

Fareham Academy – Computer Science Overview – Year 7

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic(s)	Introduction to Computer Science	Physical Computing	<ul style="list-style-type: none"> Making Programs 	<ul style="list-style-type: none"> Networking in the Modern Age 	<ul style="list-style-type: none"> Communication using Blogs 	<ul style="list-style-type: none"> Creating 3D Models using Sketchup
Topic Objectives	<ul style="list-style-type: none"> How to use a computer and the school system. Learn to become a digital citizen Understand E-safety risks & How to use technology safely. How to protect your online identity. Know the risks and how to report concerns. Communicating and using Internet searches 	<ul style="list-style-type: none"> What is a computer? How has the development of computers over the years influenced how we use and define computing. How does a computer work? Identifying inputs and outputs Computer hardware components and what they do? What is software and what is the purpose of software? 	<ul style="list-style-type: none"> Introduction to Algorithms and creating programs Use the Micro bit to create working programs that respond to movement and input Learn how to send secret messages to one another Learn to use structure, logic and syntax to create programs using Python 	<ul style="list-style-type: none"> What a Network is, how it is created, what equipment is needed to make one and how it works Learn about the different services available using the Internet What the Internet of Things is and how our lives are impacted by it Develop our understanding of what the Internet is What the Cloud is, and just where all our information goes. 	<ul style="list-style-type: none"> Develop understanding of word processing and how information can be used or reused for different purposes Copyright and image/information trustworthiness. Develop researching skills Resource gathering - images, sounds, text. Creating and planning a blog for a specific purpose Learn how to create and make the most of feedback 	<ul style="list-style-type: none"> Develop an understanding of 3D Modelling and it's uses in our world Learn how to create objects using 3D software, including perspective, rotation, movement and elements of realism. Create scenes and learn to animate through 360 degrees in your scenes.
Acquired Knowledge/Skills	<ul style="list-style-type: none"> Use a computer safely Be able to identify what contributes to your digital footprint Be aware of risks and behaviours that have negative impact when using technology Know how keep safe or where to get help if you are affected 	<ul style="list-style-type: none"> Develop an understand of what a computer is, how they are used Know what parts make a computer Know the purpose of software and why we need it 	<ul style="list-style-type: none"> Become familiar with programming constructs, how to analyse problems to develop solutions Create programs using these constructs to build a solid foundation for text based programming in later years 	<ul style="list-style-type: none"> Be able to identify what a network is, how they are used Know about different methods of network connections and some of the risks involved Understand and explain how the Internet of Things is impacting our lives 	<ul style="list-style-type: none"> Be able to use a Word processor and be confident using popular functions. Develop those skills in creating an online writing page (Blog), Develop research skills Become familiar with Copyright and when it applies to your work 	<ul style="list-style-type: none"> Understand the concept of 360 degree modelling and when it is used Create your own 3D model Develop your 3D scene using multiple models to understand space and dimensions Create a 3D animated scene
Assessments	<ul style="list-style-type: none"> Creation of E-Safety poster End of Topic Assessment 	<ul style="list-style-type: none"> Hands on Identification of Component parts End of Topic Assessment 	<ul style="list-style-type: none"> Development of Python program End of Topic Assessment 	<ul style="list-style-type: none"> Written piece on IOT(Internet of Things) End of Topic Assessment 	<ul style="list-style-type: none"> Creation of Blog project Live Blog published 	<ul style="list-style-type: none"> Practical Assessment using SketchUp End of Topic Assessment

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