Name:.....

Tutor:.....

SKEGNESS ACADEMY

Exam Preparation Homework Booklet 2025

Term 4 Week 1 Edition

Hand in Date Thursday 6th March

Student Instructions

- Set aside plenty of time to complete this booklet
- Let other people at home know so that they can support you
- Complete the tasks for all subjects you take in Yr11
- Research answers if necessary using books/internet
- Review your effort and progress in the student review section
- Remember to return my booklet to school by the deadline

Parent Information

- Try and provide a quiet place for your child to complete this booklet
- Advise them to avoid distractions such as social media & gaming
- Encourage them to complete as much work as possible
- Monitor them and ensure they take regular rest breaks and are not stressed
- Support them with tasks if they are struggling to complete them
- Review their effort, progress and successes by completing the review section
- Ensure that they return this booklet to school by the deadline

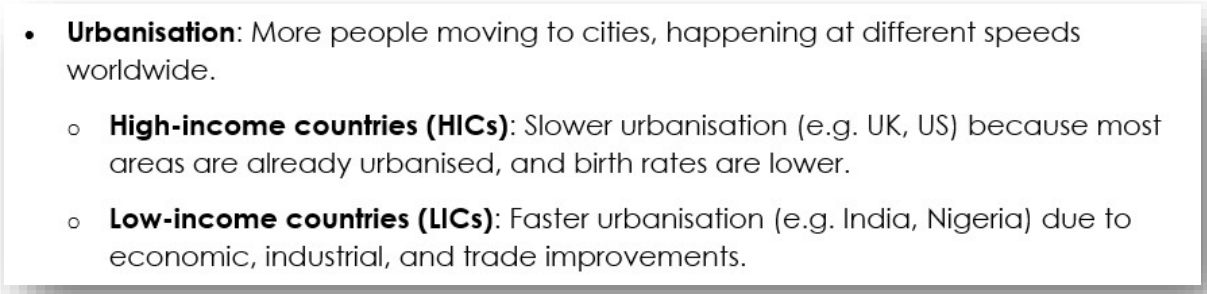
Please sign the most appropriate box	**Successful** All sections completed to a high standard and student gained significant knowledge	**Knowledgeable** All sections completed to a good standard and student has gained knowledge in all subjects	**Aspiring** All subjects attempted and student has worked as hard as possible to gain knowledge in most subjects	**Acquiring** Most subjects attempted and student has improved their knowledge in some subjects
Student				
Parent				
Form Tutor				

How to Revise?

Your teacher has assigned a specific topic for you to revise in preparation for your exams. We recommend using the **Look/Cover/Write/Check** method for revision. Here is how it works:

Step 1: Look

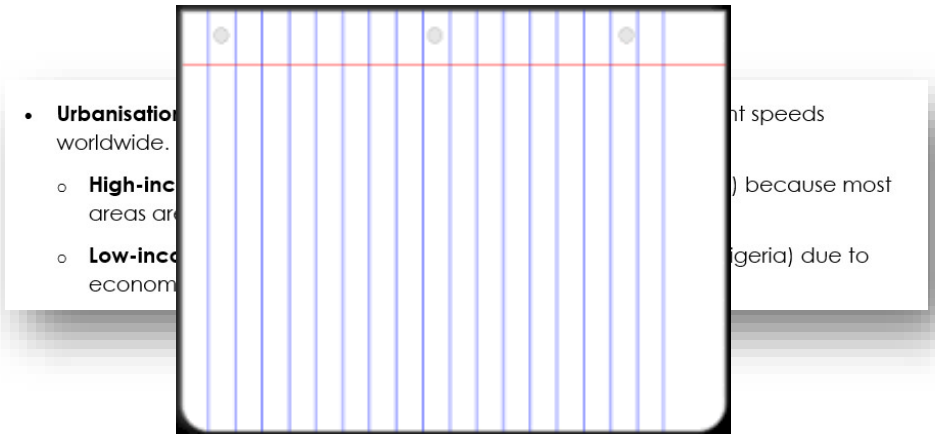
- Look at the first bullet points or sentences
- Read through it three to five times



- **Urbanisation**: More people moving to cities, happening at different speeds worldwide.
  - **High-income countries (HICs)**: Slower urbanisation (e.g. UK, US) because most areas are already urbanised, and birth rates are lower.
  - **Low-income countries (LICs)**: Faster urbanisation (e.g. India, Nigeria) due to economic, industrial, and trade improvements.

