Year 10 Mock Exam
18th to 26th June 2026.

Revision Checklist

Revision Checklist for Year 10 Mock Exam - 18th to 26th June 2026.

Please find below, a list of topics covered in Year 10 to focus your revision over the next few weeks.

Contents

Please note - No Year 10 exam in **Health and Social Care** due to ongoing RO33 completion (30% towards final GCSE grade)

Science

Biology paper 1

Topic 1 – Key concepts in biology
Topic 2 – Cells and control
Topic 3 – Genetics
Topic 4 – Natural selection and genetic modification

Chemistry paper 3

Topic 1 – Key concepts in chemistry
Topic 2 – States of matter and mixtures
Topic 3 – Chemical changes
Topic 4 – Extracting metals and equilibria

Physics paper 5

Topic 1 – Key concepts of physics
Topic 2 – Motion and forces
Topic 3 – Conservation of energy
Topic 4 – Waves
Topic 5 – Light and the electromagnetic spectrum

Business Studies

1.1.1 The dynamic nature of business 1.1.2 Risk and reward 1.1.3 The role of business enterprise 1.2.1 Customer needs 1.2.2 Market research 1.2.3 Market segmentation 1.2.4 The competitive environment 1.3.1 Business aims and objectives 1.3.2 Business revenues, costs and profit 1.3.3 Cash and cash flow 1.3.4 Sources of finance 1.4.1 The options for start-up and small business	1.4.2 Business location 1.4.3 The marketing mix 1.4.4 Business plans 1.5.1 Business stakeholders 1.5.2 Technology and business 1.5.3 Legislation and business 1.5.4 The economy and business 1.5.5 External influences

RE

Paper 1 - Christianity

- **Living the Christian Life**: Worship, prayer, sacraments, pilgrimage, celebrations, future of the church, local and worldwide church.
- **Christian Beliefs:** The Trinity, creation, the nature of God, Incarnation, last days of Jesus (betrayal, arrest, trial, crucifixion and resurrection), salvation, eschatology and the problem of evil.
- **Matters of Life and Death:** The sanctity of life, quality of life, origins and value of the universe (religious and scientific), abortion, euthanasia, life after death, issues in the natural world.
- **Marriage and the Family:** Marriage, divorce, family, contraception, sexual relationships, homosexuality, parish support, roles of men and women and discrimination **(current topic)**

We have completed A3 revision booklets for the first three topics already.

Spanish

All four skills - Listening / Reading / Speaking & writing to be covered:

Content:
Topic 1: interests & hobbies
Topic 2: holidays, travel & tourism
Topic 3: family, friends & relationship
Topic 4: lifestyle & well-being

Use Sentence builders to support vocabulary and structures. Remember to revise 'super structures' and the following tense:
Present tense
Near future
Preterite tense

English

English Literature Paper 2 (AQA).
An Inspector Calls (plot, characters, themes, context)
Poetry (all poems studied so far).
Revision overview and sentence stems/mark schemes will be shared via Class Charts.

Computer Science

1.1.1 Architecture of the CPU 1.1.2 CPU performance 1.1.3 Embedded systems 1.2.1 Primary storage (memory) 1.2.2 Secondary storage 1.2.3 Units 1.2.4 Data storage 1.2.5 Compression 1.3.1 Networks and topologies 1.3.2 Wired and wireless networks, protocols and layers 1.4.1 Threats to computer systems and networks 1.4.2 Identifying and preventing vulnerabilities 1.5.1 Operating systems 1.5.2 Utility software 1.6.1 Ethical, legal, cultural and environmental impact Impacts of digital technology on wider society including: o Ethical issues o Legal issues o Cultural issues o Environmental issues o Privacy issues	2.1.3 Searching and sorting algorithms o Binary search o Linear search o Bubble sort o Merge sort o Insertion sort 2.2.1 Programming fundamentals Be able to create programs which use selection and iteration, as well as inputs and outputs, and file operations. Arrays (with 2D arrays). Syntax and logic errors 2.2.3 Additional programming techniques SQL 2.4.1 Boolean logic AND, NOT, OR gates

