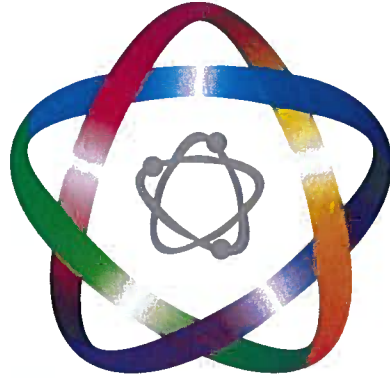
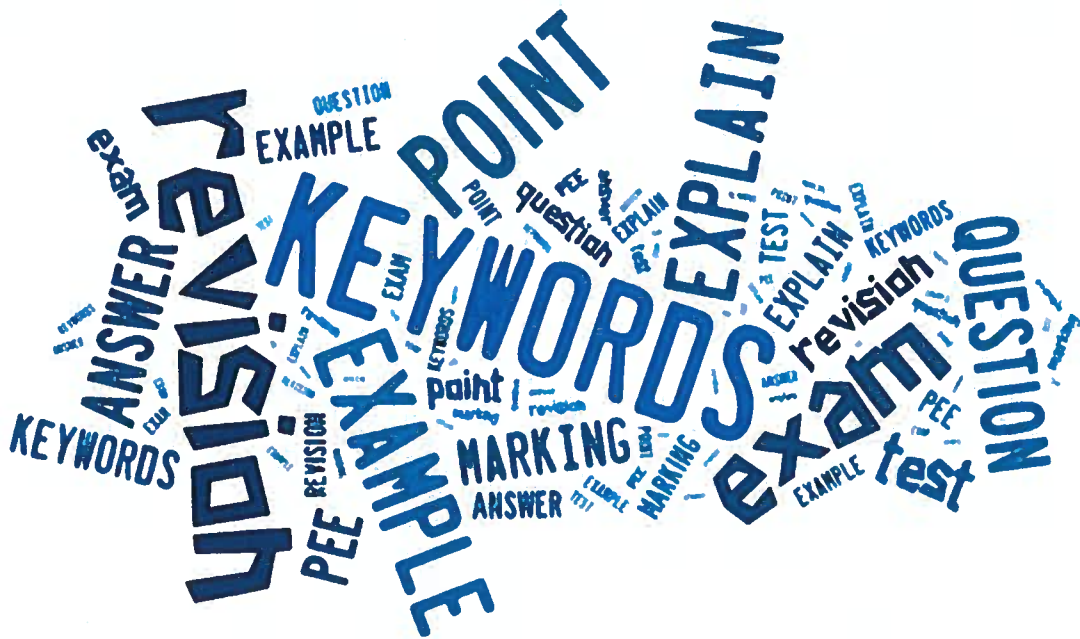


Year 9 Examinations 2024



Revision Guide

Monday 15th – Friday 19th January



Introduction

Year 9 Exam week takes place from Monday 15th – Friday 19th January. These assessments are designed to give you an experience that will support you in preparing for the GCSE examinations that you will sit in two years time. The exams will cover content taught over the Autumn term and will mirror the style of assessment you will experience at GCSE. It is important for you to develop the skills that you need to tackle a number of assessments in a short period of time.

Throughout the Spring term you will be undertaking the process of picking your GCSE options. Your performance in your Year 9 examinations may help you to decide which subjects would be suitable choices for study in Years 10 and 11.

Whilst we would like you to take these examinations seriously, it is important that you maintain an appropriate balance between being well prepared and staying healthy. Examinations make everyone anxious but being prepared and practicing is the best way to alleviate this.

The following pages give details of when the examinations will take place, some advice on how you might go about structuring your revision and some general techniques. Following that, each subject has created revision resources, which will help your examination preparation. They have identified the topics on which you will be assessed and have provided some activities for you to complete as part of your revision.

If you have any questions at all please do not hesitate to ask your Form Tutor, Mr Trevorrow or your specific subject teacher.

Good Luck!

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Revision Tips

In order to best prepare for examinations we need to revise. Revision helps us to remember knowledge (facts) and also to practise the skills we need to apply those facts to examination questions. The more we revise the more confident we will be with the material and the more confident we can be in the exam. To use the knowledge we must have cemented it in our brain (our long term memory) in order to be able to use it with ease.

Revision is an ACTIVE, not a PASSIVE process. Just reading your book isn't a good way to revise. Listen to your teachers' advice on HOW to revise for each subject but here are some examples of general revision strategies.

There are three parts to the revision process. Ideally your revision will include all three elements as they all help us to commit knowledge to our memory bank and to be able to recall and use it quickly in an exam situation.

The best revision will allow you to do all three skills over time.

You might **Review** the information on Day 1, **Transform** it on Day 2 and then **Recall** it on Day 3. Use your revision timetable to spread this out for all your subjects.

Review

- Actively read your notes, highlight key words, underline key points
- Start to break down the information - what are the key points
- Condense the information (make it shorter)

Transform

- Do something with your notes
- Turn your notes into a mindmap or diagram
- Make revision cards/flash cards
- Use colour/diagrams to make your notes memorable and interesting
- From your key notes, expand upon the information and explain what it means in full (read out or write down)
- Make connections between different topics or points

Recall

- Test yourself on the knowledge
- Get a friend or family member to test you using your notes
- Answer examination questions to practise your skill and get someone to check if you are on the right lines (mark schemes with answers or your teacher)
- Complete an online test
- Write a draft plan for an essay question, showing how you would include the key themes and draw a conclusion.
- Compare and contrast information - make arguments as if you had to weigh up the differences and similarities

15 Revision Activity Ideas

1. Create revision cards - get friends to test how good they are by using them to answer questions - do they have enough information on them
2. Explain a concept to someone else as if they were a Year 9 student who had only just joined the school
3. Explain a concept in a spider diagram
4. Explain a concept in a sequence of 3 pictures – no words allowed
5. Create a poster of 6 words, which sum up all the key information in a topic. Then expand upon the significance of each word to a friend.
6. Make a true/false quiz with key concepts - get someone to test you on it
7. Display key words around your bedroom/house – put posters up or post-it notes with key facts
8. Use sound - record concepts and phrases onto a podcast and then listen to it with your headphones (in the car, on the bus, at home)
9. Make up mnemonics (a phrase using the first letter of each word to remember a list of facts) to help remember aspects of a topic
10. Give an extract of a text to someone - get them to blank out key words: you work out what the missing concepts are
11. Use web-sites/books recommended by your teacher
12. Use visual links - draw pictures and use colour in your notes to help remember things
13. Create example essay plans in response to key questions – think what the question could be.
14. Create a timeline of events to remember the order and sequence importance in a topic – display this in your bedroom
Take topic lists and traffic light what skills you know and those you don't know. RED=not at all confident, AMBER=know some of this, GREEN=confident on this
15. Think about how you will write the answer as well as what you will write (remember in all exams your spelling, punctuation and grammar are important too)

Revision Timetable

Use the following pages to plan out your revision. You might do three 20-30min sessions each day e.g. 4.30-5pm, 5.15-5.45pm and 6.30-7pm.

It would be sensible to include some rest days in your revision programme to allow you to continue to participate in other activities. You might want to blank out rest days or when you have other commitments (e.g. sports or clubs) before you start writing your subjects in. When you complete your own timetable you might want to change the timings from the example too. E.g. you could do some revision on a Saturday morning if this suits you better. Try to balance your revision – you need to do enough so that you feel confident and well prepared.

Example Revision Timetable

	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Session 1 4.30-5pm	English	Geography	English	Rest day	Maths	Science	MFL
Session 2 5.15-5.45pm	RE	Maths	History		History	Football Training	Computing
Session 3 6.30-7pm	Music	Computing	Science				PE

	Mon 1st Jan	Tues 2nd Jan	Wed 3rd Jan	Thurs 4th Jan (Back to School!)	Fri 5th Jan	Sat 6th Jan	Sun 7th Jan
Session 1	New Year's Day!						
Session 2							
Session 3							

	Mon 8th Jan	Tues 9th Jan	Wed 10th Jan	Thurs 11th Jan	Fri 12th Jan	Sat 13th Jan	Sun 14th Jan
Session 1							
Session 2							
Session 3							

Exam week	Mon 15 th Jan	Tues 16 th Jan	Wed 17 th Jan	Thurs 18 th Jan	Fri 19 th Jan
Session 1					
Session 2					
Session 3					

Year 9 School Exam Timetable January 2023

There are no exams for **ASDAN** and **PSHE**
Normal lessons are held when no exam is shown.