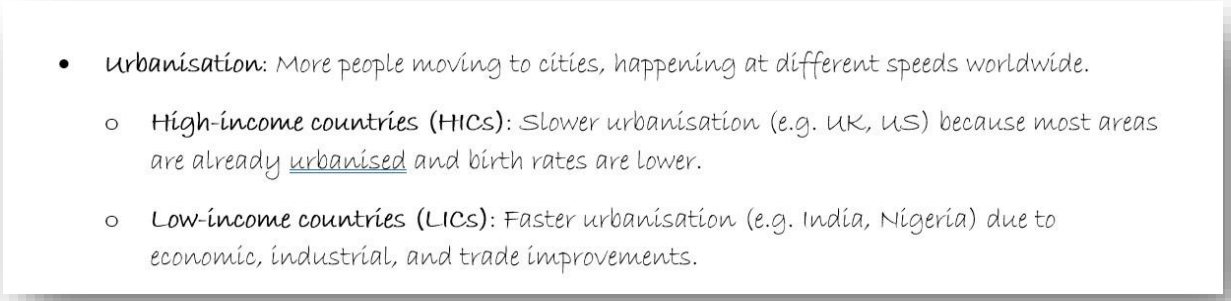
Step 2: Cover

- Cover it with a piece of paper.



Step 3: Write

- Write it out as it was in your booklet



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Step 4: Check

- Remove the piece of paper and grab your red pen
- Check what you wrote and tick if correct
- Make corrections in red pen to match your booklet
- Repeat
- Once you have it correct, move on to the next chunk of information

In addition, your teacher has given you 10 questions to assess your knowledge and understanding after you have reviewed the entire topic.

We suggest doing it in the following way:

1. Cover up the answers, answer all the questions on a sheet of paper.
2. Check your answers.
3. Repeat if necessary.
4. Once you have answered all questions correctly, move on to the next subject.

Subject Information English

English

An Inspector calls.

Plot summary

1. An inspector arrives at the Birling house. He tells them how a girl called Eva Smith has killed herself by drinking disinfectant - he wants to ask them some questions.

2. The Inspector reveals that the girl used to work in Arthur Birling's factory, and he had her sacked for going on strike. Mr Birling refuses to accept any responsibility for her death.

3. The Inspector then reveals that Sheila thought that Eva had made fun of her, complained and got her sacked. Sheila is deeply ashamed and feels responsible for the girl's death.

4. The Inspector forces Gerald to confess to an affair he had with Eva. Sheila respects Gerald's honesty but returns the engagement ring he gave her.

5. It is revealed that Sybil Birling had refused to help the pregnant Eva.

6. It turns out that it was Eric who got Eva pregnant and stole money from his father to help her.

7. The Inspector leaves. The family ring the infirmary and there is no record of a girl dying from drinking disinfectant.

8. Suddenly the phone rings, Mr Birling answers it, to his horror the phone call reveals that a young woman has just died from drinking disinfectant and the police are on their way to question them about it. The curtain falls and the play ends.

Revision questions:

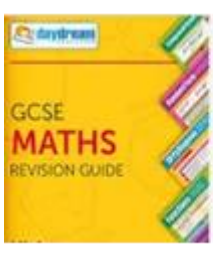
1. Who arrives at the Birling house and why?
2. How did Eva Smith die?
3. Where did Eva Smith work?
4. Why was Eva Smith sacked?
5. How does Mr Birling react to Eva's death?
6. Why does Sheila feel responsible for Eva's death?
7. What does the inspector force Gerald to confess?
8. How does Sheila react to the confession?
9. What did Sybil Birling do when Eva needed help?
10. What shocking news does Mr Birling receive at the end?

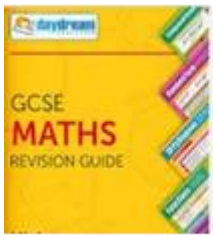
Exam question practice:

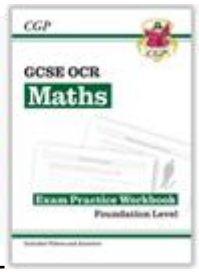
How does Priestley present Mr Birling in An Inspector Calls?