Maths
Higher topics

Topic
Solve efficiently problems involving percentage increase and decrease; calculate the original amount when given the transformed amount.
Solve problems involving repeated proportional or percentage changes, including compound interest; represent repeated proportional change using a multiplier raised to a power.
Use standard form expressed in conventional notation and on a calculator display; convert between ordinary and standard index form representations; calculate with standard index form; check solutions by converting to standard index form.
Perform calculations on fractions including the multiplication and division of mixed numbers.
Use and generate formulae; change the subject of a formula, including simple cases, where the subject appears twice or where a power of the subject occurs.
Multiply expressions of the form (x + 3)(x – 7) and simplify the resulting expression; solve quadratic equations of the form x^2 +/- … by factorisation, including the difference of two squares.
Solve harder linear equations including those with fractional coefficients.
Find the exact solution of two simultaneous equations in two unknowns by eliminating a variable, and interpret the equations as and their common solution as the point of intersection.
Plot graphs of simple cubic functions and the reciprocal function y = 1/x with x not equal to zero; recognise the characteristics shapes of these functions.
Solve linear inequalities in one variable; solve several linear inequalities in two variables and find the solution set
Find the gradient of straight lines given by equations of the form y = mx + c: understand that y = mx + c represents a straight line, interpret the values of m and c; know when lines are parallel,
Transform triangles and other 2-D shapes by combination of reflection, rotation (of any angle about any point) and translation, including the use of vector notation; construct enlargements using any scale factor; identifying scale factor
Understand, recall and use trigonometrical relationships in right angled triangles and use these to solve problems, including those involving bearings.
Understand similarity of triangles and other plane shapes and use this to make geometrical inferences
Use tree diagrams to represent outcomes of combined events, recognising when events are independent; find probabilities.
Draw and interpret cumulative frequency tables and diagrams and box plots for grouped data; find the median, quartiles, percentiles and inter-quartile range.
Compare distributions and make inferences, using the shapes of the distributions and measure of average and spread, including median and quartiles.

Topic
Recurring decimals. Multiplication and division of decimals.
Squares to 15^2 and the square roots; Cubes of 2, 3, 4, 5, and 10 and the cube roots. Multiplication and division of powers.
Check solutions by approximating and the effect of multiplying and dividing by numbers less than **one** and greater than **one**; estimate answers.
Ratio
Direct proportion.
Solve percentage increase and decrease problems using a multiplier.
Reciprocals, highest common factor, lowest common multiple, prime number; Express a number as a product of its prime factors
Use and generate formulae in context; Substitution
Form and solve equations.
Change the subject of a formula.
Expand a pair of brackets.
Plot quadratic graphs.
Form and solve inequalities and represent the solution on a number line.
The *n*th term of a sequence.
Measurement can be inaccurate
Angle problems, parallel lines, and polygons; the tangent at any point on a circle is perpendicular to the radius.
Pythagoras' theorem.
Area and circumference of circles; answering in terms of pi.
Surface area and volume of prisms; convert between area and volume.
Find the coordinates of the midpoint of a line.
Loci.
Rates and compound measures, including speed, density and pressure.
Probability problems.
Mean from grouped continuous data.
Scatter graphs

Topic
Use a calculator (brackets, squares and powers). Use 'time'. Rounding.
Ratio.
Add, subtract, multiply and divide decimals. Convert a fraction to a decimal using division.
Add, subtract, multiply and divide fractions. Order fractions.
BIDMAS.
Expand a bracket. Factorise.

Solve equations with the unknown on both sides, or with brackets.
Index notation. Substitution.
Straight line graphs.
Real life graphs.
Parallel lines. Interior and exterior angles of polygons.
Label a circle; Circumference and area of a circle
Construct triangles. Construct nets of 3D shapes
Area of parallelograms, triangles, trapeziums. Perimeters and areas of compound shapes. Surface area
Volumes of shapes made from cubes and cuboids.
Plans and elevations.
Enlargements.
Rotation, reflection and translation.
Probabilities sum to one
Scatter graphs
Frequency polygons. Stem and leaf diagrams. Mean of grouped data.

Maths
Foundation Topics

Topic
Use a calculator (brackets, squares and powers). Use 'time'. Rounding.
Ratio.
Add, subtract, multiply and divide decimals. Convert a fraction to a decimal using division.
Add, subtract, multiply and divide fractions. Order fractions.
BIDMAS.
Expand a bracket. Factorise.
Solve equations with the unknown on both sides, or with brackets.
Index notation. Substitution.
Straight line graphs.
Real life graphs.
Parallel lines. Interior and exterior angles of polygons.
Label a circle; Circumference and area of a circle
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Area of parallelograms, triangles, trapeziums. Perimeters and areas of compound shapes. Surface area
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Enlargements.
Rotation, reflection and translation.
Probabilities sum to one
Scatter graphs
Frequency polygons. Stem and leaf diagrams. Mean of grouped data.

