

Term 5

Your teacher will tell you which topic you should revise. Revise all the information in the topic, ready for a Quiz in lesson.

Topic 1: Multiplicative Reasoning

Section 1: Distance, Speed, Time

Revision: https://corbettmaths.com/2016/01/01/speed-distance-time/

Practice: <u>https://corbettmaths.com/wp-content/uploads/2018/09/Speed-Distance-Time-pdf.pdf</u> Solutions: <u>https://corbettmaths.com/wp-content/uploads/2018/09/Speed-Answers.pdf</u>

Section 2: Proportion

Revision: https://corbettmaths.com/2013/04/04/direct-proportion/

Practice: https://corbettmaths.com/wp-content/uploads/2019/03/Proportion-Direct-and-

Inverse.pdf

Solutions: <u>https://corbettmaths.com/wp-content/uploads/2019/03/Direct_Inverse-Proportion-</u> <u>Answers.pdf</u>

Section 3: Reverse Percentages

Revision: <u>https://corbettmaths.com/2013/02/15/reverse-percentages/</u> Practice: <u>https://corbettmaths.com/wp-content/uploads/2019/10/Reverse-Percentages.pdf</u>

Solutions: https://corbettmaths.com/wp-content/uploads/2022/11/Reverse-Percentages-ans.pdf



Term 5

Your teacher will tell you which topic you should revise. Revise all the information in the topic, ready for a Quiz in lesson.

Topic 2: Similarity and Congruence

Section 1: Similarity missing sides

Revision: https://corbettmaths.com/2013/11/16/similarshapes/

Practice: <u>https://corbettmaths.com/wp-content/uploads/2021/09/Similar-Shapes-Textbook.pdf</u> Solutions: <u>https://corbettmaths.com/wp-content/uploads/2021/09/Video-292-answers-1.pdf</u>

Section 2: Similarity – area and volume

Revision: https://corbettmaths.com/2013/11/16/similarshapes/

Practice: <u>https://corbettmaths.com/wp-content/uploads/2013/02/similar-shapes-area-volume-pdf.pdf</u>

Solutions: https://corbettmaths.com/wp-content/uploads/2015/03/similar-shapes-answers.pdf

Section 3: Congruency

Revision: https://corbettmaths.com/2013/04/15/congruent-triangles/

Practice: https://corbettmaths.com/wp-content/uploads/2019/02/Congruent-Triangles-pdf.pdf

Solutions: https://corbettmaths.com/wp-content/uploads/2019/02/Congruent-Triangle-answers.pdf



Your teacher will tell you which topic you should revise. Revise all the information in the topic, ready for a Quiz in lesson.

Topic 3: Further Trigonometry

Section 1: Trigonometric Graphs

Revision: https://corbettmaths.com/2019/02/12/trigonometric-graphs-3/

Practice: <u>https://corbettmaths.com/wp-content/uploads/2019/02/Trigonometric-Graphs.pdf</u> Solutions: <u>https://corbettmaths.com/wp-content/uploads/2019/02/Graphs-of-Trigonometric-Functions.pdf</u>

Section 2: Calculating areas and the sine rule

Revision: <u>https://www.youtube.com/watch?v=hZHzchFkwh8</u>

Practice: <u>https://corbettmaths.com/wp-content/uploads/2013/02/sine-and-cosine-rule-pdf1.pdf</u> Solutions: <u>https://corbettmaths.com/wp-content/uploads/2015/03/advanced-trig.pdf</u>

Section 3:

Revision: <u>https://corbettmaths.com/2018/09/17/cosine-rule/</u>

Practice: https://corbettmaths.com/wp-content/uploads/2019/07/Cosine-Rule-pdf.pdf

Solutions: https://corbettmaths.com/wp-content/uploads/2020/07/Cosine-rule.pdf



Year10F

Your teacher will tell you which topic you should revise. Revise all the information in the topic, ready for a Quiz in lesson.

Topic 1: Ratio and Proportion

Section 1: Share Ratio

Revision: <u>https://corbettmaths.com/2013/03/03/ratio-sharing-the-total/</u>

Practice: <u>https://corbettmaths.com/wp-content/uploads/2013/02/ratio-sharing-the-total-pdf.pdf</u> Solutions: <u>https://corbettmaths.com/wp-content/uploads/2019/08/ratio-2.pdf</u>

Section 2: Compare Ratio

Revision: <u>https://corbettmaths.com/2018/01/29/given-2-ratios/</u> Practice: <u>https://corbettmaths.com/wp-content/uploads/2019/07/Ratio-Two-Ratios-pdf.pdf</u> Solutions: <u>https://corbettmaths.com/wp-content/uploads/2019/07/Two-Ratios-answers.pdf</u>

Section 3: Proportion

Revision: <u>https://corbettmaths.com/2013/04/04/direct-proportion/</u>

Practice: https://corbettmaths.com/wp-content/uploads/2019/03/Proportion-Direct-and-

Inverse.pdf

Solutions: <u>https://corbettmaths.com/wp-content/uploads/2019/03/Direct_Inverse-Proportion-</u> <u>Answers.pdf</u>



Year10F

Your teacher will tell you which topic you should revise. Revise all the information in the topic, ready for a Quiz in lesson.

Topic 2: Right-angled triangles

Section 1: Pythagoras

Revision: https://corbettmaths.com/2012/08/19/pythagoras-video/

Practice: https://corbettmaths.com/wp-content/uploads/2019/02/Pythagoras-pdf.pdf

Solutions: https://corbettmaths.com/wp-content/uploads/2019/02/Pythagoras-Answers.pdf

Section 2: Trigonometry missing side

Revision: https://corbettmaths.com/2018/04/25/trigonometry-videos/

Practice: <u>https://corbettmaths.com/wp-content/uploads/2021/12/Trigonometry-Exercise-329-330-331.pdf</u>

Solutions: https://corbettmaths.com/wp-content/uploads/2023/04/Trigonometry-1-1.pdf

Section 3: Trigonometry missing angle

Revision: https://corbettmaths.com/2018/04/25/trigonometry-videos/

Practice: <u>https://corbettmaths.com/wp-content/uploads/2021/12/Trigonometry-Exercise-329-330-331.pdf</u>

Solutions: https://corbettmaths.com/wp-content/uploads/2023/04/Trigonometry-1-1.pdf



Year10F

Your teacher will tell you which topic you should revise. Revise all the information in the topic, ready for a Quiz in lesson.

Topic 3: Calculating Probability

Section 1: Experimental probability

Revision: https://corbettmaths.com/2013/06/20/relative-frequency/

Practice: https://corbettmaths.com/wp-content/uploads/2018/12/Relative-Frequency-pdf.pdf

Solutions: https://corbettmaths.com/wp-content/uploads/2018/12/Relative-Frequency-answers.pdf

Section 2: Tree Diagrams

Revision: <u>https://corbettmaths.com/2013/05/07/tree-diagrams/</u>

Practice: https://corbettmaths.com/wp-content/uploads/2019/04/Tree-Diagrams.pdf

Solutions: https://corbettmaths.com/wp-content/uploads/2019/08/Tree-diagrams.pdf

Section 3: Venn Diagrams

Revision: <u>https://www.youtube.com/watch?v=xwK--rNDI9E</u>

Practice: https://corbettmaths.com/wp-content/uploads/2013/02/venn-diagrams-pdf.pdf

Solutions: https://corbettmaths.com/wp-content/uploads/2015/03/venn-diagrams-answers.pdf



Geography UK Environmental Challenges

Year 10 Term 5

Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson. Topic 1: How is the UK government planning to maintain our energy supply?

In 2009, the government set a target that 15% of The UK's total energy needs should be supplied by renewable energy sources. They also had a policy of reducing the amount of carbon dioxide emissions by 35% by 2020 and 80% by 2050. There are four strategies that the government is using to ensure that its targets will be met:

Increase the contribution of renewable energy:

The government has made a commitment to increase the contribution that renewable energy sources to UK energy supplies to be at least 15% of energy supplied in the UK.



Encourage energy saving and conservation:

All energy devices such as fridges and washing machines require a label which confirms that they are energy efficient. The government also offered grants and financial incentives to install solar panels on



Increase the use of nuclear power:

Whilst nuclear power is not strictly renewable, it uses very small amounts of raw materials and has very low carbon emissions. Renewable energy will not be able to meet all of the UK's energy needs so nuclear energy represents a longterm alternative.



Develop carbon capture and storage:

This involves capturing carbon rather than releasing it into the atmosphere. Technology is now available that can capture carbon from power stations and store it underground within rocks. In the future, this could considerably reduce the carbon emissions from fossil-fuel burning power stations.