Write about:
•how Mr Birling is presented in this extract
•how Priestley uses Mr Birling to get his ideas across in the rest of the play

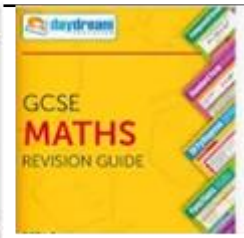
Subject Information — Maths

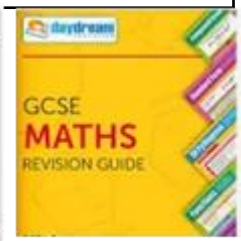






Aiming for Grade 4 (Foundation)	Aiming for Grade 5 (Foundation)
If you are aiming for a Grade 4, please turn to pages 46 & 47 in the revision guide and use the notes to help you answer the questions on pages 25 & 26 in your exam workbook for practice. The questions on the next page need to be answered to ensure skills are secure.	If you are aiming for a Grade 5, please turn to page 49 in the revision guide and use the notes to help you answer the questions on page 35 in your exam workbook for practice. The questions on the next page need to be answered to ensure skills are secure.





Aiming for Grade 6 (Higher)	Aiming for Grade 7+ (Higher)
If you are aiming for a Grade 6, please turn to pages 41 &42 in the revision guide and use the notes to help you answer the questions on page 23 in your exam workbook for practice. The questions on the next page need to be answered to ensure skills are secure.	If you are aiming for a Grade 7, please turn to pages 15 -17 in the revision guide and use the notes to help you answer the questions on pages 10 & 11 in your exam workbook for practice. The questions on the next page need to be answered to ensure skills are secure.

Subject Knowledge Check — Maths

Aiming for Grade 4 (Foundation)

$\frac{5x-4}{2} = -7$

$\frac{6x-2}{2} = 11$

$\frac{4x+10}{2} = 6$

$\frac{7x+9}{6} = 5$

4x + 5 = x + 2

2x + 10 = 3x + 3

2x - 5 = x - 1

5x + 1 = 2x - 11

3x + 4 = x + 1

3(2x - 3) = 9

4(3x + 2) = 68

3(4x + 1) = 123

6(2x - 3) = -30

Aiming for Grade 5 (Foundation)

1)	$x^2 + 3x - 4$	2)	$x^2 + 2x + 1$
3)	$x^2 + 5x - 6$	4)	$x^2 + 4x + 3$
5)	$x^2 + 3x + 2$	6)	$x^2 + 5x + 6$
7)	$x^2 - 9x + 20$	8)	$x^2 - 16$
9)	$x^2 + x - 12$	10)	$x^2 + 2x - 15$

Factorise and solve

1)	$x^2 - x - 6 = 0$	2)	$x^2 - 6x + 8 = 0$
3)	$x^2 - 5x + 6 = 0$	4)	$x^2 - 1 = 0$
5)	$x^2 - 5x + 4 = 0$	6)	$x^2 + 7x + 6 = 0$
7)	$x^2 + 7x + 10 = 0$	8)	$x^2 + 8x + 15 = 0$
9)	$x^2 - x - 2 = 0$	10)	$x^2 + 9x + 14 = 0$

Aiming for Grade 6 (Higher)

$20x^2 - 9x + 1 = 0$

$25x^2 - 25x = -6$

$16x^2 + 3 = 16x$

$3x^2 - 13x + 4 = 0$

$25x^2 - 4 = 0$

$8x^2 - 14x = 15$

Solving by completing the square

$x^2 + 6x + 5 = 0$

$x^2 + 4x - 45 = 0$

$x^2 - 12x + 20 = 0$

$x^2 + 12x + 27 = 0$

Aiming for Grade 7+ (Higher)

Write down the lower bound and the upper bound for each of the following:

