Royal School, Armagh

KEY STAGE 3

CHRISTMAS REVISION LIST

Year 10

1. ART

Art does not issue a revision list as the students are assessed on the classwork/projects that they have been working on throughout the term.

2. BIOLOGY

Cells

- Definition of a cell
- Hierarchy of life
- Parts of the light microscope
- Total magnification equation
- Label and describe the function of structures in plant and animal cells
- Similarities and differences between plant and animal cells
- Specialised cells
- Equations for photosynthesis and respiration
- Diffusion
- Osmosis

Photosynthesis

- Respiration and photosynthesis equations
- How the plant uses glucose
- Labels of structures in a leaf
- Adaptations for light absorption and gas exchange
- Floating discs experiment
- Stomata (incl. experiment)
- Rate of photosynthesis experiment
- Testing a leaf for starch

Food and Digestion

- Seven food groups
- Balanced diet
- Food pyramid
- Nutrients in food and their function
- Food tests: methods and colour changes

3. CHEMISTRY

Unit 1: Chemical Reactions

Chemical and Physical Changes

- Know the differences between **physical changes** and **chemical changes.**
- List **examples of physical changes** e.g. changes of state.
- List **examples of chemical changes** e.g cooking
- Explain how you know a chemical reaction has occurred.

Exothermic and Endothermic Reactions

- **An Exothermic reaction is one in which heat is given out, the surroundings warm up.**
- **An Endothermic reaction is one in which heat is taken in, the surroundings cool down.**

- Describe an experiment to investigate exothermic/endothermic reactions.
- Draw any apparatus needed to conduct an exo/endothermic reaction.

Reduction/Oxidation and Redox

- **Oxidation is the addition of oxygen to an element or a compound.**
- **Reduction is the removal of oxygen from a compound.**
- List some examples of oxidation and reduction reactions and describe any observations e.g. burning Mg in oxygen and reduction of CuO.
- Learn any apparatus diagrams.
- Explain what a REDOX reaction is
- Explain the terms oxidising and reducing agent.

***** Thermal decomposition will NOT be on the exam *****

<u>Unit 2 – Acids and Alkalis</u>

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 e.g. **hazard symbols**
- 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.

4. ENGLISH

Focus on prose and narrative techniques

Revise the "Noughts and Crosses" novel, using the revision booklet which has been scaffolded by character and theme. They should have read the whole novel and should have prepared a number of extracts from the novel focusing on the PETE structure. Quotations must also be learnt to support their points. The novel can also be used in the examination.

5. FRENCH

- Countries
- Nationalities
- Prepositions with towns, countries and nationalities
- Use of verbs aller/habiter with towns and countries
- Methods of transport with voyager
- Prepositions with transport (en/à)
- The irregular verb prendre (to take)..le/la/l' transport
- Advantages and disadvantages of methods of transport
- Future tense using aller + infinitive
- Talking about future holiday plans (when, where, how, accommodation, activities)
- Past holidays – when, where, how, accommodation and activities)
- Weather (present and past)
- A piece of writing on holidays including present/past/future

6. 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 any diagrams where necessary.

Unit of Study: Urban Challenges & Plate Tectonics

Required Knowledge and Understanding

- Keywords
- What is a settlement
- Organising Settlements into a Hierarchy
- Changes to service provision across settlements
- Human & Physical Factors for the location of settlements
- Settlement Function & Patterns
- The differences between rural and urban areas
- Explain the causes of urbanisation
- Land Use Zones in an urban area
- Issues in the Rural Urban Fringe – Suburbanisation, Counter urbanisation, Greenfield Developments
- LEDC Inner City Issues – Growth of Informal Settlements, Economic Activity & Service Provision
- Informal Settlement Case Study
- Distribution of Earthquakes & Volcanoes
- Structure of the Earth
- Why do plates move?
- Plate Boundaries

7. HISTORY

Ireland 1800-1912

- Unionism and Ulster, p30-33
- Unionism, p34-35
- Ulster resistance to Home Rule and Nationalist response, p35-p44

Europe and War 1914

- Europe in 1914, p4-7
- Germany, its rise to power and Kaiser Wilhelm, p8-14
- Alliance systems, p15-18
- Nationalism, p19-20
- Assassination of Franz Ferdinand, p21-26
- Summer 1914, p27-32

8. HOME ECONOMICS

- **Bone Health:**
    - Calcium – functions, daily requirements, and sources
    - Osteoporosis – definition, peak bone mass, causes of osteoporosis, symptoms, dietary and lifestyle advice to reduce the risk of osteoporosis.
    - Vitamin D – functions, sources, deficiencies of this vitamin in the diet.
- **Blood Health:**
    - Iron – functions and sources
    - Anaemia – definition, symptoms, groups of people who are at risk of developing anaemia.
    - Vitamin C – functions, sources, daily requirements, and deficiency of vitamin C in the diet.
- **Type 2 diabetes**
    - Definition
    - Who is at risk of developing Type 2 diabetes
    - Risk factors for developing type 2 diabetes
    - Dietary and lifestyle advice to prevent type 2 diabetes.
    - Symptoms

9. ICT

Revise all notes from the following handouts. Your test will be based on the handouts below.

