/*******

Y8 SCIENCE - Energy

CHAPTER 8: ENERGY KEYWORDS

CHRIST THE KING - KNOWLEDGE ORGANISERS

	Keyword
	Conduction
2	Convection
ω	Convection current
4	Force multiplier
ъ	Input force
6	Insulator
7	Infrared radiation
8	Lever
9	Output force
10	Simple machine
11	Temperature
12	Thermometer
13	Thermal conductor
14	Thermal energy store
15	Thermal imaging
16	Work done

Varana	7.5	Datainanal Danatian	Detained American
Conduction	Transfer of thermal energy	What is meant by "work"?	When a force
	by the vibration of particles.		moves/deforms an object
Convection	Transfer of thermal energy	Give 2 examples of "doing	Lifting, pushing (any
	rise		
Convection	The movement of heated	State the equation to	Work done (J) = force (N) x
current	fluids where hot fluid	calculate work done?	distance moved (m)
	fluid moves downwards		
Force	A simple machine that	What is the unit of	Joules (J)
multiplier	uses a small input force to	measurement for work	
	generate a large output	done?	
Input force	The force you apply to	Give 2 examples of simple	Levers and pulleys
	make an object move or change shape	machines	
Insulator	Materials which do not	Why is a lever described as	The output force is bigger
	allow thermal energy to pass through them.	a force multiplier?	than the input force
Infrared	The transfer of thermal	Define the term	How hot or cold an object
radiation	energy without the need	"temperature"	SI
Lever	A type of machine which is	Which piece of scientific	Thermometer
	a rigid bar that pivots	apparatus measures	
	about a point. It is a force multiplier	temperature:	
Output force	The force that is applied to	What are the units of	Degrees Celsius (°C)
	the object moved by the	measurement for	
Simple	A machine such as a lever	What are the unit of	Joules or Kilojoules
machine	or pulley system which	measurement for energy?	
	forme by moving a forme		
	over a bigger or smaller		
	distance		
Temperature	A measure of how hot or	What happens to particles	They vibrate or move
Thermometer	An instrument used to	In which direction is the	From the hot object to a
	measure temperature	transfer of energy as an	cooler object
Thormal	Thormal conductors	Describe 3 wave opportunity	Conduction convection
conductor	contain electrons that are	be transferred	or radiation
	free to move		
Thermal energy store	The energy store associated with an	State what an insulator is?	A material that does not allow energy to be
	object's temperature		transferred through it
			easily

Y8 SCIENCE ENERGY 2

Y8	SC	IEN	CE	EN	ER	GY	2
			and the second second	100 10	and the second		

Ĩ				
	Keyword	Definition	Retrieval Question	Retrieval Answer
_	Thermal	A device used to view, and	Describe how energy is	Particles transfer energy
	imaging	amount of infrared	transferred in conduction?	by colliding with other
	camera	radiation being emitted		particles when they
		from an object		vibrate
	Work done	The amount of energy	Describe how energy is	Particles move further
		transferred when an	transferred in convection?	apart, become less dense
		object is moved over a		and rise transferring
		distance		energy
		WD = force x distance		
			What is infrared radiation?	A type of
				(electromagnetic) wave
				that transfers heat energy
			What type of materials are	Dark, matt surface
			good absorbers of infrared	
			radiation?	
			What type of materials are	Shiny or light surfaces
			good reflectors of infrared	
			radiation?	
			Name 2 sources of infrared	Sun, fire (any sensible
			radiation	answer)
			What do we use to detect	Thermal imaging camera
			infrared radiation?	

Y8 SCIENCE - Earth



Y8 SCIENCE - Earth

CHRIST THE KING - KNOWLEDGE ORGANISERS

CHAPTER 8: EARTH KEYWORDS

	Keyword	Definition
1	Atmosphere	The mixture of gases found in the air around us.
2	Carbon cycle	The process by which carbon is naturally transferred from one store to
		another
ω	Climate change	Long term changes to weather patterns
4	Combustion	The burning of a fuel in oxygen
л	Electrolysis	The extraction of metal from a compound using electricity
6	Fossil fuel	A chemical energy store formed from the remains of organisms
7	Global	The gradual increase in the temperature of the Earth
	warming	
œ	Greenhouse	Gases in the atmosphere that trap radiation.eg methane and carbon
	gas	dioxide
9	Mineral	A naturally occurring mineral or compound
10	Natural	Resources that are not man-made and can be found in the
	resources	environment
11	Ore	A naturally occurring rock which has a mineral content worth
		extracting
12	Photosynthesis	The process of plants transferring light energy to chemical energy
13	Recycling	The collecting and processing of materials so they can be used again
14	Respiration	The process by which organisms transfer chemical energy to useable
		energy stores

