

## Gordon's School Physics Department



## **A-Level - Curriculum Map**

## **Key Words / Skills:**

Manipulating Formulae

**Combining Equations** 

Using mathematical Language

**Analysing Systems** 

**Applying Principles** 

**Explaining Phenomena** 

**Developing Methods** 

Interpreting Evidence

**Evaluating Theories** 

**A-Level Exams** 

Revision

**Mock Exams** 

Teacher B:

**Magnetic Fields and** Electromagnetic Induction

Interactions of magnetic fields and electric current

Teacher A: **Option Topic** 

To be decided by group

Teacher B:

Coulombs Law

Gravitational and Electric Fields

Newton's Law of gravitation and

Teacher A: Simple **Harmonic Motion** 

Oscillations and

Year 13

Teacher A: Radioactivity Properties of

nuclear radiation

Teacher B: **Capacitors** 

Storing energy in capacitors

**Teacher A: Nuclear Energy** 

E=mc<sup>2</sup> and binding energy

resonance

Teacher B: Gas Laws

Ideal gas laws and kinetic theory

Teacher A: **Circular Motion** 

**Applying** mechanics to motion in a circle. Teacher B:

**Thermal Physics** Internal energy and specific heat cpacity

Teacher A:

**Newtons Laws and momentum** Applying Newtons laws to collisions and explosions.

Teacher B: **Waves and Optics** 

Investigating the properties of waves and behaviour of liaht

Teacher B:

**Matter & Radiation** 

Teacher A:

Forces in equilibrium

Combining and resolving forces.

Motion Analysing velocity and

acceleration.

Teacher B:

**Quantum Phenomena** 

-Photoelectric effect and wave-particle duality

Teacher A: DC Circuits

-EMF and potential dividers

-Fundamental forces, photons and antimatter **Quarks & Leptons** 

-Fundamental particles and interactions

Year 12

Teacher A:

 Stress, strain and Youngs Modulus **Electric Current** 

- Resistivity and superconductors

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