



Atlantic Academy Portland
an Aspirations Academy

Year 11 Unit 3

Knowledge Organisers



Name	
Tutor	

Contents

Self-Quizzing Homework Timetable

Self-Quizzing Expectations and Instructions

Student Self-Quizzing Model

Maths Homework Information

★ English Knowledge organiser in English revision booklet

Science Knowledge Organiser

History Knowledge Organiser

French Knowledge Organiser

Geography Knowledge Organiser

Computer Science Knowledge Organiser



Self-Quizzing Homework Timetable:

Each evening you will self-quiz using your Subject Knowledge Organiser for 30 minutes. Below you will find information about which Subject Knowledge Organiser you need to self-quiz from on which evening. Each subject has divided their Knowledge Organiser(s) into 9 'segments': these are the 9 pieces of Knowledge Organiser Homework you will complete for the relevant subjects. You have been set a different segment of the Subject Knowledge Organiser to complete each week, clearly labelled on each Knowledge Organiser. Your teacher will test you on this segment of information each week after your Subject Knowledge Organiser Homework, to assess how well you have learnt the information. The 'mark' box allows you to record your score out of 10 from your end of week quiz.

	Monday	Tuesday	Wednesday	Thursday		Friday	
				<i>Your two options from the four below:</i>			
	Vocational as directed	English	Science	History	French	Geography	Computer Science
Week 1 Mark			/10	/10	/10	/10	/10
Week 2 Mark			/10	/10	/10	/10	/10
Week 3 Mark			/10	/10	/10	/10	/10

From the start of the Easter break, you will be able to plan your revision independently as you approach your GCSE exams. Your tutor and teachers will discuss your revision with you and my guide you as to which areas to complete. Please also be proud of your revision and show evidence to your teachers.

Self-Quizzing Expectations and Instructions

It is expected that you complete **one page** of self-quizzing, as a minimum. This should take around **30 minutes**. You should not leave blank lines on the page, including in between pieces of information (if you are self-quizzing diagrams, you can use more than one line to copy the diagram into your practice book). The information you self-quiz should be numbered in your practice book with the same numbers used on the Subject Knowledge Organiser.

Tutors will check your Subject Knowledge Organiser homework the next morning during AM Tutor Time. They will be looking for a **full page of self-quizzing** on the correct numbers of the Subject Knowledge Organiser, as well as for **purple pen ticks/corrections** and **good presentation** (including your **H/W, Title and Date underlined with a ruler**). Your writing needs to be neat and legible. If your tutor feels that any of these elements are not up to standard, your tutor will enter you for a detention that same day.

These are the steps you should follow to complete effective self-quizzing (look, repeatedly say aloud, cover, write, check):

1. Identify the Subject Knowledge Organiser segment for the week.
2. Open up your practice book and on the top line, write 'H/W' in the margin, the Title (the subject you are completing) on the other side of the margin line and the Date on the right hand side (see the model on the next page). Underline all three with a ruler.
3. Place your Subject Knowledge Organiser segment in front of you. Start with the first numbered piece of information within the weekly segment. Read and memorise the piece of information - we recommend saying it aloud. Repeat this process several times, until you are confident enough to use your practice book to write the knowledge point down.
4. Close your Subject Knowledge Organiser or cover up the piece of information, and try to recall the knowledge. On the line directly beneath your H/W, Title and Date, write the correct number from the Subject Knowledge Organiser and the piece of information from memory.
5. Check it and correct any mistakes. Open up your Subject Knowledge Organiser and look at the piece of information – using a purple pen tick the piece of information in your practice book if you have recalled it correctly (word for word). If you have incorrectly recalled or missed any part of the information, use your purple pen to cross the knowledge point.
6. If you recalled the piece of information incorrectly, go back to step 3 and **in purple pen**, repeat the process again for the same piece of information (remember to cover up previous attempts in your practice book as well as the piece of information in your Subject Knowledge Organiser). When you have recalled the information correctly (word for word), tick the attempt and move on to the next piece of information within the weekly segment. You may find that you need to complete a few purple pen attempts before you recall the knowledge point word for word.
7. Repeat the steps above until you have recalled and written down all pieces of information within the weekly segment. If this has not filled one full page of your practice book, go back to the first piece of information within the weekly segment and repeat the process again, until you have filled an entire page.