DAY	REG	PERIOD 1		PERIOD 2		PERIOD 3		PERIOD 4		PERIOD 5		PERIOD 6	
		PE/COM/PE/PE/GEO	COM/HIS/MUS/HIS/GEO	COM/HIS/MUS/HIS/GEO	ADT/DRAMA	ADT/DRAMA	ADT/DRAMA	ADT/DRAMA	ADT/DRAMA	MATHS	ENGLISH/SPANISH	ENGLISH/SPANISH	GEO/GEO/COM/FRE/HIS
Mon 15th Jan	A	Computing	Computing										Geography
	C	Computing	Music										Geography
	D			B			ADT/Drama						Computing
	N												
	O	Geography	SCIENCE				ADT		ADT				
Tues 16th Jan	A	Science											
	C	Science											
	D			R									English Set 2
	N												Spanish Set 1
	O												
Weds 17th Jan	A												
	C												
	D			E									
	N												
	O												
Thurs 18th Jan	A												
	C												
	D												
	N												
	O												
Fri 19th Jan	A												
	C												
	D												
	N												
	O												

Y9 Exam Revision: English

Your Y9 exam will be a writing exam which will test your ability to express your point of view.

You will be assessed for writing in an appropriate style for an audience, for the way you organise your ideas and for the accuracy of your punctuation. (WAFs 1, 2 and 4)

To prepare for this exam, you need to revise how to use punctuation, how to use paragraphs and how to organise your ideas.

You will also need to do the activities below in order to practise. Your teacher will set a date to go over these with you or complete it in class time.

Activity 1: Point of View writing

It's all about what YOU think and HOW you express that...What's your view?

For each of these issues, write down whether you agree or disagree AND give TWO reasons for your viewpoint.

1. Phones should be banned in schools

My view.....

Reason 1.....

Reason 2.....

2. The death penalty should be brought back in the UK

My view.....

Reason 1.....

Reason 2.....

3. Same sex marriages shouldn't be allowed in churches

My view.....

Reason 1.....

Reason 2.....

4. You should be allowed to drive at 14.

My view.....

Reason 1.....

Reason 2.....

Activity 2: Arguing and explaining.

You will be asked to argue your point of view OR explain your point of view. Write a quick definition for each purpose.

Argue:.....

Explain:.....

Activity 3: Identifying the GAP

When you read the exam question, you will need to identify the Genre, Audience and Purpose of what you are being asked to write- the GAP.

Genre= the type of text e.g. article, letter, blog, speech

Audience= who you are writing for e.g. general public, readers of the school website, parents

Purpose= why you are writing e.g. explain or argue your point of view

For each of these tasks, identify the GAP

1. Write an article explaining your opinion on Brexit for a newspaper.

G:..... A:..... P:.....

2. Write a letter to the editor of a magazine persuading them that autumn is the best month.

G:..... A:..... P:.....

3. Write a speech to be given a school assembly informing them of changes to GCSEs.

G:..... A:..... P:.....

4. Write a blog for a lifestyle website giving advice about when and where people should exercise.

G:..... A:..... P:.....

Activity 4: Language devices

You will need to use various language devices to communicate your point of view.

In the table below are some devices to think about using. Define each one, give an example and write down whether it would be effective in a piece writing to **argue** or writing to **explain**. You can write **both**.

The first one has been done for you.

Language device	Example	Argue or Explain?
Rhetorical question	<i>What is the point of that?</i>	Argue
Lists		
Emotive language		
Direct address		
Facts and statistics		
Anecdotes		
Professional opinions		
Imagery (similes, metaphors, personification)		
Repetition		
Rule of 3		
Collective pronouns		
Imperatives		

Activity 5: Punctuation

Read through this example. Label the language devices that have been used (from Activity 4, above) and identify where the missing punctuation should go. The missing punctuation is on a checklist underneath.

'Slow drivers should be banned. Doing 40 miles an hour in a 60 mile an hour zone causes accidents and deaths. Doing the speed limit should be the law.'

Write a piece for your blog in which you explain your point of view on this statement.

Doing the Speed Limit

Accidents happen on our roads every day we are constantly reminded about shocking statistics concerning road traffic accidents and people who have been affected by them People jump to the conclusion that is the fast drivers that cause these accidents, but I am going to present the case that this is in fact false. I present to you the slow driver the perpetrator of road crime.

People drive slowly for all sorts of reasons age, nerves, no rush to go anywhere. But what about those stuck behind The hard working bread winners, the mums driving to one hundred different locations a day to satisfy extra-curricular crazy kids, the plumber or electrician who needs to get to their next job. All of these people are stuck, day after day, behind slow drivers and as their frustration builds accidents are more than likely to happen. Out of anger, they make a split second decision to overtake and instantly put their lives in danger just because the person in front of them won't do the speed limit.

In context this is especially irritating on country roads These roads are places where you can and should do the National Speed Limit of 60 miles an hour on single carriageways. Not 40. Not 35. And certainly not 20. It seems incredible that some people, regardless of the speed limit, do 40 miles an hour i have been known to follow people who do 40 miles an hour in a 60 zone and then continue to do 40 in a 30 zone: what is wrong with these peoples eyes I wonder. Can they not read the very clear signage? Doing 20 miles below the speed limit just isnt acceptable people would never do 10 miles an hour in a 30 zone. It would be ridiculous.

Make doing the speed limit the law now Save me and a million others from being tempted to make dangerous manoeuvres to avoid slow driving into our old age oblivion

Missing punctuation checklist:

Full stops x 6

Commas x 5

Colons x 2

Question marks x 1

Apostrophes x 2

Semi colons x 1

Capitals x 2

Activity 6: Structuring your writing

Below are a list of structural features you need to think about using in your writing. Next to each one, write down its function in a piece of writing.

Feature	Function
Paragraph	
Discourse marker	
Temporal marker	
Topic sentence	
Connectives	
Introduction	
Conclusion	

Activity 7: Broadening your vocabulary

Fill in the table with different word choices- the first one has been done for you.

<u>Basic</u>	<u>Interesting</u>	<u>Ambitious</u>
Lots	Many	A multitude of
Bad		
Good		
Said		
Stop		
Think		
Not many		
Most people		
Done		
Always		
Never		

Maths exam will be a 50 minute calculator paper.

Block	Unit	Topics	Topic Code
Fractions and percentages	Fractions, decimals and percentages review	Finding equivalent fractions	U704
		Ordering fractions	U746
		Multiplying fractions	U475
		Converting between fractions, decimals and percentages	U888
		Ordering fractions, decimals and percentages	U594
		Finding fractions of amounts without a calculator	U881
		Finding fractions of amounts with a calculator	U916
		Finding percentages of amounts without a calculator	U554
	Finding percentages of amounts with a calculator	U349	
	Percentage change	Percentage change without a calculator	U773
		Simple interest calculations	U533
		Percentage change with a calculator	U671
		Finding original values in percentage calculations	U286
		Finding the percentage an amount has been changed by	U278
Probability	Theoretical and experimental probability	Writing probabilities as fractions, decimals and percentages	U510
		Probabilities of mutually exclusive events	U683
		Expected results from repeated experiments	U166
		Calculating experimental probabilities	U580
		Frequency trees	U280
Standard form	Calculations with standard form	Using standard form with positive indices	U330
		Using standard form with negative indices	U534
		Index rules with positive indices	U235
		Index rules with negative indices	U694
		Using a calculator	U926
		Multiplying and dividing numbers in standard form	U264
		Adding and subtracting numbers in standard form	U290
		Standard form with a calculator	U161
Inequalities	Linear inequalities	Reading and drawing inequalities on number lines	U509
		Solving single inequalities	U759
		Solving inequalities with the unknown on both sides	U738
		Solving double inequalities	U145
		Constructing and solving inequalities	U337
Quadratic equations	Factorising and solving quadratic equations	Expanding double brackets	U768
		Factorising into one bracket	U365
		Factorising quadratic equations of the form x^2+bx+c	U178
		Factorising the difference of two squares	U963
		Factorising to solve quadratic equations of the form $x^2+bx+c=0$	U228
Formulae	Rearranging formulae	Solving equations with two or more steps	U325
		Solving equations with the variable on both sides	U870
		Solving equations with the variable in the denominator	U505
		Changing the subjects of formulae	U556
Constructions	Constructing bisectors and perpendicular lines	Using a ruler	M985
		Using a pair of compasses	M196
		Constructing bisectors of angles	U787
		Constructing perpendicular bisectors and lines	U245
Circles	Circles and cylinders	Identifying parts of circles	U767
		Finding the circumference of circles	U604
		Finding the area of circles	U950
		Finding the surface area of prisms	U259
		Finding the volume of prisms	U174
		Finding the arc length of sectors	U221
		Finding the area of sectors	U373
		Finding the surface area of cylinders	U464
Finding the volume of cylinders	U915		

Biology Revision Checklist Unit 1

Key Concepts in Biology

Microscopes

Learning outcome
Recall what an electron microscope is.
Recall what is meant by an instrument's resolution.
Explain why some cell structures can be seen with an electron microscope but not with a light microscope.
Calculate total magnification using an equation.
Calculate sizes using magnifications.
Interpret the SI prefixes milli-, micro-, nano- and pico-.

