St Joseph's Catholic Primary School

End points for Computing

Computer Science	Information Technology	Digital Literacy

	Digital Literacy	Information Technology	Computer Science
EYFS	**Safety and Privacy:** • Explain how my work on the computer belongs to me and other people's work belongs to them. • Explain what it means for something to be private. • I can talk about how my body feels when I am not comfortable with something. • Know who can help me when I am feeling worried. • Show that I understand how to be kind to others. • Choose activities in my free time that help me to be healthy. **Using a Purple Mash with a login:**	**Mouse and Trackpad skills:** • Hold a computer mouse with my finger on the correct buttons. • Use a mouse to make the cursor move around the computer screen where I want it to go. • Click the correct mouse button to play games on the computer. • Use a mouse accurately to click and drag objects on the screen. • Use the mouse roller to scroll up and down a page. • Use a laptop touch pad. **Keyboard skills:**	**Robots:** • Talk about where I am moving a toy vehicle whislt I am moving it. • Describe the route for a toy vehicle • Folow directions to make a route for a toy vehicle. • Plan a route for a toy vehicle. • Control the forwards, backwards and rotation of a floor robot one step at a time. • Program a 1-step route for a floor turtle. • Predict where a floor robot wil end up when given the instructions for a 1-step route. • Plan a route for a floor robot and then carry out these

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- Get to the Purple Mash page on my device at school and at home.
- Login to Purple Mash and Mini Mash using my username and password.
- Save my work in my own tray/folder when I am using Mini Mash or Purple Mash.
- Open work that I have done earlier.
- Find and complete 2Dos that my teacher has set for me.

Hardware:
- Understand when having clean hands is important when using shared devices.
- Understand why it is not sensible to eat and drink whilst using a technological device.
- Understand why I need to take care with electronic

- Find all the letters of the alphabet on a keyboard.
- Put spacers between words in my typed work.
- Know how to correct typed work without re-doing the work entirely using the delete key.
- Type capital letters and lower case and know how to change between these.
- Type numbers using a keypad.
- Know how to move to the next line down when typing.
- Use the arrow keys to move around the screen.
- Use the different inputs of a computer keyboard.

Drawing skills:
- Select colours when painting on the computer.
- Draw pictures on the computer to go with my work.

instructions one step at a time.
- Plan a route for a floor robot and then carry out these instructions more than one step at a time.

Technology around us:
- Talk about what techonology is used at home.
- Talk about what technology is used outdoors.
- Talk about what technology is used in the world around me.

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devices and their plugs and wires.
- Take appropriate actions when I need to carry a device to a different location.
- Use devices with care.
- Identify the technology used around me.
- Identify the parts of a computer and what they are for.

- Use a computer to draw with different widths of pens.
- Try the different tools that I can draw with on the computer.
- Use the undo button correctly.
- Use the erase button.
- Use a touchscreen device purposefully.
- Draw on a computer using a mouse.

Quizzes:
- Understand what a quiz is.
- Complete a multiple – choice quiz.
- Complete a sequencing quiz.
- Type answers to quiz questions.
- Complete a close quiz.
- Complete a matching quiz.
- Complete a sorting and sequencing quiz.
- Complete quizzes on the computer.

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		• Play games that ask me questions. **Sounds:** • Make music using a computer. • Add sound effects to my work. • Use a device to record myself speaking and play back the sounds. **Photography:** • Talk about what photos show. • Take photos using a digital device. • Use the webcam in Mini Mash. • Open photos in Purple Mash. • Open photos that I have taken, in Purple Mash.	
Year 1	**Online Safety:** • Keep my login information safe. • Save my work in a safe place, such as 'My Work' folder.	**Pictograms:** • Change content on a file such as text, sound and images. • Name my work. • Save my work. • Find my work.	**Grouping and Sorting:** • Add sound pictures and text • Name my work. • Save my work. • Find my work.

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Technology outside school:
- Say what technology is.
- Say what examples of technology are in school.
- Say what examples are at home.

Animated Story Books:
- Add sound, pictures and text to a program such as 2Create a Story.
- Change content on a file such as text, sound and images.
- Name my work.
- Save my work.
- Find my work.

Spreadsheets:
- Change content on a file such as text, sound and images.
- Name my work.
- Save my work.
- Find my work.