Topic
Round numbers to the nearest integer, to a given power of ten, to one significant figure and to one or two decimal places; estimate answers to one- stage calculations including problems involving money and measurement.
Use the term cube; recall the cubes of 2, 3, 4, 5, and 10; use index notation for simple integer powers.
Understand equivalent fractions, simplifying a fraction (including mixed numbers) by cancelling all common factors; multiply a fraction by an integer or a unit fraction.
Use the equivalence between fractions, decimals and percentages in context; solve simple percentage problems including increase and decrease.
Express one quantity as a fraction or percentage of another.
Use the four operations with positive and negative integers.
Solve problems involving substitution of positive numbers into simple algebraic formulas.

Solve simple linear equations in which the unknown appears on either side of the equation.
Manipulate algebraic expressions by collecting like terms.
Use tables to plot graphs of linear functions given explicitly.
Construct triangles using a ruler and protractor only given information about their sides and angles; use a straight edge and compasses to construct triangles with given sides including equilateral triangles.
Use and interpret maps and scale drawings, including four-figure grid references and estimating distances and areas; use bearings to specify direction.
Classify quadrilaterals by their geometric properties.
Explore the geometry of cuboids (including cubes) and shapes made from cuboids; find the volumes of cuboids, recalling the formula; draw and interpret the net of a cuboid.
Understand that rotations are specified by a centre and an angle; complete the rotation symmetry of 2-D shapes; measure the angle of rotation using right angles and simple fractions of a turn.
List all outcomes for single events, and for two successive events, in a systematic way; find probabilities. Use the fact that the probability of not happening is 1 – probability of happening.
Use and interpret the statistical measures mode, median, mean and range for discrete and continuous data, including comparing distributions.
Construct and interpret pie charts.

Topic
Use written methods to multiply and divide.
Add and subtract decimals to solve problems.
Use a calculator to solve problems.
Understand common factors, multiples, primes and square numbers.
Find a fraction of an amount.
Understand the rules and notation of algebra. Substitute into simple expressions.
Begin to use simple formulae expressed in words.
Solve single operation equations by using the balance method.
Use co-ordinates in 4 quadrants. Draw horizontal and vertical lines on a co-ordinate grid.
Simplify expressions by collecting like terms. (only positive)
Continue the sequence and describe the pattern of a linear sequence.
Convert miles to kilometres and pounds to kilograms.
Measure and draw angles. Draw circles and scale drawings.
Reflect shapes in horizontal and vertical lines
Understand the terms edges, faces and vertices.
Calculate the area of a rectangle and a triangle.
Use mode and range to compare 2 distributions of data.
Design a tally chart to collect data.
Draw and interpret dual bar charts.

Use basic Venn diagrams.
Interpret 2 way tables and complete pre drawn 2 way tables.
Calculate basic probabilities written as a fraction.

Geography

Unit 1 Living with the physical environment: **Section A - The Challenge of Natural Hazards:**

Natural Hazards

Key idea: Natural hazards pose major risks to people and property…

- What is a natural hazard?
- What are the different types of natural hazard?
- What factors affect hazard risk?

Tectonic Hazards

Key idea: Natural hazards pose major risks to people and property…

- What is a natural hazard?
- What are the different types of natural hazard?
- What factors affect hazard risk?
- What is plate tectonics theory? What are convection currents?
- How are earthquakes and volcanic eruptions distributed and what is their relationship to plate margins?
- What are the physical processes taking place at different types of plate margin that lead to earthquakes and volcanic activity? What happens at each plate margin? What landforms do you find at each one?
    - ❖ Collision margins: Continental to continental
    - ❖ Destructive margins: Oceanic to continental
    - ❖ Constructive margins
    - ❖ Conservative margins
- How are earthquakes measured?
- What is the difference between the focus and the epicentre of an earthquake?

Key idea: The effects of, and responses to, a tectonic hazard vary between areas of contrasting levels of wealth…

- What are the primary and secondary effects of a tectonic hazard?
- What are the immediate and long-term responses to a tectonic hazard?
- How do the effects and responses to a tectonic hazard vary between two areas of contrasting levels of wealth?
    - ❖ LIC/NEE named example: Nepal Earthquake
    - ❖ HIC named example: Chile Earthquake

Key idea: Management can reduce the effects of a tectonic hazard…

- Why do people continue to live in areas at risk from a tectonic hazard?

- How does monitoring, prediction, protection and planning reduce the risks from a tectonic hazard?

Weather hazards

Key idea: Global atmospheric circulation helps to determine patterns of weather and climate…

- What is the atmospheric circulation model? What are the 3 cells of circulation?
- How and where does global atmospheric circulation cause low and high pressure?

