

Computing



Know more, remember more



Know yourself, grow yourself



Use your learning, develop your skills



Curriculum overview

Year		Autumn	Spring	Summer
1	Strand	IT skills (E-safety throughout)		
	Termly Focus	Basic computer access	Using programs	IT skills
2	Strand	Computer Science and Programming		
	Termly Focus	Coding	Coding	Coding
3	Strand	I.T. skills		
	Termly Focus	e-safety/ basic I.T. skills	Touch typing / word	PowerPoint
4	Strand	Computer Programming		
	Termly Focus	e-safety	Typing skills	
5	Strand	Programming (E-Safety throughout)		
	Termly Focus	Algorithms	design and write simple programs	Debugging
6	Strand	IT Skills (Including E-safety)		
	Termly Focus	E-Safety	Communication/ Sharing information	Data and information



Computing (Year 1): Strand of learning – IT Skills

Crucial Knowledge- (Autumn)	Expanded Knowledge	Apply/Prove
<ul style="list-style-type: none">• To know the difference between online and offline.• To know when and why to take breaks from device time.• To consider the feelings of people around them, even when engaged in fun online and why it is important to be respectful while using devices.• To discover that the internet can be used to visit faraway places and learn new things.• To compare how staying safe online is similar to staying safe in the real world.• To explain how to travel safely on the internet.	<ul style="list-style-type: none">•	<ul style="list-style-type: none">• Performing the online safety learning songs.• Verbal responses to questioning.• Written/drawn responses to lessons.• Teacher’s observation notes.

Crucial Knowledge- (Spring)	Expanded Knowledge	Apply/Prove
<ul style="list-style-type: none">• To use name and label parts of a computer, laptop and tablet.• To recognise and discuss common uses of IT in the home and school environment.• To recognise the QWERTY board and begin to locate the letters of their username and password.• To use a tablet to create digital content.	<ul style="list-style-type: none">• To recognise uses of technology outside of the school and home environment.	<ul style="list-style-type: none">• Verbal responses to questioning.• Saved evidence of online content.• Written/drawn responses to lessons.• Teacher’s observation notes.

Crucial Knowledge- (Summer)	Expanded Knowledge	Apply/Prove
<ul style="list-style-type: none">• To know what an algorithm is.• To create algorithms both online and offline.• To identify errors in coding/algorithms and fix (debug) them.• To predict the behaviour of simple programmes.	<ul style="list-style-type: none">• To identify pre-existing errors in an algorithm and debugging them.	<ul style="list-style-type: none">• Purple Mash saved content.• Verbal responses to questioning.• Written/drawn responses to lessons.



Computing (Year 2): Strand of learning – Computer Science and Programming

<p>Crucial Knowledge- Term 1 (Drawing)</p> <ul style="list-style-type: none">To know the importance of being safe, responsible and respectful online.To explain how to be a good digital citizen.To recognise the different feelings that can be had when using technology.To know what to do when you do not have a good feeling when using technology.To understand that being safe online is similar to staying safe in real life.To identify websites and apps that are just right or not right.To know how to get help from an adult if you are unsure about a website or app.	<p>Expanded Knowledge</p> <ul style="list-style-type: none">	<p>Apply/Prove</p> <ul style="list-style-type: none">Performing the online safety learning songs.Verbal responses to questioning.Written/drawn responses to lessons.Teacher's observation notes.
<p>Crucial Knowledge- Term 2 (Drawing)</p> <ul style="list-style-type: none">To recognise and discuss common uses of IT outside of school and home.To recognise the location of the letters of the QWERTY board for typing.To use a tablet and laptop to create digital content.To know the uses of a mouse to navigate a laptop or computer.	<p>Expanded Knowledge</p> <ul style="list-style-type: none">	<p>Apply/Prove</p> <ul style="list-style-type: none">Verbal responses to questioning.Saved evidence of online content.Written/drawn responses to lessons.Teacher's observation notes.
<p>Crucial Knowledge- Term 2 (Drawing)</p> <ul style="list-style-type: none">To create simple programs both online and offline.To begin to use logical reasoning to debug a program and predict the code's behaviour.	<p>Expanded Knowledge</p> <ul style="list-style-type: none">To explain how to debug a program using vocabulary taught.	<p>Apply/Prove</p> <ul style="list-style-type: none">Purple Mash saved content.Verbal responses to questioning.Written/drawn responses to lessons.