Y8 SCIENCE EARTH 2

Keyword	Definition	Retrieval Question	Retrieval Answer
Atmosphere	The mixture of gases	What is the definition	The increase in air
	found in the air	of global warming?	temperature at the
	around us.		surface of the Earth
Carbon	The process by which	What is the definition	The transfer of energy
cycle	carbon is naturally	of greenhouse effect?	from the Sun to the
, the second sec	transferred from one		thermal energy store of
	store to another		the gases in the Earth's
			atmosphere
Climate	Long term changes to	Name 2 greenhouse	Carbon dioxide and
change	weather patterns	gases	methane
Combustion	The burning of a fuel	Name 4 of the gases	Nitrogen, oxygen,
	in oxygen	found in Earth's	carbon dioxide, argon
		atmosphere	
Electrolysis	The extraction of	Define the term	Lasting change in long
	metal from a	"climate change"	term weather patterns
	compound using		over a period of time
	electricity		
Fossil fuel	A chemical energy	Name 3 ways human	Burning fossil fuels,
	store formed from the	activities contribute to	deforestation, farming
	remains of organisms	the addition of carbon	
		to the atmosphere	
		resulting in climate	
		change	
Global	The gradual increase	Describe 2 pieces of	Increased carbon
warming	in the temperature of	evidence supporting	dioxide levels, carbon
	the Earth	the theory relating to	dioxide and methane
		climate change	molecules trap heat
Greenhouse	Gases in the	Give 2 ways humans	Use renewable sources
gas	atmosphere that trap	can reduce their	of energy, use less cars,
	radiation.eg methane	impact on climate	buy and waste less
	and carbon dioxide	change	
Mineral	A naturally occurring	What is a mineral?	Naturally occurring
	mineral or compound		metals joined to other
			elements in compounds

Keyword	Definition	Retrieval Question	Retrieval Answer
Natural	Resources that are	What is a metal ore?	Naturally occurring
resources	not man-made and		rocks that contains
	can be tound in the		enougn minerai to
	environment		make it worth getting
	8	6	the mineral
Ore	A naturally occurring	How are metals	Heating with carbon or
	rock which has a	extracted from their	electrolysis
	mineral content	ores?	
	worth extracting		
Photosynthesis	The process of plants	Name 3 metals	Zinc, iron, lead, copper
	transferring light	extracted using	
	energy to chemical	carbon	
	energy		
Recycling	The collecting and	Describe the 2 stages	Separating the ore
	processing of	of extracting iron	from other
	materials so they can	from its ore	compounds, using
	be used again		chemical reactions to
			extract iron from iron
			oxide
Respiration	The process by which	What is electrolysis?	Splitting up a
	organisms transfer		compound using
	chemical energy to		electricity
	useable energy stores		
		Where do all the	Earth's crust,
		materials and	atmosphere, or oceans
		resources we use	
		come from?	
		What is meant by the	Collecting and
		term "recycling"?	processing materials
		Why is the recycling	Resources will last
		of materials	Inger lises less
		encouraged?	energy than lising new
		c	materials, reduces
			waste and pollution
		State 2 disadvantages	Lorries collecting it use
		of recycling	fuel and create
			pollution, difficult to
			separate,

Y8 SCIENCE EARTH 2

Y8 SCIENCE - Ecosystems

Respiration

- · Respiration is the process in which energy is released from the molecules of food which you eat
- Respiration happens in the mitochondria of the cell
- Aerobic respiration involves oxygen, it is more efficient as all of the food is broken down to release energy

glucose + oxygen → carbon dioxide + water

- The glucose is transported to the cells in the blood plasma
- The oxygen is transported to the cells in red blood cells, by binding with haemoglobin
- · Carbon dioxide is a waste product and is transported from the cells to the lungs to be exhaled
- Anaerobic respiration is a type of respiration which does not use oxygen, it is used when the body cannot supply the cells with enough oxygen for aerobic respiration
- · Anaerobic respiration releases less energy than aerobic respiration

glucose → lactic acid + carbon dioxide

- · The lactic acid produced through anaerobic respiration can cause muscle cramps
- Lactic acid will build up if there is not enough oxygen present in the blood supply to break it down. This is known as an oxygen debt

