

# Abbots Ripton Primary School - Computing

Year 3/4  
Year A

Understanding Technology	Programming	Digital Literacy	E-safety
<p>Pupils understand that <b>computers</b> (in various forms) generally accept <b>inputs</b> and produce <b>outputs</b> and can give examples of this.</p> <p>Pupils develop a basic understanding of how computers can be linked to form a <b>local network</b> such as those found in schools.</p> <p>Pupils are aware of some of the services offered by the <b>Internet</b> and can describe when they are, and are not, using <b>online technologies</b></p>	<p>Pupils create <b>programs</b> to accomplish specific goals:</p> <ul style="list-style-type: none"> <li>- using an increasing range of <b>digital devices</b> and <b>applications</b>.</li> <li>- exploring and understanding the impact of changing instructions.</li> <li>- using <b>sequence</b> and <b>repetition</b></li> <li>- <b>decomposing</b> problems both on and off screen</li> </ul> <p>using the <b>principles of logical reasoning</b> in order to resolve problems.</p>	<p>Pupils are confident and creative users of technology. They are beginning to make informed choices about the appropriateness of <b>digital content</b> they access and create, using an increasing range of <b>digital resources</b> and <b>devices</b></p> <p>Pupils identify, collect and manipulate different types of <b>data</b> (e.g. numerical data from science experiments, words, still and moving images etc.) which they present as <b>information</b>, showing a greater awareness of purpose and audience.</p> <p>Pupils become more discerning in their choice of <b>search technology</b> to accomplish specific goals. They understand the need for efficiency when conducting searches, choosing keywords carefully.</p>	<p>Pupils, review their online activity, including maintaining amending online profiles, <b>communication channels and publishing spaces</b> to ensure they do not inadvertently reveal personal details.</p> <p>Pupils show respect for content created by others by acknowledging sources, commenting respectfully and responsibly on other people's work and respecting privacy. They are discriminating about what they share and whether any permission is needed to do so</p> <p>Pupils can identify a range of potential online risks including inappropriate contact or content and can identify ways of seeking support and reporting concerns. They exercise caution when receiving <b>attachments</b> and following <b>web links</b> contained in messages.</p>
<p><b>Autumn A: Blogging using Starz</b></p> <p>Understanding what a network is and how the internet works. Discuss some of the services we use the internet for (discuss which are not online services). Review their online profiles from last year.</p> <p>Discuss what a blog is. Write own blog on topic, considering purpose and audience.</p>	<p>Pupils develop a basic understanding of how computers can be linked to form a <b>local network</b> such as those found in schools.</p> <p>Pupils are aware of some of the services offered by the <b>Internet</b> and can describe when they are, and are not, using <b>online technologies</b></p> <p>Pupils recognise and describe some of the services offered by the <b>Internet</b>, especially those used for communication and collaboration</p>	<p>Pupils are confident and creative users of technology. They are beginning to make informed choices about the appropriateness of <b>digital content</b> they access and create, using an increasing range of <b>digital resources</b> and <b>devices</b></p> <p>Present <b>information</b>, showing a greater awareness of purpose and audience.</p>	<p>Pupils, review their online activity, including maintaining amending online profiles, <b>communication channels and publishing spaces</b> to ensure they do not inadvertently reveal personal details.</p> <p>Pupils show respect for content created by others by acknowledging sources, commenting respectfully and responsibly on other people's work and respecting privacy. They are discriminating about what they share and whether any permission is needed to do so</p> <p>Pupils can identify a range of potential online risks including inappropriate contact or content and can identify ways of seeking support and reporting concerns. They exercise caution when receiving <b>attachments</b> and following <b>web links</b> contained in messages.</p>
<p><b>Autumn B: Publishing</b></p> <p>Create an ebook on 'Book creator' including digital art to illustrate using 'Paint' programme.</p>		<p>Pupils are confident and creative users of technology. They are beginning to make informed choices about the appropriateness of <b>digital content</b> they access and create, using an increasing range of <b>digital resources</b> and <b>devices</b></p> <p>Pupils identify, collect and manipulate different types of <b>data</b> (e.g. numerical data from science experiments, words, still and moving images etc.) which they present as <b>information</b>, showing a greater awareness of purpose and audience.</p>	<p>Use technology safely, respectfully and responsibly; recognize acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>
<p><b>Spring A: Mini Parliament- work in teams to create a new law</b></p> <p>Work in teams to create a new law and resources for their campaign using popplet, comic life and chatterpix or photospeak)</p>	<p><a href="https://www.parliament.uk/education/teaching-resources-lesson-plans/how-to-make-a-law-whiteboard-resource/">https://www.parliament.uk/education/teaching-resources-lesson-plans/how-to-make-a-law-whiteboard-resource/</a></p>	<p>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</p> <p>Present <b>information</b>, showing a greater awareness of purpose and audience.</p>	<p>Use search technologies effectively</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>

