



Computing scheme of work (from Sep 2021 onwards) -

Christian values underpinning learning: *Together we love and respect. We are creative, we are determined, we are confident, we are kind.*

Intent

The National Curriculum (2014) forms the basis for all subject teaching ensuring continuity and progression in an age related curriculum. In addition, teachers make sure the content is relevant and stimulating by delivering through themes and topics.

Our computing curriculum has been developed because we believe that:

- Technology plays such a significant role in society today; children need to be able to participate safely in this digital world and identify where to go for help and support if they have any concerns.
- Children need to be able to search effectively and evaluate digital content.
- Children can develop their problem solving skills using logical reasoning to explain how simple algorithms work and to investigate and correct errors.
- Children need to understand and experience how technology can be used for communication and collaboration in the wider world.
- Children need to be creators and have the opportunity to express themselves and their ideas using a range of software responsibly.
- Children should be confident to select and use a variety of software to design and create a range of programs and content to accomplish given goals.

Implementation

Computing will be taught weekly and links to class topics should be explored when appropriate. Opportunities for children to use technology across other areas of the curriculum should be planned where possible. It is essential that staff plan to ensure that content and skills are taught and that a progression of skills is evident across year groups. Children will have access to Chromebooks and Ipads so they can experience a range of devices to support the delivery of the Computing curriculum. We will be following 123ICT Scheme of work and will use some units/apps from Purple Mash to enhance the teaching and learning of specific areas.



EYFS and KS1

Oak (Reception)

Children of Reception age will receive a broad experience of computing through provision activities, and links within their topics. Children will learn how to use technology safely and responsibly and they will take part in Online Safety Days. The use of appropriate units from Purple Mash will be planned to suit their topics and demonstrate links to the seven areas of learning.

Communication and language	Expressive Arts	Literacy	Mathematics	Physical Development	PSED	Understanding the world
2 Paint a picture 2 Beat 2 Explore 2 Go – this can be used alongside Beebots.	2 Paint a picture 2 Beat 2 Explore Paint Projects	Alphabet Slideshows 2 Create a Story 2 Publish Teach your Monster to Read (app on the ipads).	Number Paint Projects 2 Count A -fish-metic	2 Count	Using an ipad/chromebook safely and confidently, logging in, how to store them, charging etc.	Exploring technology for different purposes, home and school, various jobs etc.

Area	Reception	Year 1	Year 2
Computing curriculum content	<p>Communication and language development involves giving children opportunities to experience a rich language environment; to develop their confidence and skills in expressing themselves; and to speak and listen in a range of situations.</p> <p>Understanding the world involves guiding children to make sense of their</p>	<p>1a.1 Pupils understand what algorithms are</p> <p>1a.2 Pupils understand how algorithms are implemented as programs on digital devices</p> <p>1a.3 Pupils understand that programs execute by following precise and unambiguous Instructions</p> <p>1b.1 Pupils can create simple programs</p> <p>1b.2 Pupils can debug simple programs</p> <p>1d.1 Pupils can use technology purposefully to create digital</p>	<p>1a.1 Pupils understand what algorithms are</p> <p>1a.2 Pupils understand how algorithms are implemented as programs on digital devices</p> <p>1a.3 Pupils understand that programs execute by following precise and unambiguous instructions</p> <p>1b.1 Pupils understand how to create simple programs</p> <p>1b.2 Pupils understand how to debug simple programs</p> <p>1c.1 Pupils understand how to use logical reasoning to predict the behaviour of simple programs</p>