Student Self-Quizzing Model

H/W English

17/7/18

- 21) **Stagecraft** - The use of setting/props to convey ideas. The front door bangs everytime a character enters or leaves, this makes the audience wonder who it is. Lighting is used to show emotion, 'pink' is used to show the rose-tinted view on life the Birlings have, but turns 'brighter...harder' when the truth comes out. ✓
- 22) **Religious imagery** - The Inspector suggests we have a 'sacred' duty of care towards and should show images of 'fire and blood and anguish' linking to the end of the world in the book of revelation where people were punished for their sins. ✓
- 23) **Social responsibility** - Priestley uses the play to promote social responsibility - the idea that we should try and help those less privileged. ✓
- 24) **Stage directions** - Guide to the actor/actress on how to present their character at that point in the play. Stage directions can also reveal extra information to the audience about the character. ✓
- 25) **Beginnings and endings** - Priestley freezes the action between Acts to make the audience wait and consider how a character will respond. They build up tension and suspense. ✓
- 26) **Omniscience** - The Inspector seems to be omniscient - he knows what will happen and how characters will react. ✓
- 27) **Symbolism** - Characters represent particular social groups (Mrs Birling represents the hypocrisy of the upper Edwardian class). ✓
- 28) **Colloquial language** - Characters use language to represent their social status. The younger generation use slang or 'squiffy' in contrast to their old fashioned parents. Mr Birling uses language related to business.
- 28) **Colloquial language** - Characters use language to represent their social status. The younger generation use slang or 'squiffy' in contrast to their old fashioned parents. Mr Birling uses language related to business.
- 29) **Graphic imagery** - The Inspector uses language to shock the Birlings and the audience. 'She burnt her insides out'. ✓
- 30) **Euphemism** - A way of not saying something unpleasant. Mr and Mrs Birling use this to not look as guilty. ✗
- 30) **Euphemism** - A way of avoiding saying something unpleasant. Used by Mr and Mrs Birling to make them look less guilty.

Maths Homework Information

Your compulsory Key Skills Maths Task is set Friday to Friday. Your maths teacher will check this work in class.

Year 11 students will be set bespoke homework based on the CGP Revision books that have been provided for them.

Times Table Rock Stars: Being good at your times tables will help you to complete all areas of your maths work. The more you practice, the quicker you will get. Everyone who has completed a TTRS task each week will receive a positive point, there will be a TT Rock Stars concert at the end of each term for the top competitors across the school.

My Login Information:

	Times Tables Rock Stars	Hegarty Maths
Username		
Password		

Science – Year 11 – Unit 3 Key Equations

Week 1:			RAG
1.	Weight	weight = mass × gravitational field strength ($W = m g$)	
2.	Work done	work done = force × distance along the line of action of the force ($W = F s$)	
3.	Force applied to a spring	force applied to a spring = spring constant × extension ($F = k e$)	
4.	Distance, speed and time	distance travelled = speed × time ($s = v t$)	
5.	Acceleration	acceleration = change in velocity / time taken ($a = \Delta v / t$)	
6.	Newton's second law	resultant force = mass × acceleration ($F = m a$)	
7.	Momentum(HT)	momentum = mass × velocity ($p = m v$)	
8.	Kinetic energy	kinetic energy = $0.5 \times \text{mass} \times \text{speed}^2$ ($E_k = 0.5 m v^2$)	
9.	Gravitational potential energy	gravitational potential energy = mass × gravitational field strength $g \times$ height ($E_p = m g h$)	
10.	Power	power = energy transferred / time ($P = E / t$)	
Week 2:			
11.	Power	power = work done / time ($P = W / t$)	
12.	Efficiency	efficiency = useful output energy transfer / total input energy transfer	
13.	Efficiency	efficiency = useful power output / total power input	
14.	Wave speed	wave speed = frequency × wavelength ($v = f \lambda$)	
15.	Charge flow	charge flow = current × time ($Q = I t$)	
16.	Potential difference, current and resistance	potential difference = current × resistance ($V = I R$)	
17.	Power, potential difference and current equation	power = potential difference × current ($P = V I$)	
18.	Power, current and resistance	power = current ² × resistance ($P = I^2 R$)	
19.	Energy, charge flow and potential difference	energy transferred = charge flow × potential difference ($E = Q V$)	
20.	Density	density = mass / volume ($\rho = m / V$)	
Week 3:			
21.	Atom economy	atom economy = $\frac{\text{total Mr of the desired product}}{\text{total Mr of all reactants}} \times 100$	
22.	Percentage yield	percentage yield = $\frac{\text{mass of product actually made}}{\text{maximum theoretical mass of product}} \times 100$	
23.	Concentration	Concentration in g/dm ³ = $\frac{\text{mass of solute in g}}{\text{volume in dm}^3}$	
24.	Molar gas volume HT	Amount in mol = volume / molar volume	
25.	Number of particles in a substance HT	Number of particles = Avogadro constant × the amount of substance in mol	
26.	Avogadro Constant	6.02×10^{23}	
27.	Mass, moles and formula mass	Number of moles = mass / formula mass	
28.	Magnification	Magnification = size of image / actual size of object	
29.	Mean number of organisms in a quadrat	mean = total number of organisms / number of quadrats	