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<p><b>Spring B: ACE Award Silver</b></p> <p>Review what is personal and private information. Look at setting up social media profiles and what information should be shared. Discuss emails and sending and receiving attachments. Children to use STARZ more regularly.</p>				<p>Pupils, review their online activity, including maintaining amending online profiles, <b>communication channels and publishing spaces</b> to ensure they do not inadvertently reveal personal details.</p> <p>Pupils show respect for content created by others by acknowledging sources, commenting respectfully and responsibly on other people’s work and respecting privacy. They are discriminating about what they share and whether any permission is needed to do so.</p> <p>Pupils can identify a range of potential online risks including inappropriate contact or content and can identify ways of seeking support and reporting concerns. They exercise caution when receiving <b>attachments</b> and following <b>web links</b> contained in messages.</p>
<p><b>Summer A: Bluebots</b></p> <p>Programming bluebots using ipads. Problem solving and debugging (for example how can they navigate the bluebot to a certain point with no forwards button?)</p>	<p>Pupils understand that <b>computers</b> (in various forms) generally accept <b>inputs</b> and produce <b>outputs</b> and can give examples of this.</p>	<p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p>		
<p><b>Summer B: We Love Games!</b></p> <p>Scratch – Creating a simple game by decomposing an existing game and then recreating a similar game.</p>	<p>Pupils are aware of some of the services offered by the <b>Internet</b> and can describe when they are, and are not, using <b>online technologies</b></p>	<p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p>		