CARBON CAPTURE





Geography Ecosystems of the Planet

Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson. Topic 2: Biomes

Large scale ecosystems are known as biomes.

- Each biome has animals and plants that are unique to it.
- Biomes are identified by their climate, soils, plants and other species.
- Climate and latitude (how far it is from the equator) are important factors in the location of biomes.
- Tropical biomes (tropical rainforests, coral reefs, tropical grasslands and deserts) are all nearest the equator and have hot weather.
- Temperate biomes (temperate forests and temperate grasslands) all have milder temperatures (neither hot nor cold).
- Polar biomes (polar regions) are furthest from the equator so have very cold weather.

An

ecosystem

Biotic elements are all living parts of the ecosystem:

- Animals include insects, birds and mammals.
- Plants include trees, flowers, grasses, mosses and algae. They provide food and shelter for animals.
- Micro-organisms like fungi and bacteria are decomposers. They breakdown dead plants and animals (decompose), releasing nutrients into the ecosystem so they can be recycled and taken up by new plants.. This is called nutrient cycling.

Abiotic elements are all non-living parts of the ecosystem:
Rocks help in the formation of soils and rock type is important. Weathering releases

- nutrients stored in rocks into the ecosystem.
- Soils store water and carbon nutrients which plants can use.
- Sunshine and rain are needed for photosynthesis, so they are essential to the ecosystem.
- Wind and frost also play a role.



The biotic factors and abiotic factors all rely upon each other (this is called interdependence) – for example animals need plants, plants need nutrients from the soil and the soil needs the climate to weather the rock to give it new nutrients. A change to one part of an ecosystem has an impact on other parts because of this interdependence.

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Geography Ecosystems of the Planet Year 10 Term 5

Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson. Topic 3: Tropical rainforests

Processes within Tropical Rainforests

The Water Cycle

As the rainforest heats up in the morning, the water evaporates to form clouds. The clouds then rain the next day. This is called convectional rainfall. Water is lost through the pores in leaves and then evaporated by heat through evapotranspiration. The roots of plants take up some water and then it is lost again through transpiration.

The removal of trees means that there is less moisture in the atmosphere. This leads to less rainfall and can sometimes lead to drought.

There are distinct layers to the vegetation of the tropical rainforest due to these cycles.

- Emergents the tallest trees, up to 50m, that appear to stick out above the canopy. They have large buttress roots to support the thin and branchless trunk so it can grown tall enough.
- Canopy most of the trees grow to a height of about 30m. This layer of trees receive 70% of the sunlight and 80 of the rainfall and creates a continuous blanket of leaves.
- Under canopy where there is a gap in the canopy to give sunlight smaller trees can grow.
- Shrub layer the lowest layer where only some species survive because it is very dark; less than 5% of sunlight reaches the forest floor.

The Carbon Cycle

Rainforests take in carbon dioxide from the air as they photosynthesise and grow. With their large leaves, plants and trees store a lot of carbon which means they have role to play in reducing global warming and climate change. When trees and plants are burned the carbon is released back into the atmopshere and adds to the greenhouse effect.

Nutrient cycling

All parts of the rainforest (climate, water, soils, plants, animals and people) are all dependent on one another.

- 1. Trees are evergreen so dead leaves and other material fall all year round.
- 2. The warm and wet climate means dead plant material is decomposed quickly by fungi and bacteria on the forest floor. This makes the top of the soil high in nutrients so plants grow quickly; this is why many trees have their roots on the surface.
- 3. Plants pass on their nutrients when they are eaten by animals. Many plant and animal species have formed symbiotic relationships (where they depend on each other for survival).

Therefore, most nutrients are stored in the biomass with the rest stored in dead organic material and the soil.

Location of Tropical Rainforests







Geography

	Vocabulary	Wider Research	Apply
•	Abiotic	Energy in the UK:	
•	Algae	https://www.internetgeography.net/topics/how-is-	Using your wider research complete the following exam questions
•	Biome	the-uks-energy-mix-changing/	1. Define the terms biotic and abiotic and give two examples of
•	Biotic	https://www.bbc.co.uk/bitesize/guides/zxhnwxs/revi	each. [4]
•	Canopy	sion/1	2. Describe the location of the polar regions. [3]
•	Climate		3. Describe how soil is dependent on animals. [2]
•	Coral	GCSE Bitesize:	4. Describe the location of hot deserts. [3]
•	Desert	https://www.bbc.co.uk/bitesize/guides/z2ntk7h/revis	5. Describe the location of tropical rainforests. [3]
•	Ecosystem	<u>ion/1</u>	6. Explain the nutrient cycle in the tropical rainforest. [4]
•	Emergent layer	https://www.bbc.co.uk/bitesize/guides/zpbfqty/revis	Create come revision material
•	Equator	<u>ion/1</u>	 Create some revision material Create a detailed diagram to show the nutrient cycle in a coral
•	Forest floor	https://www.bbc.co.uk/bitesize/guides/zwvh82p/revi	• Create a detailed diagram to show the nutrient cycle in a corai
•	Latitude	sion/1	 Create a series of detailed mind mans showing the different
•	Photosynthesis		processes that occur in tropical rainforests.
•	Polar	YouTube:	Your case studies for next term are the Peruvian Amazon
•	Pollution	https://www.youtube.com/watch?v=UIbpICn8-zs	Rainforest and the Great Barrier Reef. Conduct your own research
•	Polyp	https://www.youtube.com/watch?v=um2Q9aUecy0	on both of these locations and write a comparison paragraph
•	Rainforest		about the two.
•	Sediment	https://www.youtube.com/watch?v=ZIULXLLP32s	• Conduct your own research and create a poster titled 'What are
•	Shrub layer	https://www.youtube.com/watch?v=EJXeWIDVNSRK	the threats to tropical rainforests and coral reefs?'
•	Temperature	https://www.youtube.com/watch?v=70y-viAbKSiM	
•	Tourism		
•	Tropic of Cancer		
•	Tropic of Capricorn		
•	Tropical		
•	Tundra		
•	Under-canopy		



History Warfare Through Time

Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.

Topic 1: The Battle of Falkirk 1298 and The Battle of Agincourt 1415

<u>The Battle of Falkirk</u> was fought between the Scottish and the English in 1298. The English won due to their use of longbow archers but the Scots also effectively used the schiltron. The Scots were fighting against English efforts to impose control over Scotland. Leaders: English = King Edward I Scottish = William Wallace



Edward used longbow men as the essential feature of English strategy. The English were having difficulties penetrating the Scottish

schiltrons so Edward decided to use his 5000 long bows. A storm of arrows came down on the Scottish infantry. With no armour, many died. As gaps appeared in the walls of Scottish pikes, the English cavalry were able to charge the Scottish lines. Wallace's troops fled and the English infantry joined the attack.

The Battle of Agincourt 1415

The Agincourt campaign of 1415 was part of the Hundred Years' War between France and England.

Henry V chose the perfect defensive position. They were placed at the narrowest point of the battlefield to funnel the French into a tighter space and make it harder for them to attack the English. The flanks were protected by woodland.

English longbow men fired into the sides or directly onto the heads of the French cavalry. The French cavalry tried to retreat but did not succeed. The French infantry were exhausted due to the thick mud. The English knights fought on foot holding the centre. The archers joined from the flanks with swords and daggers. The French were forced to retreat.





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History Warfare Through Time

Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.

Topic 2: The Battle of Waterloo 1815

The Battle of Waterloo was part of the Napoleonic Wars against Napoleon Bonaparte. This was led by the famous British Commander, the Duke of Wellington.



Wellington chose a good defensive position.

- The battlefield was good for defence as it was only about 3 miles across.
- He deployed his men behind a ridge to reduce the damage done by enemy

He set up to positions on the flanks of the ridge to interrupt the French

He concealed field artillery in the village of Papelotte on one flank.

Napoleon attacked with infantry columns, cavalry charges and heavy

Wellington used 20 infantry squares each 60 metres across with muskets and

Wellington then sent in the cavalry with infantry in lines firing volleys.

Napoleon Boneparte

Napoleon made some important errors:

- Suffering with piles and irritable, he was unable to properly assess the battlefield.
- He used 33000 men to slow the Prussians; they returned late, exhausted.
- P He delayed the start as he believed the battlefield was too muddy for cavalry.
- P His unsuccessful attack on Hougoumont tied up a quarter of his infantry.
- attack when he could have withdrawn.

History Warfare Through Time

Year 10 Term 5

Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson. Topic 3: The Battle of Balaclava 1854

The Battle of Balaclava was a Russian attack on a British-held port in Crimea. The British fought off the Russians but launched a costly cavalry charge.



