



COMPUTING CURRICULUM OVERVIEW

| KEY STAGE 1 - SUBJECT CONTENT Scheme of Work – Switched on Computing | Year 1 | | | | | Year 2 | | | | | |
|---|--------------------|-------------------------|---------------------|--------------------------|-----------------|-------------------|-------------------|--------------------|----------------------|----------------------|-------------------|
| | We are celebrating | We are treasure hunters | We are storytellers | We are personal trainers | We are painters | We are detectives | We are astronauts | We are researchers | We are games testers | We are photographers | We are zoologists |
| National Curriculum | | | | | | | | | | | |
| Principles and concepts of computer science - understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions | | ✓ | | | | | ✓ | | ✓ | | |
| Analyse and solve problems by writing programs - create and debug simple programs | | ✓ | | | | | ✓ | | ✓ | | |
| Analyse and solve problems by writing programs - use logical reasoning to predict the behaviour of simple programs | | ✓ | | | | | ✓ | | ✓ | | |
| Responsible, competent and confident users of ICT - use technology purposefully to create, organise, store, manipulate and retrieve digital content | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ |
| Responsible, competent and confident users of ICT - recognise common uses of information technology beyond school | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ |
| Responsible, competent and confident users of ICT - use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. | | | | | | ✓ | | ✓ | | ✓ | |



COMPUTING CURRICULUM OVERVIEW

| KEY STAGE 1 - SUBJECT CONTENT Scheme of Work – Switched on Computing | Year 3 | | | | | Year 4 | | | | | |
|---|--------------------|-------------------|-------------------|--------------------------|---|-------------------|--|----------------------------|---------------------|----------------------|------------------|
| | We are programmers | We are bug fixers | We are presenters | We are opinion pollsters | We are network engineers and internet aware | We are co-authors | We are meteorologists/ we are presenters | We are software developers | We are HTML editors | We are toy designers | We are musicians |
| National Curriculum | | | | | | | | | | | |
| Analyse and solve problems by writing programs - design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts | ✓ | ✓ | | | | | | ✓ | | ✓ | ✓ |
| Analyse and solve problems by writing programs - design use sequence, selection, and repetition in programs; work with variables and various forms of input and output | ✓ | ✓ | | | | | | ✓ | | ✓ | ✓ |
| Principles and concepts of computer science - use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs | ✓ | ✓ | | | | | | ✓ | | ✓ | |
| Responsible, competent and confident users of ICT - 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 | | | | | ✓ | ✓ | | | ✓ | | |
| Responsible, competent and confident users of ICT - use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content | | | ✓ | | ✓ | ✓ | ✓ | | | | |
| Responsible, competent and confident users of ICT / Analyse and solve problems by writing programs 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, including collecting, analysing, evaluating and presenting data and information | | | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Responsible, competent and confident users of ICT use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | | | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | | |



COMPUTING CURRICULUM OVERVIEW

| KEY STAGE 1 - SUBJECT CONTENT Scheme of Work – Switched on Computing | Year 5 | | | | | Year 6 – i-compute SoW | | | |
|---|------------------------|-------------------|-----------------|-----------------------|-----------------------|------------------------|-------|-----------------|------|
| | We are game developers | We are architects | We are bloggers | We are web developers | We are cryptographers | iProgram | iSafe | iWeb / iNetwork | iApp |
| National curriculum | | | | | | | | | |
| Analyse and solve problems by writing programs - design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts | ✓ | ✓ | | | ✓ | ✓ | | | ✓ |
| Analyse and solve problems by writing programs - design use sequence, selection, and repetition in programs; work with variables and various forms of input and output | ✓ | ✓ | | | ✓ | ✓ | | | ✓ |
| Principles and concepts of computer science - use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs | ✓ | ✓ | | | ✓ | ✓ | | | ✓ |
| Responsible, competent and confident users of ICT 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 | | | ✓ | | | | | ✓ | ✓ |
| Responsible, competent and confident users of ICT use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content | | | ✓ | ✓ | | | ✓ | ✓ | |
| Responsible, competent and confident users of ICT / Analyse and solve problems by writing programs - 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, including collecting, analysing, evaluating and presenting data and information | ✓ | ✓ | ✓ | ✓ | | | ✓ | ✓ | ✓ |
| Responsible, competent and confident users of ICT - use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | | | ✓ | ✓ | | | ✓ | ✓ | ✓ |



Curriculum Drivers

Subject: Computing

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|--|---|
| <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Challenge</p> | <p>Opportunities to develop the talents/skills of those pupils who have a particular interest in computing/coding/technology.</p> <p>Challenge pupils to think about online safety and the appropriate use of technology – encouraging pupils to apply their knowledge to real life situations, giving them strategies to deal with situations as they arise and encouraging them to question the impact of what they are doing.</p> <p>Challenge pupils to evaluate and improve their work e.g debug their programme</p> <p>Provide challenging tasks for all pupil that have a clear purpose/outcome for their learning and develop their understanding of real life uses of technology.</p> <p>Challenge all pupils to develop their digital literacy skills, despite their individual starting points.</p> |
| <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Inclusion</p> | <p>Individual starting points are assessed so that all pupils are included in computing lessons and given the opportunity to develop their digital literacy skills</p> <p>Online safety – inappropriate behaviour</p> <p>Technology as a learning tool</p> <p>Support needs of individual pupils through use of ICT</p> |
| <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Positive Minds</p> | <p>Resilient tortoise Pupils encouraged to persevere with difficult tasks, especially when debugging and improving algorithms and programming.</p> <p>Independent rhino Pupils to develop confidence to tackle computing tasks independently without always having to ask an adult. Encourage pupils to manage distractions which can be provided by using computers.</p> <p>Risk-taking penguin Pupils step up to the challenge of programming, especially with more complex tasks. Pupils to be aware of risks that shouldn't be taken when working online and know what to do if they find something that makes them uncomfortable.</p> <p>Reflective owl Pupils make links between the computing skills that they develop both at school and at home. Pupils evaluate their learning and debug their program to continuously make improvements. Pupils are encouraged to develop links to the outside world and future technologies. Encourage pupils to reflect on what they post online and who may see this and admit when they have made a mistake or behaved inappropriately.</p> <p>Team Bee Pupils work collaboratively in pairs or teams, communicating well and showing respect towards others both on and off line. Pupils who are confident in computing are given opportunities to share their knowledge and support each other.</p> <p>Curious and creative chameleon Pupils use their computing skills and knowledge to analyse problems and form strategies to solve them. Encourage pupils to develop their curiosity but ensuring the questions are appropriate. Pupils use and combine a variety of software and computing elements, often in creative ways, to create digital content.</p> |