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Year 3/4 Year B	Understanding Technology	Programming	Digital Literacy	E-safety
	<p>Pupils understand the role of <b>web browsers</b> when viewing <b>web pages</b> and can explain how individual web pages can be found (e.g. <i>by clicking on a favourite link, search result or by typing in a URL</i>).</p> <p>They recognise that there is a difference between the <b>Internet</b> and the <b>World Wide Web</b>.</p>	<p>Pupils create and debug <b>programs</b>.</p> <p>They can:</p> <ul style="list-style-type: none"> <li>- use <b>sequence</b> and <b>repetition</b>.</li> <li>- refine <b>algorithms</b> to improve efficiency</li> <li>- control or simulate <b>physical systems</b></li> </ul> <p>Pupils begin to explore and notice the similarities and differences between <b>programming languages</b> and use this knowledge to help them create and <b>debug programs</b> efficiently.</p>	<p>Pupils are confident and creative users of technology. They are beginning to make informed choices about the appropriateness of <b>digital content</b> they access and create, using an increasing range of <b>digital resources</b> and <b>devices</b></p> <p>Pupils identify, collect and manipulate different types of <b>data</b> (e.g. numerical data from science experiments, words, still and moving images etc.) which they present as <b>information</b>, showing a greater awareness of purpose and audience.</p> <p>Pupils become more discerning in their choice of <b>search technology</b> to accomplish specific goals. They understand the need for efficiency when conducting searches, choosing keywords carefully.</p>	<p>Pupils, review their online activity, including maintaining amending online profiles, <b>communication channels and publishing spaces</b> to ensure they do not inadvertently reveal personal details.</p> <p>Pupils show respect for content created by others by acknowledging sources, commenting respectfully and responsibly on other people's work and respecting privacy. They are discriminating about what they share and whether any permission is needed to do so.</p> <p>Pupils can identify a range of potential online risks including inappropriate contact or content and can identify ways of seeking support and reporting concerns. They exercise caution when receiving <b>attachments</b> and following <b>web links</b> contained in messages.</p>
<b>Autumn A: Word Processing</b> Learn about effective passwords, how to take a screen shot, change the case of the text, align the text, use bullet points, text boxes, text wrap and advanced select and keyboard shortcuts.			Pupils are confident and creative users of technology. They are beginning to make informed choices about the appropriateness of <b>digital content</b> they create, using an increasing range of <b>digital resources</b> and <b>devices</b>	Use technology safely and responsibly.
<b>Autumn B: Publisher – We are authors</b> Create a book using publisher			Pupils are confident and creative users of technology. They are beginning to make informed choices about the appropriateness of <b>digital content</b> they access and create, using an increasing range of <b>digital resources</b> and <b>devices</b>  Pupils identify, collect and manipulate different types of <b>data</b> (e.g. numerical data from science experiments, words, still and moving images etc.) which they present as <b>information</b> , showing a greater awareness of purpose and audience.	
<b>Spring A: We are Movie Makers</b>  Use the green screen to create a short movie.			Pupils are confident and creative users of technology. They are beginning to make informed choices about the appropriateness of <b>digital content</b> they access and create, using an increasing range of <b>digital resources</b> and <b>devices</b>	
<b>Spring B: Scratch Animations</b> Using scratch create a short animated sequence		Pupils create and debug <b>programs</b> .  They can: - use <b>sequence</b> and <b>repetition</b> . - refine <b>algorithms</b> to improve efficiency - control or simulate <b>physical systems</b>  Pupils begin to explore and notice the similarities and differences between <b>programming languages</b> and use this knowledge to help them create and <b>debug programs</b> efficiently.		
<b>Summer A: ACE Award – Silver</b> Review what is personal and private information. Look at setting up social media profiles and what information should be shared. Use web browsers to research topic and	Pupils understand the role of <b>web browsers</b> when viewing <b>web pages</b> and can explain how individual web pages can be found (e.g. <i>by clicking on a favourite link, search result or by typing in a URL</i> ).			Pupils, review their online activity, including maintaining amending online profiles, <b>communication channels and publishing spaces</b> to ensure they do not inadvertently reveal personal details.  Pupils show respect for content created by others by acknowledging sources, commenting respectfully and responsibly on other people's work and respecting privacy. They are discriminating about what they share and whether any permission is needed to do so.

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email each other links that may be helpful in research				Pupils can identify a range of potential online risks including inappropriate contact or content and can identify ways of seeking support and reporting concerns. They exercise caution when receiving <b>attachments</b> and following <b>web links</b> contained in messages.
<b>Summer B: Scratch programming-music maker</b> Making a musical sequence with visual repetitive sequence.		Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. 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.		