Key idea: Tropical storms (hurricanes, cyclones, typhoons) develop as a result of particular physical conditions…

- What is the global distribution of tropical storms? (hurricanes, cyclones, typhoons)
- What is the relationship between tropical storms and global atmospheric circulation?
- What are the causes of tropical storms and how do they form and develop?
- What are the structure and features of a tropical storm?
- How might climate change affect the distribution, frequency and intensity of tropical storms?

Key idea: Tropical storms have significant effects on people and the environment…

- What are the primary and secondary effects of tropical storms?
- What are the immediate and long-term responses to tropical storms?
- What are the effects and responses of a named tropical storm?
- How can monitoring, prediction, protection and planning reduce the effects of tropical storms?

Key idea: The UK is affected by a number of weather hazards…

- Can you name an example of a recent extreme weather event in the UK?
- What were the causes of this extreme weather event?
- What were the social, economic and environmental impacts of this weather event?
- How were management strategies used to reduce the risk of this weather event?
- What evidence is there that weather is becoming more extreme in the UK?

Climate Change

Key idea: Climate change is the result of natural and human factors, and has a range of effects…

- What evidence is there for climate change from the beginning of the Quaternary period to the present day?
- What are the main natural causes of climate change? (eg. solar output, orbital changes, volcanic activity)
- What are the human causes of climate change? (use of fossil fuels, agriculture, deforestation)
- Can you differentiate between natural and human causes of climate change?
- What is the enhanced greenhouse effect?
- What are greenhouse gases and how are they produced?
- What are the effects of climate change on people?
- What are the effects of climate change on the environment?

Key idea: Managing climate change involves both mitigation (reducing causes) and adaptation (responding to change)…

- What is alternative energy production? What are renewable sources of energy?
- What is carbon capture?
- How does afforestation mitigate climate change?
- What international agreements are in place to fight climate change?
- How can changing farming practices help people cope with the effects of climate change?
- How can we better manage water supply?
- How can we reduce the risk from rising sea levels?

Unit 1 Living with the physical environment: **Section B - The Living World:**

<u>Ecosystems</u>

Key idea: Ecosystems exist at a range of scales and involve the interaction between biotic and abiotic components…

- Can you describe an example of a small-scale UK ecosystem to illustrate the concept of interrelationships
- within a natural system?
- What are producers, consumers, decomposers, food chains, food webs, nutrient cycling?
- How are ecosystems balanced between components? (ie. producers, consumers, decomposers)
- What is the impact on the ecosystem of changing one component? (ie. What happens if one species dies out?)
- How are global biomes distributed and what are their characteristics?

<u>Tropical Rainforests</u>

Key idea: Tropical rainforest ecosystems have a range of distinctive characteristics…

- What are the physical characteristics of a tropical rainforest? (eg. climate, location, biotic features, soils)
- How do plants adapt to the physical conditions in tropical rainforests?
- How do animals adapt to the physical conditions in tropical rainforests?
- What issues are there related to biodiversity in tropical rainforests?

Key idea: Deforestation has economic and environmental impacts…

- How are rates of deforestation changing?
- Do you know a case study of a tropical rainforest?
- What are the causes of deforestation and how do they cause damage? (eg. subsistence and commercial
- farming, logging, road building, mineral extraction, energy development, settlement and population growth)
- What are the positive and negative impacts of deforestation (eg. economic development, soil erosion)?

Key idea: Tropical rainforests need to be managed to be sustainable…

- How are tropical rainforests valuable to people and the environment?
- How does selective logging and afforestation help manage the tropical rainforest?
- What is ecotourism and how does it help manage the tropical rainforest?
- How do international agreements protect the tropical rainforest?
- What are 'debt-for-nature swaps'?

Hot deserts

Key idea: Hot desert ecosystems have a range of distinctive characteristics…

- What are the physical characteristics of hot deserts?
- How are climate, water, soils, plants, animals and people all interdependent in the hot desert ecosystem?
- How plants adapt to the physical conditions of hot deserts?
- How do animals adapt to the physical conditions of hot deserts?

Key idea: Development of hot desert environments creates opportunities and challenges…

- Case Study of a Hot Desert - The Thar Desert
- What are the development opportunities in hot desert environments? (eg. mineral extraction, energy, farming, tourism)
- What are the challenges of developing hot desert environments? (eg. extreme temperatures, water supply, inaccessibility)

Key idea: Areas on the fringe of hot deserts are at risk of desertification - The Sahel, Africa…

- What are the causes of desertification? (eg. climate change, population growth, removal of fuel wood, overgrazing, over-cultivation and soil erosion)
- What are the effects of desertification? (both local and global)
- How does water and soil management reduce the risk of desertification?
- How do tree planting schemes reduce the risk of desertification?
- What is appropriate technology and how does it reduce the risk of desertification?