	<p>physical world and their community through opportunities to explore, observe and find out about people, places, technology and the environment.</p> <p>Expressive arts and design involves enabling children to explore and play with a wide range of media and materials, as well as providing opportunities and encouragement for sharing their thoughts, ideas and feelings through a variety of activities in art, music, movement, dance, role-play, and design and technology.</p>	<p>content</p> <p>1d.2 Pupils can use technology purposefully to organise digital content</p> <p>1d.3 Pupils can use technology purposefully to store digital content</p> <p>1d.4 Pupils can use technology purposefully to manipulate digital content</p> <p>1d.5 Pupils can use technology purposefully to retrieve digital content</p> <p>1e.1 Pupils understand how to recognise common uses of information technology beyond school</p> <p>1f.1 Pupils can use technology safely and respectfully</p> <p>1f.2 Pupils can keep personal information private</p> <p>1f.3 Pupils can know where to go for help and support when they have concerns about content or contact on the internet or other online technologies</p>	<p>1d.1 Pupils can use technology purposefully to create digital content</p> <p>1d.2 Pupils can use technology purposefully to organise digital content</p> <p>1d.3 Pupils can use technology purposefully to store digital content</p> <p>1d.4 Pupils can use technology purposefully to manipulate digital content</p> <p>1d.5 Pupils can use technology purposefully to retrieve digital content</p> <p>1e.1 Pupils understand how to recognise common uses of information technology beyond school</p> <p>1f.1 Pupils can use technology safely and respectfully</p> <p>1f.2 Pupils can keep personal information private</p> <p>1f.3 Pupils can know where to go for help and support when they have concerns about content or contact on the internet or other online technologies</p>
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Area	Year 3	Year 4	Year 5	Year 6
Computing curriculum content	<p>2a.2 Pupils should write programs that accomplish specific goals</p> <p>2a.3 Pupils should debug programs that accomplish specific goals</p> <p>2a.4 Pupils should simulate physical systems</p> <p>2a.6 Pupils should solve problems by decomposing them into smaller parts</p> <p>2b.1 Pupils should use sequence in programs</p> <p>2b.3 Pupils should use repetition in programs</p> <p>2c.1 Pupils should use logical reasoning to explain how some simple algorithms work</p> <p>2c.2 Pupils should detect and correct errors in algorithms</p> <p>2c.3 Pupils should detect and correct errors in programs</p> <p>2e.3 Pupils can be discerning in evaluating digital content</p> <p>2f.1 Pupils should select a variety</p>	<p>2a.3 Pupils should debug programs that accomplish specific goals</p> <p>2a.4 Pupils should simulate physical systems</p> <p>2a.6 Pupils should solve problems by decomposing them into smaller parts</p> <p>2b.1 Pupils should use sequence in programs</p> <p>2b.2 Pupils should use selection in programs</p> <p>2b.3 Pupils should use repetition in programs</p> <p>2b.4 Pupils should work with variables</p> <p>2b.5 Pupils should use various forms of input and output</p> <p>2c.1 Pupils should use logical reasoning to explain how some simple algorithms work</p> <p>2c.2 Pupils should detect and correct errors in algorithms</p> <p>2c.3 Pupils should detect and correct errors in programs</p> <p>2d.2 understand how the internet can provide multiple services, such as the world-wide web</p>	<p>2a.2 Pupils should write programs that accomplish specific goals</p> <p>2a.3 Pupils should debug programs that accomplish specific goals</p> <p>2a.4 Pupils should simulate physical systems</p> <p>2a.6 Pupils should solve problems by decomposing them into smaller parts</p> <p>2b.1 Pupils should use sequence in programs</p> <p>2b.2 Pupils should use selection in programs</p> <p>2b.3 Pupils should use repetition in programs</p> <p>2b.4 Pupils should work with variables</p> <p>2b.5 Pupils should use various forms of input and output</p> <p>2c.1 Pupils should use logical reasoning to explain how some simple algorithms work</p> <p>2c.2 Pupils should detect and correct errors in algorithms</p> <p>2c.3 Pupils should detect and correct errors in programs</p> <p>2f.1 Pupils should select a variety of software (including</p>	<p>2a.1 Pupils can design programs that accomplish specific goals</p> <p>2a.2 Pupils can write programs that accomplish specific goals</p> <p>2a.3 Pupils can debug programs that accomplish specific goals</p> <p>2a.4 Pupils can simulate physical systems</p> <p>2a.5 Pupils can control physical systems</p> <p>2a.6 Pupils can solve problems by decomposing them into smaller parts</p> <p>2b.1 Pupils can use sequence in programs</p> <p>2b.2 Pupils can use selection in programs</p> <p>2b.3 Pupils can use repetition in programs</p> <p>2b.4 Pupils can work with variables</p> <p>2b.5 Pupils can use various forms of input and output</p> <p>2c.1 Pupils can use logical reasoning to explain how some simple algorithms work</p> <p>2c.2 Pupils can detect and correct errors in algorithms</p> <p>2c.3 Pupils can detect and correct errors in programs</p>



