





**Highsted Grammar School**  
**Spiritual, Moral, Social & Cultural Mapping**

| Strand          | Explanation of provision  | Term 1  | Term 2  | Term 3  | Term 4  | Term 5  | Term 6   |
|-----------------|---|---|---|---|---|---|--|
| <b>Cultural</b> | <ul style="list-style-type: none"> <li>• understanding and appreciation of the wide range of cultural influences that have shaped their own heritage and that of others</li> <li>• understanding and appreciation of the range of different cultures in the school and further afield as an essential element of their preparation for life in modern Britain</li> <li>• ability to recognise, and value, the things we share in common across cultural, religious, ethnic and socio-economic communities</li> <li>• knowledge of Britain's democratic parliamentary system and its central role in shaping our history and values, and in continuing to develop Britain</li> <li>• willingness to participate in and respond positively to artistic, musical, sporting and cultural opportunities</li> <li>• interest in exploring, improving understanding of and showing respect for different faiths and cultural diversity and the extent to which they understand, accept, respect and celebrate diversity. This is shown by their respect and attitudes towards different religious, ethnic and socio-economic groups in the local, national and global communities</li> </ul> | <p><i>Celebrating the roles of scientists in our lives</i><br/> <i>Watt</i><br/> <i>Joule</i></p> | <p><i>Appreciation of early cultures who worshipped fire, earth, water etc.</i></p> | <p><i>Celebrating the roles of scientists in our lives</i><br/> <i>Tesla</i><br/> <i>Comparison of use of renewable energy in different societies</i></p> | <p><i>Consideration of the fact that electricity may have been discovered many times in other societies other than the Eurocentric view.</i><br/> <i>Use of symbols as a means of language free communication</i></p> | <p><i>Celebrating the roles of scientists in our lives</i><br/> <i>Tesla</i><br/> <i>Edison</i></p> | <p><i>Water is celebrated in the Koran as a 'magical' substance due to its latent heat value and density</i></p> |



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**Subject: Physics Year: 10**

| <b>Strand</b>    | <b>Explanation of provision</b>   | <b>Term 1</b>   | <b>Term 2</b>  | <b>Term 3</b>   | <b>Term 4</b>  | <b>Term 5</b>   | <b>Term 6</b>  |
|------------------|---|---|--|---|--|---|--|
|                  |   | <b>Particle model</b>   | <b>Radioactivity</b>   | <b>Forces</b>   | <b>Motion</b>  | <b>Force and motion</b>   | <b>Forces and pressure</b>   |
| <b>Spiritual</b> | <ul style="list-style-type: none"> <li>ability to be reflective about their own beliefs (religious or otherwise) and perspective on life</li> <li>knowledge of, and respect for, different people's faiths, feelings and values</li> <li>sense of enjoyment and fascination in learning about themselves, others and the world around them</li> <li>use of imagination and creativity in their learning</li> <li>willingness to reflect on their experiences</li> </ul>   | <i>Application of the particle model of matter, considering everything to be made up of simple units known as particles regardless of the chemical structure of each particle</i><br><i>Developing models to explain complex concepts</i> | <i>Encourage sense of fascination describing how scientists have used experiments to determine the constituent parts of the atom</i> | <i>Describing the world around them in a new way. Challenging students to work in two dimensions where they have previously only worked in one.</i> | <i>Motion of the earth around the sun and shift away from geocentric</i>   | <i>Challenges to the belief that forces caused motion (Galileo) by Newton's laws of motion where a force is required to cause a change in motion</i>                | <i>Presence of a pressure gradient in the atmosphere alternative to the belief in a firmament.</i>               |
| <b>Moral</b>     | <ul style="list-style-type: none"> <li>ability to recognise the difference between right and wrong and to readily apply this understanding in their own lives, and to recognise legal boundaries and, in doing so, respect the civil and criminal law of England</li> <li>understanding of the consequences of their behaviour and actions</li> <li>interest in investigating and offering reasoned views about moral and ethical issues and ability to understand and appreciate the viewpoints of others on these issues</li> </ul> | <i>Archimedes principle being used to catch the unethical jeweller.</i><br><i>Understanding consequences of behaviour during practical work</i>   | <i>Discuss the use of nuclear fuels and ionising radiation in medicine, both in humans and animals.</i>                              | <i>Need for the use of safety factors when planning extreme sport activities or designing a buildings and vehicles.</i>                             | <i>Understanding the reason for speed limits and the use of safety equipment in cars, accepting their own responsibility to correctly use these safety measure</i> | <i>Understanding the reason for speed limits and the use of safety equipment in cars, accepting their own responsibility to correctly use these safety measures</i> | <i>Effects of depth and pressure and why specialist training is required for environment working at pressure</i> |