Music

AoS2 - The Concerto Through Time

- Baroque Concerto
- Baroque Concerto Grosso
- Classical Concerto
- Romantic Concerto

AoS5 - Conventions of Pop

- Rock ‘n’ Roll of 50’s and 60’s
- Rock Anthems of 70’s and 80’s
- Pop Ballads of 70’s, 80’s and 90’s
- Solo Artists of 90’s to Present Day

Music Theory

- Keyword Definitions

All resources can be found in your blue folder or on Google Classroom

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History

Paper 1: Medicine in Britain c1250-present

Key topic 1: c1250–c1500: Medicine in Medieval England

Ideas about the cause of disease and illness

- **Supernatural and religious explanations of the cause of disease**
- **Rational explanations: The Theory of the Four Humours and the miasma theory; the continuing influence in England of Galen**

Approaches to prevention and treatment

- **Approaches to prevention and treatment, and their connection with ideas about disease and illness: religious actions, bloodletting and purging, purifying the air.**
- **Medical training and traditional approaches to treatment and care for the sick: the role of the physician, apothecary and barber surgeon; the role of hospitals, care within the community and at home, including the use of herbal remedies.**

Case Study: The Black Death

- **Dealing with the Black Death, 1348–49.**
- **Approaches to treatment.**
- **Attempts to prevent its spread.**

2. c1500–c1700: The Medical Renaissance in England

Ideas about the cause of disease and illness

- **Continuity and change in explanations of the cause of disease and illness.**
- **A scientific approach, including the work of Thomas Sydenham in improving diagnosis.**
- **The influence of the printing press and the work of the Royal Society on the transmission of ideas.**

Approaches to prevention and treatment

- **Continuity and change in approaches to prevention, treatment and care in the community and in hospitals.**
- **Improvements in medical training and the influence in England of the work of Vesalius.**

Case Study: Key individual- William Harvey.

- **The discovery of the circulation of the blood.**

Case Study: The Great Plague in London (1665)

- **Approaches to treatment**
- **Attempts to prevent its spread.**

3. c1700–c1900: Medicine in eighteenth- and nineteenth-century Britain

Ideas about the cause of disease and illness

- **Continuity and change in explanations of the cause of disease and illness.**
- **The influence in Britain of Pasteur's Germ Theory and Koch's work on microbes.**

Approaches to prevention and treatment

- **The extent of change in care and treatment.**
- **Improvements in hospital care and the influence of Nightingale on nursing and hospitals in Britain.**
- **The impact of anaesthetics and antiseptics on surgery.**
- **New approaches to prevention: the development and use of vaccinations and the Public Health Act (1875).**

Case study: Key individual- Jenner

- **The development of vaccination.**

Case Study: Fighting Cholera in London (1854)

- **Attempts to prevent its spread.**
- **The significance of Snow and the Broad Street pump.**

4. c1900- present: Medicine in Modern Britain

Ideas about the cause of disease and illness

- **Advances in understanding the causes of illness and disease.**
- **The influence of genetic and lifestyle factors on health.**
- **Improvements in diagnosis: the impact of the availability of blood tests, scans and monitors.**

Approaches to prevention and treatment

- **The extent of change in care and treatment.**
- **The impact of the NHS and science and technology: improved access to care; advances in medicines, including magic bullets and antibiotics; high-tech medical and surgical treatment in hospitals**
- **New approaches to prevention: mass vaccinations and government lifestyle campaigns.**

Case study: Key Individuals: Fleming

- **Florey and Chain's development of penicillin.**

Case Study: The fight against lung cancer in the twenty-first century.

- **The use of science and technology in diagnosis and treatment; government action.**