History Year 11 Unit 1 Germany, Conflict and Tension in Asia, Normans & Health and the People

Week 1:			RAG
1.	As a result of the Wall Street Crash in 1929 and the Depression that followed in Germany, people started to support extreme parties more. What did the middle classes in Germany widely fear?	The rise in support for Communism	
2.	What did unemployment rise to in Germany as a result of the Great Depression by 1933?	6 million	
3.	Goebbels was in charge of propaganda (the spreading of ideas and information) in the Nazi Party. What key idea did Goebbels spread as propaganda during the Great Depression?	'Work and Bread'	
4.	What were the four humours?	Blood, yellow bile, black bile and phlegm	
5.	What was often thought to be the cause of illness during the middle ages?	An imbalance of the four humours	
6.	What were two common treatments used to balance the four humours?	a) Purging b) Bleeding	
7.	Which 4 men thought they had a claim to the throne of England?	Harold Godwinson, Hardrada, William Duke of Normandy and Aethling	
8.	Who became king on 6th January 1066, the day after Edward the Confessor died?	Harold Godwinson became King Harold	
9.	The two main rivals in the Cold War	USA and USSR	
10.	What is the line which separates North Korea from South Korea called?	38th parallel	
Week 2:			
11.	Which political party did Hindenburg ban from the Reichstag after the Reichstag Fire of 1933?	Communists	
12.	What did Hindenburg and Papen both try to do when Hitler became Chancellor of Germany in 1933?	They tried to control Hitler	
13.	During the Middle Ages what did the Church recommend as the best treatment for illness?	Prayer	
14.	Name two Muslim doctors who had a great influence on Western medicine.	Rhazes and Avicenna	
15.	What were the group of earls and bishops that advised the king called?	The Witan	
16.	When was the Battle of Fulford Gate (day, month and year) that was between the Vikings, led by Hardrada and the Anglo Saxons, led by Edwin and Morcar and was won by Hardrada?	20 September 1066	
17.	What were working men, mainly peasants, who were called to fight for the king in times of war called in Anglo-Saxon times?	Fyrd	
18.	The Palmer Raids	To arrest Communist bombers	
19.	The Commander-in-Chief of UN forces in Korea	General MacArthur	
20.	The reason for MacArthur's sacking	For sending troops back North	

Week 3:		
21.	What act was introduced by Hitler on 23 rd March 1933?	Enabling Act
22.	What did this allow Hitler to do in regard to making laws?	Hitler did not have to ask the Reichstag
23.	Man who led the Vietnamese Communists fighting the French	Ho Chi Minh
24.	The US President at the time of the Geneva Conference	President Eisenhower
25.	Making a defensive “wall” with shields, to protect the army’s line. What was this called?	Shield wall
26.	Who won the Battle of Stamford Bridge, the Vikings with Hadrada or the Anglo-Saxons with Godwinson?	King Harold (Godwinson)
27.	Who won the Battle of Hastings, King Harold or William Duke of Normandy?	William Duke of Normandy
28.	The place where most surgery took place.	Battlefields
29.	What is the technique called when you apply heat to a wound to stop the blood flowing?	cauterisation
30.	What did people think was a major cause of disease in the Middle Ages and Renaissance period (not God or the four humours this time)?	Miasma (bad smells in the air)