Fermentation

- Fermentation is a type of anaerobic respiration which occurs in yeast
- Instead of producing lactic acid, yeast produces ethanol, which is a type of alcohol glucose → ethanol + carbon dioxide
- · This process can be used to form alcohol to drink or to allow bread and cakes to rise

Plant minerals

Plants need minerals for healthy growth, if they do not have enough of these minerals this is known as a mineral deficiency

Mineral	What is It used for?	What happens if there is not enough?
nitrates (contain nitrogen)	healthy growth	poor growth and older leaves yellow
phosphates (contain phosphorus)	healthy roots	poor growth, younger leaves look purple
potassium	healthy leaves and flowers	yellow leaves with deadpatches
magnesium	making chlorophyll	leaves will turn yellow

Fertilisers can be used to stop plants from suffering with mineral deficiencies

Photosynthesis

- Photosynthesis is the process which occurs in the chloroplasts to produce glucose using sunlight
- glucose + carbon dioxide → glucose + oxygen
- Any organism that can use photosynthesis to produce its own food is known as a producer, these are not just limited to plants but can include other organisms such as algae



- The rate of photosynthesis can be affected by:
 - Light intensity the higher the light intensity the higher the rate of photosynthesis up to a point.
 - Carbon dioxide concentration the higher the carbon dioxide concentration the higher the rate of photosynthesis up to a point
 - Temperature the optimum temperature is the temperature at which photosynthesis occurs at the highest rate, before and after this the rate will be less



Leaves

- To best adapt for photosynthesis leaves have a number of adaptations
- They are thin to allow the most light through
- There is a lot of chlorophyll to absorb light
- They have a large surface area to absorb as much light as possible



0	Keyterms	Make sure you can write defini	tions for thes	e key terms.					•••••		••••••	•••••
		aerobic respiration	algae	anaerobic respiratio	n chlorophyll	mineral deficiency	refermentation	fertiliser	haemoglobin	lactic acid	magneslum	
1				•••••••							•••••	•••••

Y8 SCIENCE - Ecosystems

CHAPTER 8: ECOSYSTEMS KEYWORDS

]		
	Keyword	Definition
1	Aerobic respiration	The process by which organisms use oxygen to transfer the energy in a fuel into chemical energy
2	Algae	A single celled plant
ω	Anaerobic respiration	The process by which organisms transfer the energy in a fuel into chemical energy, but in the absence of oxygen
4	Chlorophyll	The green pigment found in plants which absorbs light during photosynthesis
5	Mineral deficiency	A condition in organisms where the concentration of a mineral is lower than it should be and so impairs the function of the
6	Fermentation	A type of anaerobic respiration in which glucose is converted to ethanol, carbon dioxide and energy
7	Fertiliser	Chemicals containing minerals that plants need to be healthy
∞	Haemoglobin	The substance in blood that carries oxygen around the body
9	Lactic acid	An acid produced by animals during anaerobic respiration
10	Magnesium	An element essential for healthy plant growth. It is used to make chlorophyll
11	Nitrates	Minerals containing nitrogen, used by plants to make protein
12	Oxygen debt	Extra oxygen required after anaerobic respiration to break down lactic acid
13	Phosphates	Minerals containing phosphorus, used by plants to form healthy roots
14	Photosynthesis	The process plants and algae use light energy to make glucose.
15	Plasma	A liquid that transports blood cells and other materials around the body
16	Potassium	A mineral needed by plants for healthy leaves and flowers
17	Producer	The plant in the food chain that uses light energy and photosynthesis to produce glucose
18	Red blood cells	Blood cells that transport oxygen around the body