5. The Western Front

- **The context of the British sector of Western Front and the theatre of war in Flanders and northern France: the Ypres salient, the Somme, Arras and Cambrai.**
- **The trench system – its organisation, including frontline and support trenches.**
- **Significance for medical treatment of the nature of the terrain and problems of the transport and communications infrastructure.**
- **Conditions requiring medical treatment on the Western Front, including the problems of ill health arising from the trench environment**
- **The nature of wounds from rifles and explosives.**
- **The problem of shrapnel, wound infection and increased numbers of head injuries.**
- **The effects of gas attacks.**
- **Medical treatment on the Western Front.**
- **The work of the RAMC and nurses.**
- **Transport in the chain of evacuation: stretcher bearers, horse and motor ambulances.**
- **Stages of treatment in the chain of evacuation: aid post and field ambulance, dressing station, casualty clearing station, base hospital..**
- **The underground hospital at Arras.**
- **The significance of the Western Front for experiments in surgery and medicine: new techniques in the treatment of wounds and infection, the Thomas splint, the use of mobile x-ray units, the creation of a blood bank for the Battle of Cambrai.**
- **The historical context of medicine in the early twentieth century: the understanding of infection and moves towards aseptic surgery; the development of x-rays; blood transfusions and developments in the storage of blood.**
- **Knowledge of national sources relevant to the period and issue, e.g. army records, national newspapers, government reports, medical articles**
- **Knowledge of local sources relevant to the period and issue, e.g. personal accounts, photographs, hospital records, army statistics**
- **Recognition of the strengths and weaknesses of different types of source for specific enquiries**

Paper 2: Weimar and Nazi Germany

1. **The Weimar Republic, 1918-29**

The Origins of the Republic, 1918-19

- Legacy of the First World War
- The German Revolution, 1918-19
- Setting up the Weimar Republic
- Strengths & weaknesses of the Weimar Constitution

Early Challenges to the Republic, 1919-23

- Unpopularity of the Republic
- Impact of the Treaty of Versailles
- Challenges to the Weimar Republic from the Left and Right
- Challenges of 1923
- Hyperinflation

The Recovery of the Republic

- Stresemann's strategy
- Reasons for economic recovery
- Recovery in Foreign Relations

Changes in Society, 1924-29

- Changes in the standard of living
- Changes for women in the Weimar Republic
- Cultural changes in the Weimar Republic

2. **Hitler's Rise to Power, 1919-33**

Early Development of the Nazi Part, 1920-22

- Hitler's early career in politics
- Setting up the NSDAP

Munich Putsch and lean years, 1923-29

- The Munich Putsch, 1923
- The lean years of the Nazi Party, 1924-28
- The Bamberg Conference of 1926
- Reasons for limited support, 1923-29

Growth in Nazi Support, 1929-32

- The Wall Street Crash in the USA
- The failure to deal with unemployment
- Why did people support the Nazi Party?

How Hitler became Chancellor, 1932-33

- Political Developments in 1932
- The roles of Hindenburg, von Schleicher and von Papen

3. The Creation of a Dictatorship

- The Reichstag Fire
- The Enabling Act
- Removing Opposition
- The Night of the Long Knives
- The Death of Hindenburg
- The Police State
- Policing the Police State- SS, SD, Gestapo, concentration camps
- Controlling the legal system
- Controlling religious views
- Controlling and influencing attitudes
- Goebbels and propaganda
- Nazi use of the media, rallies, sport, culture
- Opposition, resistance and conformity
- Support for the Nazi regime
- Resistance and opposition- Churches, the young

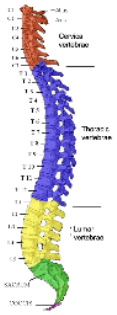
4. Life in Nazi Germany

- Nazi Policies towards women
- Nazi views on women and the family
- Nazi Policies towards the young
- The Nazi youth movement- The Hitler Youth, The League of German Maidens
- Did Nazi youth groups achieve Nazi aims?
- Employment and living standards
- Policies to reduce unemployment
- Changes in standards of living
- The Persecution of Minorities
- Nazi Racial beliefs and policies
- The treatment of minorities
    - The persecution of the Jews

GCSE PE

1.1.1 - The Skeletal System & Functions

1.1.1
The functions of the skeleton applied to performance in physical activities and sports:
- muscle attachment
- protection of vital organs
- joints for movement,
- platelets, red and white blood cell production
- storage of calcium and phosphorus



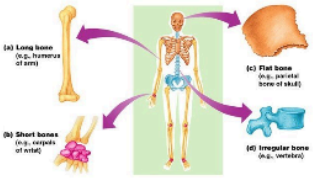
1.1.2
Classification of bones
- long (leverage)
- short (weight bearing)
- flat (protection, broad surface for muscle attachment),
- irregular (protection and muscle attachment) applied to performance in physical activities and sports

1.1.4
Classification of joints:
- Pivot (neck – atlas and axis),
- Hinge (elbow, knee and ankle),
- Ball and socket (hip and shoulder),
- Condyloid (wrist), and their impact on the range of possible movements

1.1.5
Movement possibilities at joints dependant on joint classification:
- flexion,
- extension,
- adduction,
- abduction,
- rotation,
- circumduction,
- plantar-flexion,
- dorsi-flexion

and examples of physical activity and sporting skills and techniques that utilise these movements in different sporting contexts.

