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| **Subject: Computer Science – Year 7** |
| **Why am I studying these topics / why are they important?**Studying these topics allows you to solve problems, design systems and understand the power and limits of human and machine intelligence. They allow you to use technology safely and know how to stay in control of your online activity.They are skills that empower you, and that you should be aware of and have some competence in. If you can think computationally you are better able to conceptualise and understand computer-based technology, and so are better equipped to function in modern society.**What careers are linked to this subject?**Studying Computing or ICT could lead to a career within the ICT industry such as computer animation, computer graphics, computer design, apps designer, multimedia design and production, website development, computer gaming, programming, 3D modelling, computer analyst, ICT consultant, help desk operator, technician, network manager, teaching plus many more! |
| **Rotation** | **Subject Knowledge** | **Subject Skills** | **Assessments** |
| **1** | I will learn about:* How to use the Internet Safely
* Designing and coding a game
 | I will be taught to:* Understand the risks involved when online and know how to report an issue.
* Design a game with a purpose and then be able to code a working game using Kodu.
* Design and produce advertising material to promote your game.
 | You will use a skills check sheet to include different skills they have used when producing the game. You will produce a portfolio of evidence for your game and advertising, justifying your choices. |
| **2** | I will learn about:* Using a programming language (Python) to code a solution.
 | I will be taught to:* Write an algorithm in Python that uses variables.
* Write code that includes selection and iteration.
* Be able to code a solution to a problem that is set.
 | You will complete a test at the end of the unit that will set a problem faced by a company and you have to code a solution. Marks will be given for coding and annotation to show understanding. |
| **If I am interested in further reading I can try:**

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| You can create a free account to improve your coding using [www.repl.it](http://www.repl.it) | Watch the YouTube videos from ‘Craigndave’ to see how the topic continues at GCSE level<https://bit.ly/2kstXYm>  |

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