Y8 SCIENCE ECOSYSTEMS 2

produced is used in alcoholic drinks	industries?	to torm healthy roots	
Baking - carbon dioxide helps the bread rise,	How are the products of fermentation used in the	Minerals containing phosphorus, used by plants	Phosphates
Yeast	Which microorganism is used in fermentation?	Extra oxygen required atter anaerobic respiration to break down lactic acid	Oxygen debt
Giucose> etnanoi + carbon dioxide (+ energy)	what is the word equation for Fermentation?	nitrogen, used by plants to make protein	NITFATES
create useful products		used to make chlorophyll	
The use of biological	Define Biotechnology	An element essential for healthy plant growth. It is	Magnesium
Fermentation	Name the process that uses respiration in baking and brewing?	An acid produced by animals during anaerobic respiration	Lactic acid
It transfers more energy, lactic acid causes painful cramps in muscles	Give 2 reasons animals prefer to respire Aerobically?	The substance in blood that carries oxygen around the body	Haemoglobin
Glucose> lactic acid (+ energy)	What is the word equation for Anaerobic Respiration in animals?	Chemicals containing minerals that plants need to be healthy	Fertiliser
Respiration that does not use oxygen	Define Anaerobic Respiration	A type of anaerobic respiration in which glucose is converted to ethanol, carbon dioxide and energy	Fermentation
Mitochondria	Where in the cell does Aerobic Respiration take place?	A condition in organisms where the concentration of a mineral is lower than it should be and so impairs the function of the organism	Mineral deficiency
Carbon dioxide	What is the main waste product of Aerobic Respiration?	The green pigment found in plants which absorbs light during photosynthesis	Chlorophyll
Oxygen is carried by red blood cells, glucose dissolves in the plasma	How are the substances required for Aerobic Respiration transported around the body?	The process by which organisms transfer the energy in a fuel into chemical energy, but in the absence of oxygen	Anaerobic respiration
Glucose + oxygen> carbon dioxide + water (+ energy)	What is the word equation for Aerobic Respiration?	A single celled plant	Algae
Retrieval Answer Glucose and oxygen	Retrieval Question Which 2 substances react in Aerobic Respiration?	Definition The process by which organisms use oxygen to transfer the energy in a fuel into chemical energy	Keyword Aerobic respiration

	Keyword	Definition	Retrieval Question	Retrieval Answer
/	Photosynthesis	The process plants and	What is the purpose of	To provide plants with
A		algae use light energy to make glucose.	photosynthesis?	food
	Plasma	A liquid that transports	What is the word equation	Carbon dioxide + water>
		materials around the body	tor photosynthesis r	glucose + oxygen
	Potassium	A mineral needed by plants	Where in the plant cell does	Chloroplasts in the leaf
		for healthy leaves and	photosynthesis occur?	cells
	Producer	The plant in the food chain	What is the role of	Green pigmant that uses
		that uses light energy and	chlorophyll?	light for the sun needed in
		photosynthesis to produce		photosynthesis
	Red blood cells	Blood cells that transport	How do gases enter and	Through tiny holes on the
		oxygen around the body	leave the leaf?	underside of the leaf (stomata)
			In which plant tissues does	Leaves
			the most photosynthesis occur?	
			Where are the most	On the underside of the
			What is the function of the	Open and close stomata
_			guard cells in the leaf?	-
			what substance is tested for in the leaf?	Starch
			What colour does lodine	Blue-black
			photosynthesising?	
			What is the function of the	To remove all the
			Which 3 factors affect the	Light intensity. carbon
			rate of photosynthesis?	dioxide and temperature
			Define fertiliser	Chemicals that contain
				mineral deficiency in
_			-	plants
			wny does a plant need nitrates?	For nealtny growth
			Why does a plant need	For making chlorophyll
			Why does a plant need	For healthy roots
			phosphorus?	
			Why does a plant need	For healthy leaves and
			How do minerals enter and	They are absorbed into
			move through the plant?	root hair cells and
				plant in xylem tubes