Lego Builders:
- Explain that an algorithm is a set of instructions.
- Know that a computer program turns an algorithm into code that a computer can understand.
- Work out what is wrong when the steps are out of order in instructions.

Maze Explorers:
- Work out what is wrong when the steps are out of order in instructions.
- Make good guesses of what is going to happen in a program.

Coding:
- Know that a computer program turns an algorithm into code that a computer can understand.

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			• Say that if something does not work how it should it is because my code is incorrect. • Try and fix my code properly if it isn't working properly. • Make good guesses of what is going to happen in a program. • Change content on a file such as text, sound and images. • Name my work. • Save my work. • Find my work.
Year 2	**Online Safety:** • Know the consequences of not searching online safely. • Share work and communicate electronically – Using 2Email or display boards. • Report unkind behaviour and things that upset me online to a trusted adult. • See where technology is used at school outside of the classroom.	**Spreadsheets:** • Organise data using a database such as 2Investigate. • Name, save and find my work. **Making Music:** • Edit digital data. For example data in music composition software like 2Sequence. • Name, save and find my work.	**Coding:** • Explain an algorithm is a set of instructions to complete a task. • Carefully plan my algorithm so it will work when I make it into code. • Design a simple program using 2Code that achieves a purpose. • Find and correct some erros in my program.

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Effective Searching:
- Find data using specific searches.
- Find information I need using a search engine.
- Know the consequences of not searching online safely.

Questioning:
- Organise data using a database such as 2Investigate.
- Find data using specific searches.
- Use several programs to organise information. For example binary trees in 2Question or spreadsheets in 2Calculate.
- Name, save and find my work.

Creating pictures:
- Name, save and find my work.
- Include photos, text and sound in my creations.

Presenting ideas:
- Use several programs to organise information. For example binary trees in 2Question or spreadsheets in 2Calculate.

- Say what will happen in a program.
- Spot something in a program that has an action or effect.
- Understand that my creations such s programs in 2Code are linked to the adult world.

		• Name, save and find my work. • Include photos, text and sound in my creations.	
Year 3	**Online Safety:** • Create a secure password. • Explain the importance of having a securer password and not sharing it with others. • Explain the negative consequences of not keeping passwords safe and secure. • Understand the importance of keeping safe online and behaving respectfully. • Use communication tools such as 2Email respectfully and use good manners. • Report unacceptable content and contact online in more than one way to a trusted adult.	**Touch typing:** • Carry out searches to find digital content on a range of online systems on Purple Mash or an internet search engine. • Consider what the most appropriate software to use when given a task by an adult. **Simulations:** • Carry out searches to find digital content on a range of online systems on Purple Mash or an internet search engine. • Consider what the most appropriate software to use when given a task by an adult.	**Coding:** • Make an real-life situation into an algorithm for a program. • Design an algorithm carefully, thinking about what I want to do and how I can turn it into code. • Identify an error in my program and fix it. • Experiment with timers in my programs. • Identify the difference in using between the effect of a timer or repeat command in my code. • Know that a variable stores information while a program is running.

Email:
- Identify different ways that the internet can be used for communication.
- Use email such as 2Email to respond to others appropriately and attach files.
- Carry out searches to find digital content on a range of online systems on Purple Mash or an internet search engine.
- Consider what the most appropriate software to use when given a task by an adult.
- Create a purposeful and appropriate content and attach this to an email.
- Explain the importance of having a securer password and not sharing it with others.
- Explain the negative consequences of not keeping passwords safe and secure.

- Create a purposeful and appropriate content and attach this to an email.

Presenting:

Spreadsheets:
- Carry out searches to find digital content on a range of online systems on Purple Mash or an internet search engine.
- Collect data and input it into software.
- Analyse data using features within software to help. For example formulas in 2Calculate.
- Present data and information using different software using 2Question or 2Graph.
- Consider what the most appropriate software to use when given a task by an adult.

- Identify 'if' statements, repetition and variables.
- Read programs with several steps and predict what it will do.

	• Use communication tools such as 2Email respectfully and use good manners.	• Create a purposeful and appropriate content and attach this to an email. **Branching Databases:** • Carry out searches to find digital content on a range of online systems on Purple Mash or an internet search engine. • Collect data and input it into software. • Analyse data using features within software to help. For example formulas in 2Calculate. • Present data and information using different software using 2Question or 2Graph. • Consider what the most appropriate software to use when given a task by an adult. • Create a purposeful and appropriate content and attach this to an email.	

