DAGENHAM PARK SUBJECT CURRICULUM

Subject	Computer Science
Year Group	Year 7, Year 8 & Year 9
Overview	Pupils cover the full range of Computing topics laid out by the National Curriculum. This involves them learning a visual programming language through Scratch as well as a text based language using Python. Studying these languages set a firm foundation for future studies and seeing how computational thinking can impact and improve the world.

	Year 7	Year 8	Year 9
Autumn Half term 1	E-safety Overview Social Media Passwords	Introduction to algorithms Sorting algorithms Searching algorithms	LAN & WAN Wired and Wireless networks Network devices Topologies Network Threats Protecting a network
Autumn Half term 2	Grooming Fake news Deep fakes	George Boole Ada Lovelace Ethics of computers	Python Inputs and outputs Variables Comments and readability If statements Loops Errors
Spring Half term 1	Computer Hardware Input & Output devices Peripheral devices	Binary conversion Binary addition ASCII	Decomposition Pattern recognition Abstraction Algorithms Flowcharts
Spring Half term 2	The CPU Networks Operating Systems	Images Sound Hexadecimal	Python Turtle Functions Random library Magic 8 Ball project Arrays

<table>
<tr><td>Summer
Half term 1</td><td>
<table>
<tr><th>Year 7</th><th>Year 8</th><th>Year 9</th></tr>
<tr><td>Scratch Introduction
Controlling games
Movement
Sprites</td><td>Scratch Game project</td><td>Caesar Cipher
Vigenère cipher
Morse code
Pigpen cipher
Imitation Game</td></tr>
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<tr><td>Summer
Half term 2</td><td>
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<tr><th>Year 7</th><th>Year 8</th><th>Year 9</th></tr>
<tr><td>Collision
Variables
Broadcasting</td><td>Scratch Game project</td><td>Website design project</td></tr>
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<tr><td>Homework</td><td>Homework will be provided via Show My Homework to reinforce skills learnt in lesson as well as to prepare for future topics.</td></tr>
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<tr><td>Useful Resources</td><td>- All resources are available on:
Sharepoint – Computing and ICT – KS3</td></tr>
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