Plant and animal cells

Learning outcome
Identify the parts of plant and animal cells.
Recall the parts of plant and animal cells.
Make drawings of plant and animal cells using a light microscope and identify their parts.
Describe the functions of the sub-cellular structures commonly found in eukaryotic cells (nucleus, cell membrane, cell wall, chloroplasts, mitochondria and ribosomes).
Estimate sizes using microscope fields of view.
Estimate sizes using scale bars.

Specialised cells

Learning outcome
Describe how sperm cells are adapted to their function.
Describe how egg cells are adapted to their function.
Describe how ciliated epithelial cells are adapted to their function.
Draw conclusions about a cell's function from its adaptations.

Inside Bacteria

Learning outcome
Identify the common parts of bacteria.
Describe the functions of common parts of bacteria.
Describe why bacteria are classified as being prokaryotic.
Change numbers to and from standard form.
Compare eukaryotic and prokaryotic cells.

Enzymes and nutrition

Learning outcome
State that enzymes are proteins.
Give examples of enzymes and where they are found in the human body and in other species.
Recall the subunits from which carbohydrates, proteins and lipids are formed (sugars, amino acids, fatty acids and glycerol).
Describe what enzymes do (catalyse the synthesis and breakdown of substances, such as carbohydrates, proteins and lipids, by speeding up the rate of reaction).
Define an enzyme as a biological catalyst.
Explain why catalysis by enzymes is important for life processes (because reactions happen much faster).

Enzyme action

Learning outcome
State what enzyme specificity means.
State that an enzyme's action is due to its active site.
Describe the role of the active site in enzyme function (including specificity).
Use the lock-and-key model to develop explanations for enzyme activity.
Explain why enzymes have a particular shape, as a result of the sequence of amino acids in the chain.
Explain how enzymes become denatured.

Enzyme activity

Learning outcome
Describe the effect of temperature on enzyme activity.
Describe the effect of substrate concentration on enzyme activity.
Describe the effect of pH on enzyme activity.
Explain what is meant by the optimum pH/temperature of an enzyme.
Calculate the rate of enzyme activity from experimental data.
Explain why temperature, substrate concentration and pH affect enzyme activity.

Useful websites:

Cell structure

<https://www.bbc.co.uk/bitesize/guides/zg9mk2p/revision/1>

Enzymes

<https://www.bbc.co.uk/bitesize/guides/zwxv6yc/revision/1>

Chemistry Revision Checklist

C1a States of matter

Name the three states of matter, and the physical changes that occur between them.
Describe the arrangements and movement of particles in the different states of matter.
Use information to predict the state of a substance.
Describe the relative energies of particles in the different states of matter.
Explain why the movement and arrangement of particles change during changes of state.
Explain why the energy of particles changes during changes of state.

C2a Mixtures

Describe the differences between a pure substance and a mixture.
Use melting point information to decide whether a substance is pure or is a mixture.
Describe what happens to atoms at a pure substance's melting point.
Interpret a heating curve to identify a melting point.
Explain why the temperature does not change as a pure substance melts.

C2b Filtration and crystallisation

State some mixtures that can be separated by filtration.
State some mixtures that can be separated by crystallisation.
Draw and interpret diagrams showing how filtration and crystallisation are done.
Explain the formation of crystals during crystallisation.
Explain how mixtures are separated by filtration.
Explain ways of reducing risk when separating mixtures by filtration and crystallisation.

C2c Paper chromatography

Describe how some mixtures can be separated by chromatography.
Identify pure substances and mixtures on chromatograms.
Identify substances that are identical on chromatograms.
Draw and interpret diagrams showing how chromatography is done.
Explain how substances can be separated by chromatography.
Calculate R_f values and use them to identify substances.

CC2d Distillation

Describe how to carry out, and explain what happens in, simple distillation.
Distinguish between simple distillation and fractional distillation.
Identify when fractional distillation should be used to separate a mixture.
Describe how to carry out fractional distillation.
Explain how the products of fractional distillation are linked to the boiling points of the components.
Explain what precautions are needed to reduce risk in a distillation experiment.

CC2e Drinking water

Explain why water used in chemical analysis must not contain dissolved salts.
Describe how fresh water can be produced from seawater.
Describe the steps needed to make fresh water suitable for drinking.
Suggest how to purify water when you know what it contains.
Evaluate the hazards and control the risks present when purifying water.

Physics Revision Checklist

P4a Describing Waves

Recall that waves transfer energy and information but not matter.
Describe waves using the terms frequency, wavelength, amplitude, period and velocity.
Describe the differences between longitudinal and transverse waves.
Give examples of transverse and longitudinal waves.

P4b Wave Velocities

Recall and use the equation relating wave speed, frequency and wavelength
Recall and use the equation relating wave speed, distance and time.
Describe how to measure the velocity of sound in air
Describe how to measure the velocity of waves on the surface of water

P4c Refraction

Describe what refraction is.
Describe how the direction changes when it goes from one material to another.
Explain some effects of the refraction of light (explanations in terms of changing speeds are not expected)
H Explain how a change in wave speed can cause a change in direction.

P5a Electromagnetic Waves

Recall examples of electromagnetic waves
Describe the common features of electromagnetic waves.
Describe the transfer of energy by electromagnetic waves
Describe the range of electromagnetic waves that our eyes can detect.
H Describe an effect caused by the different velocities of electromagnetic waves in different substances.

P5b The electromagnetic spectrum

Recall the groups of waves in the electromagnetic spectrum in order.
Recall the colours of the visible spectrum in order.
Describe how the waves in the electromagnetic spectrum are grouped.
H Describe some differences in the ways that different parts of the electromagnetic spectrum are absorbed and transmitted
H Describe some differences in the ways that different parts of the electromagnetic spectrum are refracted and reflected.

P5c Using the long wavelengths

H Describe how long wavelength electromagnetic waves are affected by different substances
H Explain the effects caused by long wavelength electromagnetic waves travelling at different velocities in different substances.
Describe some uses of radio waves.
Describe some uses of microwaves.
Describe some uses of infrared.
Describe some uses of visible light.
H Describe how radio waves are produced and detected by electrical circuits.

P5d Using the short wavelengths

H Describe how short wavelength electromagnetic waves are affected by different substances
H Explain the effects caused by short wavelength electromagnetic waves travelling at different velocities in different substances.
Describe some uses of ultraviolet radiation.
Describe some uses of X-rays.
Describe some uses of gamma rays.

P5e EM radiation dangers

Describe how the potential danger of electromagnetic radiation depends on its frequency.

Describe the harmful effects of microwave and infrared radiation.

Describe the harmful effects of ultraviolet radiation, X-rays and gamma rays.

Recall the nature of radiation produced by changes in atoms and their nuclei.

History: The USA & the Question of Race

Key Information

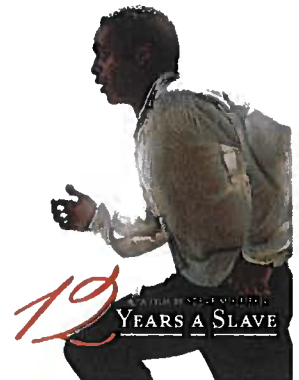
- You will have **one** exam paper, which will last for 40 mins.
- You will answer **TWO** questions on it, which will require you to use both your **KNOWLEDGE** and your **SOURCE SKILLS**

1. How useful are these 2 Sources to the Historian trying to understand the lives of Black Americans in the first half of the 19th Century?

