

WTBA Learning Journey: Physics

Intent: At Waltham Toll Bar we aim to enthuse and produce the next generation of scientists that will be able to combat the problems faced by the world. The Science curriculum establishes an understanding of the key disciplinary and substantive knowledge required to understand the scientific world around us. Students will cover topics that develop their inquiring minds and these topics will be interleaved with the key skills required to become a successful scientist. Students will continue to explore scientific concepts and analyse data that they have obtained as they approach a new range of inquiry questions as the years progress.

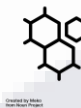
Key Themes

1. Energy and Electricity
2. Forces and Motion
3. Radiation and Waves
4. Matter and Models
5. HSW – How Science Works



Post-16 Links

Biology, Maths, Chemistry, Applied Science, Physics



GCSE Exam



Remember: To focus, respond to all questions and try your best.

Exam Revision

P6

P5

P4

P3

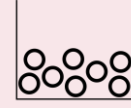
P1

P2

Mock Exam



P6 – Matter – Models and Explanations



Q: How does the particle model explain how materials behave?

YEAR 11 GCSE

Mock Exam



Q: What is radioactivity and how can it be used safely?

P5 – Radioactive Materials



P3 – Electric Circuits



Q: What is electric charge and what determines energy transfer in a circuit?

Q: What is the connection between forces and motion?

P4 – Explaining Motion

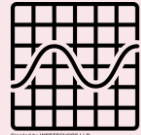


YEAR 10 GCSE

Q: Will we run out of electricity?

Q: What are waves and how can radiation be used?

P1 – Radiation and Waves



P2 – Sustainable Energy



YEAR 9 GCSE

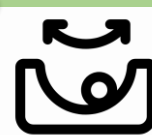
Q: Where did everything begin?

Q: What affects the motion of an object?

Space



Motion



Q: How do electric circuits work?

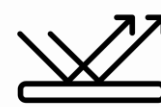


Electricity

YEAR 8

Q: How do waves help us to see and communicate?

Waves



Energy



Q: How is energy stored and transferred?

HSW: How do Scientists work safely?

YEAR 7

Laboratory Introduction



Key Skills

Critical Thinking



Analysis



Inquiry



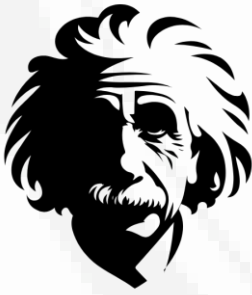
Research



Collaboration

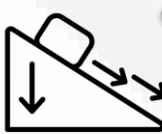


Practical



Created by Dimitri Lupo from Noun Project

Forces



Q: How do forces affect objects?

Created by Iconbunny from Noun Project

“ If I have seen further than others, it is by standing upon the shoulders of giants” Isaac Newton