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|                        |   |  |  |   |  |  |   |
|------------------------|---|--|--|---|--|--|---|
| <p><b>Social</b></p>   | <ul style="list-style-type: none"> <li>• use of a range of social skills in different contexts, for example working and socialising with other pupils, including those from different religious, ethnic and socio-economic backgrounds</li> <li>• willingness to participate in a variety of communities and social settings, including by volunteering, cooperating well with others and being able to resolve conflicts effectively</li> <li>• acceptance of and engagement with the fundamental British values of democracy, the rule of law, individual liberty and mutual respect and tolerance of those with different faiths and beliefs. They will develop and demonstrate skills and attitudes that will allow them to participate fully in and contribute positively to life in modern Britain</li> </ul>   | <p><i>Group / pair work throughout the course</i></p>  | <p><i>Group / pair work throughout the course</i></p>  | <p><i>Group / pair work throughout the course</i></p>   | <p><i>Group / pair work throughout the course</i></p>  | <p><i>Group / pair work throughout the course</i><br/><br/><i>Understanding the justification for speed limits</i></p> | <p><i>Group / pair work throughout the course</i></p>                             |
| <p><b>Cultural</b></p> | <ul style="list-style-type: none"> <li>• understanding and appreciation of the wide range of cultural influences that have shaped their own heritage and that of others</li> <li>• understanding and appreciation of the range of different cultures in the school and further afield as an essential element of their preparation for life in modern Britain</li> <li>• ability to recognise, and value, the things we share in common across cultural, religious, ethnic and socio-economic communities</li> <li>• knowledge of Britain's democratic parliamentary system and its central role in shaping our history and values, and in continuing to develop Britain</li> <li>• willingness to participate in and respond positively to artistic, musical, sporting and cultural opportunities</li> <li>• interest in exploring, improving understanding of and showing respect for different faiths and cultural diversity and the extent to which they understand, accept, respect and celebrate diversity. This is shown by their respect and attitudes towards different religious, ethnic and socio-economic groups in the local, national and global communities</li> </ul> | <p><i>Water is celebrated in the Koran as a 'magical' substance due to its latent heat value and density</i></p> | <p><i>Celebrating the roles of scientists in our lives</i><br/> <i>Becquerel</i><br/> <i>Curie</i><br/> <i>Rutherford</i><br/> <i>Marsden</i><br/> <i>Geiger</i><br/> <i>Thompson</i><br/> <i>Dalton,</i></p> <p><i>Describing the importance of peer review</i></p> | <p><i>Space travel and the need to communicate ideas across nations to control spacecraft on orbit.</i></p> | <p><i>Using a graph to communicate information without the use of the English language</i></p> | <p><i>Celebrating the roles of scientists in our lives</i><br/> <i>Newton</i></p>                                      | <p><i>Celebrating the roles of scientists in our lives</i><br/> <i>Pascal</i></p> |



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**Subject: Physics Year: 11**

