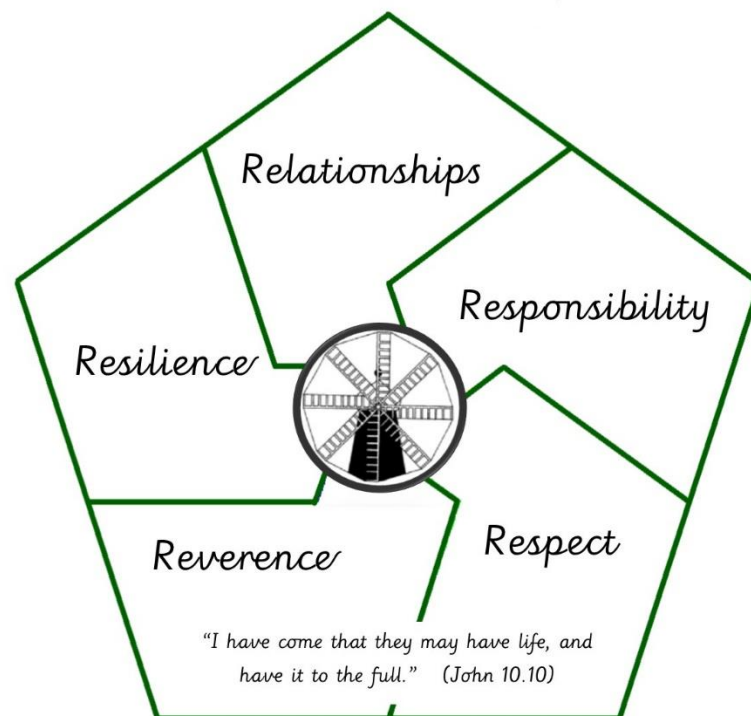
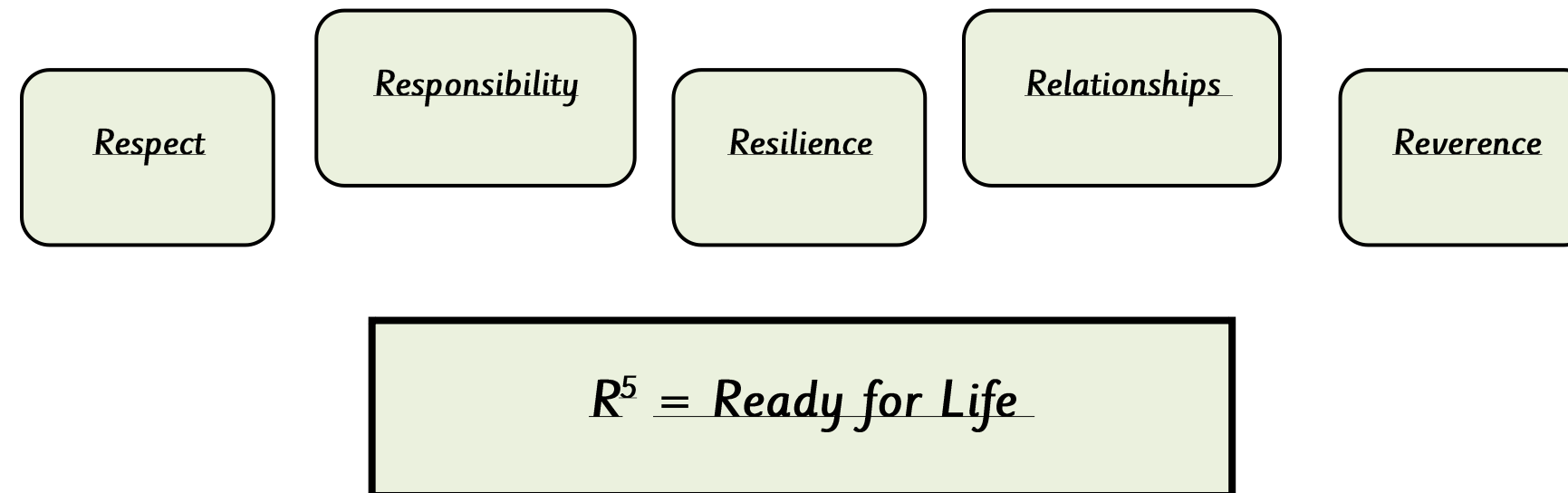


*Heckington St. Andrew's Church of England  
Primary School*

*Computing Progression Document*

*3/12/2020*

The Heckington Way



*At Heckington St Andrew's **nothing but the best** is **good enough** AND together we can always be better.*

## CURRICULUM INTENT FOR COMPUTING

Our Computing curriculum is underpinned by the National Curriculum. Pupils develop core vocabulary, knowledge and understanding that supports their confident use and application of current technologies and feel prepared to investigate new technologies. Our pupils learn the fundamentals of programming, understanding how algorithms are built to manage repeated operations. They develop analytical skills that allow them to think critically and make confident decisions about the accuracy of programming, and to carefully interrogate information found digitally. They develop a secure understanding of how technology is connected, both locally and globally, and how to be effective users of technology to communicate with people around them; this enables them to see the relevance of their learning in the real world.

### **Implementation**

Computing is taught as a discrete subject. The progression document sets out the core vocabulary, knowledge and understanding, and teachers base their planning firmly on this. Teachers do not vary from the progression document, but may occasionally plan additional lessons in response to environmental opportunities. Where hardware is required, children will usually access it individually. We aim to use software that is accessible from home wherever possible. Teachers provide ongoing feedback within lessons, using appropriate strategies to adapt provision in response to their assessments. Where necessary, the subject leader is able to provide support to teachers in adapting their teaching.

