

PHYSICS Curriculum Overview

2009-2010



Arnold
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YEAR	TOPICS
9	<ol style="list-style-type: none">1. Particle theory, atomic structure, density and pressure2. Electricity; circuits and in the home3. Waves; basic terminology; the electromagnetic spectrum4. Radioactivity; properties and uses5. Gravity and Space
GCSE Module P1	<ol style="list-style-type: none">1. How is heat (thermal energy) transferred and what factors affect the rate at which heat is transferred?2. What is meant by the efficient use of energy?3. Why are electrical devices so useful?4. How should we generate the electricity we need?5. What are the uses and hazards of the waves that form the electromagnetic spectrum?6. What are the uses and dangers of emissions from radioactive substances?7. What do we know about the origins of the Universe and how it continues to change?

**GCSE Module
P2**

1. How can we describe the way things move?
2. How do we make things speed up or slow down?
3. What happens to the movement energy when things speed up or slow down?
4. What is momentum?
5. What is static electricity, how can it be used and what is the connection between static electricity and electric currents?
6. What does the current through an electrical circuit depend on?
7. What is mains electricity and how can it be used safely?
8. Why do we need to know the power of electrical appliances?
9. What happens to radioactive substances when they decay?
10. What are nuclear fission and nuclear fusion?

**GCSE Module
P3**

(not taken by Science /
Additional Science
students)

1. How do forces have a turning effect?
2. What keeps bodies moving in a circle?
3. What provides the centripetal force for planets and satellites?
4. What do mirrors and lenses do to light?
5. What is sound?
6. What is ultrasound and how can it be used?
7. How can electricity be used to make things move?

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| | <ol style="list-style-type: none">8. How do generators work?9. How do transformers work?10. What is the life history of stars? |
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PLEASE NOTE: This overview sets out a general summary of the basic curriculum taught. It is not an exhaustive list of what may be taught and subject teachers may not necessarily follow the order stated above. Further details may be obtained from the Head of Department, if required.

*For the triple scientists, P2 is started in Yr10 and is examined in January of Yr11

*For the Additional scientists, P2 is started in Yr11 and is examined in June of Yr11