# Abbots Ripton Primary School - Computing

**Year 5/6**  
**Year A**

	Understanding Technology	Programming	Digital Literacy	E-safety
	<p>Pupils understand and can explain how <b>computer networks</b> work, and know that the <b>Internet</b> is a collection of computers connected together.</p> <p>Pupils know that there is a difference between the <b>Internet</b> and the <b>World Wide Web</b> and understand that the web is just one of the services offered by the Internet (as well as, e.g. <b>email</b> and <b>VoIP services</b> such as Skype)</p>	<p>Pupils create, <b>deconstruct</b> and refine <b>programs</b> to accomplish specific goals.</p> <p>They can:</p> <ul style="list-style-type: none"> <li>- improve efficiency</li> <li>- use <b>selection</b> within programs</li> <li>- use a range of simple <b>inputs</b> and <b>outputs</b> to control or simulate <b>physical systems</b>.</li> </ul> <p>Pupils use <b>logical reasoning</b> to explain how some <b>algorithms</b> work and to detect and correct errors in <b>programs</b>. They independently employ strategies to solve problems.</p>	<p>Pupils are confident, capable and creative users of technology, selecting and making effective use of <b>digital resources</b> and <b>devices</b> for purpose and effect. They create <b>programs, systems</b> and <b>digital content</b>, thinking carefully about aesthetics, functionality and impact on the user.</p> <p>They identify, collect and analyse different types of <b>data</b> (e.g. Numerical, words, images, video etc.) which they manipulate and re-present as <b>information</b> for a variety of audiences and purposes.</p> <p>Pupils are discerning in <b>evaluating digital content</b>. They use <b>search technologies</b> effectively to respond to enquiries and support their learning.</p>	<p>Pupils continue to maintain, review and amend <b>online identities</b>, considering the potential impact of these on their <b>digital footprint</b>. They communicate in a wide variety of ways and pay careful attention to what details might be inadvertently revealed.</p> <p>They engage in an increasing range of <b>online communities</b> safely, respectfully and responsibly both with friends and the wider online community. With adult support, they actively consider and use safety and <b>security settings</b> on a range of <b>digital devices</b>.</p> <p>When using <b>online resources</b> and <b>search technologies</b>, pupils are increasingly discerning about what <b>information</b> they gather, checking the validity of <b>data</b> and showing due respect to privacy and <b>copyright</b>.</p> <p>Pupils can recognise a range of potential online risks, including inappropriate contact or content and can identify ways of seeking support and reporting concerns.</p>
<p><b>Autumn A: Scratch</b></p> <p>Begin to use more advanced programming skills and independently problem solve to debug.</p>		<p>Pupils create, <b>deconstruct</b> and refine <b>programs</b> to accomplish specific goals.</p> <p>They can:</p> <ul style="list-style-type: none"> <li>- improve efficiency</li> <li>- use <b>selection</b> within programs</li> <li>-</li> </ul> <p>Pupils use <b>logical reasoning</b> to explain how some <b>algorithms</b> work and to detect and correct errors in <b>programs</b>. They independently employ strategies to solve problems.</p>	<p>Pupils are confident, capable and creative users of technology, selecting and making effective use of <b>digital resources</b> and <b>devices</b> for purpose and effect. They create <b>programs, systems</b> and <b>digital content</b>, thinking carefully about aesthetics, functionality and impact on the user.</p>	
<p><b>Autumn B: Podcasts</b></p> <p>Use audacity to record voices to create a podcast. Insert sound effects from website (talk about copywrite and which websites we can use)</p>	<p>Use websites to research topic for podcast - Pupils understand the role of <b>web browsers</b> when viewing <b>web pages</b> and can explain how individual web pages can be found (e.g. <i>by clicking on a favourite link, search result or by typing in a URL</i>).</p>		<p>Pupils are confident and creative users of technology. They are beginning to make informed choices about the appropriateness of <b>digital content</b> they create, using an increasing range of <b>digital resources</b> and <b>devices</b></p>	<p>Talk about copywrite and websites they can and can't use music and sound effects from - Pupils show respect for content created by others by acknowledging sources, commenting respectfully and responsibly on other people's work and respecting privacy. They are discriminating about what they share and whether any permission is needed to do so.</p>
<p><b>Spring A: News reporter</b></p> <p>Research a topic and use green screen to plan, film and edit a news report.</p>	<p>Understand the opportunities [networks] offer for communication and collaboration</p>		<p>Pupils are discerning in <b>evaluating digital content</b>. They use <b>search technologies</b> effectively to respond to enquiries and support their learning. Pupils are confident, capable and creative users of technology, selecting and making effective use of <b>digital resources</b> and <b>devices</b> for purpose and effect. They create <b>digital content</b>, thinking carefully about aesthetics, functionality and impact on the user</p>	<p>When using <b>online resources</b> and <b>search technologies</b>, pupils are increasingly discerning about what <b>information</b> they gather, checking the validity of <b>data</b> and showing due respect to privacy and <b>copyright</b>.</p>
<p><b>Spring B: Animations</b></p> <p>Use doink animations to create animations to add to their news report.</p>			<p>Pupils are confident, capable and creative users of technology, selecting and making effective use of <b>digital resources</b> and <b>devices</b> for purpose and effect. They create <b>programs, systems</b> and <b>digital content</b>, thinking carefully about aesthetics, functionality and impact on the user</p>	<p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour</p>
<p><b>Summer A: Programming</b></p> <p>Microbits</p>		<p>Pupils create, <b>deconstruct</b> and refine <b>programs</b> to accomplish specific goals.</p> <p>They can:</p> <ul style="list-style-type: none"> <li>- improve efficiency</li> <li>- use <b>selection</b> within programs</li> <li>- use a range of simple <b>inputs</b> and <b>outputs</b> to control or simulate <b>physical systems</b>.</li> </ul>		