CHRIST THE KING - KNOWLEDGE ORGANISERS Y8 SCIENCE ECOSYSTEMS 2

Y8 SCIENCE – Organisms



Y8 SCIENCE - Organisms

CHAPTER 8: ORGANISMS

CHRIST THE KING - KNOWLEDGE ORGANISERS

symptoms

stop taking the drug

		Keyword	Definition
	-	Addiction	A need to keep taking a drug to feel normal
	2	Balanced diet	Eating food containing the right nutrients in the correct amounts
		Carbohydrate	Nutrients that provide the body's main source of energy
~	4	Carbohydrase	Enzyme that breaks down carbohydrates into smaller sugar molecules
(Catalyst	Substances that speed up chemical reactions but are not unchanged at
_	5	Deficiency	A lack of minerals that causes poor health
- 1	7	Drug	Chemical substance that affects the way your body works
~		Enzyme	Substances that speed up the chemical reactions of digestion
	<u> </u>	Exhale	Breathing out, removing carbon dioxide
1	Ö	Fibre	Food matter that supports movement through the intestines and preve
1	1	Gas exchange	The transfer of gases between an organism and its environment
니니	2	Inhale	Breathing in, to take in oxygen
	ω	Lipid	A type of fat
	4	Medicinal drug	A drug that has a medicinal benefit to your health
<u>ц</u>	ۍ ا	Mineral	Essential nutrient needed in small amounts to keep healthy
Ľ	9	Nutrient	Essential substances that your body needs to survive, provided by food
ы	7	Protease	Enzyme that breaks down proteins into amino acids
1	8	Protein	Nutrient required for growth and repair
	و	Recreational drug	Drug taken for enjoyment
Ν	0	Respiration	Chemical reaction where energy is released from glucose
N	- <u>-</u> -	Respiratory system	Organ system which replaces oxygen and removes carbon dioxide form blood
N	Ň	Vitamin	Essential nutrients needed in small amounts for health
2	ω	Withdrawal	Unpleasant symptom a person with a drug addiction suffers from when

Y8 SCIENCE ORGANISMS 2

sensible answer)	drugs	your body needs to survive, provided by food	
Alcohol, tobacco (any	State 2 recreational	Essential substances that	Nutrient
(any sensible answer)		in small amounts to keep healthy	
Paracetamol, antibiotics	State 2 medicinal drugs	Essential nutrient needed	Mineral
dependent on it			
the drug/it becomes	C	health	
to the changes caused by	Why can you become addicted to drugs?	A drug that has a medicinal benefit to vour	Medicinal drug
them relax			-
for enjoyment, to help	term recreational drug?		
Drugs that people take	What is meant by the	A type of fat	Lipid
health in some way			
medicine/benefit your	term medicinal drug?	oxygen	
Drugs that are used in	What is meant by the	Breathing in, to take in	Inhale
body works		its environment	
that affect the way your		between an organism and	
Chemical substances	Define the term "drug"?	The transfer of gases	Gas exchange
		constipation	
respiratory diseases)	affect your lung volume?	movement through the	
Smoking, asthma (other	State one thing that can	Food matter that supports	Fibre
minute			
(in and out) taken every	אאוומר וא מובמנוווווא ומרב:	carbon dioxide	
The number of breaths	What is broathing rate?	Droathing out removing	Exhala
pushing air out of your	changes during	direction	
Pressure increases	Describe the pressure	Substances that speed up	Enzyme
lungs	inhalation ?	works	
drawing air into your	changes during	affects the way your body	
Pressure decreases	Describe the pressure	Chemical substance that	Drug
	breathing?		
	relaxes during		
	muscle contracts and	causes poor health	
Diaphragm	Which large flat sheet of	A lack of minerals that	Deficiency
	the body?	not unchanged at the end	
ורוא כמרוופט שץ נחפ שוטטט	travels to every cell in	chemical reactions but are	Caraiysr
dioxide		sugar molecules	
oxygen, 4% carbon	of exhaled air?	carbohydrates into smaller	
79% nitrogen, 16%	What is the composition	Enzyme that breaks down	Carbohydrase
dioxide		energy	
oxygen, 0.04% carbon	of inhaled air?	body's main source of	
79% nitrogen, 21%	What is the composition	Nutrients that provide the	Carbohydrate
alveolus, blood	the lungs?	correct amounts	
bronchus, bronchiole,	takes from the mouth to	right nutrients in the	
Nose/mouth, trachea,	What is the pathway air	Eating food containing the	Balanced diet
dioxide	exchanged in the lungs?	drug to feel normal	
Oxygen and carbon	Which gases are	A need to keen taking a	Addiction
Retrieval Answer	Retrieval Duestion	Definition	Keyword