Year 11 French Unit 3: **Photo Cards**

Week 1: Prepositions and actions				
1	À gauche il y a...	On the left there is...	À gauche il y a une famille.	On the left there is a family.
2	À droite il y a...	On the right there is...	À droite il y a une plage.	On the right there is a beach.
3	Au centre...	In the centre...	Au centre je peux voir un gâteau.	In the centre I can see a cake.
4	Au-dessus...	Above...	Au-dessus il y a le soleil.	Above there is the sun
5	En dessous...	Below...	En dessous il y a un piquenique.	Below there is a picnic.
6	À côté de...	Next to...	À côté de la famille il y a un chien.	Next to the family there's a dog.
7	À l'arrière de...	Behind...	À l'arrière du groupe, il y a un collègue.	Behind the group, there's a school.
8	Il est en train de	He is ...-ing	Il est en train de prendre une photo.	He is taking a photo.
9	Il mange	He is eating	Il mange le petit déjeuner.	He's eating breakfast.
10	Il boit	He is drinking	Il boit du coca.	He's drinking coke.
11	Il va	He is going	Il va au collège.	He's going to school.
12	Il fête	He is celebrating	Il fête le Saint Sylvestre.	He's celebrating New Year's Eve.
13	Il fait	He is doing/making	Il fait ses devoirs.	He's doing his homework.
14	Il parle	He is talking	Il parle à ses amis.	He's talking to his friends.
Week 2: Clothes and buildings				
15	Il porte...	He is wearing...	Il porte des lunettes de soleil.	He is wearing sunglasses.
16	Ils portent...	They are wearing...	Ils portent des casquettes.	They are wearing caps.
17	Un pantalon	Trousers	Elle porte un pantalon noir.	She is wearing black trousers.
18	Une chemise	A shirt	Elles portent des chemises blanches.	They're wearing white shirts.
19	Une robe	A dress	La femme porte une belle robe.	The woman wears a beautiful dress.
20	Un costume	A suit	Le mari porte un costume élégant.	The groom wears a smart suit.
21	Un déguisement	A costume	Les enfants portent des déguisements	The kids wear costumes.
22	Un bâtiment	A building	Sur la photo il y a des bâtiments.	In the photo there are buildings.
23	Un collège	A school	Ils sont devant un collège.	They are in front of a school.
24	Un centre sportif	A sports centre	Un centre sportif est à l'arrière-plan.	A sports centre is in the background.
25	Une salle de classe	A classroom	Ils étudient dans une salle de classe.	They're studying in a classroom.
26	Un parc	A park	Ils jouent au foot dans un parc.	They're playing football in a park.
27	Un gymnase	A gym	Il fait de l'exercice dans un gymnase.	He's exercising in a gym.
28	Un bureau	An office	Il travaille dans un bureau.	He's working in an office.
Week 3: Descriptions and weather				
29	Il a...	He has...	Il a une lettre dans la main.	He has a letter in his hand.
30	Ils ont...	They have...	Ils ont des cheveux longs.	They have long hair.
31	Il est...	He is...	Il est assez petit.	He is quite short.
32	Ils sont...	They are...	Ils sont à l'extérieur.	They are outside.
33	Il porte...	He's carrying...	Il porte ses livres.	He's carrying his books.
34	Ils portent...	They're carrying...	Ils portent des portables.	They're carrying mobile phones.
35	Il semble...	He seems...	Le garçon semble heureux.	The boy seems happy.
36	Il fait froid	It's cold	Je pense qu'il fait froid.	I think that it's cold.
37	Il fait chaud	It's hot	Je crois qu'il fait chaud.	I believe that it's hot.
38	Il fait du soleil	It's sunny	Sur la photo, il y a du soleil.	In the photo, it's sunny.
39	Il neige	It's snowing	Il neige aux montagnes.	It's snowing in the mountains.
40	Il pleut	It's raining	Il pleut beaucoup sur l'image.	It's raining a lot in the photo.
41	Il y a des orages	It's stormy	Il y a des orages sur la photo.	It's stormy in the photo.
42	Il y a du brouillard	It's foggy	Il y a du brouillard sur la photo.	It's foggy in the photo.

