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| <p><b>Curriculum Aims</b></p> <ul style="list-style-type: none"> <li>▪ To encourage independent learners, listeners and thinkers</li> <li>▪ To provide enjoyable courses, that will stimulate interest and enthusiasm in the subjects</li> <li>▪ To develop scientific knowledge and understanding</li> <li>▪ To use models and theories to make sense of observed natural phenomena</li> <li>▪ To understand that science progresses through a cycle of hypothesis, observation, analysis and evaluation</li> <li>▪ To understand that physical laws are expressed in mathematical form and to develop problem solving skills</li> </ul> | <p><b>What will you see in physics lessons?</b></p> <ul style="list-style-type: none"> <li>▪ Students will build on skills that they have learnt at Key Stage 3</li> <li>▪ Students will be encouraged to be inspired, motivated and challenged by the key ideas in physics such as the concept of cause and effect, the phenomena of action at a distance and the drivers of change</li> <li>▪ Students and teachers will use models to develop understanding of the key ideas</li> <li>▪ Students will perform regular practical activities to develop their experimental skills to include forming hypotheses, planning, manipulating apparatus, taking accurate observations, presenting data appropriately and evaluating methods to suggest possible improvements.</li> <li>▪ Students will develop their problem-solving skills by manipulating mathematical equations.</li> </ul> | <p><b>What will you see in students' physics books?</b></p> <ul style="list-style-type: none"> <li>▪ Notes on key concepts and equations</li> <li>▪ Practise calculations</li> <li>▪ Experiment write ups to include some of the following, hypothesis, methods and diagrams, results tables, presentation of data, conclusions and evaluations</li> <li>▪ Worksheets</li> <li>▪ Practise past paper questions</li> <li>▪ Revision notes, mind maps or worksheets.</li> <li>▪ End of unit tests and self-evaluation forms.</li> </ul> |
| <p><b>Curriculum Content and sequencing</b></p> <p><b>Year 10</b></p> <p><b>Year 11</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <p><b>What formative assessment will you see in physics?</b></p> <ul style="list-style-type: none"> <li>▪ At the end of each unit the students will sit an end of unit test worth 25 marks which contains exam style questions which are marked by the teacher. Students then complete a self-evaluation and set themselves targets for the next unit.</li> <li>▪ For each of the core practicals that will appear in their GCSEs, the students are set homework with exam style questions.</li> <li>▪ Students have a mock exam at the end of Y10 and in January of Y11.</li> </ul>                                                                                                                                                                                                                                                                                                      | <p><b>What is the faculty currently reading and discussing and why?</b></p> <p>We are currently reading:<br/> Classroom Physics (a publication produced by the Institute of Physics) to keep us informed on the latest research on teaching concepts and provide us with new ideas for demonstrations.<br/> Stories from Physics by Richard Brock to bring to life the people behind the development of physics.<br/> The Teaching Physics Guide by Alan Denton to provide us with continual reflection on our physics teaching.</p>  |