	Y8 S0	CIENCE	ORGA	NISMS 2
--	-------	--------	------	---------

Keyword	Definition	Retrieval Ouestion	Retrieval Answer
Protease	Enzyme that breaks down	State 2 illegal drugs	Heroin, cocaine,
			sensible answer)
Protein	Nutrient required for	What affect does a	It slows down your
	growth and repair	depressant drug have on the body?	body's reactions
Recreational drug	Drug taken for enjoyment	What drug does alcohol contain?	Ethanol
Respiration	Chemical reaction where	Which part of the body is	The liver
	energy is released from	damaged by alcohol?	
Respiratory system	Organ system which	What are the 4 risks of	Miscarriage, stillbirth,
	replaces oxygen and	drinking whilst	premature birth, and low
	removes carbon dioxide form the blood	pregnant?	birthweight
Vitamin	Essential nutrients needed	What are the 4 hazards	Breathing problems,
	in small amounts for health	to health linked to smoking and tobacco smoke?	cancer, heart attacks and strokes
Withdrawal	Unpleasant symptom a	What is passive	Breathing in other
symptoms	person with a drug addiction suffers from	smoking?	people's smoke
	when they stop taking the drug		
Describe how you	Rub food onto filter, which	What are the 3 main	Tar, nicotine, and carbon
for fat	contains fat	substatices in cigarettes:	IIIOIIOXIde
Describe how you would carry out a test	Add copper sulfate Solution to a food	What is the addictive chemical in cigarettes?	Nicotine
for protein	solution, followed by		
	purple if it contains		
Give 2 safety	Wear safety goggles, clean	What are the 6 types of	Carbohydrates, lipids
precautions you	up spillages, do not mix	nutrients our bodies	(fats), protein, vitamins,
performing food tests			
What happens to your	You can become	What is the role of	Provide energy
body if you eat too much food?	overweight and/or obese	carbohydrate in the body?	
What disease is	Scurvy (bleeding	What is the role of	Growth and repair
caused by a deficiency of vitamin C?	gums/teeth can fall out)	protein in the body?	
What disease is caused by a deficiency	Rickets' (where your bones become weak)	What is the role of fat in the body?	Provide energy
Which vitamin deficiency causes	Vitamin A	What is the role of vitamins and minerals in	Keep you healthy
night blindness?		the body?	

Y8 SCIENCE - MATTER

most

least reactive

reactive

Elements and atoms

- An element is a substance that only contains one type of atom, it is found on the Periodic Table
- Each element has it's own unique chemical symbol which is the same in every language, these are also found on the Periodic Table
- An atom is the smallest part of which an element can be broken down into
- As there are around 100 types of elements that can occur naturally, there are around 100 different atoms

Compounds

- Compounds are formed when two or more different elements chemically bond together
- The compound will have different physical properties to the elements which make up the compound, for example water is a liquid, but it made from oxygen and hydrogen which are both gases
- Compounds are hard to separate and need a chemical reaction to do this
- When naming a compound, we always mention the metal. first and the non metal second
- The name of the metal will not change but the name of the non metal will, for example oxygen can change to oxide
- Chemical formulae tells us how many atoms of each element are in the compound in relation to each other

CH CO 4 hydrogens 2 oxvoens 1 carbon 1 carbon

 The small number tells us the number of each element. which is in front of the number

Polumers

- · Polymers are long chains of groups of atoms which are repeated many times
- Natural polymers are not man-made and include wool, cotton, starch and rubber
- Synthetic polymers are man-made and include polythene, polystyrene and rivion

Group 0 Halogens 0 Group 0 elements are known as group number fluorine the noble gases Н He 4 5 6 7 2 3 1 They are all non metals with low F Ne Li -Be В С Ν 0 chlorine melting and boiling points, meaning Na Si Ρ S CI all are gases at room temperature Mg AI Ar The boiling point decreases going bromine Br Kr K Ca Sc Ti Cu Zn Ga Ge As Se Cr Mn Ni Fo Co down the group Rb Sr γ Zr Nb Mo Tc Ru Rh Pd Ag Cd In Sn Sb Te Xe All of the group 0 elements are lodine unreactive Hf Ta w Re Pt At Rn Cs Ba la 0s lr. Au Hg TI Ph Bi Po When electricity is passed through Fr Ra the gas, they emit a brightly coloured light, this can be seen in neon signs Group 1 Group 7 Group 1 elements are also known as the alkali metals Group 7 elements are also known as the halogens They share similar properties with other metals such as: They share similar properties with other non metals such as: Being shiny when freshly cut Having low melting and boiling points Being good conductors of electricity and heat Not conducting electricity Group 1 metals are much softer than other metals and Moving down the groups the elements have an increased melting and boiling point. also have much lower melting and boiling points The halogens also react in a similar way to one another, for example with iron: Group 1 elements react with water to form alkali solutions iron + chlorine → iron chloride iron + bromine → iron bromide lithium + water → lithium hydroxide + hydrogen metal + water → metal hydroxide + hydrogen Halogens can undergo displacement reactions, this is where a more reactive halogen will take the place of a less reactive halogen The further down the group that the metal is, the more The most reactive halogens are at the top of the group, and the least reactive halogens are vigorous the reaction will be. This is called a trend at the bottom of the group Another trend seen in Group 1 is with the boiling and If the most reactive halogen is on its own, melting points: the further down the group, the lower the calcium bromide + chlorine -+ calcium chloride + bromine it will take the place of the less reactive boiling and melting points are halogen in a compound