Geography - Year 11 – Unit 3 – The Challenge of Resource Management and the Living World

Week 1:			RAG
1.	Ecosystem	A natural system made up of plants and animals and the nonliving environment.	
2.	UK Ecosystem Example	A pond. An example of a food chain would be: Decaying leaves, Midge Larva, Diving beetles, Fish, Heron.	
3.	Potential human effects on ponds.	Fertilizer use can lead to Eutrophication, ponds may be drained to water crops, fish may be added.	
4.	Natural changes to ponds	Droughts could lower the level of the pond, prolonged rainfall could flood it washing away creatures, silt could run into it causing it to become clogged.	
5.	Biome	A global ecosystem, the main biomes are, polar, Tundra, coniferous forest, temperate grassland, temperate deciduous forest, Desert, Tropical grassland, Tropical Rainforest.	
6.	Tropical rainforests	Tropical rainforests are the most biodiverse ecosystem on the planet. They are mainly found between the tropics of Cancer and Capricorn in South America, SE Asia and Africa.	
7.	Biodiversity	The variety of plant and animal life in the world or a particular habitat.	
8.	Adaptation	How plants and animals change to suit their environment. Examples - Plants have drip tip leaves that help water run off to stop them breaking, they also have waxy surfaces and deep veins to get rid of water. Monkeys have claws to help them climb, thumbs to grip fruit and tails to balance, this is because their food is found high in the canopy.	
9.	Nutrient cycle	Shows the movements of nutrients within an ecosystem. Most nutrients in the rainforest are stored in biodiversity. This is because the litter layer rots down quickly due to the moisture and heat. Nutrients in the soil are quickly taken back into plants or are washed away by the rain causing the soils to be	
10.	Deforestation	The chopping down or removal of trees. In the Amazon, most deforestation is caused by commercial farming, but mineral extraction, population growth subsistence farming and road building all cause deforestation.	
Week 2:			
11.	Deforestation impacts	The removal of trees is causing vast amounts of CO ₂ to be released into the atmosphere and the lack of trees is reducing the amount of CO ₂ removed from the atmosphere. The removal of trees is exposing the soil causing it to be washed away by the heavy rain. However there has been an improvement to the economy of Brazil and the various methods of deforestation provide a lot of jobs.	
12.	Sustainable management	1 - Replanting - this is where trees are replanted to replace those that are cut down. 2 - Selective logging - this allows the removal of older more valuable trees but most are left which preserves the overall forest. 3 - Education - educating people the international community to buy sustainably made products. 4 - Conservation swaps - this is where wealthy governments give money to poorer countries if they protect their forests. Reducing debt - richer countries may reduce debts on poorer countries if they protect their forests. 5 - international hardwood agreements - countries have made agreements not to import certain hardwood species such as mahogany unless it is from a sustainable source..	
13.	Ecotourism	This is where small scale tourism takes place. Its aim is to minimise the impact to the forest while providing jobs that will mean people do not have to remove the forest to make money. Ecotourism also raises awareness of rainforest issues to visitors.	
14.	Cold environments	Areas that experience temperatures below freezing for long periods of time.	
15.	Adaptations	Plants - often small, able to reproduce quickly due to the short growing season. Trees - evergreen to allow them to grow all year, have waxy needles to stop them freezing. Animals - usually thick fur to keep warm, often white to camouflage e.g.polar bear.	
16.	Low biodiversity	Cold environments have low biodiversity, there are fewer plants and animals than in most other ecosystems. This is because fewer animals have managed to adapt to the harsh conditions.	
17.	Alaska Opportunities	1) Energy, especially oil and Gas. 2) Mineral resources such as gold, silver and iron. 3) Fishing, salmon, cod and crab 4) Tourism - 2 million visitors per year.	
18.	Alaska Challenges 1	Extreme temperature - the low temperatures mean that buildings need to be well heated and insulated, this makes them expensive. Roads will freeze making them dangerous, living in cold environments is dangerous as mistakes like running out of petrol can kill you.	