<ul style="list-style-type: none"> To know that behind any computer's actions, there is a code created by a human being. 		
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Computing (Year 3/4): Strand of learning – E Safety/IT Skills (Cycle B 2021-22)

Crucial Knowledge –(Autumn)	Expanded Knowledge	Intent/Prove
<p><u>E-Safety</u> *Cyberbullying is the use of electronic communication to bully a person. This can be via messaging services using written or verbal communication or over social media. *E-safety is Electronic Safety and it is the act of staying safe online or on any technological device. *If an individual feels unsafe on online they can report and block the user or person they believe is behind it. They should then inform a trust adult about what has been going on, a family member or member of school staff. *Cyberbullying is just as serious as in person physical bullying and the consequences can be just as serious. *Pupils will understand the importance of searching safely and using the correct key words when searching.</p> <p><u>I.T Skills</u> *Understanding where the on/off button is located on the laptops and computers. Pupils will be made aware that this is different on different makes and models and can also differ again on tablets such as I-Pads. *the importance of remembering their log in's for the school system</p>	<p>*Pupils will be shown reputable websites to use and remember/recognise to ensure they are searching safely online. *Pop-up boxes can also alert people to when sites are not safe. They can often issue a warning before entering unsafe sites.</p> <ul style="list-style-type: none"> pupils will understand the uses for the left and right click and where they are located on the laptop mousepad. 	<p>*Pupils will demonstrate an understanding and application of these skills through their use of I.T throughout their school career and daily life. This will be further demonstrated when they are safely using the internet and understand how to correctly handle situations online.</p>



*Using a mouse in order to be able to click on items on their screen and select what they would like to open.

*Pupils will be taught how to open and close a window, such as opening the internet and then closing down the browser or opening a word document and closing it.

*Building on this previous skill pupils will also understand how to save a document that they have worked on. For example if they are researching something they will be showing how to work in the document and then save it successfully into the correct area.

Touch Typing Skills

*Pupils will understand the correct posture they need to type successfully.

*Posture means the correct way to sit when typing.

*Keys on a keyboard are the little tiles that we correspond to letters/numbers/symbols.

*Top row keys are the keys on the top row of the keyboard.

*Home row keys are the keys on the middle of the keyboard.

*Bottom row keys are the keys on the bottom row of the keyboard.

*The space bar is the long bar in the middle of the bottom of the keyboard.

*It is important to try to use certain fingers for typing on certain keys as it allows for faster more accurate typing.

- Pupils will understand that posture is important because repeatedly sitting in the incorrect position when typing can cause repetitive strain injury.



Crucial Knowledge – Coding (Spring)	Expanded Knowledge	Intent/Prove
To be updated		

Crucial Knowledge – Logo (Summer)	Expanded Knowledge	Intent/Prove
To be updated		

Computing (Year 5/6): Strand of learning - Programming (Cycle B 2021-22)

Crucial Knowledge – algorithms	Expanded Knowledge	Intent/Prove
<ul style="list-style-type: none"> • Create and follow a sequence of simple instructions • Sequence sets of instructions in the correct order • uses logical reasoning to detect and correct errors in algorithms 	<ul style="list-style-type: none"> • uses logical reasoning to explain how some simple algorithms work 	<p>Written instructions and instructions on a computer programme (Scratch/Purple Mash) Create instructions to follow a maze with accuracy</p>

Crucial Knowledge - Programming	Expanded Knowledge	Intent/Prove
<ul style="list-style-type: none"> • Design and write simple programmes • understands how to select and repeat instructions when programming • uses object orientated programming to control screen 'actors' 	<ul style="list-style-type: none"> • Understands variables • Develops systems that control events in response to conditions 	<p>Use a range of software (Scratch, Purple Mash etc.) to design and write simple programmes. Begin to develop this understanding by creating your own game.</p>



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<i>Crucial Knowledge - debugging</i>	<i>Expanded Knowledge</i>	<i>Intent/Prove</i>
<ul style="list-style-type: none">• Debugs simple programmes• solves problems by decomposing them into smaller parts	<ul style="list-style-type: none">• uses logical reasoning to detect and correct errors in algorithms	Apply knowledge of programming and debugging to find and amend simple bugs within a programme.