|  |  |  |  |
| --- | --- | --- | --- |
|  | **Computer Science** | **Information Technology** | **Digital Literacy** |
| **Years**  **6 & 5** | * To design and write programs that accomplish specific goals\*\* * To debug programs that accomplish specific goals\*\* * To control or simulate physical systems\*\* * To solve problems by decomposing them into smaller parts\*\* * To use sequence in programs\*\* * To use selection in programs\*\* * To use repetition in programs\*\* * To work with variables\*\* * To work with various forms of input\*\* * To work with various forms of output\*\* * To use logical reasoning to explain how some algorithms work\*\* * To use logical reasoning to detect and correct errors in algorithms and programs\*\* * To use search technologies effectively and appreciate how results are selected and ranked ***(CS1)*** * To understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration ***(CS1)*** | * To select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals ***(IT1)*** * To collect, analyse, evaluate and present information and data ***(IT2)*** | * CONDUCT - To explain how to use technology responsibly *(Autumn)* * CONDUCT - To discuss the difference between acceptable and unacceptable behaviour online *(Autumn)* * CONDUCT and CONTACT - I understand what opportunities and dangers computer networks offer for communication and collaboration *(Spring)* * CONDUCT and CONTENT - To explain how to be discerning in evaluating digital content *(Summer)*   ***(See ‘Digital Literacy’ in Notes section below)*** |
| **Years**  **4 & 3** | * To design and write programs that accomplish specific goals\*\* * To debug programs that accomplish specific goals\*\* * To control or simulate physical systems\*\* * To solve problems by decomposing them into smaller parts\*\* * To use sequence in programs\*\* * To use selection in programs\*\* * To use repetition in programs\*\* * To work with variables\*\* * To work with various forms of input\*\* * To work with various forms of output\*\* * To use logical reasoning to explain how some algorithms work\*\* * To use logical reasoning to detect and correct errors in algorithms and programs\*\* | * To select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals ***(IT1)*** * To collect, analyse, evaluate and present information and data ***(IT2)*** | * CONDUCT - To explain how to use technology responsibly *(Autumn)* * CONDUCT - To discuss the difference between acceptable and unacceptable behaviour online *(Autumn)* * CONDUCT and CONTACT - I understand what opportunities and dangers computer networks offer for communication and collaboration *(Spring)* * CONDUCT and CONTENT - To explain how to be discerning in evaluating digital content *(Summer)*   ***(See ‘Digital Literacy’ in Notes section below)*** |
|  | **Computer Science** | **Information Technology** | **Digital Literacy** |
| **Years**  **2 & 1** | * To explain what an algorithm is++ * To explain how algorithms are implemented as programs on digital devices++ * To explain how programs execute by following precise and unambiguous instructions++ * To create simple programs++ * To debug simple programs++ * To use logical reasoning to predict what will happen when I run a program++ | * To use technology purposefully to ***create and organise*** digital content ***(IT2)*** * To use technology purposefully to ***store and retrieve*** digital content ***(IT2)*** * To use technology purposefully to ***manipulate*** and retrieve digital content ***(IT2)*** | * To recognise common uses of information technology beyond school *(Autumn)* * CONDUCT - To explain how to use technology safely and respectfully *(Autumn)* * CONDUCT - To explain how to keep personal information private *(Spring)* * CONTENT and CONTACT - To explain what to do if I have concerns about content or contact online *(Summer)*   ***(See ‘Digital Literacy’ in Notes section below)*** |

**NOTES**

**CS1 –** Explanations and videos at <http://www.bbc.co.uk/education/subjects/zvnrq6f>

Barefoot computing – Y5: ‘Network Hunt’ & ‘Modelling the Internet’ Y6: ‘Selecting Search Results’ & ‘Ranking Search Results’

\*\* - These objectives are to be met across the whole key stage. In terms of which resources to use:

Y3 and Y5 use lessons at barefootcas.org.uk (you will need to set up a free teacher account) and the lessons in the coding books I gave to your year group

Y4 and Y6 use courses 3 and 4 respectively from code.org (you will need to set up a free teacher account and add your class as users)

N.B. Setting up these accounts and finding the resources will only take me five minutes to show you, so please do ask!

++ - These objectives are to be met across the whole key stage. In terms of which resources to use:

Y1 and Y2 use courses 1 and 2 respectively from code.org (you will need to set up a free teacher account and add your class as users)

Both year groups could also use the resources available at barefootcas.org.uk (you will need to set up a free teacher account)

N.B. Setting up these accounts and finding the resources will only take me five minutes to show you, so please do ask!

**IT1 –** This objective should be covered as part of the wider curriculum: using both iPads and laptops in the classroom; using different pieces of software, apps and the internet for different purposes

**IT2 –** Using J2Data app on LGFL apps <http://www.j2e.com/j2data/> Lesson plans inside app which can be downloaded. Both children and adults log in using their LGFL email and password. Lesson coverage: Y1 – KS1 Lesson 1 Y2 – KS1 Lessons 2&3 Y3 – KS2 Lesson1 Y4 – KS2 Lesson 2 Y5 – KS2 Lesson 3 Y6 – KS2 Lesson 4

**Digital Literacy –** We have allocated certain objectives to a term like this is in line with an award we are working towards and will link to relevant assemblies in each term. For resources, use ThinkUKnow.co.uk, Saferinternet.org.uk, childnet.org, CBBC Stay Safe, BBC Bitesize KS2 Digital Literacy and any others you know! Also, inside LGfL apps there is an app called ‘CyberPass’ which is very good. Again, please do ask and I’ll show you how to access and use it