19.	Alaska Challenges 2	Inaccessibility - Alaska is a long way from the rest of the UK making getting things in and out expensive, in Winter the sea may freeze, roads become blocked preventing people from getting around.	
20.	Alaska Challenges 3	Buildings and infrastructure, things can only get built in the summer which is very short. buildings have to be designed to cope with the low temperatures.	
Week 3			
21.	Alaska a wilderness under threat	Oil spills, overfishing, global warming, tourism, can all damage the fragile ecosystem.	
22.	Protecting Alaska 1	The use of technology - The trans Alaskan pipeline has been built so that oil is not need to be transported as much by sea (icebergs etc), It is built off the ground to stop the ice melting,	
23.	Protecting Alaska 1	Governments - 9 million hectares has been protected in the Western Arctic Reserve. - The National Oceanic and Atmospheric Administration oversees the sustainability of the fishing industry.	
24.	Protecting Alaska 3	Conservation groups - such as Greenpeace monitor developments in Alaska and draw attention to poor management.	
25.	Increasing water supply	Including Dams - storing water. Desalination - removing salt Water transfer - taking water from one area to another.	
26.	Lesotho highlands water project.	Aims to store water in Dams and then transfer it in pipes to South Africa where it is more needed.	
27.	Lesotho highlands water project advantages	Lesotho - provides jobs, brings in money, supplies HEP to the country, improves standards of living. SouthAfrica - Provides water to areas with little rainfall, provides safe water to 10% of the population.	
28.	Lesotho highlands water project disadvantages	Lesotho - 30000 people had to move due to the dams flooding their land. The flood control has disrupted a unique wetland wildlife ecosystem further downstream, some of the money made by Lesotho has been stolen. South Africa - Very expensive scheme, 40% of water is lost in leaks, people cannot afford to pay for the water due to increases in costs.	
29.	Sustainable water management.	Water conservation, Groundwater management, Recycling water and Using Grey water.	
30.	The Wakel River Basin project (India)	Taanka - Underground storage systems that collect rainwater. Johads - Small earth dams that capture rainwater. Pats - Irrigation channels that transfer water to the fields.	
Week 4:			
31.	Ecosystem	A natural system made up of plants and animals and the nonliving environment.	
32.	UK Ecosystem Example	A pond. An example of a food chain would be: Decaying leaves, Midge Larva, Diving beetles, Fish, Heron.	
33.	Potential human effects on ponds.	Fertilizer us can lead to Eutrophication, ponds may be drained to water crops, fish may be added.	
34.	Natural changes to ponds	Droughts could lower the level of the pond, prolonged rainfall could flood it washing away creatures, silt could run into it causing it to become clogged.	
35.	Biome	A global ecosystem, the main biomes are, polar, Tundra, coniferous forest, temperate grassland, temperate deciduous forest, Desert, Tropical grassland, Tropical Rainforest.	
36.	Tropical rainforests	Tropical rainforests are the most biodiverse ecosystem on the planet. They are mainly found between the tropics of Cancer and Capricorn in South America, SE Asia and Africa.	
37.	Biodiversity	The variety of plant and animal life in the world or a particular habitat.	
38.	Adaptation	How plants and animals change to suit their environment. Examples - Plants have drip tip leaves that help water run off to stop them breaking, they also have waxy surfaces and deep veins to get rid of water. Monkeys have claws to help them climb, thumbs to grip fruit and tails to balance, this is because their food is found high in the canopy.	
39.	Nutrient cycle	Shows the movements of nutrients within an ecosystem. Most nutrients in the rainforest are stored in biodiversity. This is because the litter layer rots down quickly due to the moisture and heat. Nutrients in the soil are quickly taken back into plants or are washed	