| Strand           | Explanation of provision  | Term 1   | Term 2   | Term 3   | Term 4   | Term 5   | Term 6 |
|------------------|---|--|--|--|--|--|--------|
|                  |   | <b>Force and pressure</b>  | <b>Waves</b>   | <b>Electromagnetic spectrum</b>  | <b>Electromagnetism</b>  | <b>Space</b>   |        |
| <b>Spiritual</b> | <ul style="list-style-type: none"> <li>ability to be reflective about their own beliefs (religious or otherwise) and perspective on life</li> <li>knowledge of, and respect for, different people's faiths, feelings and values</li> <li>sense of enjoyment and fascination in learning about themselves, others and the world around them</li> <li>use of imagination and creativity in their learning</li> <li>willingness to reflect on their experiences</li> </ul>   | <i>Presence of a pressure gradient in the atmosphere alternative to the belief in a firmament.</i>               | <i>Observations of light phenomena like rainbows are key in some belief systems.</i> | <i>Is the increased rate of exposure to high energy electromagnetic radiation in space worth the benefits to society.</i>                      | <i>How would this phenomena have appeared to someone who wasn't familiar with science and forces. Could it have been used to convince others that they had special powers?</i> | <i>Understanding others beliefs and opinions surrounding the creation story and the development of the heliocentric model.<br/>How could a star have been seen in the sky in the daytime</i> |        |
| <b>Moral</b>     | <ul style="list-style-type: none"> <li>ability to recognise the difference between right and wrong and to readily apply this understanding in their own lives, and to recognise legal boundaries and, in doing so, respect the civil and criminal law of England</li> <li>understanding of the consequences of their behaviour and actions</li> <li>interest in investigating and offering reasoned views about moral and ethical issues and ability to understand and appreciate the viewpoints of others on these issues</li> </ul>   | <i>Effects of depth and pressure and why specialist training is required for environment working at pressure</i> | <i>Discuss science and misinformation around the use of mobile phones</i>            | <i>Discuss science and misinformation around the use of mobile phones along with these risks of exposure to various electromagnetic waves.</i> | <i>Is it right to expose people/ animals to increased levels of EM radiation without their consent.</i>  | <i>Should the money spent on space exploration be used to improve the lives of others, particularly in India.</i>  |        |
| <b>Social</b>    | <ul style="list-style-type: none"> <li>use of a range of social skills in different contexts, for example working and socialising with other pupils, including those from different religious, ethnic and socio-economic backgrounds</li> <li>willingness to participate in a variety of communities and social settings, including by volunteering, cooperating well with others and being able to resolve conflicts effectively</li> <li>acceptance of and engagement with the fundamental British values of democracy, the rule of law, individual liberty and mutual respect and tolerance of those with different faiths and beliefs. They will develop and demonstrate skills and attitudes that will allow them to participate fully in and contribute positively to life in modern Britain</li> </ul> | <i>Group / pair work throughout the course</i>   | <i>Group / pair work throughout the course</i>                                       | <i>Group / pair work throughout the course</i>   | <i>Group / pair work throughout the course</i>   | <i>Group / pair work throughout the course</i>   |        |



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|-----------------|---|--|---|---|---|--|---------------|
| <b>Cultural</b> | <ul style="list-style-type: none"> <li>• understanding and appreciation of the wide range of cultural influences that have shaped their own heritage and that of others</li> <li>• understanding and appreciation of the range of different cultures in the school and further afield as an essential element of their preparation for life in modern Britain</li> <li>• ability to recognise, and value, the things we share in common across cultural, religious, ethnic and socio-economic communities</li> <li>• knowledge of Britain's democratic parliamentary system and its central role in shaping our history and values, and in continuing to develop Britain</li> <li>• willingness to participate in and respond positively to artistic, musical, sporting and cultural opportunities</li> <li>• interest in exploring, improving understanding of and showing respect for different faiths and cultural diversity and the extent to which they understand, accept, respect and celebrate diversity. This is shown by their respect and attitudes towards different religious, ethnic and socio-economic groups in the local, national and global communities</li> </ul> | <i>Celebrating the roles of scientists in our lives</i><br><i>Pascal</i> | <i>Describing the contradictory ideas (Newton's corpuscles vs. Huygens waves)</i><br><br><i>New</i> | <i>Importance of the electromagnetic spectrum in sending messages around the world.</i> | <i>Refuting false claims with evidence.</i> | <i>Understanding others beliefs and opinions surrounding the creation story.</i><br><br><i>Only 5 space superpowers.</i> |               |

**Notes**

Reflect on the wonder of the natural world.

**Moral**

Understand the moral dilemmas that can result in scientific developments. Cooperate in practical work. Become aware that scientific developments are the product of many different cultures. Learn the influence and limitations of scientific knowledge in debates about social issues arising from the different ways in which evidence can be interpreted.

**Social**

Cooperate in practical work. Become aware that scientific developments are the product of many different cultures. Learn the influence and limitations of scientific knowledge in debates about social issues arising from the different ways in which evidence can be interpreted.

**Cultural**

Become aware that scientific developments are the product of many different cultures. Learn the influence and limitations of scientific knowledge in debates about social issues arising from the different ways in which evidence can be interpreted.