1. Moses Roper, Adventures and Escape of Moses Roper (1838)

The first thing my owner did after capturing me was to pour some tar upon my head, then rubbed it all over my face, took a torch with pitch on, and set it on fire; he put it out before it did me very great injury, but the pain which I endured was the most excruciating, nearly all my hair having been burnt off. On Monday, he puts irons on me again, weighing nearly fifty pounds. He threatened me again on the Sunday with another flogging; and on the Monday morning, he put the fingers of my hands into a vice, and squeezed all the nails off. Hen then had my feet put on an anvil, and ordered a man to beat my toes, till he smashed some of my nails off. The marks of this treatment still remain upon me, some of my nails never having grown perfect since.

2. A modern film about slavery



• What does it tell you? (CONTENT)

How do both sources portray the lives of Black Americans? Do they agree?

• How reliable is it? Why? (PROVENANCE)

Who produced them? When? Why? Who for?

• How does it compare with your own background knowledge? (OWN KNOWLEDGE)

2. Complete this timeline with as much detail as you can REMEMBER from your study of the history of the USA. AFTER you have done this, check your notes, and see if you can add more...

	Positive	Negative
1700s		
1776		
1783		
First part of 1800s		
1861		
1865		
Later 1800s		
1930s		
1950s		

1960s		
1970s-2000		
21st Century		

SKILLS:

You will be examined on a variety of skills, some of which are listed below. You may need to interpret or complete these.

- Bar graph
- Line graphs
- Scatter graphs
- Reading tables of information
- Interpreting photographs

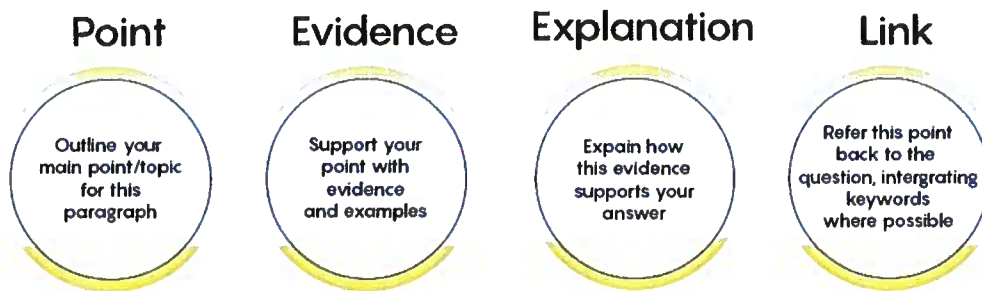
TECHNIQUE:

Use the acronym TEA when describing graphs or distribution shown in maps etc:

- **Trends** (increase or decrease and rate of change – slow/steady/rapid)
- **Evidence** (use data/statistics/examples of places)
- **Anomalies** (exception to the pattern or trend)

BURP questions – **Box** command words – **Underline** key terms, **Re-read** the question to check your understand it, **Plan** briefly the points you will make in your response

PEEL: Point – Evidence – Explanation - Link



Remember to use connectives to develop your ideas. These include 'meaning' 'leading to' 'therefore' etc.

Show understanding of key terms in a question (SU) – give a brief definition of them

4 mark questions = x1/2 PEEL paragraphs

6 mark questions = SU plus x2 detailed PEEL paragraphs

EXEMPLAR/PRACTISE EXAM QUESTIONS:

Use your lesson and revision notes to help you complete the following practise questions. Think about **technique** when working (PEEL paragraphs and TEA for graph analysis). If you do not have enough space for the longer questions, answer them in your exercise book.

MEASURING DEVELOPMENT

1 Study **Figure 1**, which shows measures of development for Canada, Taiwan and Angola.

Figure 1

	Canada	Taiwan	Angola
GNI per capita *	\$32 220	\$22 900	\$2210
Birth rate	10.3	9.0	43.7
Death rate	7.7	6.8	24.1
Infant mortality rate	5.0	5.4	180.2
Life expectancy	81.2	78.0	38.2
Literacy rate	99.0%	98.1%	67.4%

* GNI per capita information from Hutchinson Country Facts. © RM, 2009. All rights reserved. Helicon Publishing is a division of RM.

(a) (i) What is meant by the Gross National Income (GNI) per capita of a country?

.....

(2 marks)

(ii) Define birth rate.

.....

(1 mark)

(b) Give two limitations of using a single measure of development to judge how developed a country is.

Limitation 1

.....

Limitation 2

.....

(2 marks)



(c) Explain why the HDI is a useful measure of development.

.....

(2 marks)



1 Study Figure 1, which shows the percentage of people with access to clean water and the HDI values of four countries in 2006-2007.

Figure 1

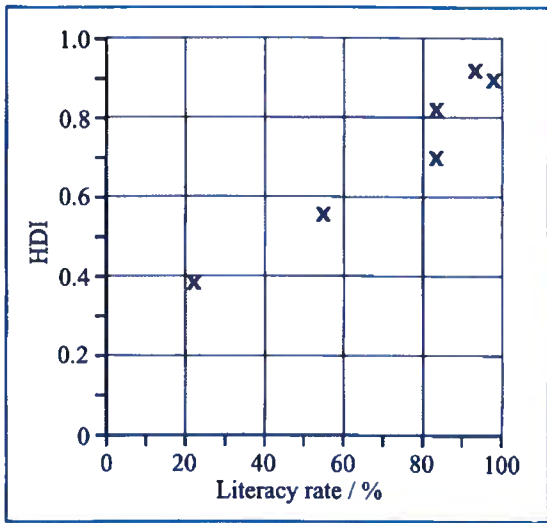
	% of population with access to clean water	HDI
Chad	48	0.389
Ethiopia	42	0.389
Uganda	64	0.493
Pakistan	90	0.562

(a) Compare the percentage of the population who have access to clean water in Pakistan and Ethiopia.

.....

 (1 mark)

2 Figure 2



Study Figure 2, which is a scatter graph showing the HDI value and literacy rate for six countries in 2006.

(a) Describe the correlation between literacy rate and development.

.....

 (1 mark)

(b) The literacy rate in Mali in 2006 was 22.9. What was its HDI score?

.....
 (1 mark)

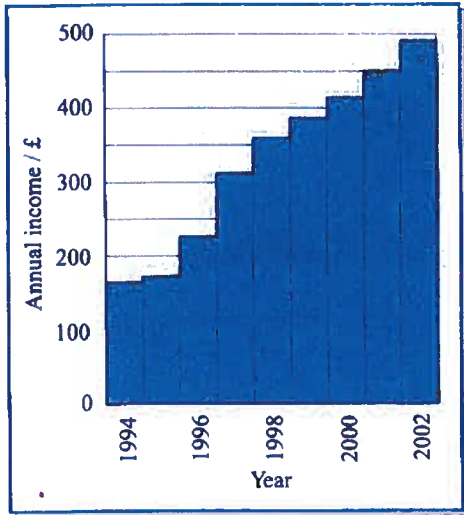


(c) Suggest why a low literacy rate could have a negative impact on development.

.....

2 Study **Figure 2**, which shows the annual income of a farmer in Mali between 1994 and 2002. He joined a fair trade co-operative in 1996.

Figure 2



(a) What was the farmer's income in 1999?

.....
(1 mark)

(b) Using evidence from **Figure 2**, explain how fair trade schemes can affect a country's development.

.....
.....
.....
.....
.....
.....

(4 marks)

POPULATION AND DEVELOPMENT

Study **Figures 1a, 1b and 1c**, which show population pyramids for countries A, B and C.