		away by the rain causing the soils to be	
40.	Deforestation	The chopping down or removal of trees. In the Amazon, most deforestation is caused by commercial farming, but mineral extraction, population growth subsistence farming and road building all cause deforestation.	
Week 5:			
41.	Deforestation impacts	The removal of trees is causing vast amounts of CO2 to be released into the atmosphere and the lack of trees is reducing the amount of CO2 removed from the atmosphere. The removal of trees is exposing the soil causing it to be washed away by the heavy rain. However there has been an improvement to the economy of Brazil and the various methods of deforestation provide a lot of jobs.	
42.	Sustainable management	1 - Replanting - this is where trees are replanted to replace those that are cut down. 2 - Selective logging - this allows the removal of older more valuable trees but most are left which preserves the overall forest. 3 - Education - educating people the international community to buy sustainably made products. 4 - Conservation swaps - this is where wealthy governments give money to poorer countries if they protect their forests. Reducing debt - richer countries may reduce debts on poorer countries if they protect their forests. 5 - international hardwood agreements - countries have made agreements not to import certain hardwood species such as mahogany unless it is from a sustainable source..	
43.	Ecotourism	This is where small scale tourism takes place. Its aim is to minimise the impact to the forest while providing jobs that will mean people do not have to remove the forest to make money. Ecotourism also raises awareness of rainforest issues to visitors.	
44.	Cold environments	Areas that experience temperatures below freezing for long periods of time.	
45.	Adaptations	Plants - often small, able to reproduce quickly due to the short growing season. Trees - evergreen to allow them to grow all year, have waxy needles to stop them freezing. Animals - usually thick fur to keep warm, often white to camouflage e.g.polar bear.	
46.	Low biodiversity	Cold environments have low biodiversity, there are fewer plants and animals than in most other ecosystems. This is because fewer animals have managed to adapt to the harsh conditions.	
47.	Alaska Opportunities	5) Energy, especially oil and Gas. 6) Mineral resources such as gold, silver and iron. 7) Fishing, salmon, cod and crab 8) Tourism - 2 million visitors per year.	
48.	Alaska Challenges 1	Extreme temperature - the low temperatures mean that buildings need to be well heated and insulated, this makes them expensive. Roads will freeze making them dangerous, living in cold environments is dangerous as mistakes like running out of petrol can kill you.	
49.	Alaska Challenges 2	Inaccessibility - Alaska is a long way from the rest of the UK making getting things in and out expensive, in Winter the sea may freeze, roads become blocked preventing people from getting around.	
50.	Alaska Challenges 3	Buildings and infrastructure, things can only get built in the summer which is very short. buildings have to be designed to cope with the low temperatures.	
Week 6			
51.	Alaska a wilderness under threat	Oil spills, overfishing, global warming, tourism, can all damage the fragile ecosystem.	
52.	Protecting Alaska 1	The use of technology - The trans Alaskan pipeline has been built so that oil is not need to be transported as much by sea (icebergs etc), It is built off the ground to stop the ice melting,	
53.	Protecting Alaska 1	Governments - 9 million hectares has been protected in the Western Arctic Reserve. - The National Oceanic and Atmospheric Administration oversees the sustainability of the fishing industry.	
54.	Protecting Alaska 3	Conservation groups - such as Greenpeace monitor developments in Alaska and draw attention to poor management.	
55.	Increasing water supply	Including Dams - storing water. Desalination - removing salt Water transfer - taking water from one area to another.	
56.	Lesotho highlands water	Aims to store water in Dams and then transfer it in pipes to South Africa where it is more	

	project.	needed.	
57.	Lesotho highlands water project advantages	Lesotho - provides jobs, brings in money, supplies HEP to the country, improves standards of living. SouthAfrica - Provides water to areas with little rainfall, provides safe water to 10% of the population.	
58.	Lesotho highlands water project disadvantages	Lesotho - 30000 people had to move due to the dams flooding their land. The flood control has disrupted a unique wetland wildlife ecosystem further downstream, some of the money made by Lesotho has been stolen. South Africa - Very expensive scheme, 40% of water is lost in leaks, people cannot afford to pay for the water due to increases in costs.	
59.	Sustainable water management.	Water conservation, Groundwater management, Recycling water and Using Grey water.	
60.	The Wakel River Basin project (India)	Taanka - Underground storage systems that collect rainwater. Johads - Small earth dams that capture rainwater. Pats - Irrigation channels that transfer water to the fields.	
Week 7:			
61.	Ecosystem	A natural system made up of plants and animals and the nonliving environment.	
62.	UK Ecosystem Example	A pond. An example of a food chain would be: Decaying leaves, Midge Larva, Diving beetles, Fish, Heron.	
63.	Potential human effects on ponds.	Fertilizer us can lead to Eutrophication, ponds may be drained to water crops, fish may be added.	
64.	Natural changes to ponds	Droughts could lower the level of the pond, prolonged rainfall could flood it washing away creatures, silt could run into it causing it to become clogged.	
65.	Biome	A global ecosystem, the main biomes are, polar, Tundra, coniferous forest, temperate grassland, temperate deciduous forest, Desert, Tropical grassland, Tropical Rainforest.	
66.	Tropical rainforests	Tropical rainforests are the most biodiverse ecosystem on the planet. They are mainly found between the tropics of Cancer and Capricorn in South America, SE Asia and Africa.	
67.	Biodiversity	The variety of plant and animal life in the world or a particular habitat.	
68.	Adaptation	How plants and animals change to suit their environment. Examples - Plants have drip tip leaves that help water run off to stop them breaking, they also have waxy surfaces and deep veins to get rid of water. Monkeys have claws to help them climb, thumbs to grip fruit and tails to balance, this is because their food is found high in the canopy.	
69.	Nutrient cycle	Shows the movements of nutrients within an ecosystem. Most nutrients in the rainforest are stored in biodiversity. This is because the litter layer rots down quickly due to the moisture and heat. Nutrients in the soil are quickly taken back into plants or are washed away by the rain causing the soils to be	
70.	Deforestation	The chopping down or removal of trees. In the Amazon, most deforestation is caused by commercial farming, but mineral extraction, population growth subsistence farming and road building all cause deforestation.	
Week 8:			
71.	Deforestation impacts	The removal of trees is causing vast amounts of CO2 to be released into the atmosphere and the lack of trees is reducing the amount of CO2 removed from the atmosphere. The removal of trees is exposing the soil causing it to be washed away by the heavy rain. However there has been an improvement to the economy of Brazil and the various methods of deforestation provide a lot of jobs.	
72.	Sustainable management	1 - Replanting - this is where trees are replanted to replace those that are cut down. 2 - Selective logging - this allows the removal of older more valuable trees but most are left which preserves the overall forest. 3 - Education - educating people the international community to buy sustainably made products. 4 - Conservation swaps - this is where wealthy governments give money to poorer countries if they protect their forests. Reducing debt - richer countries may reduce debts on poorer countries if they protect their forests. 5 - international hardwood agreements - countries have made agreements not to import certain hardwood species such as mahogany unless it is from a sustainable source..	
73.	Ecotourism	This is where small scale tourism takes place. Its aim is to minimise the impact to the forest while providing jobs that will mean people do not have to remove the forest to make money. Ecotourism also raises awareness of rainforest issues to visitors.	