Tactics, weapons and supplies:

- The 93rd Highlanders used rifles and held a defensive position against an attacking force of Russian cavalry.
- The soldiers were in two deep lines in their red tunics.
- Their volleys drove off the cavalry. The Heavy Brigade then moved in a defeated a

large force of Russian cavalry. The use of old methods like a cavalry charge against an infantry line armed with latest rifles led to a huge loss of life.



Charge of the Light Brigade

- Later in the battle, the Russians began to remove the allied cannon they had captured on the ridge.
- Lord Raglan ordered Lord Lucan to recapture the cannon, but the orders
- were vague and poorly explained. In the confusion, Lucan thought he was being
- asked to attack the Russian cannons.
- Despite the uncertainty, Lucan ordered Lord Cardigan's Light Brigade to charge the Russian cannon.
- Out of 673 men in the Light Brigade, 113 were killed, 134 wounded and most of the horses had to be destroyed, for no gain.



Vocabulary	Wider Research	Apply						
1. Permanent army	Battle of Falkirk	Revision Activity: Create a flash card for each case study battle. Include: weapons,						
2. Standing army		composition of the army, training and tactics, civilian experience.						
3. Infantry	https://www.englishmonarchs.co.uk/battle_fal							
4. Schiltrons	<u>kirk.html</u>							
5. Flanks	Pattle of Agincourt							
6. Mounted knights	Battle of Agricourt							
7. Napoleonic Wars	https://www.voutube.com/watch?v=m7zaaOR	Where did this take						
8. Napoleon Bonaparte	ehzs	place?						
9. Duke of		Who was involved?						
Wellington 10. Charge of the	Battle of Waterloo	Weapons used:	Challenge!					
Light Brigade	https://www.youtube.com/watch?v=nDZGL1xs	Composition of the	Research into other battles:					
11. Cavalry	gzs	Composition of the	Research into other battles.					
12. Longbow men		army:	Battle of the Somme					
13. Crossbow men 14. Formations 15. Volleys	Battle of Balaclava	Tactics:	(WW1) Iraq Invasion and 					
16. Infantry columns	https://www.nam.ac.uk/explore/battle- balaklava	Outcome:	Counterinsurgency					



KS4 Knowledge Organizer. Subject: French Y10.

Raising Standards Leader for KS4: Mrs Bennett (<u>bailc197@sflt.org.uk</u>).

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How to use the Knowledge Organiser:

- Your teacher will direct you to what topics to revise for each week. This topic is usually the topic taught in class during that week. Topics are taught in a chronological order from sections 1 to 4 as stated in this document.
- You are expected to revise the vocabulary and the key sentences for at least 30 minutes each evening.
- Ask someone to quiz you on the key information
- Remember to APPLY the information using the tasks included in each Knowledge Organiser

Revision techniques and strategies

- 1. Turn your huge amount of revision notes into small and easy to handle
- 2. Put a question on the front of your flash cards and write the answer on the reverse then ask someone to quiz you
- 3. Mind map what is the topic and what are the key points you need to remember? You could use different colours for different ideas/characters
- 4. A question a day complete an exam question, under timed conditions, each day
- 5. Record yourself reading your notes and listen back to yourself
- 6. BUG the question write out exam questions, examine the key words and plan an answer
- 7. Use of post-it notes place post-it notes in key places so you are constantly reading key information
- 8. Make lists of important facts and figures
- 9. Draw diagrams to help you visually remember your notes
- 10. 'Look, cover, say, write, check' use this method to make sure that you are remembering key information









Revision tips

- Make sure you get some sleep cognition (acquiring and understanding information) and ability to recall learned facts is limited when you are sleep deprived.
- Eat a healthy, balanced diet lots of fruit and veg, meats for protein, limit sugary fatty foods.
- Switch off social media/distractions ignore your phone for a few hours! It will help you keep focused. Social networking, while it's fun, is a big distraction from your revision.
- Give yourself a nice space to work in have a nice, organised study space with lots of stationary to help you make quality notes/highlight.
- Make a plan schedule dedicated study time into your daily schedule. Be organised with your time. Stick to your plan. Sacrifice some of your social time for study time. No pain, no gain!
- Start your revision early start now, if you have not already done so, not days before your exam.
- Do small chunks of revision. Your brain is not capable of mass storing information in a short space of time. Digesting small chunks of information, over a longer period of time, means you are more likely to remember it

Click on the QR code below which will take you to the revision support page on our website:





French. Theme 2: Local, national, international and global areas of interest (les centres d'intérêt local, national, international et mondial)

Unit 5: Home, town, neighbourhood and region.

Section 1		jaune yellow laver la voiture to wash the car		5.1F Des maisons diffé	erentes	Section 2	
5.1G À la maison		le lit	bed	agaçant(e)	annoying		
		en métal	made of metal	la huraau	office / study		
aider	to help	les meubles (m)	furniture	le bureau	office / study	la nièce	room
l'armoire (f)	wardrobe	le miroir the	mirror	la cave	bedroom	la pièce	ground floor
la bibliothèque	book case / library	le mur	wall	la cuisine	kitchop	la salle à manger	dining room
blanc(he)	white	nettoyer	to clean	déménagor	to move house	la salle de hains	bathroom
en bois	made of wood	noir(e)	black	devillet(te)	to move nouse	la salle d'eau	wet room
le bureau	desk	la peinture	paint / painting	l'accalier (m)	cosy	le salon	living room
le canapé	sofa	la porte	door	l'étage (m)	floor storou	le séiour	lounge living room
la chaise	chair	propre	clean / own	le facêtre	noor, storey	sombre	dark
la commode	chest of drawers	ranger	to tidy	la renetre	window	le sous-sol	basement
cuisiner	to cook	rose	pink	le grenier	attic	les toilettes (f)	WC toilet
dur(e)	hard	rouge	red	le jardin	garden	les tollettes (1)	WG, tollet
l'étagère (f)	shelf	le tapis	rug	la maison (individuelle /	(detached / semi-	detached / terraced) house	
faire la cuisine	to cook	en tissu	made of fabric	iumelée / mitovenne)	(001000) 00111	,,	
faire le jardinage	to do the gardening	travailler	to work	junicice / miceyenney			
le fauteuil	armchair	en velours	made of velvet				AL
la fenêtre	window	vert(e)	green	J'habite dans un grand	appartement	I live in a big flat in	the city centre
gris(e)	grey	violet(te) purple		dans le centre-ville			
Remember that when using an	adjective (a describing	All adjectives go after the noun that they describe		près des magasins/ commerces.		near the shops.	
word), it must go after the nou	n it describes and	except for 'BAGS' adjectives: beauty, age, goodness		-			
agree with it.		and size.		On a un salon et une salle à manger		We have a lounge/ living room and a	
Dans ma chambre, il v a	beaucoup de	In my bedroom, there	my bedroom, there is a lot of				
meubles		fumitum					
meubles.		furniture.		où nous passons la plupart de notre		where we spend the majority of our	
l'ai un lit blanc en méta	l. une vieille	I have a white bed ma	de of metal, an	temps.		time.	
armoire of doux petites	commodes	old wardrobe and two	little grey	Lo problème est que la	os voisins sont	The problem is that the paighbours	
arrises	commodes	shorts of drawars	incle grey	trep bruvente et		are the problem is that the neighbours	
grises.		chests of unawers.		tiop bidyants et		are too noisy and	
En plus, sous la fenêtre	, il y a mon	On top of that, under there are my deals and	the window,	nous <u>n'</u> avons <u>pas</u> de ja	ardin.	we don't have any garden.	
bureau et une chaise, mais il n'y a pas		there is no shalf	a chair, but	Mes grands parents viv	vent dans une	My grandparents li	ve in a terraced
u etagere.		there is no snell.		maison mitoyenne à la	a campagne.	house in the count	ryside.
J'aimerais avoir un grar	nd canapé <mark>bleu</mark>	I would like to have a	oig blue sofa in	J'aime les visiter car c'e	est plus calme	I like to visit them	pecause it's quieter
dans ma chambre.		my bedroom.		au'en ville		than in town	
				qu'en vine.		chan in town.	