Figure 1a — Country A

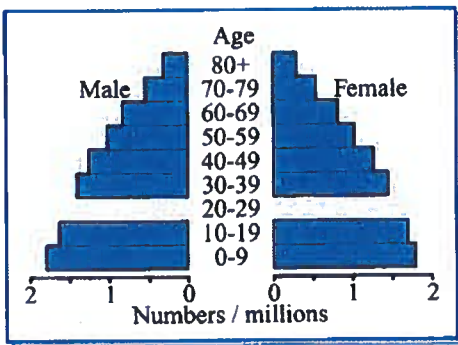


Figure 1b — Country B

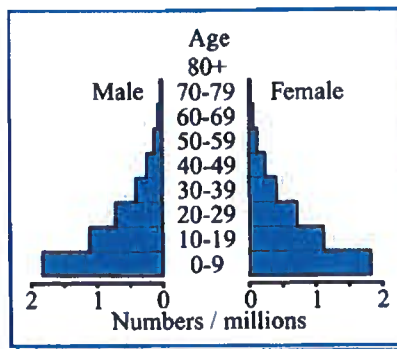
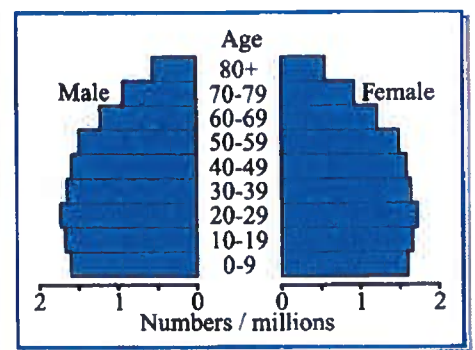
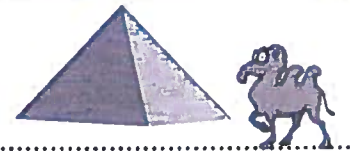


Figure 1c — Country C



(a) What do population pyramids show?

.....



Study **Figure 1**, which shows the population pyramid of a country.

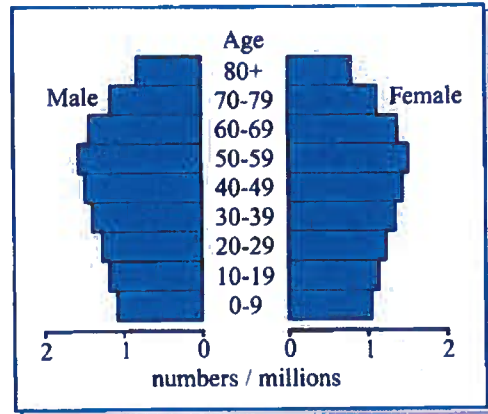
- (a) (i) Which age range contains the largest number of men?

.....
 (1 mark)

- (ii) Use evidence from **Figure 1** to describe the population structure of the country.

.....

Figure 1



The question's only worth 2 marks so your answer should be brief.

(2 marks)

- (c) Explain what effect a population structure like the one in **Figure 1** may have on a country's birth rate.

.....

 (2 marks)

- (d) Ageing populations have lots of impacts which can affect the development of a country. Describe the social and economic impacts of an ageing population.

.....

Old people rule

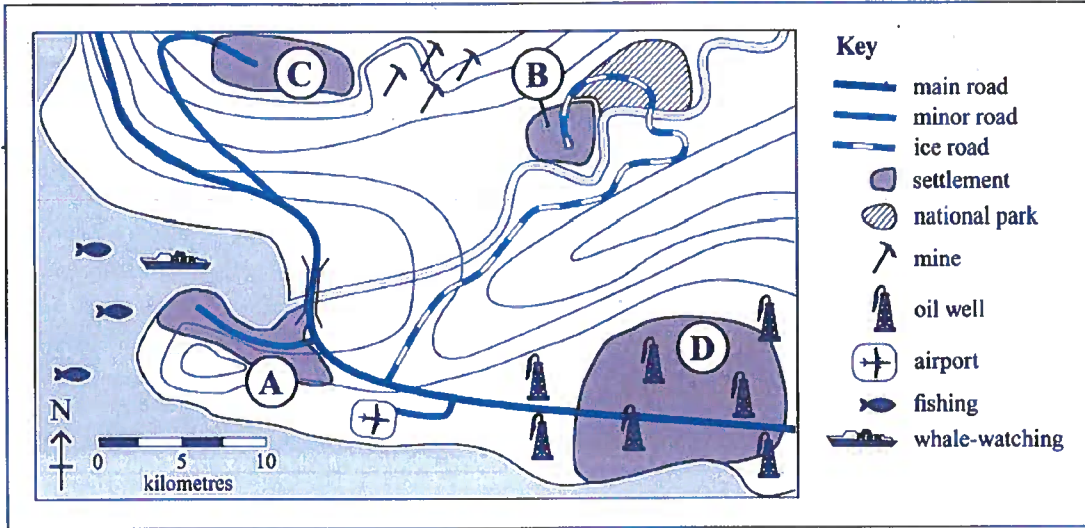


.....

Development in Cold Environments

1 Study **Figure 1**, a map of a cold environment.

Figure 1



1.1 Using **Figure 1**, describe the economic opportunities at location A.

.....

.....

.....

.....

[3]

1.2 Using evidence from **Figure 1**, outline **one** challenge to the economic development of location B.

.....

.....

.....

[2]

1.3 Using **Figure 1**, describe and explain the extent of settlement at location C compared to location D.

.....

.....

.....

.....

.....

[4]

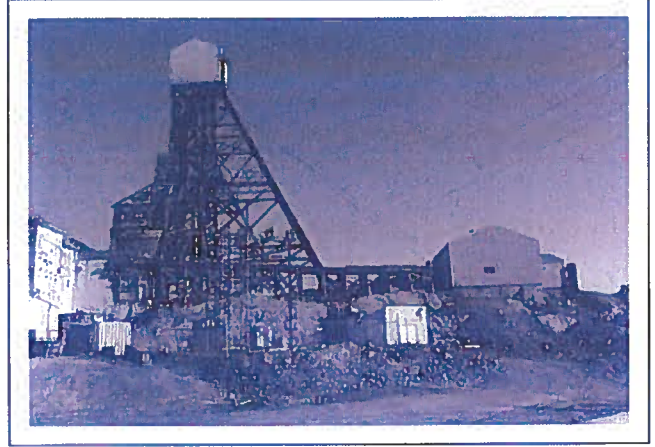
Cold Environments — Sustainable Management

- 1 Study **Figure 1**, a photograph of a tundra environment in Alaska, and **Figure 2**, a photograph of a gold mine in Canada.

Figure 1



Figure 2



- 1.1 Outline **two** reasons why the environment shown in **Figure 1** should be protected.

Reason 1:

.....

Reason 2:

.....

[2]

- 1.3 Using **Figure 1**, **Figure 2** and your own knowledge, to what extent can the needs of economic development be balanced with the need for conservation in cold environments?

.....

.....

.....

.....

.....

.....

.....

.....

.....

[6]

[Total 9 marks]

Use this as a starting point to help you prepare for your Geography exam.

DEVELOPMENT AND POPULATION

Units 1 and 2; Development, Population and Cold Environments



Measures of development

Measure	Definition (word perfect)	What it shows about development
Infant mortality		
Birth rate		
Death rate		
GNI/capita		
Life expectancy		
HDI		
Adult literacy rate		
Number of doctors (per 1000)		

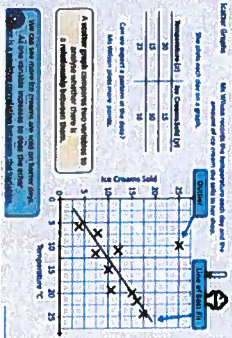
Which indicators are the most useful and why?

Limitations (problems) of development measures

Blank space for notes on limitations of development measures.

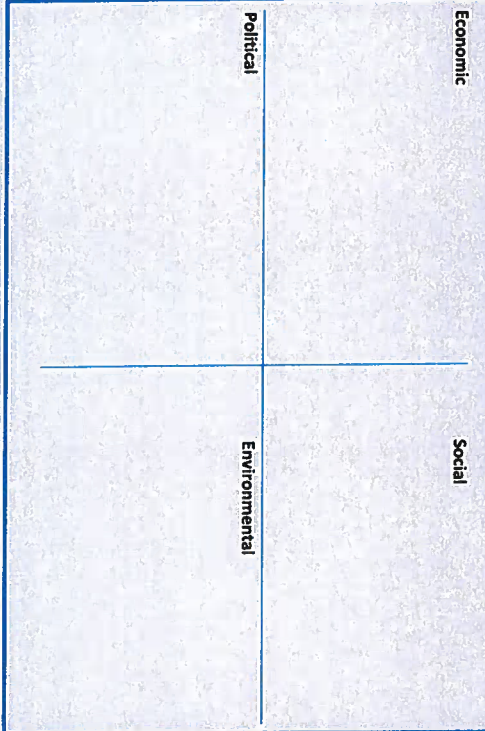
Things to remember when analysing graphs:

- T = TRENDS** - overall increase/decrease/fluctuations etc. Rate of change...slow/steady/rapid.
- E = EVIDENCE/data**... How much it has increased/decreased by/ from... to
- A = ANOMALIES/Exceptions?** Data that stands out from the pattern.
- Know how to complete/read information from line, bar and scattergraphs



Causes of global inequality/the development gap:

EXPLAIN!



