



Highsted Grammar School
Spiritual, Moral, Social & Cultural Mapping

Subject: Computing

Year: 12

Strand	Explanation of provision	Term 1 <i>Data representation</i>	Term 2 <i>Computer networks</i>	Terms 3 & 4 <i>Python Programming</i>	Term 5 <i>Algorithms</i>	Term 6 <i>Legislation and ethics</i>	
Spiritual	<ul style="list-style-type: none"> ability to be reflective about their own beliefs (religious or otherwise) and perspective on life knowledge of, and respect for, different people's faiths, feelings and values sense of enjoyment and fascination in learning about themselves, others and the world around them use of imagination and creativity in their learning willingness to reflect on their experiences 	<i>Students will learn about new binary data conversion and will develop a willingness to learn about it</i>	<i>Students are encouraged to discuss about how communicating have changed around the world</i>	<i>Students learn about creating programs and taking risks to make mistakes and correct them and being confident and proud about doing it</i>	<i>Students learn how by looking at other examples of algorithms they can create new ones and be creative about it</i>	<i>Students debate and formulate their own set of views on how technology/AI/machines have developed</i>	
Moral	<ul style="list-style-type: none"> 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 understanding of the consequences of their behaviour and actions 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 	<i>Students are encouraged to recognise their actions when sending data online – is it safe to do so?</i>	<i>Students will learn about the moral and ethical issues of connecting computers together and sharing information as well as the digital divide whereby not everyone has access to a computer</i>	<i>Students investigate how programs develop in the past has caused failure and why it happened and now what extra measures are taken so your program is safe and sound</i>	<i>Students will look at how if we don't test the algorithms before developing it we are leaving errors in it – how will it impact on peoples actually developing it</i>	<i>Students adhere to legislation around data protection act, copyright act and computer issue act. They understand the consequences and implications if they don't respect the laws.</i>	
Social	<ul style="list-style-type: none"> 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 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 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 	<i>Students are encouraged to work together to test each other's knowledge and understanding</i>	<i>Students will discuss about the pros and cons of connecting to a computer network</i>	<i>Students will be involved in pair programming and giving feedback to each other thus will be engaged in listening and respecting each other during the task</i>	<i>Students will be cooperating with each other to create algorithms for a given task</i>	<i>Students discuss the importance of ethical, environmental, legal issues when choosing or designing a computer system</i>	



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Strand	Explanation of provision	Term 1	Term 2	Terms 3 & 4	Term 5	Term 6
Cultural	<ul style="list-style-type: none"> • understanding and appreciation of the wide range of cultural influences that have shaped their own heritage and that of others • 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 • ability to recognise, and value, the things we share in common across cultural, religious, ethnic and socio-economic communities • knowledge of Britain's democratic parliamentary system and its central role in shaping our history and values, and in continuing to develop Britain • willingness to participate in and respond positively to artistic, musical, sporting and cultural opportunities • 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 	<p><i>Students are encouraged to recognise the pioneers who have created the binary system so computers today can understand what we want from</i></p>	<p><i>Student explore the change in people's behaviour when having access to a device connected to the Internet. They could see that as a new online culture has being born whereby people communicate more online than they do in person</i></p>	<p><i>Students look at the online programming community like forums, discussion boards how software developers have made available a range of code so they use to practice their programming skills</i></p>	<p><i>Students will consider issues in patterns – work or lifestyle due to the range of program being developed to facilitate people's life – a program for almost everything</i></p>	<p><i>Students discuss about the historical change in technology and how advanced the technology is now but also how people have changed that they are very dependent of these devices.</i></p>

NOTES

Spiritual

Students will reflect on their own and other people's lives when creating programs.

Moral

Students will discuss the moral issues of technology in people's lives – like its privacy issues, accessibility issues.

Social

Students will discuss the pros and cons of using the Internet and its impact on society.

Cultural

Students will learn and discuss the impact of technology and how it has changed how people behave.



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Subject: Computing

Year: 13

Strand	Explanation of provision	Term 1 <i>Databases and web technologies</i>	Term 2 <i>System software and Operating software</i>	Term 3 <i>Data structures and more programming</i>	Term 4 <i>OOP</i>	Term 5 <i>revision</i>	Term 6
Spiritual	<ul style="list-style-type: none"> ability to be reflective about their own beliefs (religious or otherwise) and perspective on life knowledge of, and respect for, different people's faiths, feelings and values sense of enjoyment and fascination in learning about themselves, others and the world around them use of imagination and creativity in their learning willingness to reflect on their experiences 	<i>Students will learn about how databases are used in real life mainly on the Internet. They will use their creativity to create a database</i>	<i>Students learn about how software are designed to work in perfect harmony with the computer hardware</i>	<i>Students learn about different ways to store data and the different uses in the computer science field</i>	<i>Students learn a new programming technique and they will show a willingness to apply their previous programming skills to this new method</i>	<i>Students show a willingness to reflect on their learning</i>	
Moral	<ul style="list-style-type: none"> 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 understanding of the consequences of their behaviour and actions 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 	<i>Students are encouraged to recognise how data stored can be vulnerable to ethical issues like hacking and data theft especially from social media accounts</i>	<i>Students will look into how if the system has a flow what detrimental consequences it could bring to the computer systems – for example the will look into past system crash which happened due to errors introduced in the program</i>	<i>Students build an interest in investigating how data can be manipulated for the better</i>	<i>Students will learn that OOP is a programming method used to develop software. They will learn about the ethical issues relating to programming flaws which are detrimental when smart technology collects data unknowingly</i>	<i>Students will develop the ability to understand their consequences of their past behaviours and how they approach their revision</i>	
Social	<ul style="list-style-type: none"> 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 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 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 	<i>Students are encouraged to work together to test each other's knowledge and understanding</i>	<i>Students will discuss about the social interaction programmers have/require in the real world when designing computer system</i>	<i>Students will work together to discuss how data is collected, stored, analysed and communicated to various people.</i>	<i>Students will work together to discuss about the pros and cons using OOP</i>	<i>Students will use a range of social skills to share their past learning with each other</i>	



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