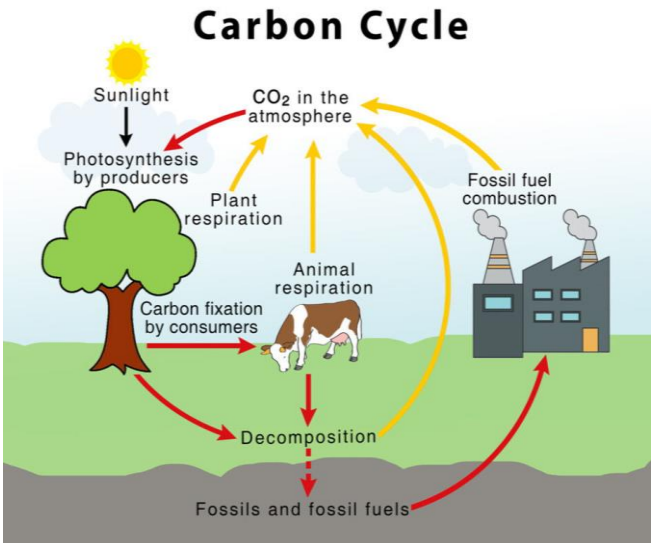
Question 1

(a) 4g measured to the nearest gram
(b) 12cm correct to the nearest centimetre
(c) 75 miles given to the nearest mile
(d) 50kg measured to the nearest 10kg
(e) 130 seconds given the nearest 10 seconds

Question 2

(a) 80 people given to the nearest 10 people
(b) £10 given to the nearest pound
(c) 500 chairs correct to the nearest 100 chairs
(d) 14000 lights given to the nearest 1000 lights

Subject Information & Knowledge Check Science



Main Process:

1. Respiration

GLUCOSE + OXYGEN → CARBON DIOXIDE + WATER

$C_6H_{12}O_6 + 6O_2 \rightarrow 6CO_2 + 6H_2O$

2. Photosynthesis

$$6CO_2 + 6H_2O \xrightarrow[\text{Chlorophyll}]{\text{Light}} C_6H_{12}O_6 + 6O_2$$

Carbon dioxide · Water · Glucose · Oxygen

3. Decay

Microorganisms break down the waste materials into products that can be used and respire producing carbon dioxide

4. Combustion – burning the fossil fuels produces carbon dioxide

Leaves on a tree contain carbon compounds.
In autumn the leaves fall to the ground.
Microorganisms in the soil recycle carbon from the leaves so that the carbon is used for new plant growth.
Explain how.

_____

_____

_____

_____

_____

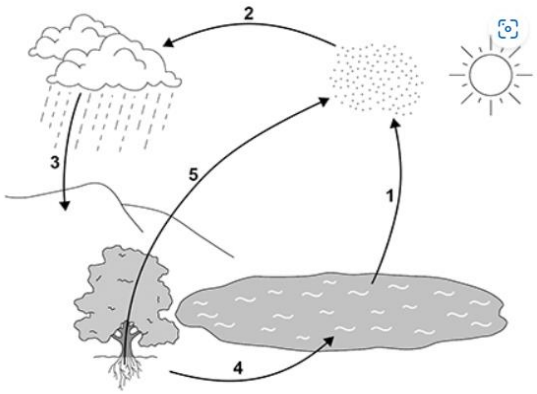
_____

_____

_____

(4)

The water cycle describes how water evaporates from the surface of the earth, rises into the atmosphere, cools and condenses into rain or snow in clouds, and falls again to the surface as precipitation. The water falling on land collects in rivers and lakes, soil, and porous layers of rock, and much of it flows back into the oceans, where it will once more evaporate.



Name the processes **1** to **5** shown on above diagram.

1. _____

2. _____

3. _____

4. _____

5. _____

(5)

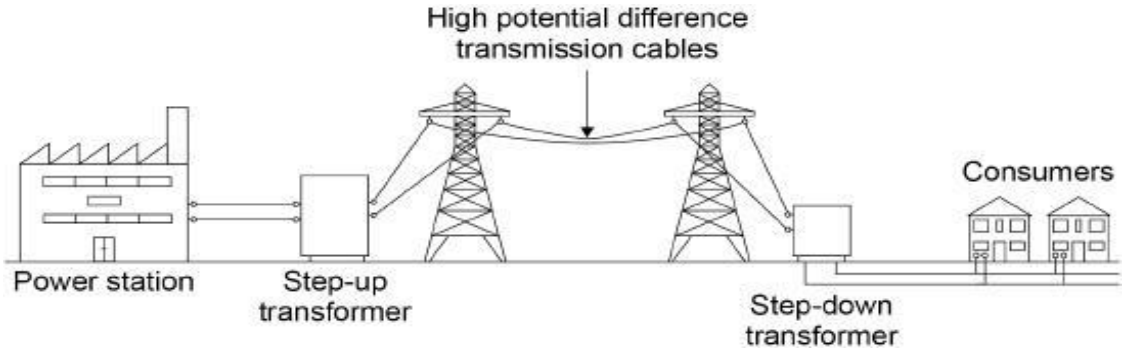
Subject Information & Knowledge Check — Science

Electricity is generated in power stations and transported across the UK via the **National Grid.**

•**before electrical power leaves a power station** – it is transferred at high voltages by using 'step-up' transformers to increase the voltage to around 275,000 V

•**before electrical power enters homes and factories** – the voltages are decreased by 'step-down' transformers to 230 V

The diagram below shows how a power station supplies electricity to consumers.



