Curriculum Overview: Combined Science
Year group 11

- **What we are learning**: The topic or focus for the half term.
- **Key knowledge & skills**: What students should understand and be able to do.
- **How we assess learning**: knowledge checks, practical tasks, written responses and formal assessments.
- **Key words to know**: Vocabulary students will learn and use.

What your child will learn each half term
This overview shows the key topics, skills, and knowledge your child will be learning in **Combined Science** in **Y11**. It helps families understand what's being taught, how it builds on previous learning, and how you can support your child at home.

- **How science works skills**
- Use and rearrange equations confidently in Chemistry and Physics topics.
- Link graphs and data to scientific models, drawing conclusions from evidence.
- Develop skills in planning, carrying out, and analysing required practicals.
- Apply practical skills: selecting equipment, measuring accurately, and identifying variables to control in an investigation.
- Communicate scientific ideas clearly in extended written answers, using correct terminology.

Half term	What we are learning	Key knowledge and skills	How we will assess learning in this unit	Homework	Key vocabulary for this unit
HT 1 and 2	B5b Hormonal coordination B6a Reproduction B6b Variation and evolution C6 Rate and extent of Chemical Change P5a Forces in balance P5b Motion graphs	Hormonal coordination (B5b): role of hormones in the body, blood glucose control, menstrual cycle, contraception. Reproduction (B6a): sexual vs. asexual reproduction, meiosis, DNA and inheritance. Variation & evolution (B6b): causes of variation, natural selection, extinction, selective breeding and genetic engineering. Rates of reaction (C6): factors affecting rate (concentration, temperature, surface area, catalysts), reversible reactions, equilibrium. Forces in balance (P5a): resultant forces, moments, levers and gears. Motion graphs (P5b): interpreting distance–time and velocity–time graphs, calculating speed, acceleration, and stopping distances.	Continuous formative assessment in lessons. End of topic tests. Question level analysis and feedback. Required practical assessment booklets.	Homework is set on a Monday and is due the following Monday. Homework will be set online using a website 'Educake' which pupils will receive their login details for.	**Biology: hormone, insulin, ovulation, meiosis, fertilisation, variation, mutation, natural selection, evolution, extinction.** **Chemistry: rate, collision theory, catalyst, activation energy, reversible reaction, equilibrium.** **Physics: force, resultant force, moment, centre of mass, velocity, acceleration, distance–time graph, velocity–time graph, stopping distance.**