Development and Population - Key terms

- Standard of living:
- Quality of life:
- Development:
- Human Development Index (HDI):
- Inequality:
- The Development Gap:
- Poverty:
- Population pyramid:
- HIC: LIC: NEE:
- Economically active:
- Young and elderly dependents:
- HIPC:

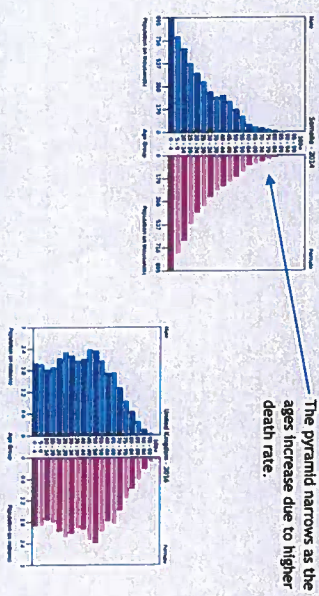
Common features of LICs include:

1. Piped water to all homes
- 2.
- 3.
- 4.
- 5.

Common characteristics of LICs include:

As a country develops, these should improve...

Population Pyramids - annotate the key features



Reasons why population pyramids change shape over time e.g. improvements in healthcare

Strategies to reduce the development gap

BE ABLE TO EXPLAIN HOW THESE HELP AND THEIR BENEFITS

Debt relief	Fairtrade	Tourism	Other strategies

Country case study – an example of an LIC/developing country – Malawi/Ghana or another example

Location and development statistics	Reasons for their low level of development (LIC)

COLD ENVIRONMENTS

Cold Environments Location Description

Cold environments - Key term definitions

Permafrost =

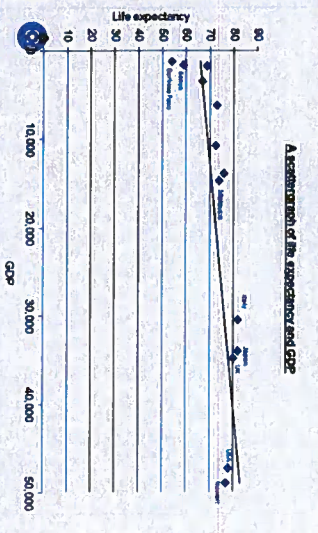
Adaptation =

Geothermal energy =

Characteristics of cold environments	
	POLAR regions
	TUNDRA regions
Climate	
Soils	
Plants	
Animals	

SKILLS PRACTISE:

Q: Describe the correlation shown between GDP and life expectancy.



Opportunities and challenges in cold environments

Opportunities	Challenges
Mineral extraction/mining	Extreme temperatures
Energy developments	Accessibility
Fishing	Construction
Tourism	Services

CASE STUDY – Svalbard Facts

Year 9 Exam: Religious Education Revision Guide

One exam of 25 minutes. A mixture of 1, 2 and 4 mark questions and a single 12 mark question.

Key Words Checklist:

Ichthus

Bar/Bat Mitzvah

Mezuzah

Shabbat

Shema

Tallit

Tefillin

Sanctity of Life

The Good Samaritan

Personal Identity

Look back through your 'Who Am I?' project and remind yourself of what you did.

Check that you could **give at least two reasons** for why people would argue that the following are important parts of our identity:

Our physical appearance

Our relationships

Our decisions

Our beliefs



identity

Skills checker:

Can you connect some religious teachings to the ideas?

For example:

- What do different Christians believe about abortion/euthanasia
- In the book of James, it says that "faith without _____ is _____"?
- What did Jesus say about our appearance?
- Where does the idea of the sanctity of life come from?

Possible Revision Activities:

Create a key (maybe using highlighters) and sort the key words into their respective religions.

Make revision cards for each of the key words, with definitions on the back.

Try to explain each of the key terms in exactly 5 words.

Look back over your 'Who Am I?' projects and remind yourself of what you said about your identity.

Year 9 French exam 2024

What skills will be assessed?

- Section 1: listening and reading
- Section 2: writing

What topics need to be revised?

Your exam will cover the topics we have been learning so far this year. You will need to revise vocabulary and structures relevant to the following topics:

- Daily routine
- All about Paris!

In order to secure higher grades, students need to use a variety of adjectives, longer complex sentences with sentence openers, justified opinions, connectives, negative forms, comparatives and superlatives, reflexive verbs (routine and getting on with people). Students will be required to demonstrate they can use the future tense and in addition, some will be able to show they can use the past tense.

What do I use to revise?

- Exercise book and past milestones
- Useful websites:
www.bbc.co.uk/schools/gcsebitesize/french
www.languagesonline.org.uk
<https://senecalearning.com/en-GB/>

Learn Sheet

Year 9 January Exams

Tener:

Tengo	<i>I have</i>
Tienes	<i>you have (singular)</i>
Tiene	<i>he/she has</i>
Tenemos	<i>we have</i>
Tenéis	<i>you have (plural)</i>
Tienen	<i>they have</i>

Ser:

Soy	<i>I am</i>
Eres	<i>you are (singular)</i>
Es	<i>he / she is</i>
Somos	<i>we are</i>
Sois	<i>you are (plural)</i>
Son	<i>they are</i>

People:

Un amigo/una amiga	<i>friend (m/f)</i>
Un padrastro	<i>step-dad</i>
Una madrastra	<i>step-mum</i>
Un hermanastro	<i>half/step brother</i>
Una hermanastra	<i>half/step sister</i>
Una mujer	<i>woman, wife</i>
Una hija	<i>daughter</i>
Una hija única	<i>only child (girl)</i>
Una chica/niña	<i>girl</i>
Un hijo	<i>son</i>
Un hijo único	<i>only child (boy)</i>
Un chico/niño	<i>boy</i>
Los gemelos	<i>twins (m/f)</i>
Un marido	<i>husband</i>
Un tío	<i>uncle</i>
Un tía	<i>aunt</i>
Un novio	<i>boyfriend</i>
Una novia	<i>girlfriend</i>
Una nieta	<i>grand-daughter</i>
Un nieto	<i>grandson</i>
Un sobrino	<i>nephew</i>
Un sobrina	<i>niece</i>
Un primo	<i>cousin (boy)</i>
Una prima	<i>cousin (girl)</i>
Un hermano mayor	<i>older brother</i>
Una hermana menor	<i>younger sister</i>
Mi mejor amigo/a	<i>my best friend</i>

Physical descriptions (use with tener):

El pelo	<i>hair</i>
corto	<i>short</i>
mediano	<i>medium-length</i>
largo	<i>long</i>
rubio	<i>blond</i>
castaño	<i>light brown</i>
moreno	<i>dark brown</i>
rojo	<i>red/ginger</i>
gris	<i>grey</i>
negro	<i>black</i>
rizado/ondulado	<i>curly</i>
liso	<i>straight</i>
Los ojos	<i>eyes</i>
azules	<i>blue</i>
verdes	<i>green</i>
grises	<i>grey</i>
marrones	<i>brown</i>

Physical descriptions (use with ser):

Bajo/a	<i>short</i>
Alto/a	<i>tall</i>
Delgado/a	<i>slim</i>
Gordo/a	<i>fat</i>
Guapo/a	<i>attractive</i>
Feo/a	<i>ugly</i>
Joven	<i>young</i>
Viejo/a	<i>old</i>
Amable	<i>kind/friendly</i>
Antipático/a	<i>mean</i>
Deportista	<i>sporty</i>
Insoportable	<i>annoying/unbearable</i>
Simpático/a	<i>nice</i>
Trabajador/a	<i>hard-working</i>
Perezoso	<i>lazy</i>
Gracioso/a	<i>funny</i>
Divertido/a	<i>fun</i>
Hablador/a	<i>chatty</i>
Egoísta	<i>selfish</i>
Tonto/a	<i>silly</i>

Ser or Estar?