(a) The National Grid is a system of cables and transformers linking power stations to consumers.

Complete the sentences.

Choose answers from the box.

Each answer may be used once, more than once or not at all.

decrease	**increase**	**remain the same**

The step-up transformer causes the potential difference to increase and the current to _____.

The use of the step-up transformer causes the energy transferred by heating of the cables to _____.

The step-down transformer causes the potential difference to decrease and the current to _____.

(3)

(b) A nuclear power station has a power output of 350 000 000 W

Calculate the energy transferred by the power station in 60 seconds.

Use the equation:

energy transferred = power × time

_____

_____

_____

Energy transferred = _____ J

(2)

Subject Information — Statistics

Sampling Methods – Part 1

Sampling Method	Description	Method	Advantages	Disadvantages
Random Sample	Every item/person in the population has an equal chance of being selected.	- Assign a number to every member of the population. - Mention the random sampling technique (e.g., random number table, random number generator). - Select numbers chosen from the population. - Ignore repeats.	- Sample is representative (every member has an equal chance). - Unbiased.	- Need a full list of the population (can be hard to obtain). - Can be expensive and time-consuming. - Needs large sample size.
Stratified Sample	The size of each strata (group) in the sample is proportional to the sizes of strata in the population.	- Split the population into groups. - Use the formula: `stratified sample = (strata/total) x sample size`. - Randomly select members from each group.	- Proportional to the population, making the sample representative. - Best for populations with unequal group sizes.	- Time-consuming.
Systematic Sampling	Choosing items in the population at regular intervals.	- Divide the population size by the sample size to calculate the interval. - Use random sampling to select a starting point. - Select every nth item after the starting point.	- Evenly sampled population. - Can be carried out by machines. - Easy to select the sample.	- Not strictly random (some members cannot be chosen).

Subject Knowledge Check Statistics

1. What is the main characteristic of a Random Sample?
A) The sample is divided into subgroups based on population characteristics.
B) Every item/person in the population has an equal chance of being selected.
C) The sample is chosen at regular intervals.
D) The sample is proportionally split based on group sizes in the population.

2. Which of the following is a disadvantage of a Random Sample?
A) The sample is always unbiased.
B) It requires a full list of the population.
C) It is very quick and easy to perform.
D) The sample is proportional to the population.

3. In a Stratified Sample, how is the sample size for each group calculated?
A) It is randomly selected.
B) It is based on the group's size in the population.
C) It is calculated using a random number generator.
D) It is determined by choosing every nth member.

4. Which of the following is an advantage of Stratified Sampling?
A) The sample is selected at regular intervals.
B) It is best used for populations with unequal group sizes.
C) The sample is always random.
D) It is very quick to perform.

5. What is the main disadvantage of Systematic Sampling?
A) It is difficult to perform without a computer.
B) Some members of the population cannot be chosen.
C) The sample size is not proportional to the population.
D) It is always biased.

6. In Systematic Sampling, how is the interval calculated?
A) Divide the population size by the sample size.
B) Randomly choose a number between 1 and the population size.
C) Use a random number table.
D) Divide the sample size by the population size.

7. Which sampling method requires dividing the population into subgroups based on certain characteristics?
A) Random Sampling
B) Stratified Sampling
C) Systematic Sampling
D) None of the above

8. What is a key feature of Systematic Sampling?
A) The sample is selected using a random number table.
B) It involves choosing items at regular intervals.
C) The sample is proportional to the population.
D) The sample is divided into subgroups.

Nazi racial beliefs and policies

Hitler was keen to increase the number of pure 'Aryans' who were blond-haired and blue eyed, tall, athletic and who would work hard, join the army or have children.

