

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Using computers safely, effectively and responsibly	Introduction to coding through Kodu	Understanding Computers	Introductions to Python using Microbit	Computer crime and cyber security	Graphics

Pupils learn how to create and manipulate computer systems, and how to apply these skills and approaches to tackle real-life problems creatively. Computer Science introduces pupils to how to make computers work for them, rather than using the basic systems the computer provides. There is also a strong focus on the ever-changing risks to personal information held electronically, and changing

Knowledge (Topics / contexts) Pupils will know	Skills acquired Pupils will be able to	Concept Pupils will understand	Assessment
<ul style="list-style-type: none"> - what is responsible use - who to report concerns to - know how a computer system is made up - how computers communicate with each other 	<ul style="list-style-type: none"> - identify ways to protect themselves online - report concerns - Identify hardware and software components used in a computer system 	<ul style="list-style-type: none"> - Online privacy, digital footprint and identity 	
<ul style="list-style-type: none"> - how to keep your identity secure on the Internet - how to create a secure, memorable password - how to avoid being a victim of an email scam - of the advantages and disadvantages of email - Define the term " search engine" and name examples 	<ul style="list-style-type: none"> - manage files in File Explorer, to keep their files in well organised and appropriately named folders - list some of the dangers and drawbacks of social networking sites - list some possible responses to cyberbullying - use a search engine efficiently to find information 	<ul style="list-style-type: none"> - the importance of making backups - how to protect your identity online - that there is no guarantee that the information on the Internet is accurate 	<p>Online assessment</p> <p>Class feedback</p>

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	Programmes, selections, iteration, conditions.	- what is meant in programming by the term	Project work Class feedback
<ul style="list-style-type: none"> - what is meant by hacking - what is meant by malware - ways to protect yourself from malware & hacking - how to minimise the chance of identity theft - Learn about some of the common health and safety problems associated with computer use 	<ul style="list-style-type: none"> - Name the major Acts concerning computer use - Identify common types of computer crime - Recognise the signs of fraudulent emails - Compare copyright infringement with plagiarism - List some of the Health and Safety hazards associated with computer use - Describe how to safely dispose of an old computer 	<ul style="list-style-type: none"> - about different types of email scams - the Computer Misuse Act – which makes certain activities illegal - who might hold personal data about you - the possibility of identity theft - the Copyright law, what it says and what it means - Understand the damage that illegal copying does to individuals, companies and society 	Online assessment
<ul style="list-style-type: none"> - The difference between bitmap and vector images - That bitmap images are made up of individual pixels - Understand that text characters are vector- 			

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Skills acquired
Pupils will be able to:

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- the role and operation of the major components of a CPU:
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Knowledge (Topics / contexts) Pupils will know	Skills acquired Pupils will be able to:	Concept
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Knowledge (Topics / contexts) Pupils will know	Skills acquired Pupils will be able to:	Concept Pupils will understand	Assessment
<ul style="list-style-type: none"> - Difference between a database and a relational database - SQL is the language used in databases. 	<ul style="list-style-type: none"> - use SQL to retrieve data from a relational database, using the commands: SELECT, FROM, WHERE ORDER BY.. ASC DESC - use SQL to insert data into a relational database using the commands. 	<ul style="list-style-type: none"> - These database concepts: table, record, field, primary key, foreign key. - that the use of a relational database facilitates the elimination of data inconsistency and data redundancy. 	<ul style="list-style-type: none"> - Level of engagement with written and practical tasks set within lessons - Actions taken by pupils in the light of verbal feedback. - Topic tests - Quality of homework tasks designed to check for understanding of topics covered. - Performance in Yr10 exam against good progress target. - Performance in Yr11 mock exam against good progress target. <p>Final assessment: Paper 2, 1hr 45 mins, 90 marks, 50% of GCSE</p>