

Grange View C of E First School Computing Skills Progression

| | Reception | Year 1 | Year 2 | Year 3 & 4 |
|------------------------------------|---|--|---|---|
| E safety - Digital Literacy | <ul style="list-style-type: none"> • Talk about good & bad choices in real life e.g. taking turns, saying kind things, helping others, telling an adult if something upsets you. • Play appropriate games on the Internet. • Talk about good and bad choices when using websites - being kind, telling a grown up if something upsets us & keeping ourselves safe by keeping information private. | <ul style="list-style-type: none"> • Understand they need to follow certain rules to remain safe when visiting places online. • Begin to understand that if you create something you own it. • Know that many websites ask for information that is private & discuss how to responsibly handle such requests. • Explore how email can be used to communicate with real people within their schools, families & communities. • | <ul style="list-style-type: none"> • Identify websites that are good for them to visit & not inappropriate sites • Explain what cyber-bullying means & what to do when they encounter it. • Know that if they put information online it leaves a digital footprint or "trail" & they need to manage it so it's not hurtful. • Understand that keyword searching is an effective way to locate online information & how to select keywords to produce the best search results. | <ul style="list-style-type: none"> • Describe sensible e-safety rules for the classroom. • Choose a secure password for age-appropriate websites. • Discuss what actions could be taken if they are uncomfortable or upset online e.g. Report Abuse button. • Explain about what games they enjoy playing and what good choices are when playing games e.g. content, screen time. • Compare work of classmates in school or online, or the work of others online. |

- **Help** adults operate equipment around the school, independently operating simple equipment
- **Use** simple software to make things happen
- Press buttons on a floor robot and **talk** about the movements
- **Explore** options and make choices with toys, software and websites

- Physically **follow & give** each other instructions to move around
- **Explore** outcomes when buttons are pressed in sequences on a robot
- Begin to use software to **create** movement & patterns on a screen
- Begin to **identify** an algorithm to achieve a specific purpose
- **Execute** a program on a floor robot to achieve an algorithm
- Use the word **debug** to correct any mistakes when programming a floor robot
- Begin to **predict** what will happen for a short sequence of instructions in a program

- Physically **follow and give** each other forward, backward & turn (right-angle) instructions
- **Articulate** an algorithm to achieve a purpose
- **Plan and enter** a sequence of instructions to achieve an algorithm, with a robot specifying distance & turn and drawing a trail
- **Explore** outcomes when giving instructions in a simple Logo program
- Watch a Logo program execute & **debug** any problems
- **Predict** what will happen & test results
- **Compare** floor robots and logo on screen

- **Plan & enter** a sequence of instructions on a robot specifying distance & turn to achieve specific outcomes, debug the sequence where necessary.
- **Test & improve / debug** programmed sequences.
- **Explore outcomes** when giving sequences of instructions in Logo software.
- **Use** repeat to achieve solutions to tasks.
- **Solve** open-ended problems with a floor robot & Logo including creating simple regular polygons, making sounds & planning movements such as a dance.

- **Create & edit** procedures typing logo commands including pen up, pen down & changing the trail of the turtle.
- **Use** sensors to 'trigger' an action such as reversing if it touches something.
- **Solve** open-ended problems with a floor robot, Logo & other software using efficient procedures to create shapes & letters.
- **Create** an algorithm & a program that will use a simple selection command for a game.
- Begin to correct errors (**debug**) as they program devices & actions on screen, & identify bugs in programs written by others.