Nazi racial Hierarchy

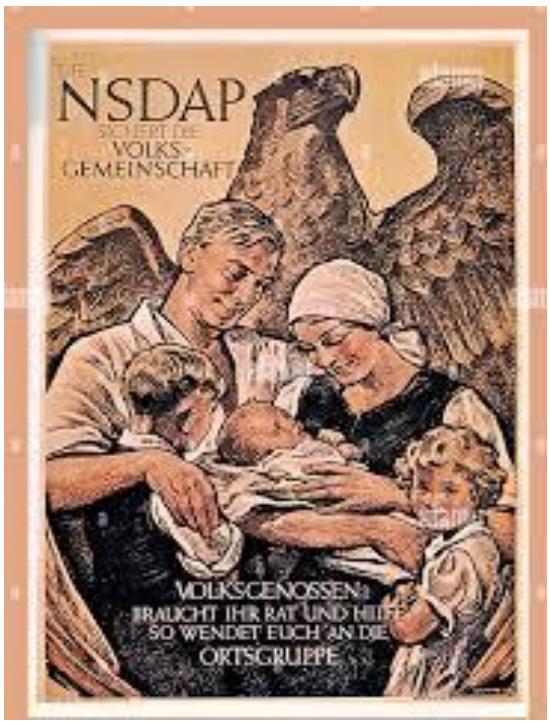
- Aryans were the 'master-race'
- Other white western Europeans- seen as fellow humans but lower than Aryans
- Easter Europeans- Slavs- seen as sub-human
- Black people and gypsies- both seen as sub-human, workshy and lazy
- Jews- Seen as the lowest of 'sub-human' races and blamed for all of Germany's problems

Untermenschen

- This means 'inferior people' or sub-humans
- In 1935 the Nuremburg Laws banned Aryans from marrying 'gypsies', black people or Jews.
- Mixed-race children were sterilised.
- After 1933, many 'gypsies' were arrested and sent to concentration camps. From 1938, all 'gypsies' had to be registerd and were planned from travelling. In 1939 they were told they would be deported.
- Slavs were reminded continually that they didn't fit the Aryan ideal, but were persecuted less than other groups.

Other 'undesirables'

- The Nazis always believed other groups of society were undesirable so should be treated differently.
- Homosexuals- they were sent to prison or concentration camps and subjected to medical experiments to correct their 'disorder' after laws on homosexuality were strengthened
- Deaf blind and epileptic, deformed and mentally disabled people were sterilised after a new law, 'The Law for the Prevention of Hereditary Diseased Offspring' was introduced in 1933.
- Mentally and physically disabled babies were killed.



Subject Knowledge Check History

Revision questions:

1. What is the term to describe an 'undesirable'?

2. Give 2 examples of ethics groups who were considered to be sub-human.

3. How did the Nazi's attempt to eradicate disabilities within German Society? Refer to the change in law.

4. What is an Aryan? Describe the key features.

5. Explain how Nazi racial policies developed and throughout the 1930s. (Consider how they became more strict overtime.)

Exam practice: How useful sources A and B for an enquiry of treatment of Jews and ethnic minorities in the years 1934-39? (8 marks)

Source A: Excerpt from the Nuremberg Laws (1935)
The Nuremberg Laws, enacted in 1935, were pivotal in institutionalizing racial discrimination in Nazi Germany. They comprised two primary legislations: the Reich Citizenship Law and the Law for the Protection of German Blood and German Honor. These laws stripped Jews of German citizenship and prohibited marriages and extramarital relations between Jews and non-Jewish Germans, thereby legally enforcing racial segregation and laying the groundwork for further persecution.

Source B: United States Holocaust Memorial Museum – Nazi Racial Ideology
The Nazis carried out genocide against Europe's Jews and persecuted and murdered other groups based on racial theories. The Nazi ideological concept of race targeted groups such as Roma (Gypsies), people with disabilities, Poles, Soviet prisoners of war, and Black people in Germany. The Nazis also identified political dissidents, Jehovah's Witnesses, homosexuals, and so-called asocials as enemies and security risks, seeking to eliminate domestic non-conformists and so-called racial threats through a perpetual self-purge of German society