	<p>of software (including internet services) on a range of digital devices to accomplish given goals</p> <p>2f.2 Pupils should use a variety of software (including internet services) on a range of digital devices to accomplish given goals</p> <p>2f.3 Pupils should combine a variety of software (including internet services) on a range of digital devices to accomplish given goals</p> <p>2f.4 Pupils should collect information</p> <p>2f.6 Pupils understand how to analyse information</p> <p>2f.8 Pupils understand how to evaluate information</p> <p>2f.10 Pupils understand how to present information</p> <p>2g.1 Pupils understand how to use technology safely and responsibly</p> <p>2g.2 Pupils understand how to use technology respectfully</p> <p>2g.3 Pupils understand what is acceptable/unacceptable behaviour online</p>	<p>2e.1 understand how to use search technologies effectively</p> <p>2e.3 Pupils can be discerning in evaluating digital content</p> <p>2f.2 Pupils should use a variety of software (including internet services) on a range of digital devices to accomplish given goals</p> <p>2f.3 Pupils can combine a variety of software (including internet services) on a range of digital devices to accomplish given goals</p> <p>2f.4 Pupils can collect information</p> <p>2f.6 Pupils can analyse information</p> <p>2f.8 Pupils can evaluate information</p> <p>2f.10 Pupils can present information</p> <p>2g.1 Pupils can use technology safely and responsibly</p> <p>2g.2 Pupils can use technology respectfully</p> <p>2g.3 Pupils can recognise acceptable/unacceptable behaviour online</p> <p>2g.4 Pupils can identify a range of ways to report concerns about content and</p>	<p>internet services) on a range of digital devices to accomplish given goals</p> <p>2f.2 Pupils should use a variety of software (including internet services) on a range of digital devices to accomplish given goals</p> <p>2f.3 Pupils should combine a variety of software (including internet services) on a range of digital devices to accomplish given goals</p> <p>2f.5 Pupils can collect data</p> <p>2f.7 Pupils can analyse data</p> <p>2f.9 Pupils can evaluate data</p> <p>2f.10 Pupils can present information</p> <p>2f.11 Pupils can present data</p> <p>2g.1 Pupils should use technology safely and responsibly</p> <p>2g.2 Pupils should use technology respectfully</p> <p>2g.3 Pupils should recognise acceptable/unacceptable behaviour</p> <p>2g.4 Pupils should identify a range of ways to report concerns about content and contact</p>	<p>2d.1 Pupils can understand computer networks including the internet</p> <p>2d.2 Pupils can understand how they can provide multiple services, such as the world-wide web</p> <p>2d.3 Pupils can understand the opportunities they offer for communication and collaboration</p> <p>2e.1 Pupils can use search technologies effectively</p> <p>2e.2 Pupils can appreciate how results are selected and ranked</p> <p>2e.3 Pupils can be discerning in evaluating digital content</p> <p>2f.1 Pupils can select a variety of software (including internet services) on a range of digital devices to accomplish given goals</p> <p>2f.2 Pupils can use a variety of software (including internet services) on a range of digital devices to accomplish given goals</p> <p>2f.3 Pupils can combine a variety of software (including internet services) on a range of digital devices to accomplish given goals</p> <p>2f.4 Pupils can collect information</p> <p>2f.5 Pupils can collect data</p>
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	<p>2g.3 Pupils can recognise acceptable/unacceptable behaviour 2g.4 Pupils can identify a range of ways to report concerns about content and contact</p>	<p>contact</p>		<p>2f.6 Pupils can analyse information 2f.7 Pupils can analyse data 2f.8 Pupils can evaluate information 2f.9 Pupils can evaluate data 2f.10 Pupils can present information</p> <p>2g.1 Pupils can use technology safely and responsibly 2g.2 Pupils can use technology respectfully 2g.3 Pupils can recognise acceptable/unacceptable behaviour 2g.4 Pupils can identify a range of ways to report concerns about content and contact</p>
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Log in to 123 ICT/Purple Mash to see unit plans.

Year A	Term 1a	Term 1b	Term 2a	Term 2b	Term 3a	Term 3b
Poplar A Y1	Online Safety Intro	BeeBot Fun	Internet Searching	Graphics	Animated storybooks – Purple Mash	Lego Builders – Purple Mash
Poplar B Y2	Online Safety Experts	Internet searching	Ebook (123ICT)	Scratch Jnr	Making Music – Purple Mash	Animation
Beech Y3	Introducing SMART Rules	Scratch Animation	Branching Database – Purple Mash	Ebook	Animation	Garage band Music
Willow Y4	Online Safety Comic	Effective searching & touch typing – Purple Mash	Scratch Quiz	Audio Podcast	Green Screen Presentation	Spreadsheets – Purple Mash
Maple A Y5	Online Safety Presentation	Scratch Game	Databases – Purple Mash	E-book	Spreadsheets	Blogging – Purple Mash



Maple B Y6	Smart Podcast	Networks, the internet and searching	Microbit intro	Choose your own adventure	Choose your own adventure	Quizzing – Purple Mash
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Assessment in computing:

- Pupil voice
- Saved work
- Displays, images and speech bubbles – opportunity to practice skills, varied and engaging curriculum, showcased final pieces, clear progression in skills

Role of the co-ordinator:

- Celebrate successes
- Collate appropriate evidence over time
- Monitor the standards in the subject to ensure that outcomes are at expected levels
- Provide ongoing support/ signposting