1.1.6
The role of ligaments and tendons, and their relevance to participation in physical activity and sport



1.1.7 Classification and characteristics of muscle types: voluntary muscles of the skeletal system, involuntary muscles in blood vessels, cardiac muscle forming the heart, and their roles when participating in physical activity and sport

1.1.8 Location and role of the voluntary muscular system to work with the skeleton to bring about specific movement during physical activity and sport and the specific function of each muscle

- Deltoid
- Biceps
- Triceps
- Pectoralis major
- Latissimus dorsi
- External obliques
- Hip flexors
- Gluteus maximus,
- Quadriceps,
- Hamstrings
- Gastrocnemius
- Tibialis anterior

1.1.9 Antagonistic pairs of muscles (agonist and antagonist) to create opposing movement at joints to allow physical activities (e.g. gastrocnemius and tibialis anterior acting at the ankle -plantar flexion to dorsi flexion; and quadriceps and hamstrings acting at the knee, biceps and triceps acting at the elbow, and hip flexors and gluteus maximus acting at the hip – all flexion to extension)

1.1.10 Characteristics of fast and slow twitch muscle fibre types (type I, type IIa and type IIx) and how this impacts on their use in physical activities

1.1.11 How the skeletal and muscular systems work together to allow participation in physical activity and sport

1.1.1 - The Muscular System & Functions

1.2 - The Cardiovascular System

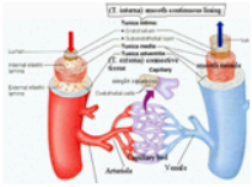
1.2.1
Functions of the cardiovascular system applied to performance in physical activities:

- transport of oxygen
- carbon dioxide
- nutrients,
- clotting of open wounds,
- regulation of body temperature

1.2.2
Structure of the cardiovascular system:
Labelling the Heat:

- atria, ventricles, septum, tricuspid, bicuspid and semi-lunar valves, aorta, vena cava, pulmonary artery, pulmonary vein,

and their role in maintaining blood circulation during performance in physical activity and sport



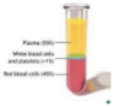
1.2.3
Structure of Blood Vessels

- arteries,
- capillaries
- veins

and how this relates to function and importance during physical activity and sport in terms of blood pressure, oxygenated, deoxygenated blood and changes due to physical exercise

1.2.4
Vascular Shunt
The mechanisms required for :
Vasoconstriction
Vasodilation
And the need for redistribution of blood flow (vascular shunting) during physical activities compared to when resting

1.2.5 Function and importance of blood cells
red blood cells
white blood cells,
platelets
plasma
and their roles for physical activity and sport



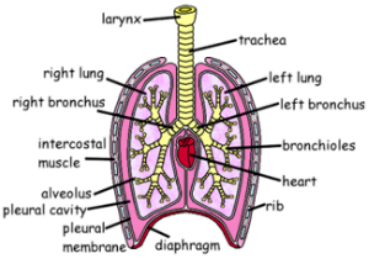
1.2 - The Respiratory System

1.2.6

Composition of inhaled and exhaled air and the impact of physical activity and sport on this composition

1.2.7

Vital capacity and tidal volume, and change in tidal volume due to physical activity and sport, and the reasons that make the change in tidal volume necessary



1.2.8

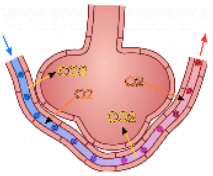
Location of main components of respiratory system

- lungs, bronchi bronchioles alveoli diaphragm

and the role in movement of oxygen and carbon dioxide into and out of the body

1.2.9

Structure of alveoli to enable gas exchange and the process of gas exchange to meet the demands of varying intensities of exercise



- aerobic
- anaerobic

1.2.10

How the cardiovascular and respiratory systems work together to allow participation in physical activity and sport

Topic 3 – Physical Training 1

3.1 The relationship between health and fitness and the role that exercise plays in both

3.1.1 Definitions of fitness, health, exercise and performance and the relationship between them

3.2 The components of fitness, benefits for sport and how fitness is measured and improved

3.2.1 Components of fitness and the relative importance of these components in physical activity and sport: cardiovascular fitness (aerobic endurance), strength, muscular endurance, flexibility, body composition, agility, balance, coordination, power, reaction time, and speed

3.2.2 Fitness tests: the value of fitness testing, the purpose of specific fitness tests, the test protocols, the selection of the appropriate fitness test for components of fitness and the rationale for selection
3.2.3 Collection and interpretation of data from fitness test results and analysis and evaluation of these against normative data tables