Subject Information Geography

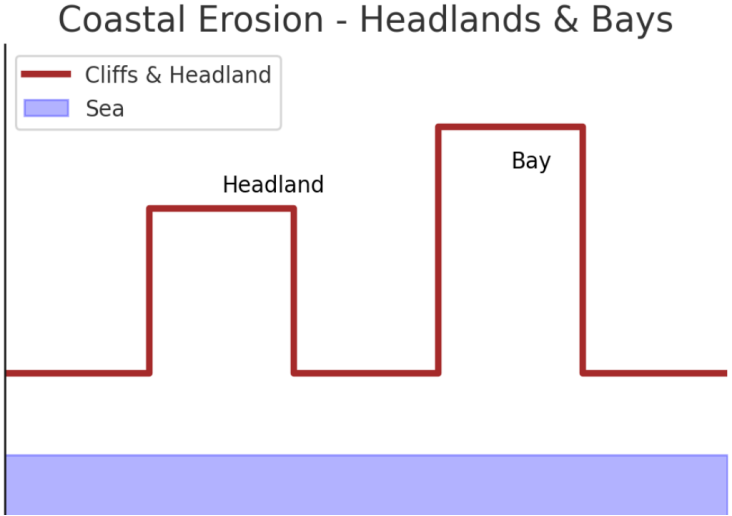
Coasts and Rivers Summary

Coasts:

- Coastal landscapes are shaped by erosion, transportation, and deposition.
- Processes like hydraulic action, abrasion, attrition, and solution erode cliffs, forming landforms such as headlands, bays, caves, arches, and stacks.
- Deposition creates beaches, spits, and bars.
- Human activities and management strategies (e.g., hard and soft engineering) help protect coastlines from erosion and flooding.
- Hard-engineering involves building artificial structures which try to control rivers. They tend to be more expensive. Example of this include Dams and Reservoirs.
- Soft-engineering does not involve building artificial structures, but takes a more sustainable and natural approach to managing the potential for river flooding; for example, flood warnings and preparations and flood-plain zoning.

Rivers:

- Rivers shape the landscape through erosion, transportation, and deposition, creating landforms such as waterfalls, meanders, oxbow lakes, floodplains, and levees.
- The river's long profile changes from the upper course (steep, V-shaped valleys) to the lower course (wide, flat floodplains).
- Factors like heavy rainfall, deforestation, and urbanization can lead to flooding.
- Flood management strategies include hard and soft engineering, such as dams, levees, and flood-plain zoning.



Subject Knowledge Check Geography

Revision questions:

Coasts:

1.Name the four main processes of coastal erosion?

2.How are headlands and bays formed?

3.Describe how a cave becomes an arch and then a stack.

4.What is the difference between hard and soft engineering?

5.How do spits and bars form along a coastline?

Rivers:

1.What are the four processes of river erosion?

2.What factors can lead to flooding?

3.Explain how a meander develops into an oxbow lake.

4.What factors increase the risk of flooding in a river basin?

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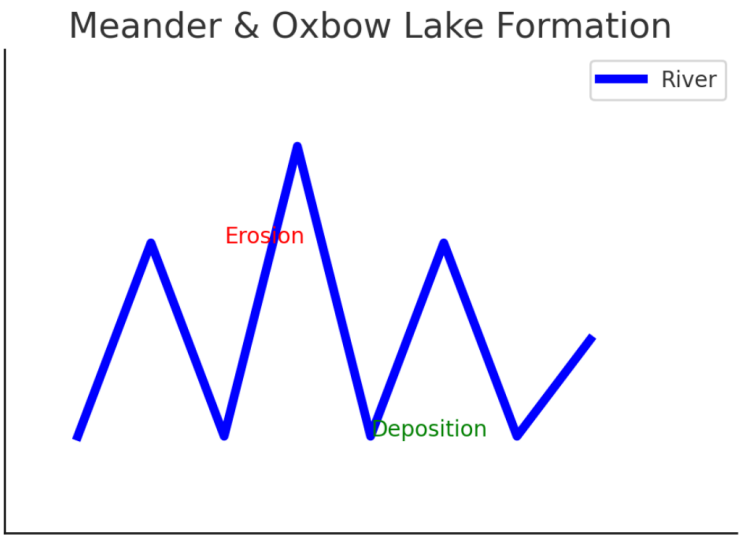

Subject Information & Knowledge Check Sport

Warm Up

Pulse Raiser Jogging
Mobility Hip rotations
Dynamic Stretching Lunges, open the gate
Skill rehearsal Passing, shooting

Physiological (BODY) Benefits

Increase in

1- muscle temperature
2 - heart rate
3 - flexibility of muscles and joints
4 -pliability of ligaments and tendons
5 -blood flow and oxygen to muscles
6 - the speed of muscle contraction

Psychological (Mental) Benefits

1 - Increase or control arousal levels
2 - Improve concentration/focus
3 - Increase motivation
4 -Increase confidence
5 - Mental rehearsal

