

Sandon Primary Academy – Computing: Reception

Curriculum Definition: Exploring technology and its uses.

Autumn Term	Spring Term	Summer Term
<p>Information Technology: Data Handling Children understand and can explain how to sort and categorise objects.</p>	<p>Computer Science: Computer Systems and Networks Children learn what a keyboard is and how to log on. They practise basic mouse skills using a tracker pad such as moving and clicking. Children create digital pictures using a basic paint tool.</p>	<p>Computer Science: Programming Children will learn to follow instructions as part of practical activities and games and to learn to debug when things go wrong. They will learn to give simple instructions and that an algorithm is a set of instructions to carry out a task, in a specific order</p>
<p>Key Objectives: Lesson 1: Online Safety: Health and Wellbeing</p> <ul style="list-style-type: none"> I can give some simple examples of rules that keep us safe and healthy in and beyond the home when using technology. <p>Lesson 2: Loose Parts Play</p> <ul style="list-style-type: none"> I can sort and categorise items appropriately. I can explain how I have sorted and categorised items. I can sort and categories items in different ways and explain why. <p>Lesson 3: Sorting Ourselves</p> <ul style="list-style-type: none"> I can sort myself into given categories. I can sort my peers into given categories. I can communicate effectively. <p>Lesson 4: Yes or No?</p> <ul style="list-style-type: none"> I can show an understanding of questions asked. I can answer questions appropriately using Yes or No. <p>Lesson 5: Creating a Branching Database</p> <ul style="list-style-type: none"> I can answer questions appropriately using Yes or No. I can use the Yes or No answers to create a human branching database. <p>Lesson 6: Exploring and Creating Pictograms</p> <ul style="list-style-type: none"> I can explore pictograms, showing understanding of what they show. I can create a pictogram using pictures. I can create an online pictogram. 	<p>Key Objectives: Lesson 1: Online Safety: Online Bullying</p> <ul style="list-style-type: none"> I can offer examples of how being unkind online can make others feel <p>Lesson 2: Keyboards</p> <ul style="list-style-type: none"> I can understand what a keyboard is used for. I can understand that keyboard can be part of the hardware (physical keyboard) of software (on screen). I can recognise keyboard characters, including some letters and numbers. I can identify the letters of my name on a keyboard. <p>Lesson 3: Logging In and Out</p> <ul style="list-style-type: none"> I can log in using a username and password. I understand why I have a password and how this keeps me safe. I can log out by navigating a touchpad. <p>Lesson 4: Mouse Control</p> <ul style="list-style-type: none"> I understand that moving my finger on the trackpad moves the cursor on the screen. I can move the mouse with increasing control. I can move the mouse for a purpose. I can click the left button when appropriate. <p>Lesson 5: Mouse Skills: Moving and Clicking</p> <ul style="list-style-type: none"> I can move the mouse with increasing control. I can move the mouse for a purpose. I can click the left button when appropriate. I can click with increasing control. <p>Lesson 6: Mouse Skills: Clicking and Dragging</p> <ul style="list-style-type: none"> I can move the mouse for a purpose, with increasing control. I can click the mouse for a purpose, with increasing control. I can click and drag for a purpose. I can click and drag with increasing control. 	<p>Key Objectives: Lesson 1: Online Safety: Online Reputation</p> <ul style="list-style-type: none"> I can identify ways that I can put information on the internet. <p>Lesson 2: Understanding Arrows</p> <ul style="list-style-type: none"> I can use the correct names for the arrows. Understand the directions linked to each arrow, including forwards, back, left turn, right turn. I can follow directions using the arrows. <p>Lesson 3: Introducing the Bee-Bot</p> <ul style="list-style-type: none"> I understand how to make a Bee-Bot move. I can tinker with the Bee-Bot to make it move. <p>Lesson 4: Simple Bee-Bot Programming</p> <ul style="list-style-type: none"> I can program the Bee-Bot, following 1-2 step instructions. I can debug my programming if I encounter an error. <p>Lesson 5: Understanding Algorithms</p> <ul style="list-style-type: none"> I can follow an algorithm using arrows. I can use the correct names for the arrows. <p>Lesson 6: Programming a Bee-Bot</p> <ul style="list-style-type: none"> I can draw a map/route for my Bee-Bot to follow. I can program the Bee-Bot, following 1-2 step instructions. I can debug my programming if I encounter an error.
<p>Key Vocabulary:</p> <ul style="list-style-type: none"> Sort – a category of things with a common feature Categories – a group shared characteristics Questions – something which is asked and requires an answer Yes/No – a closed answer to a question Branching Database – A database is made up of questions that have yes or no answers. It can be used to classify an item. Pictogram – a chart or graph which uses pictures to represent data in a simple way Online Pictogram -a digital chart or graph which uses pictures to represent data in a simple way 	<p>Key Vocabulary:</p> <ul style="list-style-type: none"> Keyboard – allows a person to enter letters, numbers, and other symbols (together, these are called characters) into a computer Characters – letters, numbers, punctuation and other symbols on a keyboard Log in – using a username and password to access a device Log out – stopping access to a device Username – an identification used by a person with access to a computer, network, or online service. Password – a secret word or phrase that must be used to gain admission to a place. Mouse – hand-held pointing device that detects two-dimensional motion relative to a surface. Trackpad – a built in pointing device that detects movement once touched. Click – using the buttons on a mouse/trackpad to select Drag – holding the buttons on a mouse/trackpad to move/highlight 	<p>Key Vocabulary:</p> <ul style="list-style-type: none"> Bee-Bot – a programmable floor robot Arrows – a visual representation of a direction Forwards – a direction to travel in Back – a direction to travel in Left Turn – 90 degree turn to the left Right Turn – 90 degree turn to the right Instructions - a direction or order Program (coding) – giving software/hardware a set of instructions to follow Debug – the process of identifying and removing errors from computer hardware or software. Algorithm - a process or set of rules to be followed in calculations or other problem-solving operations, especially by a computer.
<p>Resources (IT):</p> <ul style="list-style-type: none"> Online Safety: https://projectevolve.co.uk/sign-in/ Username: icolclough@sandonprimary.org.uk Password: Sandon123456! (Lesson 1) iPad (Lesson 6) 	<p>Resources (IT):</p> <ul style="list-style-type: none"> Online Safety: https://projectevolve.co.uk/sign-in/ Username: icolclough@sandonprimary.org.uk Password: Sandon123456! (Lesson 1) Chromebooks (Lesson 3-6) https://kidmons.com/game/paint-online/ (Lesson 4) 	<p>Resources (IT):</p> <ul style="list-style-type: none"> Online Safety: https://projectevolve.co.uk/sign-in/ Username: icolclough@sandonprimary.org.uk Password: Sandon123456! (Lesson 1) Bee-Bot (Lesson 3, 4, 6)

