Year 2

Subject	Knowledge	Skills	Key Vocabulary
Computer Science **Computers and Hardware** • Recognise common uses of information technology beyond school **Computational Thinking** • Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions • Create and debug simple programs • Use logical reasoning to predict the behaviour of simple programs **Digital Literacy and Online Safety** • Use technology purposefully to create, organise, store, manipulate and retrieve digital content Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies	**E-Safety** ● I can explain why I need to keep my password and personal information private. ● I can describe the things that happen online that I must tell an adult about. ● I can talk about why I should go online for a short amount of time. ● I can talk about why it is important to be kind and polite online and in real life. ● I know that not everyone is who they say they are on the Internet. **Programming** ● I can give instructions to my friend (using forward, backward and turn) and physically follow their instructions. ● I can tell you the order I need to do things to make something happen and talk about this as an algorithm. ● I can program a robot or software to do a particular task. ● I can look at my friend's program and tell you what will happen. ● I can use programming software to make objects move. I can watch a program execute and spot where it goes wrong so that I can debug it. **Handling Data** ● I talk about the different ways I use technology to collect information, including a camera, microscope or sound recorder. ● I can make and save a chart or graph using the data I collect. ● I can talk about the data that is shown in my chart or graph. ● I am starting to understand a branching database. ● I can tell you what kind of information I could use to help me investigate a question. **Multimedia** ● I can use technology to organise and present my ideas in different ways. ● I can use the keyboard on my device to add,	**Computer Science** **Hardware** • Understanding what a computer is and that it's made up of different components • Recognising that buttons cause effects and that technology follows instructions • Learning how we know that technology is doing what we want it to do via its output. • Using greater control when taking photos with tablets or computers • Developing confidence with the keyboard and the basics of touch typing **Computational Thinking** • Articulating what decomposition is • Decomposing a game to predict the algorithms used to create it • Using decomposition to decompose a story into smaller parts • Learning what abstraction is • Learning that there are different levels of abstraction • Explaining what an algorithm is • Following an algorithm • Creating a clear and precise algorithm • Learning that computers use algorithms to make predictions • Learning that programs execute by following precise instructions • Incorporating loops within algorithms **Programming** • Using logical thinking to explore software, predicting, testing and explaining what it does • Using an algorithm to write a basic computer program • Learning what loops are • Incorporating loops to make code more efficient **Information technology** **Using Software** • Developing word processing skills, including altering text, copying and pasting and using keyboard shortcuts • Using word processing software to type and reformat text • Using software to create story animations • Creating and labelling images **Using Data** • Collecting and inputting data into a spreadsheet • Interpreting data	

delete and space text for others to read.

● I can tell you about an online tool that will help me to share my ideas with other people.

● I can save and open files on the device I use.

Digital Media
● I can tell you why I use technology in the classroom.

● I can tell you why I use technology in my home and community.

● I am starting to understand that other people have created the information I use.

● I can identify benefits of using technology including finding information, creating and communicating.

I can talk about the differences between the Internet and things in the physical world.

Wider Use of technology
• Learning how computers are used in the wider world