Section 3

			joli(e)	attractive			
5.2G Lá	à où j'habite		à la montagne	in the mountains			
		live by	mort(e)	dead			
anime(e)		lively	le nord	north			
peau / pelle au bord de la mer		beautiful	nouveau / nouvelle	new			
au boru u	le la mer	by the seaside	où	where			
à la cam	22000	quiet	l'ouest (m)	west			
la contro	ville	city contro	petit(e)	small			
la banlier		the suburbs	le sud	south			
l'est (m)		east	touristique	touristic			
grand(e)		bia	vieux / vieille	old			
hahiter		to live	le village	village			
historique	9	historic	vivre	to live			
	11-12 and						
	Habiter and	vivre	vivre ie vis tu vis il / e	elle / on			
	To describe when	re you live, you	vit nousvivons vous	vivor ile /			
	can use either ha	abiter or vivre.	vit, nous vivons, vous vivez, ils /				
	Habiter is a regu	lar -er verb but	elles vivent				
	vivre is irregular.						
Corine	habite à Lvon, dai	ns le sud-est.	Corine lives in Lyon, in the south-east,				
nràs da	s montagnes	,	near the mountains				
presue	s montagnes,		near the mountains,				
dans la	troisième plus g r	ande ville de	in the third largest city of France.				
France.							
Thoma	<mark>s vit</mark> à Chatham, à	a Kent,	Thomas lives in Chatham, in Kent,				
une <mark>be</mark>	l <mark>le</mark> région historiq	ue dans le	a beautiful historic region in the				
sud-est	de l'Angleterre.		south-east of England.				
Mes co	usins habitent er	n banlieue. Ils	My cousins live in the suburbs. They				
vivent dans une nouvelle maison			live in a new semi-de	tached house.			
jumelé	e.						
Sébastien, où habites-tu ? / où vis-tu ?			Sébastien, where do you live?				
			,				

Section 4

	iumeiee ioeale		
	,	loin (de)	far (from)
accueillir	to welcome	ouvert(e)	open
artisanal(e)	hand-made	pas grand-chose	not much
attirer	to attract	pratique	practical
avoir besoin de	to need	le quartier	area, part of town
bon marché	cheap	surtout	especially
le centre commercial	shopping centre	de taille moyenne	medium-sized
le château	castle	tard	late
cher / chère	expensive	tôt	early
le choix	choice	trop de	too many
dehors	outside	la ville jumelée	twin city / town
essayer	to try (on)	voir	to see
l'étudiant(e)	student	le / la voisin(e)	neighbour
fermé(e)	closed	l'usine (f)	factory
gratuit(e)	free of charge	la zone piétonne	pedestrian zone
cet hôtel de ville es magnifique.	st un bâtiment	This town hall is building.	a magnificent
Cette ville est trop l	oin de la capitale.	This town is too f capital city.	ar away from the
Cette ville est trop l La charcuterie est e bibliothèque et le r	oin de la capitale. Intre la nusée.	This town is too for capital city. The delicatessen shop is between museum.	ar away from the / the porc butcher the library and the
Cette ville est trop l La charcuterie est e bibliothèque et le r Le centre commerc la boulangerie.	oin de la capitale. Intre la nusée. ial est à gauche de	This town is too for capital city. The delicatessen shop is between museum. The shopping centre the bakery.	ar away from the / the porc butcher the library and the ntre is to the left of

Section 5

Wider Research	Apply
 Online Dictionary and conjugation tool: www.wordreference.com 	 Answer the following questions in French. it is wise to use words/ expressions that you'll easily remember. Aim to write 3 <pre>sentences as answer per question set – where possible.</pre> Have, on average 30 words in total per answer – where possible.
 Also, please remember that you should spend at least 20 minutes 	• Mind the tense in which each question is set. The tense in your answers should reflect the tense in the question you are answering. Remember that what you write does not have to be true. Just show off your vocab and grammar knowledge.
each week, PRACTISING INDEPENDENTLY, on each of the following app and website:	 1/ Dans quel(le) ville ou village habites-tu? (In which town or village do you live?) 2/ Où est située ta maison? (Where is your house located?)
https://www.memrise.com/	 3/ Tu peux décrire ta maison? (Can you describe your house?) 4/ Quels sont les avantages et les inconvénients de ta maison? (What are the advantages and disadvantages of your house?)
https://www.kerboodle.com/users/login	5/ Qu'est-ce qu'il y a dans ta chambre? (What is in your bedroom?) 6/ Qu'est-ce que tu fais pour aider à la maison? (What do you do to help at home?)
If you need support with any of the above learning resources, please email your teacher	7/ Qu'est-ce qu'il y a dans ta ville/ ton village? (What is in your town/ your village?) 8/ Qu'est-ce que tu as fait dans ta ville/ ton village le weekend dernier? (What did you do in your town/ your village last weekend?)
	9/ Quel est l'inconvenient/ quels sont les inconvenients de ta ville/ ton village? (What is (are) the disadvantage(s) of your town/ your village?) 10/ Où est-ce que tu voudrais habiter à l'avenir/ dans le futur? (Where would you like to live in the future?)



KS4 Knowledge Organiser. Subject: Spanish (Y10).

Raising Standards Leader for KS4: Mrs Bennett (bailc197@sflt.org.uk).

Head of Languages Department: Ms Lara (larae006@sflt.org.uk).

How to use the Knowledge Organiser:

- Your teacher will direct you to what topics to revise for each week. This topic is usually the topic taught in class during that week. Topics are taught in a chronological order from sections 1 to 6 as stated in this document.
- You are expected to revise the vocabulary and the key sentences for at least 30 minutes each evening.
- Ask someone to quiz you on the key information
- Remember to APPLY the information using the tasks included in each Knowledge Organiser

Revision techniques and strategies

- 1. Turn your huge amount of revision notes into small and easy to handle
- 2. Put a question on the front of your flash cards and write the answer on the reverse then ask someone to quiz you
- 3. Mind map what is the topic and what are the key points you need to remember? You could use different colours for different ideas/characters
- 4. A question a day complete an exam question, under timed conditions, each day
- 5. Record yourself reading your notes and listen back to yourself
- 6. BUG the question write out exam questions, examine the key words and plan an answer
- 7. Use of post-it notes place post-it notes in key places so you are constantly reading key information
- 8. Make lists of important facts and figures
- 9. Draw diagrams to help you visually remember your notes
- 10. 'Look, cover, say, write, check' use this method to make sure that you are remembering key information







Revision tips

- Make sure you get some sleep cognition (acquiring and understanding information) and ability to recall learned facts is limited when you are sleep deprived.
- Eat a healthy, balanced diet lots of fruit and veg, meats for protein, limit sugary fatty foods.
- Switch off social media/distractions ignore your phone for a few hours! It will help you keep focused. Social networking, while it's fun, is a big distraction from your revision.
- Give yourself a nice space to work in have a nice, organised study space with lots of stationary to help you make quality notes/highlight.
- Make a plan schedule dedicated study time into your daily schedule. Be organised with your time. Stick to your plan. Sacrifice some of your social time for study time. No pain, no gain!
- Start your revision early start now, if you have not already done so, not days before your exam.
- Do small chunks of revision. Your brain is not capable of mass storing information in a short space of time. Digesting small chunks of information, over a longer period of time, means you are more likely to remember it

Click on the QR code below which will take you to the revision support page on our website:





Spanish. Theme 2: Local, national, international and global areas of interest

Unit 5: Home, town, neighbourhood and region

Section 1.	My house			Section 2. Describe your house					
5.1G Mi casa				5.1F ¿Cómo es te	u casa?				
la alfombra el armario el ascensor la butaca la cocina cómodo compartir el cuarto de baño el dormitorio los electrodomésticos la escalera el espejo la estantería Section 3. Wh	carpet, rug cupboard, wardrobe lift armchair kitchen, cooker, cuisine comfortable, convenient, handy to share bathroom bedroom (electrical) appliances stairs mirror shelves, shelving unit	el fregadero la habitación el lavabo la lavadora el lavaplatos el microondas la nevera la pared el salón el sillón el suelo la terraza	kitchen sink room washbasin washing machine dishwasher microwave oven fridge wall lounge, living room armchair ground, floor terrace	las afueras antiguo el árbol el campo el chalet / chalé la costa el estante encontrar encontrarse Section 4.	outskirts old tree countryside, field,sports ground bungalow, detached house, villa coast shelf to find to be situated My town.	encontrarse con la granja guardar la librería la montaña el mueble los muebles peor el piso	to meet up with farm to keep, to put away, to save bookcase, bookshop mountain piece of furniture furniture worse, worst flat, floor (of a building)		
5.2G ¿Qué se puec	de hacer donde vives?			5.2F Mi ciudad					
el barrio la biblioteca la bolera el bolso la carnicería el césped el collar descansar el dinero divertirse good time el estanco stamps)	neighbourhood, area library bowling alley handbag butcher's lawn necklace to rest money to enjoy oneself, to have a tobacconist's (also sells	la joyería la juguetería el mercado la muñeca el museo la panadería el parque la pastelería los pendientes la plaza de toros la ropa (de marca) la tienda de comestible la zapatería	jeweller's toy shop market doll museum baker's infantil park, playground cake shop earrings bull ring (designer) clothes s grocery store, food shop shoe shop	la avenida el ayuntamiento bienvenido/a el centro comercial la ciudad el club de jóvenes Correos construir convertirse en (+ noun los espacios verdes la fábrica	avenue Town Hall welcome shopping centre city, large town youth club Post Office to build n) to become open spaces factory	el/la habitante la iglesia ir de compras el país la plaza el polideportivo el pueblo el pueblo el puente el puerto el siglo el teatro	inhabitant church to go shopping country square (in a town) sports centre (<i>small</i>) town, village, people bridge port, harbour century theatre		