Cool Down

Pulse lowering - Slow jogging/walk
Stretching – Maintenance (range of motion) Static (improve flexibility) PNF (partner push further)

Physiological (BODY) Benefits

***Gradually* lowers**

1- heart rate
2 - temperature
3 – breathing rate
4- Circulates blood and oxygen
5 - Helps prevent blood pooling
6 - Removes waste products such as lactic acid
7 - Reduces risk of Delayed Onset of Muscle Soreness (DOMS)

1. Sam is a newly qualified basketball coach. He is preparing for a coaching session in a sports hall.

Complete the table to:

- Identify a practical example for each warm up component.
- Explain the main purpose of each practical example.

Warm up component	Practical Example	Explanation
Pulse raising		
Dynamic stretching		
Skill rehearsal		

3(a). Other than stretching, state the other component of a cool down.

[1]

(b). Identify **three** different types of stretching that can be used during a cool down.

1

2

3

[3]

4. Performers should cool down after exercise.

Other than reducing the risk of injury, describe another physiological benefit of a cool down.

[1]

A warm up will allow a basketball player to 'get in the zone' and control their arousal levels.

Describe **three** other psychological benefits of a warm up.

1

2

3

[3]

A cool down has many physical benefits that help the body's transition back to a resting state, such as gradual lowering of breathing and heart rate.

Describe **three** other physical benefits of a cool down.

[3]

Subject Information French

Revise the vocabulary below and complete the activities on the next page.

	A ADJECTIVES		V VERBS
1	ennuyeux / barbant - boring	11	c'est – it is
2	amusant / marrant - fun	12	c'était – it was
3	intéressant - interesting	13	il y a – there is/are
4	fascinant - fascinating	14	il y avait – there was/were
5	passionant - exciting	15	je vais – I go
6	génial / chouette - great	16	je suis allé(e) – I went
7	content/triste - happy/sad	17	je vais aller – I'm going to go
8	facile/difficile – easy/difficult	18	on peut - you can
9	utile / nul – useful/rubbish	19	il faut – it is necessary to
10	affreux / mauvais – awful / bad	20	je voudrais faire – I'd like to do

	O OPINIONS		C CONJUNCTIONS
21	j'adore/ j'aime – I love/like	31	et – and
22	je déteste / n'aime pas	32	mais - but
23	je préfère – I prefer	33	parce que / car - because
24	je pense que - I think that	34	comme- however
25	je trouve que – I find that	35	donc - therefore
26	selon moi – according to me	36	néamoins – nevertheless
27	à mon avis – in my opinion	37	ni.....ni – neither..nor
28	personnellement - personally	38	cependant - however
29	Ce que j'aimerais c'est – What I would like is	39	puisque – since
30	je préférerais – I would prefer	40	à cause de – because of

Subject Knowledge Check French

Section 1: Match the French adjectives to their English meanings.

1. ___ ennuyeux
2. ___ amusant
3. ___ fascinant
4. ___ passionnant
5. ___ génial
6. ___ triste
7. ___ facile
8. ___ utile
9. ___ affreux

A. fun
B. boring
C. great
D. useful
E. easy
F. fascinating
G. awful
H. sad
I. exciting

Section 2: Complete the sentences with the correct verb form.

1. Hier, _____ (I went) au cinéma avec mes amis.
2. Ce week-end, je _____ (I'm going to go) à la plage.
3. Dans ma ville, _____ (there is) un grand parc.
4. Pour être en bonne santé, _____ (it is necessary to) manger équilibré.
5. L'année prochaine, _____ (I'd like to do) un voyage en France.

Section 3: Translate the following opinions into French:

1. I love going to the cinema. → _____
2. In my opinion, sports are interesting. → _____
3. What I would like is to travel the world. → _____
4. I find that school is useful. → _____
5. Personally, I prefer playing video games. → _____

Section 4: Fill in the blanks with the correct conjunction: *et, mais, parce que, cependant, donc*

1. J'aime le sport _____ je n'aime pas la natation. (I like sports but I don't like swimming.)
2. Le français est facile _____ intéressant. (French is easy and interesting.)
3. Je préfère la pizza _____ c'est délicieux. (I prefer pizza because it's delicious.)
4. J'aime la musique, _____ je n'aime pas le rap. (I like music, however, I don't like rap.)
5. Il pleut, _____ je reste à la maison. (It's raining, so I'm staying at home.