

Welcome to GCSE Physics



West Hill School

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Specification Information

- Specification details: AQA GCSE PHYSICS (8463)
- Physics helps us to **understand how everything in the world around us works**, from can openers, light bulbs and mobile phones to muscles, lungs and brains; from paints, cameras, cars and cathedrals; from earthquakes, tsunamis and hurricanes to quarks, DNA and black holes.....
- The Physics course is broken into eight separate topics. This course provides a firm foundation for progression to A-level Physics. On completion of the course pupils will be awarded a GCSE in Physics.



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What you will learn

- 1. Energy
- 2. Electricity
- 3. Particle model of matter
- 4. Atomic structure
- 5. Forces
- 6. Waves
- 7. Magnetism and electromagnetism
- 8. Space physics



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How you will be assessed?

Paper 1:
What's assessed Topics 1-4: Energy; Electricity; Particle model of matter; and Atomic structure.
How it's assessed <ul style="list-style-type: none">• Written exam: 1 hour 45 minutes• Foundation and Higher Tier• 100 marks• 50% of GCSE
Questions <ul style="list-style-type: none">• Multiple choice, structured, closed short answer and open response.
Paper 2:
What's assessed Topics 5-8: Forces; Waves; Magnetism and electromagnetism; and Space physics. Questions in paper 2 may draw on an understanding of energy changes and transfers due to heating, mechanical and electrical work and the concept of energy conservation from Energy (page 17) and Electricity (page 23).
How it's assessed <ul style="list-style-type: none">• Written exam: 1 hour 45 minutes• Foundation and Higher Tier• 100 marks• 50% of GCSE
Questions <ul style="list-style-type: none">• Multiple choice, structured, closed short answer and open response.



Skills developed

- Students taking GCSE Physics can use the knowledge and skills they gain to specialise in any of the three separate sciences. Pupils taking the Separate Science pathway will be awarded the three separate GCSE science subjects.
- The topics met through KS4 further develop recall, application and investigative skills.
- The required practical element of the courses allows students to become familiar with common scientific apparatus, methods and laboratory techniques.
- 'How science works' is an important element of GCSE Physics. Through scientific inquiry, students are able to formulate methods, collect measurements and observations to investigate their own hypotheses. Recording, presenting and evaluating both secondary and primary data to draw conclusions.
- The curriculum sparks the imagination and passion in our students by allowing them to formulate their own understanding of the physical aspects of the world around them, this underpins and develops their own thought processes and opinions on matters relating to their own personal well-being and their impact on the environment. **Physics** is the basis for most modern technology, and for the tools and instruments used in scientific, engineering and medical research and development. Manufacturing is dominated by **physics**-based technology.



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Careers/Next steps

- This course provides a firm foundation for progression to A-level Physics.
- A GCSE in Physics opens the door to many career paths. Here are just a few areas that require you to study Physics to A-Level and beyond.
 - Engineering
 - Medical physics and digital healthcare
 - Renewable energy
 - Robotics and AI
 - VFX and game development
 - Climate science and meteorology
 - Astronomy and space



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Where can you find more information

- Twitter: [@westhillscience](https://twitter.com/westhillscience)
- Email (Head of Science): carty@westhillschool.co.uk
- School website: <https://www.westhillschool.co.uk/page/?title=Science&pid=116>
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- Examples of the past exam papers can be found here: <https://www.aqa.org.uk/subjects/science/gcse/physics-8463/assessment-resources?f.Resource+type%7C6=Question+papers>



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