Lower KS2 Computing

Computing		
Information Technology	**Digital Literacy**	**Computer Science**
Images, Video and Animation ▪ Use a range of devices to capture still and moving images for a purpose. ▪ Be able to use basic tools in a software package to change images according to purpose. ▪ Begin to understand how images from different sources are used to enhance a presentation or communicate an idea. **Texts and Images** ▪ Recognise the features of good page design and multimedia presentations. ▪ Consider how design features meet the needs of the audience e.g. poster, newspaper, menu, instructions. ▪ Understand that some tasks and problems require a variety of software tools to accomplish them. **Digital Research** ▪ Talk about and describe the process of finding specific information, noting any difficulties during the process and how these were overcome. ▪ Understand that information found as a result of a search can vary in relevance. ▪ Understand that provision is made in schools to filter. ▪ Understand when and where the internet can be used as a research tool. **Data Handling**	**Electronic Communications** ▪ Understand that computer networks can be used for communication. ▪ Understand that some emails and other forms of electronic communications may be malicious or inappropriate and recognise when an attachment may be unsafe to open. ▪ Respect the ideas and communications of others they encounter online. **E-Safety** ▪ Understand how to stay safe when talking to people online and know how to stay respectful. ▪ Begin to use advanced internet searching to explore whether the internet can be used to authenticate facts. ▪ Explore the benefits of using a strong password. ▪ Develop knowledge of how to create a positive online reputation and how technology can impact on health.	**Programming** ▪ Understand how to plan and write programs that accomplish specific goals. ▪ Know what debugging is and how it can be used to achieve specific goals. ▪ Understand what the term sequence and repetition means. ▪ Understand that planning is a vital part of designing programs. **Simulations** ▪ Use a pre-prepared spreadsheet to record data to answer questions and produce graphs. ▪ Change the contents of cells in a pre-prepared spreadsheet and explore the consequences.

(Year 3)

	▪ Begin to identify what data should be collected to answer a specific question. ▪ Understand that there are different types of data. ▪ Recognise similarities and differences between ICT and paper-based systems. ▪ Create frequency diagrams and graphs to answer questions. ▪ Talk about the advantages of using IT to sort, interrogate and classify information quickly.		
Year 4	**Data Handling** ▪ Use a database to answer straight forward questions by searching, matching and ordering the contents of a single field. ▪ Compare different charts and graphs and understand that different ones are used for different purposes. ▪ Know, understand and use the vocabulary: file, record, field, sort and search. ▪ Collect data and enter it under appropriate field headings. ▪ Understand that effective yes-/no questions are key to organising data efficiently in a branching database. **Images, Video and Animation** ▪ Acquire, store and retrieve images from camera for a purpose. ▪ Be able to resize various elements in a graphics or paint package. ▪ Be able to resize images ▪ Storyboard, then use captured images to create a short animated sequence which communicates	**E-Safety** ▪ Gain further understanding of online bullying and how to get help. ▪ Be aware of 'fake news' and learn how to assess what they read. Learn the skills to help them determine if something is real or fake. ▪ Develop knowledge of whether how they can control their online reputation. Understand how technology can have a negative impact on people's lives. **Electronic Communications** ▪ Begin to publish their work to a wider audience.	**Programming** ▪ Know the difference between an input and an output. ▪ Understand how to use logical reasoning to detect errors in programs. ▪ Understand how to use logical reasoning to correct errors in programs. ▪ Understand that evaluation is a vital part of the design process.

	a specific idea. **<u>Sound</u>** ▪ Talk about software which allows the creation and manipulation of sound and music. ▪ Understand that many types of sounds can be combined in editing software. **<u>Create, Manage and Manipulate Digital Content</u>** ▪ Recognise the features of good page design and multimedia presentations. ▪ Consider how design features meet the needs of the audience e.g. poster, newspaper, menu, instructions.		