KS4 Physics

Year Group 9

Half Term 1

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| --- | --- |
| Number of Hours | Topic |
| 6 | **Particle Model of Matter**  Changes of state and the particle model |
| As available | Revision work |
| Reasons behind order of topic in this half term | |
| This topic builds on KS3 work and the practical work in the topic secures engagement at start of Y10. The knowledge gained in this topic is essential for future topics such as energy transfers, particle model and pressure. | |

KS4 Physics

Year Group 9

Half Term 2

|  |  |
| --- | --- |
| Number of Hours | Topic |
| 6 | Internal energy and energy transfers |
| As available | Revision work |
| Reasons behind order of topic in this half term | |
| Calculation work (e.g. on specific heat capacity) and unit conversions can be linked to required practical’s, both of which need revising several times to ensure students have fluent recall. This topic draws on knowledge of particle model and ideas from it are needed for energy stores work later in the year. | |

KS4 Physics

Year Group 9

Half Term 3

|  |  |
| --- | --- |
| Number of Hours | Topic |
| 7 | Particle model and pressure |
| As available | Revision work |
| Reasons behind order of topic in this half term | |
| This topic requires understanding of the particle theory, it supports work on breathing done in Biology later in Y9. | |

KS4 Physics

Year Group 9

Half Term 4

|  |  |
| --- | --- |
| Number of Hours | Topic |
| 6 | **Energy**  Energy changes in a system, and the ways energy is stored before and after such changes |
| As available | Revision work |
| Reasons behind order of topic in this half term | |
| Allows pupils to explain every day observations in terms of energy changes so ensures engagement with Y9 physics, lends itself to practical work and demonstration. Builds on knowledge from KS3 about types of energy and electrical charge etc. Allows formulae and calculation work to be covered which can then be revised several times over the course of Y10 and Y11, which pupils often need | |

KS4 Physics

Year Group 9

Half Term 5

|  |  |
| --- | --- |
| Number of Hours | Topic |
| 6 | Conservation and dissipation of energy |
| As available | Revision work |
| Reasons behind order of topic in this half term | |
| Studied at this point in Y9 as it builds on energy transfer work. Formulas and calculation introduced at early stage of GCSE study so they can be revisited several times. | |

KS4 Physics

Year Group 9

Half Term 6

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| --- | --- |
| Number of Hours | Topic |
| 4 | National and global energy resources |
| 4 | End of year revision, exam, exam review |
| Reasons behind order of topic in this half term | |
| This topic underpins ideas built on later in GCSE Chemistry (recycling) and Biology (biodiversity/pollution) and allows Y9 pupils to develop awareness of environmental and ethical issues. Revision work allows pupils to revisited key Y9 work as the end of Y9 assessment is important in determining sets and pathways in KS4 Science | |