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		Graphing:	
		- Carry out searches to find digital content on a range of online systems on Purple Mash or an internet search engine. - Collect data and input it into software. - Analyse data using features within software to help. For example formulas in 2Calculate. - Present data and information using different software using 2Question or 2Graph. - Consider what the most appropriate software to use when given a task by an adult. - Create a purposeful and appropriate content and attach this to an email.	
Year 4	Online Safety: - Turn real-life situation to solve into an algorithm, using a	Animation: - Share digital content using a variety of applications such as	Coding: - Use repetition in my code.

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design that shows how I can accomplish this in code.

- Understand that network and communication components can be found in many different devices which allow them to join the internet.
- Create and improve my solutions to a problem based in feedback.
- Review solutions that others have created, using a checklist of criteria.
- Share digital content using a variety of applications such as 2Blog, 2Email and Display Boards.
- Have a good understanding of the online safety rules we learn at school.
- Demonstrate how to use different online technologies safely.

2Blog, 2Email and Display Boards.

Spreadsheets:
- Work collaboratively to create content and solutions.
- Share digital content using a variety of applications such as 2Blog, 2Email and Display Boards.

Effective searching:
- Understand that network and communication components can be found in many different devices which allow them to join the internet.
- Understand the purpose of a search engine and the main features within it.
- Look at information on a webpage and make predictions about the accuracy of

- Use timers within my program desgins more accurtely to create repetition effects.
- Use selection in my programming. For example, using an 'if' statement for a question being asked and the program takes one of two paths.
- Use variables within my program and know how to change the value of variables.
- Use the user inputs and outputs features within my program. For example, 'Print to screen'.
- Identify erros in my code by using different methods by going through lines of code and fixing them.
- Read programs that contain several steps and predict the outcomes with increasing accuracy.

- Demonstrate how to use a few different online services safely.
- Know I have a right to privacy both on and offline.
- Recognise that my wellbeing can be affected by how I use technology.

information contained within in.
- Share digital content using a variety of applications such as 2Blog, 2Email and Display Boards.

Making Music:
- Work collaboratively to create content and solutions.
- Share digital content using a variety of applications such as 2Blog, 2Email and Display Boards.

- Create and improve my solutions to a problem based in feedback.
- Review solutions that others have created, using a checklist of criteria.
- Work collaboratively to create content and solutions.
- Share digital content using a variety of applications such as 2Blog, 2Email and Display Boards.

Writing for difference Audiences:
- Work collaboratively to create content and solutions.
- Share digital content using a variety of applications such as 2Blog, 2Email and Display Boards.

Hardware investigations:
- Recognise the main component parts of hardware which allow

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			computers to join and form a network.
			• Understand that network and communication components can be found in many different devices which allow them to join the internet.
			• Share digital content using a variety of applications such as 2Blog, 2Email and Display Boards.
			Logo:
			• Turn real-life situation to solve into an algorithm, using a design that shows how I can accomplish this in code.
			• Read programs that contain several steps and predict the outcomes with increasing accuracy.
			• Share digital content using a variety of applications such as 2Blog, 2Email and Display Boards.

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Year 5	**Online Safety:**	**Spreadsheets:**	**Coding:**
	• Know the importance of computer networks and how they help solve problems and enhance communication. • Recognise the main dangers that can happen via computer networks. • Explain what personal information is and know strategies for keeping this safe. • Use the most appropriate form of online communication according to the digital content. For example, 2Email, 2Blog and Display Boards. • Search precisely when using a search engine. For example: To know that adding words or removing words help to find better results.	• Make appropriate improvements to digital work that has been created. • Comment on how successful a digital solution is that I have created. • Work collaboratively with others creating solutions to problems using appropriate software such as 2Code. **3D Modelling:** • Make appropriate improvements to digital work that has been created. • Comment on how successful a digital solution is that I have created. • Work collaboratively with others creating solutions to problems using appropriate software such as 2Code.	• Make more complex real-life program. • Test and debug my programs as I work. • Convey algorithms that contain sequence, selection and repetition into code that works. • Use sequence, selection, repetition and some other coding structures in my code. • Organise my code carefully by using naming variables and naming tabs to help debug more efficiently. • Use logical methods to identify the cause of any bug with support to identify the specific line of code. • Make appropriate improvements to digital work that has been created.