Early Years Framework/Birth to 5 Matters:

Autumn: Traditional Tales

- Range 5 - Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images.
- Range5 - Knows that information can be retrieved from digital devices and the internet.

Spring: It's a Wonderful World

- Range 6 - Completes a simple program on electronic devices; Uses ICT hardware to interact with age appropriate computer software; Can create content such as a video recording stories, and/or draw a picture on screen; Develops digital literacy skills by being able to access, understand and interact with a range of technologies

Summer: We're Going on a Summer Holiday

- Early Learning Goal – No ELG for Technology, but guidance states; Children require access to a range of technologies, both digital and non-digital in their early lives; Exploring with different technologies through play provides opportunities to develop skills that children will go on to develop in their lifetimes.

Online Safety:

Autumn: Health and Wellbeing

Spring: Online Bullying

Summer: Online Reputation

Key Computing Days:

- National Coding Week - September
- Safer Internet Day – February

- <https://www.bbc.co.uk/cbeebies/makes/jojo-and-gran-gran-make-a-picture?collection=creative-play-for-kids> (Lesson 5)
- <https://www.topmarks.co.uk/learning-to-count/ladybird-spots> (Lesson 6)
- <https://www.bbc.co.uk/cbeebies/curations/creative-play-for-kids> (Continuous Provision where necessary/appropriate)

National Curriculum: By the end of EYFS, pupils will be able to:

- Understanding the world involves guiding children to make sense of their physical world and their community. The frequency and range of children's personal experiences increases their knowledge and sense of the world around them – from visiting parks, libraries and museums to meeting important members of society such as police officers, nurses and firefighters. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. As well as building important knowledge, this extends their familiarity with words that support understanding across domains. Enriching and widening children's vocabulary will support later reading comprehension.