3.2.4 Fitness tests for specific components of fitness: cardiovascular fitness – Cooper 12 minute tests (run, swim), Harvard Step Test, strength – grip dynamometer, muscular endurance – one-minute sit-up, one-minute press-up, speed – 30m sprint, power – vertical jump, flexibility – sit and reach

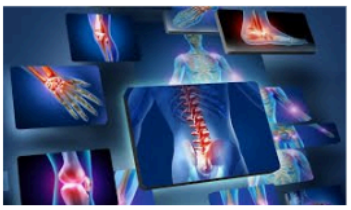
Topic 3 – **Physical Training 2**

- 3.2.5 How fitness is improved – see section 3.3.1–3.3.3 3.3 The principles of training and their application to personal exercise/ training programme
- 3.3.1 Planning training using the principles of training: individual needs, specificity, progressive overload, FITT (frequency, intensity, time, type), overtraining, reversibility, thresholds of training (aerobic target zone: 60–80% and anaerobic target zone: 80%–90% calculated using Karvonen formula)
- 3.3.2 Factors to consider when deciding the most appropriate training methods and training intensities for different physical activities and sports (fitness/sport requirements, facilities available, current level of fitness)
- 3.3.3 The use of different training methods for specific components of fitness, physical activity and sport: continuous, Fartlek, circuit, interval, plyometrics, weight/resistance. Fitness classes for specific components of fitness, physical activity and sport (body pump, aerobics, Pilates, yoga, spinning). The advantages and disadvantages of different training methods

- 3.5 How to optimise training and prevent injury
- 3.6 Effective use of warm up and cool down
- 3.6.1 The purpose and importance of warm-ups and cool downs to effective training sessions and physical activity and sport
- 3.6.2 Phases of a warm-up and their significance in preparation for physical activity and sport 3.6.3 Activities included in warm-ups and cool downs
- 3.5.1 The use of a PARQ to assess personal readiness for training and recommendations for amendment to training based on PARQ

Topic 3 – **Physical Training 3**

- 3.5.2 Injury prevention through: correct application of the principles of training to avoid overuse injuries; correct application and adherence to the rules of an activity during play/participation; use of appropriate protective clothing and equipment; checking of equipment and facilities before use, all as applied to a range of physical activities and sports
- 3.5.3 Injuries that can occur in physical activity and sport: concussion, fractures, dislocation, sprain, torn cartilage and soft tissue injury (strain, tennis elbow, golfers elbow, abrasions) 3.5.4 RICE (rest, ice, compression, elevation)
- 3.5.5 Performance-enhancing drugs (PEDs) and their positive and negative effects on sporting performance and performer lifestyle, including anabolic steroids, beta blockers, diuretics, narcotic analgesics, peptide hormones (erythropoietin (EPO), growth hormones (GH)), stimulants, blood doping



Topi 3 – Physical Training 3

- 3.4 The long-term effects of exercise
- 3.4.1 Long-term effects of aerobic and anaerobic training and exercise and the benefits to the muscular-skeletal and cardio-respiratory systems and performance
- 3.4.2 Long-term training effects: able to train for longer and more intensely
- 3.4.3 Long-term training effects and benefits: for performance of the muscular-skeletal system: increased bone density, increased strength of ligaments and tendons, muscle hypertrophy, the importance of rest for adaptations to take place, and time to recover before the next training session
- 3.4.4 Long-term training effects and benefits: for performance of the cardio-respiratory system: decreased resting heart rate, faster recovery, increased resting stroke volume and maximum cardiac output, increased size/strength of heart, increased capilliarisation, increase in number of red blood cells, drop in resting blood pressure due to more elastic muscular wall of veins and arteries, increased lung capacity/volume and vital capacity, increased number of alveoli, increased strength of diaphragm and external intercostal muscles

2.1 Lever systems, examples of their use in activity and the mechanical advantage they provide in movement

2.1.1 First, second and third class levers and their use in physical activity and sport
2.1.2 Mechanical advantage and disadvantage (in relation to loads, efforts and range of movement) of the body's lever systems and the impact on sporting performance

2.2 Planes and axes of movement

2.2.1 Movement patterns using body planes and axes: sagittal, frontal and transverse plane and frontal, sagittal, vertical axes applied to physical activities and sporting actions
2.2.2 Movement in the sagittal plane about the frontal axis when performing front and back tucked or piked somersaults
2.2.3 Movement in the frontal plane about the sagittal axis when performing cartwheels
2.2.4 Movement in the transverse plane about the vertical axis when performing a full twist jump in trampolining