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• Explain in detail how accurate, safe and reliable the content on a webpage. • Make appropriate improvements to digital work that has been created. • Comment on how successful a digital solution is that I have created. • Work collaboratively with others creating solutions to problems using appropriate software such as 2Code. • Have a secure knowledge of online safety rules taught at school. • Demonstrate the safe and respectful use of different online technologies and online services. • Relate appropriate online behaviour to my right to have personal privacy. • Know how to not let my mental well-being or others be	**Word Processing:** • Make appropriate improvements to digital work that has been created. • Comment on how successful a digital solution is that I have created. • Work collaboratively with others creating solutions to problems using appropriate software such as 2Code. **Databases:** • Make appropriate improvements to digital work that has been created. • Comment on how successful a digital solution is that I have created. • Work collaboratively with others creating solutions to problems using appropriate software such as 2Code. **Concept Maps:**	• Comment on how successful a digital solution is that I have created. • Work collaboratively with others creating solutions to problems using appropriate software such as 2Code. **Game Creator:** • Test and debug my programs as I work. • Make appropriate improvements to digital work that has been created. • Comment on how successful a digital solution is that I have created. • Work collaboratively with others creating solutions to problems using appropriate software such as 2Code. •

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	affected by use of online technologies and services.	- Make appropriate improvements to digital work that has been created. - Comment on how successful a digital solution is that I have created. - Work collaboratively with others creating solutions to problems using appropriate software such as 2Code. - Use collaborative modes such as within 2Connect with others and share it.	
Year 6	**Online Safety:** - Explain the difference between the internet and the World Wide Web. - Explain what a WAN and LAN us and describe the process of how access to the internet in school is possible. - Use filters when searching for digital content.	**Blogging:** - Explain the difference between the internet and the World Wide Web. - Compare a range of digital content sources and rate them in terms of content, quality and accuracy. - I can consider the intended audience carefully when I	**Coding:** - Turn a complex programming task into an algorithm. - Idenfity the important aspects of a programming task in a logical way, identifying appropriate coding structires that would work. - Test and debug my program as I work on it and use logical

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- I can explain in detail how accurate and reliable a webpage and its content is.
- Demonstrate safe and respectful use of a range of different technologies and online services.

design and make digital content.
- Design and create my own blog online.
- Use criteria to evaluate the quality of my own and other digital solutions, suggesting refinements.
- Demonstrate safe and respectful use of a range of different technologies and online services.
- Know the value of protecting my privacy and others online.

Spreadsheets:
- Use filters when searching for digital content.
- Compare a range of digital content sources and rate them in terms of content, quality and accuracy.
- I can consider the intended audience carefully when I

methods to identify a cause of a bug.
- Identify a specific line of code that is causing a problem in my program and attempt a fix.
- Translate algorithms that include sequence, selection and repetition into code and nest these structures within each other.
- Use imputs and outputs within my coded programs such as sound, movement and buttons and represent the state of an object.
- Understand a program in parts and can make logical attempts to put the separare parts and together in an algorithm to explain the program as a whole.
- Compare a range of digital content sources and rate them

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design and make digital content.

- Compare a range of digital content sources and rate them in terms of content, quality and accuracy.
- I can consider the intended audience carefully when I design and make digital content.
- Use criteria to evaluate the quality of my own and other digital solutions, suggesting refinements.

Text Adventures:
- Compare a range of digital content sources and rate them in terms of content, quality and accuracy.
- I can consider the intended audience carefully when I design and make digital content.

in terms of content, quality and accuracy.

- I can consider the intended audience carefully when I design and make digital content.
- Use criteria to evaluate the quality of my own and other digital solutions, suggesting refinements.
- Identify more discrete inappropriate behaviours online.
- Use critical thinking to help me stay safe online.
- Know the value of protecting my privacy and others online.

Networks:
- Explain the difference between the interent and the World Wide Web.
- Explain what a WAN and LAN us and describe the process of

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		• Use criteria to evaluate the quality of my own and other digital solutions, suggesting refinements.	how access to the internet in school is possible. **Quizzing:** • Compare a range of digital content sources and rate them in terms of content, quality and accuracy. • I can consider the intended audience carefully when I design and make digital content. • Use criteria to evaluate the quality of my own and other digital solutions, suggesting refinements.

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