SENTENCES BUILDERS

				Describe tu	ı casa.	ćQué ho	abitaciones h	ay? ćTe g	usta?		
1. ¿Dónde vives?				Describe ye	our hous	se. Wha	t rooms are	there? Do	you like	it?	
Where do you live?				Lo bueno es que	mi casa es	s	clara	o/a light/	clear		
Vivo en	upa casa la house	con	mi podre my dod	The good thing is	s that my	house is	gran	de big			
T live in	una casa adasada	with	mi padre my num				boni	to/a prett	iy .		
TINCI	a semi-deteched house		mi maare my man	Lo que más me g	usta es qu	e es	cómo	odo/a comf	ortable		
	u semi-defactied house		mis paares my parents	What I like the	most is th	nat it is	nuev	o/a new			
	una granja a tarm		mis abuelos my				ados	ado/a sem	i-detached		
Cald Street Lines	un piso a flat		grandparents				bana	to/a che	ap		
Esta situado/a en	el campo The countryside	que se	liama				mod	erno/a mod	ern		
IT is situated in/on	la costa the coast	which is	s called				lujos	io/a luxi	unious		
	las afueras de una ciudad the				-		eleg	ante elegar	nt		
	outskirts of a city			Lo malo es que m	i casa es		oscu	ro/a dar	k		
	un pueblo a town			The bad thing is	that my l	nouse is	feo/	a ugi	Y		
	un pueblo pequeño a small village			Lo que menos me	gusta es	que es	viejo	/a old			
Mi casa es	blanca/negra/roja/marrón			What I like the	least is th	NOT IT IS	aisia	do/a iso	lated		
My house is	white/black/red/brown			Lo peor es que es	S In that it	le.	pequ	eno/a sn	nall		
	enorme/grande/mediana/pequeña /a	alta/nuev	a/moderna/antigua/	The worst thing is that it is an			antig	juo/a olo	3		
	bonita/fea		_	En millesse herr. To my herre there are alreaderetre hebitesianes, finaderet							
	enormous/big/médium-sized/small/	old/new/	modern/old/	En mi casa hay in my house there are cinco/cuatrohabitaciones, five/fourrooms,						ims,	
	pretty/ugly			Tengo mi proprio dormitorio. I have my own bearoom.						handland dilatera	
Mi casa tiene	una chimenea/dos chimeneas a chim	nney / tu	vo chimneys	Here us leading. There is a conden						y brother/sister,	
My house has	un techo rojo/marrón a red/brown	roof		Tenemos un annale. We have a carage							
	pocas ventanas/muchas ventanas a	few wind	dows/lots of windows	El cellar The living men and a garage.							
	una puerta roja a red door			Le secire The live	ng room	es la	muy	grande	big In comfor	table	
	un jardín / un patio / una terraza a	garden /	a patio / a terrace	Mi dormitorio	irchen	15	very up poco	tranouile	a comfor	TODIE	
	una piscina / un garaje a swimming	pool / a	garage	My bedroom			a bit	nequeño	/a small		
Cerca de mi casa hav	un lago / un río / un parque / mucha	s casas /	árboles / plantas / flores	El cuarto de bañ	0	está		desorde	nada/a u	ntidu/messu	
Close to my house there is/are	a lake / a river / a park / lots of hou	urses / ti	rees / plants / flowers	The bathroom	-	is		destri de		indy/ nessy	
				Los paredes	son		amarillas/verde	s/marrones			
				The walls	are		yellow/green/b	rown,			
	A			Hay	an		sofá		pequeño	small	a la izquierda
Г				There is/are	۵		sofa		grande	big	on the left
/					una		mesa table		pequeña	small	1
/ ·					۵		lámpara lamp		grande	big	a la derecha
<u> </u>							cama bed		marrón	brown	on the right
	\frown						silla chair				
IF		unos		armarios ward	robes	pequeños	small				
I L					some		cuadros pictur	es/posters	grandes	big	
					muchos						
					lots of						

3. ¿Cómo era tu pueblo o ciudad antes y cómo es ahora?

What was your town/village like before and what is it like now?

En el pasado mi barrio e			ra muy very			moderno modern		
In the past my neighbo			ourhood was más more			antiguo old		
Antes				menos less		sucio dirty		
Before						limpio clean		
Hace diez ai	ios					bonito pretty		
Ten years ag	30					feo ugly		
Había	muchos/	muchas	tiendas shops			donde se	hacer compras	
There used	lots of		cines cinemas			podía	go shopping	
to be	más m	ore	coches cars			where you	ver una película	
	menos	less	fábricas factor	ies		could	watch a film	
	pocos/po	ocas	industria indust	ry			cenar have dinner	
	few		espacios verdes green spaces				trabajar work	
			restaurantes r	estaurants			relajarse relax	
Pero ahora	But now	mi bo	irrio es	muy very moderno modern			rn	
Hoy en día	Nowadays	s my n	eighbourhood is más more			antiguo old		
Pero hoy B	ut today		menos less			sucio dirty		
Actualmente	Current	tly				limpio clean		
						bonito pretty		
						feo ugly		
También	muchos/	muchas	tiendas shops		don	ide se puede	hacer compras	
hay	lots of		cines cinemas		whe	ere you can	go shopping	
Also there	más m	ore	coches cars				ver una película	
is/are	are menos less fábricas factor		ies			watch a film		
	pocos/po	ocas few	industria indust	ry			cenar	
			espacios verdes	green spaces			have dinner	
			restaurantes re	estaurants			trabajar work	
							relajarse relax	



4. ¿Qué se puede hacer en tu pueblo o ciudad? What can vou do in vour village or town?

	cun jo		n your vii	luge	or rown.					
Hay	una bole	ra			donde se		juga	jugar a los bolos go bowling		
There	a bowling alley			puede		ver	ver una película see a film			
is/are	un cine	a cin	ema		where yo	u can	ir de	ir de compras go shopping		
	un centr	o comei	rcial				leer	un libr	o read a book	
	a shoppi	ng cent	re				apre	ender m	ucho learn lots	
	unas tiei	ndas s	ome shops				apre	ender d	e la historia del pueblo learn about	
	una bibli	oteca (a library				the	history	of the town	
	un instit	uto a s	chool				juga	ir con la	os amigos play with friends	
	un muse	o a mu	seum				juga	ur al fút	bol play football	
	un parqu	e a pa	rk				tom	ar el so	l sunbathe	
	una play	a a be	ach				des	cansar	rest	
Desafort	inadamen	te	ni	boler	n bowling	alley		ni	bolera bowling alley	
no hay	anadamen		neither	cine	cinema	uncy		nor a	cine cinema	
Unfortun	ately the	e	٥	cent	ro comerci	al			centro comercial	
isn't				shop	pina centre	2			shopping centre	
				tiend	as shops				tiendas shops	
				biblic	oteca libro	irv			biblioteca library	
				instit	tuto schoo				instituto school	
				muse					museo museum	
				nuse	w nark		museo museum		naseo maseam	
				purqu	beech		parque park		purque purk	
				piayo	Deach		playa beach			
Así que no	o se puede	e ju	igar al bowli	ng go	bowling					
So you ca	nT	ve	er una pelícu	ila se	e a film					
		ir	de compras	s go s	hopping					
		le	er un libro	read	a book					
		a	prender muc	cho le	arn lots					
		ap	prender de l	a hist	oria del pu	eblo l	earn	about t	he history of the town	
		ju	igar con los	amigo	s play with	n frien	ds			
		ju	igar al fútbo	ol play	y football					
		to	omar el sol	sunba	the					
		de	escansar r	est						
Me gusta	ría	una bo	lera a bov	vling a	lley	para	que la	ı j	ugar al bowling go bowling	
tener		un cine	e a cinem	a		gente	pued	da v	er una película see a film	
1 would li	ke to	un cen	tro comerci	ial		so th	at pe	ople	r de compras go shopping	
have		a shop	ping centre			can			eer un libro read a book	
		unas t	iendas som	ne sho	ps			C	prender mucho learn lots	
		una bil	blioteca al	ibrary				C	prender de la historia del pueblo	
		un inst	tituto asch	lool				1	earn about the history of the town	
		un mus	seo a muse	um				j	ugar con los amigos play with friends	
		un par	que a park					j	ugar al fútbol play football	
		una pla	aya a beac	h				1	omar el sol sunbathe	
								c	lescansar rest	

5. ¿Dónde te gustaría vivir en el futuro?

