ROYAL SCHOOL
ARMAGH

KEY STAGE 3

Year 10

SUMMER 2026

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Answering Questions:

- If a question is worth 5 marks you should aim to give 3 points.
- If a question is worth 10 marks, and asks for you to give both sides of an argument, you should aim to include 3 points on each side. You should also give a paragraph at the end showing your own view

Top Tips for Revision

- Make sure you know which topics you need to revise - make a revision list and a timetable of when you will revise each subject.
- Make your revision active. Don't just read notes. You could make flash cards, mind maps or use post it notes
- You could stick your mindmaps up on the wall and then walk around your room reciting the key details out loud.
- You could record yourself reading your revision notes and listen back to it regularly.
- Watching videos online can really help to bring your notes alive!
- Use colour and stick to the same colour for different topics
- Test yourself by completing practice questions or asking a friend to test you! This will identify areas of strength and weakness
- Build in rewards for your revision eg: your favourite snack or using social media
- Revise in short bursts: 20 - 25 minutes, then have a 5 minute break.

1. BIOLOGY

Photosynthesis

- Write a word equation for photosynthesis and respiration
- Label the structure of a leaf and explain how leaves are adapted for photosynthesis
- Draw and label a plant cell
- Describe the role of stomata in the leaf and explain the experiment carried out to see them
- Describe the **3 experiments** for testing a leaf to show that photosynthesis has taken place for example:
    - In variegated leaves (green with chlorophyll and white with no chlorophyll)
    - Without light
    - Without Carbon Dioxide
- Describe the experiment to find the rate of photosynthesis, identifying independent, dependent and control variables
- Be able to identify the variables in an investigation and produce a graph for a set of results

Food and digestion

- List the 7 key nutrients and describe their function and list sources of each
- Describe food tests for glucose, starch and protein including the process and reagents used and any colour changes.
- Identify and describe the function of the organs of the digestive system, how they are adapted for their function and associated experiments
- Explain what enzymes are, how they function (lock and key theory) and how changes from the **optimum** temperature and pH can affect them (**denature**).

Cells

- Describe the hierarchy of life
- Identify the main parts of the microscope and how to calculate magnification
- Label an animal and plant cell and describe the function of the organelles
- Identify specialised cells, their functions and adaptations

Circulatory system

- List the components in the blood, describing their function and how they are specialised for their function
- Describe the structure and function of the three main blood vessels
- Label a diagram of the heart and describe the direction of blood flow through the heart
- Describe and explain the effect of exercise on the heart

2. CHEMISTRY

UNIT 1 – Numeracy in Chemistry

Recording Measurements

- Know how to **measure temperature** and **record thermometer readings**
- Know how to **measure liquids** and accurately **record measuring cylinder readings**
- Recall that the **meniscus** is the curved top on a liquid

Using Number

- Be able to accurately record answers to the required number of **decimal places** and/or **significant figures**
- Convert normal numbers into **standard form** and vice versa
- **Convert between measurements** (e.g. milligrams, grams, kilograms, tonnes, cm^3, dm^3 etc.)

Working with Formulae

- Identify the number of different **elements and atoms** in chemical formulae
- Calculate the **relative formula mass (RFM's)** for simple chemical formulae

Graphs

- Recall the terms **independent, dependent and control variable**
- **Plot an appropriate graph** of two variables using data from an experiment or other source
- Use a graph to **extract numerical data**
- Interpret results

Unit 2 - Chemical Reactions

Physical and Chemical Changes

- Explain what a chemical change is and be able to list examples of chemical changes
- Explain what a physical change is and be able to list examples of physical changes
- List observations associated with chemical reactions

Exothermic and Endothermic reactions

- Define the terms 'exothermic' and 'endothermic'
- Recall that bond breaking is exothermic and bond making is endothermic
- List some examples of exothermic and endothermic reactions
- Draw out apparatus used to investigate exothermic and endothermic reactions

Oxidation and Reduction

- Explain the difference between oxidation and reduction
- Recall examples of oxidation and reduction – reduction of CuO, burning Mg in oxygen etc (Learn reactions in your notes!)
- List observations associated with oxidation and reduction reactions (learn observations in your notes!)
- Explain what a REDOX reaction is
- Explain the terms oxidising agent and reducing agent