 (\mathbf{r}) Key terms Make sure you can write definitions for these key terms. alkali metals atom compound displacement reaction Group 1 Group 7 Group O halogen element aroup noble gas period Periodic Table physical properties polymer trend

Groups and periods

- Groups are the columns in the Periodic Table, they go downwards
- Periods are the rows in the Periodic Table, they go sideways
- Elements in the same group normally follow the same trends in properties such as melting point, boiling point and reactivity
- By placing these elements into these groups, scientists can make predictions about their properties

Y8 SCIENCE - MATTER

Keyword	Definition
Atom	The smallest part of an element that can exist
Alkali metals	The elements in the left column of the periodic table including lithium, sodium etc. also called group 1
Compound	Pure substances made up of atoms of 2 or more elements strongly joined together
Displacement reaction	A reaction involving a metal and a compound of a less or more reactive metal
Element	Substances which contain only one type of atom
group	A column in the periodic table. The elements have similar properties
Group 1	The elements in the left column of the periodic table, including sodium and lithium. Also known as the alkali metals
Group 7	Elements in the right column of the periodic table including fluorine and chlorine. Also known as the halogens
Group 0	Elements in the farthest right column of the periodic table including helium and neon, also known as the noble gases
Halogen	An element in group 7 of the periodic table
Noble gas	An element in group 0 of the periodic table
Period	A row in the periodic table
Periodic table	A table which shows all known elements. Elements with similar properties are grouped together
Physical properties	Features of a substance that can be observed without changing the substance itself
Polymer	A molecule made by joining up thousands of smaller molecules in a repeating patten
Trend	A pattern in properties, such as an increase or decrease
CHRIST THE KING - KNOWLEDGE ORGANISERS

Retrieval Question	Retrieval Answer
Define the term "element"	Substances that contain only 1 type of atom
What is the Periodic Table?	A table containing all the symbols and names of different elements
What is the chemical symbol for Hydrogen?	Н
Which element has the chemical symbol Cu?	Copper
What is the chemical symbol for Chlorine?	Cl
Define the term "compound"	A pure substance made up of atoms of two or more elements joined together
Name 2 compounds	Water, carbon dioxide (any sensible answer)
How can compounds be made?	Reacting two or more elements together
What are the elements in Nitrogen Dioxide?	Nitrogen and Oxygen
What are the elements present in Hydrochloric Acid?	Hydrogen and Chlorine
What are the elements found in Calcium Carbonate?	Calcium, Carbon and Oxygen
How many atoms are in a molecule of Carbon Dioxide CO2?	1 Carbon, 2 Oxygen
How many atoms are in a molecule of Sulfuric Acid H2SO4?	2 Hydrogen, 1 Sulphur, 4 Oxygen
What is a polymer?	A substance with very long molecules
What are the 2 different types of polymer?	Natural and synthetic
Give an example of each type of polymer and suggest a use	Natural - wool and cotton, used in clothing, rubber - tyres. Synthetic - poly(ethene), used in carrier bags, artificial joints

Y8 SCIENCE - MATTER

CHRIST THE KING - KNOWLEDGE ORGANISERS

Retrieval Question	Retrieval Answer
What is the Periodic Table?	A table containing all the symbols and names of different elements
What are the horizontal rows called?	Periods
What are the vertical columns called?	Groups
Give 3 physical properties of elements?	Melting point, boiling point, density, hardness, state
Name all the elements in Group 1 of the Periodic Table	Lithium, sodium, potassium, rubidium, copper, platinum
Are the elements in Group 1 metals or non- metals?	Metals
How does the reactivity of the elements in Group 1 change?	Increases down the group
What is another name for the Group 1 metals?	Alkali metals
How does the trend in boiling point change in Group 1?	Decreases down the group

Y8 SCIENCE - MATTER