Where would you like to live in the future?

Me gustaría vivir en	una casa a house	En una gran ciudad in a big city				
I would like to live in	una casa adosada en las afueras de la ciudad in the outskirts of the					
	a semi-detached house	en un pueblo pequeño in a small village				
		en una granja on a farm				
	un piso a flat	en el campo in the countryside				
	un barco a boat	en la ciudad in the city/town				
	una mansión a mansion	al lado del mar beside the sea				
	un chalé a bungalow	en la costa on the coast				
	una caravana a caravan	en las montañas in the mountains				
	una casa moderna/antigua	en el notre/sur/este/oeste				
	a modern/old house un castillo a castle	in the north/south/east/west				
Sería	muy very	claro/a light/clear				
It would be	bastante quite	grande big				
	un poco a bit	bonito/a pretty				
	tan so	cómodo/a comfortable				
		nuevo/a new				
		adosado/a semi-detached				
		barato/a cheap				
		moderno/a modern				
		lujoso/a luxurious				
T 11	the second second	elegante elegant				
Tendria	una chimenea/dos chimenea	15 a chimney / two chimneys				
TI WOULD HAVE	un recho rojo/marron a re	teres a few windows/lats of windows				
	pocas ventanas/muchas ven	indias a rew windows/ ions of windows				
	una puerta roja a rea acor	and a secolar to partic to home				
	un jarain / un patio / una te	erraza a garden / a patio / a terrace				
	una piscina / un garaje a s	fine form a garage				
	cinco/cuatrohabitaciones, five/fourromos					
También	nasearía my perro todos los	s días en la plava				
Also	I would walk my dog every	day on the beach				
	tendría un limpiador para h	acer las tareas del hogar.				
	I would have a cleaner to d	lo all the housework.				
	tendría un cocinero para co	ocinar las comidas deliciosas				
	I would have a chef to cool	k delicious meals				
	tendría una sala de juegos	masiva				
	I would have a massive gam	ies room				
	I would have a massive gam	165 I 0011				

* 6. ¿Qué hay para los jóvenes en tu pueblo o ciudad? What is there for young people in your village or town?

	una bolera a bowling alley	lo que es	emocionante
Para los jóvenes hay	un cine a cinema	which is	exciting
For young people there	un centro comercial		seguro
is/a	a shopping centre		estimulante
	unas tiendas some shops		stimulating
	una biblioteca a library		divertido
	un instituto a school		fun
Lo mejor es que hay	un museo a museum		fascinante
The best thing is that	un parque a park		fascinating
there is/are	una playa a beach		fantastic
	un club de jóvenes a youth		quay
	club		cool
	bolera bowling alley		jugar a los bolos go bowling
	cine cinema		ver una película see a film
	centro comercial		ir de compras go shopping
	shopping centre		leer un libro read a book
	tiendas shops	así que los jóvenes	aprender mucho learn lots
Sin embargo no hay	biblioteca library	no pueden	aprender de la historia del
However there isn't a	instituto school	so young people	pueblo learn about the
	museo museum	cannot	history of the town
	parque park		jugar con los amigos play
	playa beach		with friends
	club de jóvenes youth club		jugar al fútbol play football
	• •		tomar el sol sunbathe
			descansar rest



Lo mejor es que es	MIN VERY	moderno modern
The best thing is that it is	hostorte quite	antique old
Para la paor as que as		sucio dinty
Put the worst thing is that it is	un poco a bit	limpio clean
but the worst thing is that it is	remolemente remoly	bonito pretty
	generalmente generally	feo uoly
	siempre always	ruidoso noisy
	a veces sometimes	tranguilo guiet
		bolera bowling alley
	no había	cine cinema
No obstante es mejor que antes porque	There wasn't/weren't	centro comercial
Nonetheless it is better than before		shopping centre
because	era	tiendas shops
	It was	biblioteca library
		instituto school
		museo museum
		parque park
	hay	playa beach
Y ahora	There is/are	club de jóvenes youth club
A now		
		moderno modern
		antiguo old
	es más/menos	sucio dirty
	it's more/less	limpio clean
		bonito pretty
		feo ugly
		ruidoso noisy
		tranquilo quiet



Section 5			
Wider Research	Apply		
 Online Dictionary and conjugation tool: www.wordreference.com 	Use the sentence builders above to answer the following questions in Spanish. Those questions are usually bullet points that you will have to use in your writing paper and in your speaking paper.		
 Also, please remember that you should spend at least 20 minutes each week, PRACTISING INDEPENDENTLY, on each of the following app and website: 	 It is wise to use words and expressions that you will easily remember. Aim to write at least 3 sentences as answer per question set – where possible. Have, on average 30 words in total per answer – where possible. Mind the tense in which each question is set. The tense in your answers should reflect the tense in the question you are answering. Remember that what you write does not have to be true. Just show off your vocab and grammar knowledge. 		
https://www.memrise.com/ https://www.kerboodle.com/users/login	 1/ ¿Dónde vives? Where do you live? 2/ Describe tu casa. ¿Qué habitaciones hay? ¿Te gusta? Describe your house. What rooms are there? Do you like it? 3/ ¿Cómo era tu pueblo o tu ciudad antes y cómo es ahora? What was your village/town like before and what is it like now? 		
If you need support with any of the above learning resources, please email your teacher.	 4/ ¿Qué se puede hacer en tu pueblo o ciudad? What can you do in your village/town? 5/ ¿Dónde te gustaría vivir en el futuro? Where would you like to live in the future? 6/ ¿Qué hay para los jóvenes en tu pueblo o ciudad? What is there for young people in your village? 7/ ¿Qué es lo mejor y lo peor de tu ciudad? What is the best and worst thing in your town 		



KS4 Knowledge Organiser

Subject: Construction - Year 10 Term 5



Mrs Bennett	bailc197@sflt.org.uk
Raising Standards Leader for KS4	
Mrs Adsett	adsea001@sflt.org.uk
Head of Year 10	
Mrs Burgiss	Khatk095@sflt.org.uk
Head of Department	

Also, please remember, you should spend 20 minutes on the following apps and websites:

> GCSE Pod PIXL Lit PIXL Maths App Tassomai BBC Bitesize Onmaths Corbett Maths English Instagram @greenacreenglish Quizlit

Click on the QR code below which will take you to the revision support page on our website:



If you would like support with any of the apps, please email <u>gahomework@sflt.org.uk</u>

How to use the Knowledge Organiser:

- •Your teacher will direct you to what topics to revise for each week
- •You will be expected to revise for at least 30 minutes each evening
- •Ask someone to quiz you on the key information
- •Remember to APPLY the information using the tasks included in each Knowledge Organiser

Revision techniques and strategies

- 1. Turn your huge amount of revision notes into small and easy to handle
- 2. Put a question on the front of your flash cards and write the answer on the reverse then ask someone to quiz you
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- 8. Make lists of important facts and figures
- 9. Draw diagrams to help you visually remember your notes
- 10. 'Look, cover, say, write, check' use this method to make sure that you are remembering key information

Revision tips

- Make sure you get some sleep cognition (acquiring and understanding information) and ability to recall learned facts is limited when you are sleep deprived.
- Eat a healthy, balanced diet lots of fruit and veg, meats for protein, limit sugary fatty foods.
- Switch off social media/distractions ignore your phone for a few hours! It will help you keep focused. Social networking, while it's fun, is a big distraction from your revision.
- Give yourself a nice space to work in have a nice, organised study space with lots of stationary to help you make quality notes/highlight.
- Make a plan schedule dedicated study time into your daily schedule. Be organised with your time. Stick to your plan. Sacrifice some of your social time for study time. No pain, no gain!
- Start your revision early start now, if you have not already done so, not days before your exam.
- Do small chunks of revision. Your brain is not capable of mass storing information in a short space of time. Digesting small chunks of information, over a longer period of time, means you are more likely to remember it









At the designing stage of construction, architects and engineers are required to make a multitude of decisions about the most appropriate structure and form for the project in development. These decisions will be based on factors such as function, location and cost.