- Learn the reduction of copper oxide with hydrogen experiment

*** Thermal Decomposition will NOT be on your examination ***

Unit 3 – Acids and Alkalis

Acids and Bases

- Explain what an acid, alkali and a base is
- List some examples of acids and alkalis
- Discuss safety aspects of using acids and alkalis
- Explain the difference between 'concentrated' and 'weak'

Indicators

- Recall that acids and alkalis can be identified using indicators
- Know the colour changes of red litmus, blue litmus, methyl orange, phenolphthalein and universal indicator.
- Explain how universal indicator can be used to determine the strength of an acid or alkali using the pH scale.
- Know the pH values of strong acids, weak acids, neutral substances, strong alkalis and weak alkalis.
- List examples of strong and weak acids/alkalis (including household substances).
- Discuss the limitations of using litmus paper over universal indicator.

Neutralisation

- Explain what happens during a neutralisation reaction.
- Be able to write a chemical equation for neutralisation (symbol equation)
- Describe practically how to use an indicator to make a neutral solution/salt.
- List everyday example of neutralisation reactions.

Reactions of Acids

- Recall how acids react with **metal hydroxides and metal oxides.**
- Write out word equations for the above reactions.
- Be able to draw and label any apparatus associated with each experiment.

Remember:

ACID + METAL OXIDE ➔ METAL SALT + WATER

ACID + METAL HYDROXIDE ➔ METAL SALT + WATER

Writing word equations

- Explain what a salt is and how they are formed
- Know what salts are formed from different acids
- Write word equations for reactions of acids.

UNIT 4 - Chemical Analysis

- ***Elements, Compounds and Mixtures***
    - Diagrams
    - Definitions
    - Chemical Symbols
- ***Pure and Impure substances***
    - Boiling point definition
    - Melting point definition
    - Pure substance definition
    - Drawing and labelling the warming curve
    - Working out whether a substance is solid, liquid or gas at a particular temperature
- ***Separating Techniques***
    - Be able to describe the processes of evaporation, filtration and chromatography
    - Definitions for the 's' words e.g. solvent, solution, solute etc
    - Definitions for miscible and immiscible
    - Draw apparatus diagrams for each process
    - Calculate the Rf value for chromatography
    - Explain how to use chromatography to separate out mixtures
    - Answer questions on chromatography

TIPS!

- Make sure you learn diagrams of apparatus.
- Learn word equations.
- Learn your notes thoroughly
- Learn observations to experiments in your notes.
- If a question is worth 3 marks, you will need to write 3 different points.
- Revision using a range of different revision strategies, mind maps, using colour, flash cards etc.
- Set enough time for your revision.
- Use websites such as BBC Bitesize KS3 for revision quizzes and questions
- Check googleclassroom for any extra revision resources.
- **GOOD LUCK!**

3. ENGLISH

Pupils should be aware that there will be two distinct sections to their examination: persuasive writing and analysing media texts. For the persuasive writing element, pupils should practise adhering to the conventions of form (speech, magazine article); introductory hooks; utilising a variety of rhetorical devices, punctuation and sentence types; ambitious vocabulary; developing their arguments; employing a counter-argument effectively; and creating a rousing conclusion. For media texts, pupils should practise their analytical skills for both the language and presentational elements of book covers and DVD covers, ensuring they are familiar with language devices and their intended effect, as well as the effect of presentational features such as colour, layout, images and font. They should utilise the practice papers at the back of their booklets to work on this skill and look at any exemplars provided by their subject teacher.

4. FRENCH

- Accommodation and opinions on it with ‘rester’ (all 6 parts)
- How to use verbs for describing a holiday (aller / rester / faire / jouer) into the past tense
- Where you live (types of places to live in, different locations including prepositions e.g. en banlieue)
- Types of house
- The verb ‘habiter’ (all 6 parts)
- Facilities and places in the town
- Using il y a / il n’y a pas de
- Describing your area and giving your opinion of it
- On peut + infinitive (things you can / can't do in your town / village)
- All the parts of 'pouvoir' (to be able to)

5. GEOGRAPHY

Use the checklist below to help you with your revision before the examinations. We suggest you take one topic at a time and make sure you have revised each point thoroughly and can draw/annotate any diagrams where necessary. **Good Luck!**

Required Knowledge and Understanding

Urban Challenges

- Keywords
- Organising Settlements into a Hierarchy
- Land use models
- Land use zones – characteristics
- Land Use Zones in an urban area
- Fieldwork enquiry stages and how to delimit the CBD in Armagh
- LEDC Inner City Issues – Growth of Informal Settlements, Economic Activity & Service Provision
- Informal Settlement Case Study