74.	Cold environments	Areas that experience temperatures below freezing for long periods of time.	
75.	Adaptations	Plants - often small, able to reproduce quickly due to the short growing season. Trees - evergreen to allow them to grow all year, have waxy needles to stop them freezing. Animals - usually thick fur to keep warm, often white to camouflage e.g.polar bear.	
76.	Low biodiversity	Cold environments have low biodiversity, there are fewer plants and animals than in most other ecosystems. This is because fewer animals have managed to adapt to the harsh conditions.	
77.	Alaska Opportunities	9) Energy, especially oil and Gas. 10) Mineral resources such as gold, silver and iron. 11) Fishing, salmon, cod and crab 12) Tourism - 2 million visitors per year.	
78.	Alaska Challenges 1	Extreme temperature - the low temperatures mean that buildings need to be well heated and insulated, this makes them expensive. Roads will freeze making them dangerous, living in cold environments is dangerous as mistakes like running out of petrol can kill you.	
79.	Alaska Challenges 2	Inaccessibility - Alaska is a long way from the rest of the UK making getting things in and out expensive, in Winter the sea may freeze, roads become blocked preventing people from getting around.	
80.	Alaska Challenges 3	Buildings and infrastructure, things can only get built in the summer which is very short. buildings have to be designed to cope with the low temperatures.	
Week 9:			
81.	Alaska a wilderness under threat	Oil spills, overfishing, global warming, tourism, can all damage the fragile ecosystem.	
82.	Protecting Alaska 1	The use of technology - The trans Alaskan pipeline has been built so that oil is not need to be transported as much by sea (icebergs etc), It is built off the ground to stop the ice melting,	
83.	Protecting Alaska 1	Governments - 9 million hectares has been protected in the Western Arctic Reserve. - The National Oceanic and Atmospheric Administration oversees the sustainability of the fishing industry.	
84.	Protecting Alaska 3	Conservation groups - such as Greenpeace monitor developments in Alaska and draw attention to poor management.	
85.	Increasing water supply	Including Dams - storing water. Desalination - removing salt Water transfer - taking water from one area to another.	
86.	Lesotho highlands water project.	Aims to store water in Dams and then transfer it in pipes to South Africa where it is more needed.	
87.	Lesotho highlands water project advantages	Lesotho - provides jobs, brings in money, supplies HEP to the country, improves standards of living. SouthAfrica - Provides water to areas with little rainfall, provides safe water to 10% of the population.	
88.	Lesotho highlands water project disadvantages	Lesotho - 30000 people had to move due to the dams flooding their land. The flood control has disrupted a unique wetland wildlife ecosystem further downstream, some of the money made by Lesotho has been stolen. South Africa - Very expensive scheme, 40% of water is lost in leaks, people cannot afford to pay for the water due to increases in costs.	
89.	Sustainable water management.	Water conservation, Groundwater management, Recycling water and Using Grey water.	
90.	The Wakel River Basin project (India)	Taanka - Underground storage systems that collect rainwater. Johads - Small earth dams that capture rainwater. Pats - Irrigation channels that transfer water to the fields.	