In this section, you will look at the main types of building structures and forms along with their characteristics, advantages and disadvantages. You will also look at the heritage and traditional methods used in the maintenance of the historic built environment.

Cellular Construction

Cellular construction, also called box frame or cross wall construction, is a method of building with concrete in which individual cells, or rooms, are set horizontally and vertically together to create an overall structural frame.

As the main weight of the building is carried through the walls, they must be thick enough to carry their own weight as well as loads from above. This means the potential height of a structure built in this manner is limited.

These load-bearing walls provide the main vertical support and lateral stability for multiple floors, with external wall panels, lift shafts or staircases also providing stability.





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Cellular constructions are usually restricted to 6-10 stores depending on location and exposure to wind action. Their most common application is in low apartment flats and similar buildings where the walls and floors are formed from reinforced concrete slabs.



The individual cells or pods that make up the overall structure of the building may be prefabricated offsite. This saves production time as the cells can be hoisted into place as soon as they arrive onsite. Cellular construction methods create structurally efficient buildings with high levels of acoustic and fire separation between adjacent rooms. They are suitable for buildings that follow regular grids and repeating floor plans where internal separating or party walls are required, such as in blocks of flats and student accommodation.











Rectangular frame Constructions

In rectangular frame constructions, the weight of the building is carried by a skeleton or framework of columns and beams, rather than being supported by walls. The rectangular grid supports the internal floors, roof and external walls of the building as well as carrying all loads to the foundations.









The skeletal frame structure has made it possible to construct tall buildings and skyscrapers with non-load-bearing internal walls, allowing for flexible floor spaces that can be easily rearranged. Some contemporary commercial framed buildings have replaced traditional, load-bearing external walls with non-load-bearing metal and glass screens, or curtain walls, as exterior cladding.

A braced frame is a development of the skeleton frame used in structures that are subject to high lateral loads, such as wind pressure. The beams and columns carry vertical loads and the bracing systems (such as floor slabs and diagonal steel sections) transfer lateral loads.



A lightweight timber frame is a common structure used in the construction of contemporary housing, while steel and reinforced concrete frames are used in larger structures. This method is often preferred by contractors because of its rapid construction time, costeffectiveness and the sustainability of timber materials.





Portal frame Constructions

Buildings made by the portal frame method of construction are a common feature of the modern built environment. this method is used in a range of buildings, from small domestic garages to vast commercial storage depots.

In essence, a portal frame is a construction technique Where vertical supports or columns are connected to horizontal beams or trusses by fixed joints. As the joints between the beams and columns are 'rigid', the beam can be thinner in cross-section and can span large distances.

A building can be formed using a series of parallel portal frames, typically 6-8 metres apart with a span that could be between 15 and 50 metres.

A secondary framework of side rails fixed to columns and purlins fixed to rafters is required to support cladding such as profiled sheeting or prefabricated composite metal panels.

Bracing is usually required on the sides and roof to give the row of parallel frames rigidity and the stability to resist strong winds. Masonry cladding is sometimes included at low levels to give greater resistance to damage and to improve security.



Portal frame

Footing

Column



Portal frame structures can be constructed using a variety of materials and methods.

They are most often fabricated from structural steel, with reinforced precast concrete and laminated timber being other options.

Cold-formed steel (CFS) sections are most commonly used in portal frames. This is a process by which lightweight components such as columns, beams and connections are made by rolling or pressing thin steel sheets into the required shape or section.

Reinforced concrete portal frame structures are built from concrete that contains steel bars (these are known as reinforcement bars, or rebar for short).











Portal frame Constructions

Laminated timber can also be used for portal frame structures.

Multiple layers of timber are glued together to make much larger columns and beams. The laminating process can allow timber to be used for much longer spans, heavier loads and more complex shapes than reinforced concrete or steel.

Advantages of portal frames:

- All the different types of portal frame construction are relatively lightweight when compared with other forms of building construction.
- They can be fabricated offsite and then assembled and erected rapidly onsite. it is a relatively simple, low-cost and weatherproof construction method.
- Portal frames result in a wide, clear span that is perfect for a variety of commercial and agricultural building functions.

















Heritage and traditional methods

Our built environment includes many historic buildings and structures, some of which have been given listed status. A building is listed when it is of special architectural or historic interest considered to be of national importance and therefore worth protecting. All listed buildings can be found in the National Heritage List for England.

It is essential that the maintenance and renovation of such buildings is undertaken by architects and tradespersons who are qualified and experienced in the appropriate heritage and traditional methods.

This is to:

- ensure that the history and character of the building is maintained preserve heritage for the benefit of present and future generations
- comply with planning regulations within conservation areas (such as the city of Bath in Somerset). A conservation area is defined as an 'area of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance'.
- The work performed using traditional methods is essential to the conservation and maintenance of the historic built environment, as is the preservation of the skills and knowledge required to carry out this work.









- a regular programme of maintenance to help prevent small problems escalating or further deterioration occurring
- efforts to match existing materials and methods of construction wherever possible
- retaining as much of the original building fabric (the components and materials that the building is made of such as its floors, walls, roof, windows and doors) as is practicably possible.

<u>Heritage and traditional maintenance methods as</u> <u>practised by traditional trades include:</u>

- masonry and stone carving
- timber framing/rafter and purlin roofs, carpentry and joinery thatching and roofing using natural shingles leadwork, including sheeting and ornamental work plasterwork, including mouldings and repairs
- blacksmithing and ornamental metal work.

Heritage and traditional methods

The design and installation of building services such as electricity, pipework, lifts and fire and security alarms in historic buildings need to be considered carefully. They should aim to protect the building and its setting whilst having the least effect on historic fabric as is possible by following the principles of mitigation, minimisation and reversibility.

<u>Mitigation</u> - the installation of modern building services in historic buildings during renovation projects is often essential in order to make the building habitable and to prevent further deterioration, such works will inevitably lead to a change in the character and fabric of the building and so efforts should be made to mitigate, or reduce, their severity. This could include making a record of the significant features that will be removed or altered and using existing features such as mouldings or balustrades to conceal services such as pipework and cabling. The use of wireless technology for CCTV and alarm and control systems can eliminate the need for extensive cabling.

<u>Minimisation</u> - this means choosing effective and affordable options that minimise any harm to the historical significance of the building, carrying out the minimum amount or work that would disturb the buildings existing fabric and, where this is necessary, reusing as much of the existing fabric as is appropriate and practical.

<u>Reversibility</u> - this means giving as much thought to the removal of services at the end of their useful life as is given to their installation. In both instances, this should be done with the intention of minimising their effect on the historic fabric of the building

Vocabulary	Wider Research	Apply
Cellular	Cellular construction	1. What is cellular construction and what are the benefits of it?
Rectangular frame	https://www.youtube.com/watch?v=QvHa	2. Draw a diagram of cellular construction and label the steps to explain it
Portal frame	<u>QDJ_3m8</u>	3. What are rectangular frame constructions and what are the benefits of it?
Laminated timber		4. Draw a rectangular frame construction and label it
Listed building	Rectangular frame	5. What are portal frame constructions and what are the benefits of it?
Mitigation	https://www.youtube.com/watch?v=0IVPt	6. Draw your own 2d diagram of a portal frame and label the main parts
Minimisation	<u>hARKbY</u>	correctly.
Reversibility		7. Explain the advantages of using laminated timber for portal frames
Maintenance	Portal frames	8. What is a listed building and name some examples in the local area
Heritage	https://www.youtube.com/watch?v=kPstc	9. Why do listed and historic buildings have to be considered in more detail
Historic	<u>BkN6u8</u>	compared to other types of buildings?
		10. Explain the 3 core principles for modernising a historic building and its setting
	https://www.youtube.com/watch?v=AUd	whilst having the least effect on historic fabric as is possible.
	HfQo3CX4	11. Explain what should be considered when maintaining a historic building.
		12. Research one historic building in the local area. How has it been modernised
	Maintaining heritage buildings	with consideration to maintaining its character?
	https://www.youtube.com/watch?v=kvNb	
	<u>6klkuLs</u>	
	https://www.youtube.com/watch?v=z9XR	
	<u>M8TZsho</u>	





<u>KS4 Knowledge Organiser</u> <u>Subject: Engineering WJEC</u> <u>Term 5 Yr 11</u>

Mrs Allen	sterm029@sflt.org.uk
Raising Standards Leader for KS4	
Mr Roberts	robem008@sflt.org.uk
Head of Year 11	
Mr Akehurst	akehr005@sflt.org.uk
Head of Department	

How to use the Knowledge Organiser:

- •Your teacher will direct you to what topics to revise for each week
- •You will be expected to revise for at least 30 minutes each evening
- •Ask someone to quiz you on the key information
- •Remember to APPLY the information using the tasks included in each Knowledge Organiser

Also, please remember, you should spend 20 minutes on the following apps and websites: •GCSE Pod

• PIXL Lit

• PIXL Maths App

Tassomai

•BBC Bitesize

Onmaths

Corbett Maths

•English Instagram @greenacreenglish

Quizlit

If you would like support with any of the apps, please email akehr005@sflt.org.uk



Revision techniques and strategies

Revision tips

•Make sure you get some sleep – cognition (acquiring and understanding information) and ability to recall learned facts is limited when you are sleep deprived.