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		<p>Pupils use <b>logical reasoning</b> to explain how some <b>algorithms</b> work and to detect and correct errors in <b>programs</b>. They independently employ strategies to solve problems.</p>		
Summer B: ACE Gold Award				<p>Pupils continue to maintain, review and amend <b>online identities</b>, considering the potential impact of these on their <b>digital footprint</b>. They communicate in a wide variety of ways and pay careful attention to what details might be inadvertently revealed.</p> <p>They engage in an increasing range of <b>online communities</b> safely, respectfully and responsibly both with friends and the wider online community. With adult support, they actively consider and use safety and <b>security settings</b> on a range of <b>digital devices</b>.</p> <p>When using <b>online resources</b> and <b>search technologies</b>, pupils are increasingly discerning about what <b>information</b> they gather, checking the validity of <b>data</b> and showing due respect to privacy and <b>copyright</b>.</p> <p>Pupils can recognise a range of potential online risks, including inappropriate contact or content and can identify ways of seeking support and reporting concerns.</p>



# Abbots Ripton Primary School - Computing

**Year 5/6**  
**Year B**

	Understanding Technology	Programming	Digital Literacy	E-safety
	<p>Pupils begin to understand how <b>data</b> travels across <b>networks</b> in <b>packets</b> and how these can be broken up and reconstructed.</p> <p>They appreciate how <b>search results</b> are ranked, including an understanding of the role of 'relevance' and 'importance' in finding and presenting results.</p>	<p>Pupils <b>deconstruct</b>, improve and create <b>programs</b> including:</p> <ul style="list-style-type: none"> <li>- using <b>selection</b> and working with <b>variables</b>.</li> <li>- using the <b>principles of logical reasoning</b></li> <li>- challenging themselves by making simple <b>programs</b> increasingly complex and employ a variety of strategies to solve problems.</li> </ul> <p>Pupils can explain why they have structured <b>algorithms</b> as they have and describe the effect this has on a <b>program</b>.</p>	<p>Pupils are confident, capable and creative users of technology, selecting and making effective use of <b>digital resources</b> and <b>devices</b> for purpose and effect. They create <b>programs</b>, <b>systems</b> and <b>digital content</b>, thinking carefully about aesthetics, functionality and impact on the user.</p> <p>They identify, collect and analyse different types of <b>data</b> (e.g. Numerical, words, images, video etc.) which they manipulate and re-present as <b>information</b> for a variety of audiences and purposes.</p> <p>Pupils are discerning in <b>evaluating digital content</b>. They use <b>search technologies</b> effectively to respond to enquiries and support their learning.</p>	<p>Pupils continue to maintain, review and amend <b>online identities</b>, considering the potential impact of these on their <b>digital footprint</b>. They communicate in a wide variety of ways and pay careful attention to what details might be inadvertently revealed.</p> <p>They engage in an increasing range of <b>online communities</b> safely, respectfully and responsibly both with friends and the wider online community. With adult support, they actively consider and use safety and <b>security settings</b> on a range of <b>digital devices</b>.</p> <p>When using <b>online resources</b> and <b>search technologies</b>, pupils are increasingly discerning about what <b>information</b> they gather, checking the validity of <b>data</b> and showing due respect to privacy and <b>copyright</b>.</p> <p>Pupils can recognise a range of potential online risks, including inappropriate contact or content and can identify ways of seeking support and reporting concerns.</p>
