



Year 5

Progression in Computing

Key Stage 2 Computing Statutory Coverage

Computer Science- programming

Pupils should be taught to:

1. Design, write and debug programs to achieve specific goals, including solving problems
2. Use sequence, selection and repetition in programs; work with variables and various forms of input and output
3. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

Computer Science- theory

4. Understand computer networks including the internet; how they can provide multiple services such as the World Wide Web

Information Technology

Pupils should be taught to:

1. Use search technologies effectively
2. Select, use and combine a variety of software (including the internet) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information

Digital Literacy

Pupils should be taught to:

1. Be discerning in evaluating digital content and appreciate how search results are selected and ranked
2. Understand the opportunities networks offer for communication and collaboration
3. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

Key Objective	Key Skills
<p><u>Computer Science- programming</u></p> <ol style="list-style-type: none"> 1. Design, write and debug programs to achieve specific goals, including solving problems 2. Use sequence, selection and repetition in programs; work with variables and various forms of input and output <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p>	<p>-Design a computer game including scoring and/or timers using Scratch and Code Club</p> <p>-Use conditional statements, loops, variables and broadcast messages</p> <p>-Create a game where sprites interact with each other</p> <p>-Evaluate the effectiveness of games</p>
<p><u>Computer Science- theory</u></p> <ol style="list-style-type: none"> 3. Understand computer networks including the internet; how they can provide multiple services such as the World Wide Web 	<p>-Understand how the internet works including data packets, IP address, switch, router, DNS, cookies.</p> <p>-Understand how an intranet works e.g. using an intranet in a supermarket</p>

<p><u>Information Technology</u></p> <ol style="list-style-type: none"> 1. Use search technologies effectively 2. Select, use and combine a variety of software (including the internet) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information 	<ul style="list-style-type: none"> -Format text towards a specific purpose -Use word counts, bullets, numbering, text alignments -To create a spreadsheet e.g. theme park spreadsheet and recognise terms e.g. cell, row, column, =SUM() -To create a multimedia eBook
<p><u>Digital Literacy</u></p> <ol style="list-style-type: none"> 1. Be discerning in evaluating digital content and appreciate how search results are selected and ranked 2. Understand the opportunities networks offer for communication and collaboration 3. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact 	<ul style="list-style-type: none"> - Understand the importance of checking reliability of search information e.g. explore Safe Searching created by KidSMART -Understand what spam is, the form it takes, and identify strategies for dealing with it -Know how to protect computers from digital threats such as viruses -Explore how it feels to be cyber bullied, how cyber bullying is similar to or different to bullying, and learn strategies for handling cyber bullying if it arises