<u>Ser:</u>	<u>Estar:</u>
Description	Position
Origin	Location
Character	Action
Time	Condition
Occupation	Emotion
Relation	

Verbs:

Ayudar	to help
Casarse	to get married*
Comprar	to buy
Criticar	to criticise
Divorciarse	to divorce
Esperar	to hope
Jugar	to play
Leer	to read
Llevar	to wear
Pasar tiempo	to spend time
Pensar	to think
Practicar	to practise (sport)
Querer	to want
Salir	to go out
Viajar	to travel

Other irregular Present tense verbs:

<u>ir - to go</u>	<u>estar - to be</u>
voy	estoy
vas	estás
va	está
vamos	estamos
váis	estáis
van	están

Comparatives:

Mas.....que	more.....than
Menos.....que	less.....than
Tan.....como	as.....as

Opinions:

Me encanta	I love
Me gusta mucho	I really like
Me gusta	I like
No me gusta	I don't like
No me gusta nada	I really don't like
Odio	I hate
Porque es	because it is
Porque son	because they are
Interesante	interesting
Aburrido	boring
Divertido	fun

Present tense: (eg. they watch)

	AR verbs	ER verbs	IR verbs
	hablar	comer	escribir
Yo	hablo	como	escribe
Tú	hablas	comes	escribes
Él / ella / usted	habla	come	escribe
Nosotros	hablamos	comemos	escribimos
Vosotros	habláis	coméis	escribís
Ellos / ellas / ustedes	hablan	comen	escriben

Time phrases:

A veces	sometimes
Todos los días	everyday
De vez en cuando	sometimes
Siempre	always

Present Continuous tense: (eg. they are watching)

Present tense of estar+	infinitive verb with following endings
estoy	
estás	
está	+ -AR verbs - ando
estamos	(eg. Hablar -> hablando)
estáis	-ER & -IR verbs - iendo
están	(eg. Comer-> comiendo)

Useful phrases:

Hay	there is/are
No hay	there isn't/aren't
Se puede ver	you can see
En mi opinión	in my opinion
Bastante	quite
Muy	very
Demasiado	too much
Parece que	it seems that
Me parece que	it seems to me...
Y	and
Sin embargo	however
Pero	but

Year 9 Cybersecurity Knowledge Organiser

Key Words	
Data	Raw facts and figures
Information	Created when data has been processed and becomes meaningful
Social Engineering	A set of methods used by cybercriminals to deceive individuals into handing over information that they can use for fraudulent purposes.
Shouldering	Involves the attacker watching the victim while they provide sensitive information such as password or PIN.
Name generator attack	The victim is asked in app or a social media post to combine a few pieces of information or complete a short quiz to produce a name. Attackers do this to find out key pieces of information that can help them to answer the security questions that protect people's accounts.
Phishing	An attack in which the victim receives an email disguised to look as if it has come from a reputable source, in order to trick them into giving up valuable data.
Blagging	An attack in which the perpetrator invents a scenario in order to convince the victim to give them data or money.
Hacking	Gaining unauthorised access to or control of a computer system.
Denial of Service attack (DOS)	A cyberattack in which the criminal makes a network resources unavailable to its intended users. This is done by flooding the targeted machine or website with lots of requests in an attempt to overload the system.
Distributed Denial of Service attack (DDOS)	This uses the same concept as a DoS, but this time multiple computers making the attacks at the same time.
Penetration testers (Pen testers)	People who are paid to legally hack into computer systems with the sole purpose of helping a company identify weaknesses in their system.

Phishing: key indicators of a phishing email

- Unexpected email with a request for information
- Message content contains spelling errors
- Suspicious hyperlinks in email
- Generic emails that don't address you by name or contain any personal information that you would expect the sender to know.



Script Kiddies - are hackers (not necessarily kids) who use tools downloaded from the internet that allow them to hack with little technical knowledge.



Computer Misuse Act 1990

1. Unauthorised access to computer material.
2. Unauthorised access with intent to commit or facilitate a crime.
3. Unauthorised modification of computer material.

Blagging email: key indicators

- Suspicious code in email
- Spelling mistakes
- Unusual use of English



Why might people want to hack?

- To steal data
- To disrupt services
- For financial gain
- For political reasons (espionage and activism)
- For fun
- For ethical reasons

Year 9 Cybersecurity Knowledge Organiser

Key Words

Malware	(malicious software) – designed to gain access to your computer with malicious intent.
Virus	a type of malware that attaches to another program (like a document), which can replicate and spread after a person first runs it on their system.
Worm	Replicates themselves but do not attach themselves to files as a virus does.
Trojans	A piece of software that appears to perform a useful function (such as a game) but unbeknown to the user it also performs malicious actions.
Adware	Can be a worm, virus or Trojan. It infects a computer and causes it to download or display malicious or pop-ups when the victim is online.
Spyware	Unwanted software that monitors and gathers information on a person and how they use their computer.
Ransomware	A form of virus, as it is self-replicating. It locks a computer, encrypt files, and therefore prevents the user from being able to access the data.
Internet bots	Bots are automated programs that perform tasks repeatedly.
Botnet	A large collection of malware-infected devices (zombies).
Firewall	A firewall checks incoming and outgoing network traffic.

Brute-force attack

This is a form of attack that makes multiple attempts to discover something (such as a password).



Common ways to catch a computer virus:

- Download an email attachment
- Click a confirmation button on a pop-up without reading it
- Download files such as movies or games from illegal websites or peer-to-peer file-sharing platforms.

Protection

You could say that you can never make yourself 100% secure against attackers. But you can put the following measures in place to make it so difficult for the attackers that they give up:

1. Firewall
2. Anti-malware - Anti-malware is software that scans any file that is able to execute code.
3. Auto-updates refers to software that **automatically** checks for available updates for the software you have on your computer.
4. User authentication – use of secure passwords, biometrics, CAPTCHA, Two-factor authentication (2FA), etc.
5. User permission

Year 9 Data Representation Knowledge Organiser

Key Words

Pixel	Also known as picture elements . The elements of a digital image are called pixels .
Image resolution	The number of pixels in a digital image.
Colour depth	The fixed number of binary digits used to represent each pixel's colour.
Bitmaps (raster) images	Bitmap images are made up from thousands of tiny dots called pixels (picture elements.).
RGB system	The representation of colour values using red, green, and blue components.
Microphones	Used to convert sound to electrical signal.
Speakers	Used to convert electrical signal to sound.
Sample	To represent sound in digital form, regular measurements are taken, called samples, and a sequence of bits is recorded for each one of them.
Sampling rate	How many samples per second the sound consists of.
Sample size	The number of binary digits recorded for each measurement.
Megapixel	1 million pixels

Representation size (Sound)

To calculate the representation size use the following formula

$$\text{Representation size (sound)} = \text{sampling rate} \times \text{sample size} \times \text{duration} \times \text{channels}$$

Image representation: trade-offs

Great, because...	Not so great, because...
<ul style="list-style-type: none"> ✓ Increased quality ✓ Increased quality 	<ul style="list-style-type: none"> ▪ Increased representation size ▪ Increased representation size
Images with high resolution	
Images with high colour depth	

RGB System



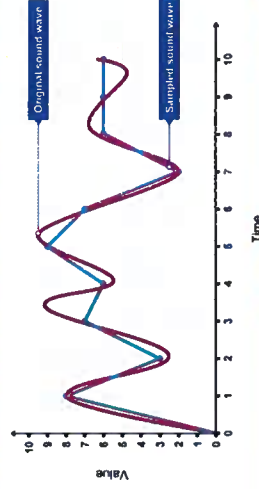
Colour depth

Minimum value of red, green or blue: **0**
 Maximum value of red, green or blue: **255**
 Number of possible values of red, green, or blue: **256**
 Total number of possible colours: $256 \times 256 \times 256 = 16,777,216$

Colour depth

Number of colours	Colour depth
2 colours	1 bit
4 colours	2 bits
8 colours	3 bits
Over 16 million colours	24 bits

BITMAP IMAGES



Representing sound

Sound needs to be converted into **binary** for computers to be able to process it. To do this, sound is captured - usually by a microphone - and then converted into a **digital** signal.

