## Computing department - year 8 computing scheme of work

| National curriculum: <br> https://ambitiousaboutautism.sharepoint.com/sites/TRS/Computing/Forms/Allltems.aspx?id=\%2Fsite |  |  |  |
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| Term | Title | Unit content | Key vocabulary |
| Autumn <br> Week 1-15 | Unit 4: Computer Components, Binary and Hexadecimal | VLE Introduction/Recap | VLE, Google Classroom |
|  |  | E-Safety | SMART, social media, Online Gaming, Mobile Apps, Cyber-Bullying, Email |
|  |  | Computer components Part 1 | Mouse, Keyboard, Motherboard, Hard Drive/Hard Disk, CPU, RAM, ROM, Cache, Cores |
|  |  | Introduction to Binary | Bits, Nibbles, Bytes, Megabytes, Gigabytes, Terabytes, Petabytes |
|  |  | Denary to Binary Conversions | Base 10, Base 2, Place Values |
|  |  | Denary to Hexadecimal Conversions | Base 16, Base 10, Place Values |
|  |  | Logic Gates | AND, OR, NOT, Circuits |


| Term | Title | Unit content | Key vocabulary |
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| Spring <br> Week 1-11 | Unit 5 Control, <br> Flowcharts and <br> Algorithms | Flowcharts | Start, Stop, Input, Output, Decisions, <br> Sub Routines |
|  |  | Control Technology using Flowol <br> Interactive Flowcharts | Flowol, Mimics, Input, Output, Start, <br> Stop, Input, Output, Decisions, Sub <br> Routines |
|  |  | Dash and Dot Robot Technology and the <br> Friendship Algorithm | Robotics, Block Coding |
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| Summer <br> Week 1-13 | Unit 6 Block <br> Programming with <br> Microbits, Scratch <br> and Code.org | Microbits | Block coding, Embedded Systems, Sound, Processor, LEDs, <br> Buttons, Accelerometer, Temperature sensor, Light sensor, <br> Compass, Radio, Pins |
|  |  | Scratch | Motion, Looks, Sound, Events, Control, Sensing, Operators, <br> Variables, Custom Block, Costumes, Sprites, Backdrops, Code |
|  | Code.org | Block coding |  |
| Assessment point 3 |  |  |  |