<p><b>Autumn A: Coding</b></p> <p>Scratch - begin to use more advanced programming skills and independently problem solve to debug.</p>		<p>Pupils <b>deconstruct</b>, improve and create <b>programs</b> including:</p> <ul style="list-style-type: none"> <li>- using <b>selection</b> and working with <b>variables</b>.</li> <li>- using the <b>principles of logical reasoning</b></li> <li>- challenging themselves by making simple <b>programs</b> increasingly complex and employ a variety of strategies to solve problems.</li> </ul> <p>Pupils can explain why they have structured <b>algorithms</b> as they have and describe the effect this has on a <b>program</b>.</p>		
<p><b>Autumn B: Website Designer</b></p> <p>Create own simple website to share information they have learnt on a topic – learn how search engines rank results.</p>	<p>Pupils begin to understand how <b>data</b> travels across <b>networks</b> in <b>packets</b> and how these can be broken up and reconstructed.</p> <p>They appreciate how <b>search results</b> are ranked, including an understanding of the role of 'relevance' and 'importance' in finding and presenting results.</p>		<p>Pupils are confident, capable and creative users of technology, selecting and making effective use of <b>digital resources</b> and <b>devices</b> for purpose and effect. They create <b>programs</b>, <b>systems</b> and <b>digital content</b>, thinking carefully about aesthetics, functionality and impact on the user.</p>	
<p><b>Spring A: Spreadsheets</b></p> <p>Understanding formatting, entering formulas and using spreadsheets to solve problems.</p>			<p>They identify, collect and analyse different types of <b>data</b> (e.g. Numerical, words, images, video etc.) which they manipulate and re-present as <b>information</b> for a variety of audiences and purposes.</p>	
<p><b>Spring B: 3d modelling</b></p> <p>Learn how to create simple and complex 3D models using SketchUp Make 2017. They will be able to add detail and manipulate 3D models using a variety of tools.</p>			<p>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 by adding detail to simple 3D shapes.</p>	

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Summer A: ACE Gold Award				<p>Pupils continue to maintain, review and amend <b>online identities</b>, considering the potential impact of these on their <b>digital footprint</b>. They communicate in a wide variety of ways and pay careful attention to what details might be inadvertently revealed.</p> <p>They engage in an increasing range of <b>online communities</b> safely, respectfully and responsibly both with friends and the wider online community. With adult support, they actively consider and use safety and <b>security settings</b> on a range of <b>digital devices</b>.</p> <p>When using <b>online resources</b> and <b>search technologies</b>, pupils are increasingly discerning about what <b>information</b> they gather, checking the validity of <b>data</b> and showing due respect to privacy and <b>copyright</b>.</p> <p>Pupils can recognise a range of potential online risks, including inappropriate contact or content and can identify ways of seeking support and reporting concerns.</p>
Summer B: Coding – We do lego?		<p>Pupils <b>deconstruct</b>, improve and create <b>programs</b> including:</p> <ul style="list-style-type: none"><li>- using <b>selection</b> and working with <b>variables</b>.</li><li>- using the <b>principles of logical reasoning</b></li><li>- challenging themselves by making simple <b>programs</b> increasingly complex and employ a variety of strategies to solve problems.</li></ul> <p>Pupils can explain why they have structured <b>algorithms</b> as they have and describe the effect this has on a <b>program</b>.</p>		