*For the purpose of targeted learning, key(sticky) knowledge is in [green/blue font and includes a hyperlink to possible lesson resources](#)*

## Algorithms

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
<ul style="list-style-type: none"> <li>create a series of instructions and plan a journey for a programmable toy</li> </ul>	<ul style="list-style-type: none"> <li>understand that algorithms are used on digital devices</li> </ul>	<ul style="list-style-type: none"> <li>write programs that accomplish specific goals + lesson 1 shapes and flowers</li> </ul> <p><a href="https://www.barefootcomputing.org/my-barefoot/learning-objectives/write-programs-that-accomplish-specific-goals">https://www.barefootcomputing.org/my-barefoot/learning-objectives/write-programs-that-accomplish-specific-goals</a></p>	<ul style="list-style-type: none"> <li>give an 'on-screen' robot specific instructions that takes them from A to B</li> </ul> <p><a href="https://studio.code.org/courses">https://studio.code.org/courses</a></p>	<ul style="list-style-type: none"> <li>use technology to control an external device</li> </ul>	<ul style="list-style-type: none"> <li>write a program that combines more than one attribute</li> </ul>

## Programing

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
<ul style="list-style-type: none"> <li>create, store and retrieve digital content</li> </ul> <p>Teach pupils how to take and share photos and text on the ipads</p>	<ul style="list-style-type: none"> <li>write a simple program and test it</li> </ul>	<ul style="list-style-type: none"> <li>design a sequence of instructions, including directional instructions</li> </ul>	<ul style="list-style-type: none"> <li>experiment with variables to control models</li> </ul> <p><a href="https://studio.code.org/courses">https://studio.code.org/courses</a></p>	<ul style="list-style-type: none"> <li>develop a program that has specific variables identified</li> </ul>	<ul style="list-style-type: none"> <li>develop a sequenced program that has repetition and variables identified</li> </ul> <p>+ <a href="https://www.barefootcomputing.org/resources/logical-reasoning-unplugged-activity">https://www.barefootcomputing.org/resources/logical-reasoning-unplugged-activity</a></p>

## Reasoning

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
	<ul style="list-style-type: none"> <li>Predict what the outcome of a simple program will be (logical reasoning).</li> </ul>	<ul style="list-style-type: none"> <li>discern when it is best to use technology and where it adds little or no value</li> </ul>	<ul style="list-style-type: none"> <li>make an accurate prediction and explain why they believe something will happen (linked to programming)</li> <li><a href="https://studio.code.org/courses">https://studio.code.org/courses</a></li> </ul>	<ul style="list-style-type: none"> <li>analyse and evaluate information reaching a conclusion that helps with future developments</li> </ul>	<ul style="list-style-type: none"> <li>design algorithms that use repetition and 2-way selection</li> </ul>

### Using Technology

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
<ul style="list-style-type: none"> <li>use a website and a camera</li> <li>record sound and play back</li> </ul>	<ul style="list-style-type: none"> <li>understand that programs require precise instructions</li> <li>organise, retrieve and manipulate digital content</li> </ul>	<ul style="list-style-type: none"> <li>navigate the web to complete simple searches</li> </ul>	<ul style="list-style-type: none"> <li>produce and upload a podcast or film</li> <li>select and use software to accomplish given goals</li> </ul>	<ul style="list-style-type: none"> <li>combine sequences of instructions and procedures to turn devices on and off</li> </ul>	<ul style="list-style-type: none"> <li>present the data collected in a way that makes it easy for others to understand</li> </ul>

### Computing Beyond School

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
<ul style="list-style-type: none"> <li>talk about some of the IT uses in their own home</li> </ul>	<ul style="list-style-type: none"> <li>know how technology is used in school and outside of school</li> </ul>				

### E Safety

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
<ul style="list-style-type: none"> <li>use technology safely</li> <li>keep personal information private</li> </ul>	<ul style="list-style-type: none"> <li>Know where to go for help if concerned.</li> </ul>	<ul style="list-style-type: none"> <li>use technology respectfully and responsibly</li> <li>Know different ways they can get help if concerned</li> </ul>	<ul style="list-style-type: none"> <li>recognise acceptable and unacceptable behaviour using technology</li> </ul>	<ul style="list-style-type: none"> <li>understand that they have to make choices when using technology and that not everything is true and/or safe</li> </ul>	<ul style="list-style-type: none"> <li>Be increasingly aware of the potential dangers in using aspects of IT and know when to alert someone if feeling uncomfortable</li> </ul>

### Using Search Engines

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
		<ul style="list-style-type: none"> <li>use a range of software for similar purposes</li> </ul> <p>See below</p> <ul style="list-style-type: none"> <li>collect and present information</li> </ul> <p>Make simple graphs or use a DTP program such as word</p>		<ul style="list-style-type: none"> <li>understand how search results are selected and ranked</li> </ul> <p>+</p> <p><a href="https://www.barefootcomputing.org/my-barefoot/learning-objectives/appreciate-how-results-are-ranked">https://www.barefootcomputing.org/my-barefoot/learning-objectives/appreciate-how-results-are-ranked</a></p>	<ul style="list-style-type: none"> <li>be aware that some search engines may provide misleading information</li> </ul>

### Networks

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
		<ul style="list-style-type: none"> <li>understand what computer networks do and how they provide multiple services</li> </ul>	<ul style="list-style-type: none"> <li>know how to search for specific information and know which information is useful and which is not</li> </ul> <p>+ Using google with search filters</p>		