Plate Tectonics

- Structure of the Earth
- Movement of plates
- Plate Boundaries
- Distribution of earthquakes and volcanoes
- Causes and impacts of earthquakes
- Management of earthquakes
- Case study of an earthquake – causes and impacts
- Volcanoes – types, benefits and hazards
- Opportunities and challenges of living near volcanoes
- Volcano case study

Ecosystems

- Definition of an ecosystem
- Energy flows and nutrient cycling
- Deciduous Forests – nutrient cycling
- Global Biomes
- Tropical Rainforests – location, climate, flora and fauna
- Hot and cold deserts
- Plant and animal adaptations

6. HISTORY

TOPICS for REVISION: World War One booklet

The trenches:

- key terms and definitions
- Reason for trenches

Work/Daily Routine:

- jobs soldiers undertook

Food:

- Types of food
- Rations received
- Quality of rations
- Reactions to food

Hygiene:

- Threats to soldiers' health
- Detail and treatments of trench foot
- Detail and treatments of rats
- Detail and treatments of lice

Going over the top:

- Describe
- Order of the attack

The technology of the First World War:

- Detail of advantages and disadvantages for barbed wire, machine guns, flamethrowers, gas, tanks and planes

Artillery, shell shock and medicine:

- Definition of each
- Role of Artillery in WW1
- Symptoms of shell shock

Army punishments:

- Punishments and definitions

SOURCE HANDLING ISSUES

- **You should be able to demonstrate the following:**
  - the ability to **understand the meaning of sources**
  - the ability to **take evidence as 'quotations' from sources in order to support what you are writing.**
  - an awareness of **how much sources agree and disagree**
  - an awareness of **things which affect sources' reliability**
  - an awareness of **things which affect sources' utility/usefulness**

7. HOME ECONOMICS

- Type 2 diabetes
- What is a consumer?
- Consumer Rights Act 2015
- Budgeting
- Debt
- Dealing with debt
- Payment methods
- Online shopping
- Food safety

8. ICT

Revise the following set of pdf notes (all are on GC in the relevant sections)

a. Health and Safety
b. Moral and Ethical and Legal Implications of ICT
c. Big Data and Databases - Databases activities in class and attachment (Bigdata.pdf, database questions and database key terms and definitions pdfs)
d. Network Technologies - pages 2-3, 5, 13-14, 16-18
e. AI Ethics
f. ICT, AI and Employment
g. Data and Information
h. Encryption – Using Python and the Caesar Cypher to Encrypt and Decrypt Messages - pages 1-7, 10-11

9. MATHEMATICS

A full revision list is below.

What should I bring to the Exam?

Calculator, Pen, Pencil, Ruler, Eraser and Protractor (for Pie Chart)

Algebra

- Solve linear equations involving one step, two steps, fractions and brackets
- Simplify algebraic expressions – including algebraic fractions
- Substitute into formula
- Expand brackets - single and double brackets
- Factorise expressions to a single bracket
- Set-up an algebraic expression and solve
- Change the subject of the formula
- Solve using the method of Trial and Improvement
- Draw a straight-line graph using a table of values
- Write the equation of a straight line, stating the gradient and y- intercept
- Find the gradient of a straight-line using coordinates
- Identify the gradient and y intercept from an equation of a line
- Find the midpoint and length of a line

Number

- Write a number to the appropriate degree of accuracy (sf and dp)
- Use rounding to 1 significant figure to estimate a calculation
- Adding, subtracting, multiplying and dividing fractions including mixed numbers
- Convert between fractions, decimals and percentages
- Find percentage or fraction of an amount
- Increase or decrease by a percentage
- Find percentage increase and decrease
- Simple and compound interest
- Find the original amount of an item in a sale
- Change a number to and from standard form
- Write a number as a product of primes, HCF and LCM
- Use the rules of indices
- Square roots and cube roots
- Surds

Shape, Space and Measure

- Find the area and perimeter of 2D Shapes
- Find the area and circumference of a circle
- Find the radius and diameter of a circle given the area or circumference
- Using Pythagoras' theorem find a missing side of a right-angled triangle
- Using Trigonometry find the missing side of a right-angled triangle
- Using Trigonometry find the missing angle of a right-angled triangle
- Use compound measures (DST, DMV and PFA)
- Convert between units (metric to metric eg. cm to m)

Data Handling and Probability

- Complete a cumulative frequency column from a grouped frequency table
- Draw a cumulative frequency curve
- Find the median and quartiles from a cumulative frequency curve

Revision Material

Complete the revision material provided by your teacher.