| | | | | |
|---|--|--|--|---|
| <ul style="list-style-type: none"> • Recognise <u>text, images and sound when using ICT.</u> • Use a camera or sound recorder to collect photos or sound • Use paint programs to create pictures. • Use a mouse to rearrange objects and pictures on a screen. • Begin to use a keyboard see programming | <ul style="list-style-type: none"> • Record their own voices and play back to an audience. • Use a video or stills camera to record an activity. • Create sounds and simple music phrases using ICT tools. • Add text and images to a <u>template document using an image & word bank</u> • Use index fingers (left and right hand) on a keyboard to build words & sentences. • Know when & how to use the SPACE BAR (thumbs) to make spaces between words | <ul style="list-style-type: none"> • Use an increasing variety of tools and effects in paint programs and talk about their choices. • Use templates to make electronic books individually and in pairs. • Explore the effects of sound and music in animation and video. • Create <u>own documents, adding text and images.</u> • Use keyboard to enter text (index fingers left & right hand). • Know when and how to use the RETURN/ ENTER key. Use SHIFT & CAPS LOCK to enter capital letters. Use DELETE & BACKSPACE buttons to correct text. Create sentences, SAVE & edit later. | <ul style="list-style-type: none"> • Explore & begin to evaluate the use of multimedia to enhance communication. • Create & begin to edit <u>presentation documents & text, experimenting with fonts, size, colour, alignment for emphasis & effect.</u> • Use a range of effects in art programs including brush sizes, repeats, reflections • Explore the use of video, animation & green screening. • Use ICT tools to create musical phrases. • Look at own work & consider how it can be improved for effectiveness. • Amend text & save changes. • Use individual fingers to input text & use SHIFT key to type characters. • Amend text by highlighting & using SELECT/ DELETE & COPY/ PASTE. | <ul style="list-style-type: none"> • Explore how multimedia can create atmosphere & appeal to different audiences • Be confident in creating & modifying text & presentation documents to achieve a specific purpose. • Use art programs & online tools to modify photos for a specific purpose using a range of effects. • Explore the use of video, animation, & green screening for a specific audience. • Use ICT tools to create music phrases for a specific purpose • Use <u>font sizes & effects such as bullet points appropriately.</u> • Use a keyboard effectively, including the use of keyboard shortcuts. • Know how to use a spell check. |
|---|--|--|--|---|

| | | | | | |
|------------------------------|---|--|---|--|---|
| Technology in our lives – IT | <ul style="list-style-type: none"> • Recognise purposes for using technology in school and at home. • Understand that things they create belong to them and can be shared with others using technology. • Recognise that they can use the Internet to play and learn. | <ul style="list-style-type: none"> • Recognise uses of technology in their homes and in their community. • Understand that there are online tools that can help them create and communicate. | <ul style="list-style-type: none"> • Begin to understand there are a variety of sources of information and begin to recognise the differences. • Begin to understand what the Internet is and the purposes that it is used for. • Understand the different types of content on websites and that some things may not be true or accurate. | <ul style="list-style-type: none"> • Save work on the school network, on the Internet and on individual devices • Talk about the parts of a computer. • Use appropriate tools to collaborate on-line. • Use simple search tools and find appropriate websites. • Talk about the owner of information online. | <ul style="list-style-type: none"> • Talk about the school network & the different resources they can access, including the Internet. • Frame questions & identify key words to search for information on the Internet. • Consider reliability of information & ways it may influence you. • Check who the owner is before copying photos, clipart or text. |
| Data Handling – IT | <ul style="list-style-type: none"> • Collect information as photos or sound files. • Use a simple pictogram or set of photos to count and organise information. | <ul style="list-style-type: none"> • Take photographs, video and record sound to record learning experiences. • Look at how data is representing digitally. • Contribute to and interpret a pictogram. | <ul style="list-style-type: none"> • Take and save photographs, video & record sound to combine learning. • Use microscopes or other devices to capture and save magnified images. • Ask questions and consider how they will collect information. • Collect data, generate graphs and charts to find answers. • Save & retrieve the data to show to others. • Create paper/ object decision trees & explore a branching database. • Investigate different types of digital data e.g. online encyclopaedias | <ul style="list-style-type: none"> • Find out information from a pre-prepared database, asking straightforward questions. • Contribute towards a database. • Construct and use a branching database. • Record data in a variety of ways. • Present data for others. • Use a data logger to monitor changes and talk about the outcomes seen. | <ul style="list-style-type: none"> • Plan and create a database to answer questions. • Identify different types of data. • Ask questions carrying out simple searches on a database. • Identify inaccurate data. • Present data in appropriate format for an audience. • Use a data logger to record and compare individual readings. |