•Eat a healthy, balanced diet - lots of fruit and veg, meats for protein, limit sugary fatty foods.

•Switch off social media/distractions - ignore your phone for a few hours! It will help you keep focused. Social networking, while it's fun, is a big distraction from your revision.

•Turn your huge amount of revision notes into small and easy to handle

•Put a question on the front of your flash cards and write the answer on the reverse – then ask someone to quiz you

•Mind map – what is the topic and what are the key points you need to remember? You could use different colours for different ideas/characters

- •A question a day complete an exam question, under timed conditions, each day
- •Record yourself reading your notes and listen back to yourself
- •BUG the question write out exam questions, examine the key words and plan an answer
- •Use of post-it notes place post-it notes in key places so you are constantly reading key information
- •Make lists of important facts and figures
- •Draw diagrams to help you visually remember your notes

10. 'Look, cover, say, write, check' – use this method to make sure that you are remembering key information





•Give yourself a nice space to work in - have a nice, organised study space with lots of stationary to help you make quality notes/highlight.

•Make a plan - schedule dedicated study time into your daily schedule. Be organised with your time. Stick to your plan. Sacrifice some of your social time for study time. No pain, no gain!

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Click on the QR code below which will take you to the revision support page on our website:





Vertical milling machine

What is a vertical milling machine used for?

machine

This machine uses a rotating cutting tool to produce machined surfaces by progressively removing material from a work piece.

The machine vice is controlled using handles to allow it to accurately move along 3 axis. More advance machine can be partly or fully automated.



Correct machine speed must be selected.

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WJEC Engineering

TOPIC 1



Tools, Machines & Equipment

Machine Tools

The Centre Lathe

The Centre Lathe is a machine used to manufacture cylindrical products/objects. They are operated both manually (workshops) and via CADCAM (Computer Aided Design Computer Aided Manufacture) or CNC (Computer Numerically Controlled) in Industry. Think about how many items/parts there are in the world that are cylindrical. Many different materials can be used on a centre lathe such as metals and plastics. Below is an image of a centre lathe that you would typically find in a manual workshop.

Common Phrases:

TURNING - Reducing the **diameter** of a cylindrical object FACING OFF – Ensuring the **END** of a cylindrical object is flat (perpendicular to its sides) PARTING OFF – **Cutting** the work-piece to a specific length TAPER TURNING – Creating a **taper** down the length of the work-piece KNURLING – Creating a **textured surface** on your work-piece

GROOVING/FACE GROOVING – Creating a **groove** on the **external diameter** or **face**

BORING – Enlarging an existing hole in a work-piece using cutting tools

Lathe Operations



Tools, Machines & Equipment

What is a centre lathe used for?

A centre lathe is used to manufacture mainly cylindrical products/ objects. Lathe can be operated both manually (in the workshop) or using CNC in industry.

Fitting tools

The workpiece (material) on a lathe is held in place using a chuck. This uses 3 or 4 jaws to **self-centre** the workpiece as they come together.

A **chuck key** is used to tighten the jaws of the chuck.

Spring loaded chuck key

This has a spring so that it cannot be left in the chuck and cause injury to the user.



4-jaw centre lathe chuck

Useful websites: Technology student: centre lathe BBC bitesize DT online: centre lathe



Safety precautions

- A **risk assessment** must be completed before using this machine.
- Safety goggles and apron must be worn.
- Long hair must be tied back
- Limited persons around the machine e.g. user plus instructor only.
- Workpiece must be securely closed in the chuck.
- Machine guard must be set to the correct position.
- Tools must be sharpened and set up correctly.
- Correct machine speed must be selected.

Common phrases: Turning:





Facing off:

Ensuring that the **end** of a cylindrical object is flat (perpendicular to its sides)



Parting off:

Cutting the workpiece to a specific length with a specific cutting tool (parting tool)



Taper turning:

Creating a **taper** down the length of the workpiece(think cone-shaped)



Knurling:

Creating a **textured surface** on your workpiece



Grooving/ face grooving: Creating a groove on the external diameter or face



Boring:

Enlarging an existing hole in a workpiece using cutting tools or a 'boring bar'



Tools, Machines & Equipment

Machine Drills

Machine Drills are drills that are fixed in one place. Unlike hand drills (e.g. cordless), machine drills can be very accurate as the work-piece can be clamped down or held in a machine vice and the rotating drill bit is lowered using the feed lever.

There is the Bench Drill, a smaller type of machine drill that is bolted to a desk/bench and there is the Pillar Drill that is larger and stands on the workshop floor. The larger Pillar Drill is more powerful and can therefore be used to drill larger diameter holes.

All machine drills have a changeable belt system that allows the user to speed-up or slowdown the speed of the drill bit depending on what material is being drilled and what diameter drill bit is being used.



Chucks are the part of a drill/machine that holds the drill bit (cutting tool). Chucks are also used in **Centre Lathes** to hold the work-piece and drill bit In the headstock.

On corded drills (as well as Machine Drills) you will mainly have chucks that need to be used with a chuck-key. The chuck-key is used to loosen/tighten the jaws of the chuck and can be tightenedup to a high torque setting for bigger diameter drill bits. On cordless drills you will mainly see keyless-chucks that can be tightened by hand. These types of chucks rely on a strong grip from the user to ensure a high torque fit for a drill bit. The cordless chucks have the added advantage of not having an extra part/component to carry or use and there is no danger of not being able to use the drill because of a lost chuck- key. *Most chucks are 3-Jaw chucks that are self-centring when using round or hexagonal sections. However, chucks on centre lathes can also be changed to a 4-Jaw chuck for square/octagonal sections. These 4-Jaw chucks need to be centred manually.*



3-JAW CENTRE LATHE CHUCK





'JACOBS' CHUCK (WITH KEY)

Vocabulary	Wider Research	Apply
Common operations:		1. Your practical product is made from mild steel. Explain what
Plain milling/	https://technologystudent.com/equip1/vert1.ht	options you have to join two of the pieces together
surrace	<u>m</u>	permanently. Justify using Topic 1.
	https://www.bbc.co.uk/bitosizo/guidos/zp2wZp2	2. What process should be carried out before using a milling
• Face milling	/revision/9	machine? State and justify 5 of these.
		3. The main frame of a bicycle is made from mild steel tubing.
• Side milling	https://www.bbc.co.uk/bitesize/guides/zcxmfcw/	Using clear notes and sketches, name and describe a suitable
• Shoulder	revision/1	joining process for the manufacture of the frame.4. Classify
milling		these materials – Mild steel, Aluminium, Brass, Stainless
	https://learning-	Steel, Cast Iron and Duralumin.
Boring/ hole	<u>center.homesciencetools.com/article/metals-</u>	5. The modern signposts are attached to vertical posts with a
expansion	101/	series of clips and domed nuts. Describe two advantages of
• Tapping	https://www.slideshare.net/MechieProjects/met	using this method. [4] Advantage 1:
	al-joining-processes-welding-riveting-bolting-	
Turning:	brazing-soldering	Advantage 2:
		6. A group of pupils have been asked to update the door sign for
racing off:	https://www.bbc.co.uk/bitesize/guides/zn2w7p3	the staffroom at their school. The old one was small and had
Parting off:	/revision/9#:~:text=Non%2Dpermanent%20meth	started to fade. The new sign will be manufactured out of
, i i i i i i i i i i i i i i i i i i i	Ods%20Include%20nuts%20and%20bolts%2C%2	2mm thick High Impact Polystyrene (HIPs). Below is a front
Taper turning:		view of the piece of HIPs, after it has been laser cut. It is a
Knurling		standard rectangle with four screw holes, one in each corner.
		Calculate the total volume of the remaining HIPs plastic after
Grooving/ face		the laser cutting operation. [6] You must show all your
grooving:		calculations.
	Q	

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