Maths support is on Tuesday after school in M3.

10. MUSIC

You should not only learn what is on this sheet. Rather, you should use it as a guideline for your more detailed revision. The headings should point you back to your Music booklet where you would have covered topics in greater detail.

i. Blues, jazz, ragtime and swing

Refer to page 2 in your booklet for key vocabulary.

The key features of and influences on blues, jazz and ragtime should be known (see pg 2-5). You should know the notes of the blues scale (page 16) and the chords of the 12 bar blues as outlined on page 9 – including knowing what pitches create the different chords, for example:
C major = C E G
C7 = C E G Bflat

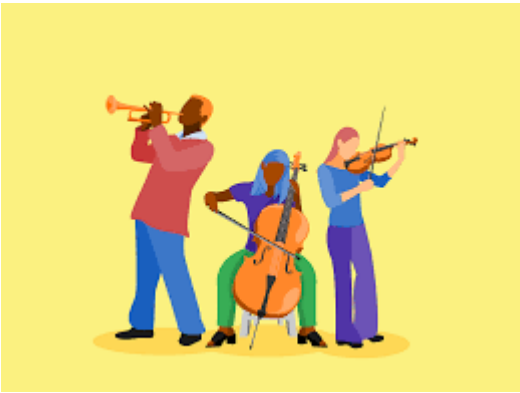
You should be able to recognise instruments commonly used in these styles

You must be able to read and notate in both bass and treble clef.

ii. Making arrangements

It's important that you are aware of the elements of music and how they might be manipulated to create variations and arrangements.

Many of these key terms should have been known from Years 8 & 9. Make sure you are aware of what aspects of the music the following terms are referring to. You should be able to use this vocabulary in your written responses in both listening and written questions:



a. Pitch
b. Rhythm
c. Texture
d. Tonality
e. Dynamics
f. Tempo
g. Form
h. Articulation

11. PHYSICS

Electricity

- Electrostatics
- Moving charges
- Conductors, insulators and resistors
- Series and parallel circuits
- Use of ammeter to measure current
- Ohm's Law **V/I = R**

Forces

- Balanced and unbalanced forces
- Resultant force and acceleration
- Newton's Laws
- **F = ma**

Magnetism and Electromagnetism

- Permanent magnets
- Magnetic fields
- Electromagnetism
- Uses of magnets and electromagnets

Heat Transfer

- Conduction in solids
- Convection in liquids and gases
- Radiation in gases and vacuum
- Emission, absorption and reflection of radiation

Waves

- Transverse and longitudinal waves
- Velocity, frequency, wavelength and amplitude
- Wave Equation **v = fλ**
- Time period and frequency **T = 1/f f = 1/T**
- Sound
- Echoes
- Reflection of Light
- Refraction of Light
- Electromagnetic Spectrum

12. RELIGIOUS STUDIES

Exam Length: **1 hour**

Topics to revise:

- Ethics
  - Ethical language
  - Environmental Ethics
  - Animal Rights
  - The ethics of War
- Matthew's Gospel
  - Background to the Gospel
  - Titles of Jesus
  - The Birth of Jesus
  - The Visit of the Wise Men
  - The Baptism of Jesus
  - The Temptations of Jesus

13. SPANISH

- Regular present tense verb endings (ar, er, ir)
- Time
- Adverbs of frequency
- What you have for breakfast, lunch, snack, dinner. Fruit and vegetables
- Me gusta comer etc + reasons (adjective agreement)
- Body parts (including me duele / duelen + body part)
- Me siento mal (all illnesses) + desde hace / desde + exact time
- Clothes and accessories
- Llevar (all 6 parts)
- Colours (adjective agreement)
- This / that / these / those
- Comparing with más and menos
- Weather + what you wear
- Me gusta llevar etc + reason (adjective agreement)
- Future tense - what you are going to wear (all 6 parts of 'ir -to go' + infinitive)
- Sport, free time activities, preferences and opinions
- jugar, ir, hacer – know all 6 parts of each of these irregular verbs