- Data and Information Handout
- ICT, AI and Employment Handout
- AI Ethics Handout
- Network Technologies Handout - pages 2-7 and pages 15-18
- Class activity - HTML: Bird watch website 1.0: https://projects.raspberrypi.org/en/projects/cd-sebento-htmlcss-1/0

10.MATHEMATICS

Examination structure

Papers: 1
Time: 1 hour 15 minutes
Equipment: Calculator, pen, pencil, ruler and eraser.

Chapter 1 - Whole numbers and decimals

- Multiplying and Dividing by powers of 10 and standard form
- Rounding to a given degree of accuracy (decimal places and significant figures)
- Writing numbers as a product of primes
- Finding Highest common factors HCF and Lowest Common Multiples LCM

Chapter 2 - Measures, Area and Perimeter

- Converting between metric and imperial units
- Calculate the area of 2D shapes (triangles, trapeziums, parallelograms and compound shapes)
- Finding the circumference and area of Circles
- Using compound measures (including measures for speed, pressure and density)

Chapter 3 - Expressions and Formula

- Factorising expressions
- Simplifying algebraic fractions
- Adding and subtracting algebraic fractions
- Using and rearranging formulae

Chapter 4 - Fractions, Decimals and Percentages

- Adding and subtracting fractions and mixed numbers
- Multiplying and dividing fractions
- Converting between decimals and fractions
- Calculating percentages of amounts and percentage change
- Using compound interest

Chapter 10 - Equations

- Solving equations
- Solving equations involving brackets
- Solving equations with unknowns on both sides
- Creating equations
- Trial and Improvement

Revision Resources and Guidance

- Complete all the 'My Review' and 'My Practice' exercises in your Textbook on the relevant chapters.
- Revision questions will be provided by your teacher in the weeks before the exam.
- If you have any questions you should ask your teacher.

11.MUSIC

Remember that this revision list is not exhaustive; instead, use it as a guideline for your more detailed revision. The headings should point you back to your music booklet where you will have covered topics in greater detail.

Elements of Music

You should be able to understand questions including the following terms covered in Years 8 and 9:

- Tempo;
- Dynamics;
- Texture;
- Pitch;
- Articulation;
- Tonality

Key vocabulary on page 3 is invaluable information which will be assessed itself as well as being incorporated into many other questions.

Jazz

- The key features of and influences on blues, jazz and ragtime should be known.
- You should know the chords of the 12 bar blues as outlined on page 11 – including knowing what pitches create the different chords and how they are played on both keyboard (pg 11) and ukulele (pg 14).
- You should be able to recognise instruments commonly used in the styles covered, and how they are typically used in each style.
- You must be able to read and notate in both bass (pg 16/17) and treble clef.
- 'In the Mood' will feature in the listening section of the paper as a set work (pg. 21-23).

12. PHYSICS

Electricity

- Electrostatics
- Moving charges
- Conductors, insulators and resistors
- Series and parallel circuits
- Use of ammeter to measure current
- **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 electromagnetism

13.RELIGIOUS STUDIES

(Exam Duration: 1 hour)

- An Introduction to Islam
- Allah
- The Origins of Islam
- The Life of Muhammad
- The Sunni/Shi'ah Split
- The Qur'an
- The Mosque
- The Five Pillars

14.Spanish

- Time and mealtimes
- ALL food and drink and what you and others have to eat and drink at different mealtimes
- Adverbs of frequency - *Siempre, a veces, nunca,* etc…
- Opinions on food. Remember:
- Singular – *Me gust**a** el chocolate*
- Plural – *Me gust**an** las manzanas*
- Adjectives to describe food
- Adjective agreement – *el pollo **es** san**o***
- *la fruta **es** san**a***
- *los churros no **son** san**os***
- *las verduras **son** san**as***
- Shopping conversations – asking for fruit and veg, different quantities and amounts, and understanding how much it all costs.
- Numbers up to 500 (You only need to recognise numbers)
- Present Tense – Regular verbs
- Be able to ask and answer the following questions. When answering the questions, provide extra details, opinions and reasons for them when appropriate.
- ¿A qué hora desayunas / almuerzas / cenas?
- ¿Qué tomas para el desayuno / el almuerzo / la cena?
- ¿Te gusta _____? / ¿Te gustan _____?
- Body parts
- Saying what hurts
- How long for / since when *(desde hace / desde)*