Unit	
1 byte	8 bits
1 Kilobyte (KB)	1000 bytes (1024)
1 Megabyte (MB)	1000 KB
1 Gigabyte (GB)	1000 MB

Year 9 Exam Revision Sheet

Learn the definitions and where the following terms are applied in physical activity:

Components of fitness	
Cardiovascular Fitness	Agility
Flexibility	Balance
Body Composition	Speed
Muscular Strength	Reaction Time
Muscular Endurance	Co-ordination
	Power

Methods of Training

The following are used to form the basis of most training sessions. Learn what they mean and some sports where they are used:

Circuit	A series of stations performed to improve health/fitness	Develops both aerobic/anaerobic systems
Fartlek	A continuous workout involving different speeds or terrains	Improves cardiovascular fitness and muscular endurance
Interval	Periods of work followed by periods of rest	High intensity work, varying rest and work times
Continuous	Longer periods of moderate exercise without rest	Improves aerobic fitness/Cardiovascular fitness
Weights	Using weights as a resistance	Using high/low reps to increase strength and power
Plyometric	Muscles exert maximum force, using explosive jumping movements	Improves Muscular strength/power/speed

The Benefits of taking part in Physical Activity

Linking the reasons why we exercise to the three groups of Physical. Emotional and social.

These can be:

Physical – losing weight/changing body shape

Emotional – Relieving stress

Social – Increasing friendship circles and confidence.

Bones and Muscles

Learning the locations of the following:

Bones - Femur Patella Cranium Pelvis Clavicle Ribs Humerus Radius Ulna Tibia
Fibula Sternum Phalanges Tarsals Carpals Metacarpals Metatarsals Scapula

Muscles - Gastrocnemius Pectorals Gluteals Biceps Triceps Quadriceps Trapezius
Abdominals Deltoid Latissimus-Dorsi Hamstrings

Fitness Testing – link these to the components of fitness list

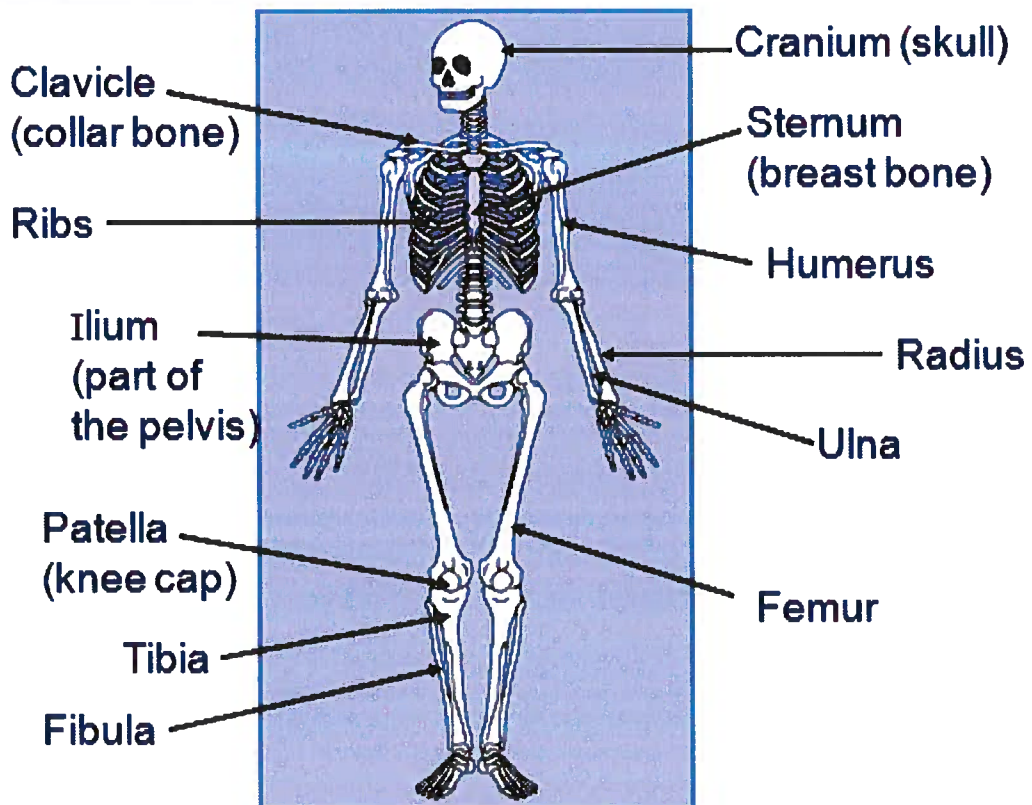
Standing Stork Test, 30m Sprint Test, Ruler Drop Test, Harvard Step Test,

Standing Broad Jump Test, Hand grip strength, 3 ball juggle & Coopers 12 min run.

Other areas to consider and learn:

Aspects of a warm-up -- why is it important/what activities take place in one.	Why some professional sportsmen and women use banned drugs
Measuring your Heart Rate – How do you take it/how fast should it be!	Some of the rules in netball, football and hockey
Effects smoking can have on performance	Circuit Training – What is this method of training/examples of stations/how long to work on each one

Please also refer to the PE pages in the back of your log book



Yr 9 Music Revision

Key information

You will sit one paper. This will be in the form of a listening exam and will last approximately 45mins.

You will be played a number of extracts of music and asked questions about them. The musical extracts will be selected from the styles studied since September (Blues, Rhythm and Blues and Reggae). You will be asked to identify musical features of these styles; things like instruments, musical structure, tempo, harmony and the context of the music (when and where is it performed and how did it develop).

Useful websites for revision

http://www.bbc.co.uk/schools/gcsebitesize/music/world_music/music_caribbean6.shtml

<http://www.bbc.co.uk/education/guides/zcgq7ty/revision>

Reggae Checklist	Revised?
History and development of Reggae	
Instruments used	
Names of Reggae artists and their songs	
Typical features of Reggae music	
Chord sequences used in '3 Little Birds'	
What parts do different instruments play.	

Blues and Rhythm and Blues	Revised?
History of the Blues and how it developed into R&B	
Instruments used in Blues and R&B	
12 bar blues chord sequence	
Blues verse structure	

Key Terms – Revise the following terms; write out both the definition of the word and how to spell them. Incorrect spelling of key terms will lose you marks in the exam!!

Word**Definition**

Ska	Early up-tempo style of Reggae music, popular in the 1960s
Rock Steady	Slowed down version of Ska.
Sound system	Enourmous music systems used to play Ska and Reggae music in the streets of Jamaica
Rastafarianism	Religion followed by many Jamaicans; it looks to the Christian religions from Africa.
Syncopation	Accenting notes on the off beat
Dub	Instrumental versions of Reggae songs with the vocals removed
Off Beat	Beats 2 and 4
12 bar blues	The chord sequence used in blues and R&B
Field holler	Worksongs sung by the slaves
Hook	A catchy tune that is repeated many times to make the song memorable.
Riff	A short pattern repeated over and over in popular music

AD&T Revision

You will have two AD&T exams that will cover the subjects you are currently studying in your rotation.

You will be tested on your skills and knowledge.

Revision areas are listed below where relevant (please select the 2 subjects you are currently studying on rotation):

Art – Mrs Carr

You will respond visually to a protest artist. You do not need to revise.

Art – Miss Stratford

You will be asked to create a drawing linked to Identity. You will be asked your opinions about selected art works. You could revise what you know about Grayson Perry's ceramic art works.

Drama

There will be no need to revise for this exam.

RM and Textiles – Mr Stopher / Mrs King

Just like a real GCSE Design Technology exam you will have questions that combine Textiles and Resistant Materials Knowledge. Some questions will give you options to choose from. You could be asked any learnt knowledge from over the last 3 years in Textiles, Resistant Materials and DT. However there will be questions on the following knowledge areas

- General Knowledge of Tools and making skills in Textiles and Resistant Materials.
- Knowledge of Wood, Metal, Plastics, Textiles, Paper and Boards
- Product Analysis techniques
- Why and How to evaluate
- Designing and Modelling products

Food & Nutrition- Mrs Makudo

You will be asked to answer questions on Macro and Micronutrients i.e their sources, functions effects of their deficiencies in our diet. You will need to revise what we have learnt about protein food science.