Computing Long Term Plan – Curriculum Map

The Computing curriculum at Kingswood Parks matches the breadth and ambition of the National Curriculum. The key substantive and disciplinary knowledge has been mapped out so teachers know precisely what to teach and when, can demonstrate a logical progression and can cite how new knowledge and skills build upon what has been taught before. Computing vocabulary is mapped out so that teachers know precisely what to teach and when. This is in a logical progression so that vocabulary development builds over time. End points have been defined as curricular goals which pupils will work towards. These end points are progressive and enable pupils to apply their knowledge and skills in an open-ended, measurable way which teachers can then assess against. Curriculum plans are adapted to meet the needs of SEND pupils as well as providing pupils with opportunities to deepen their understanding through challenging outcomes which are not limiting. Provision for SEND pupils is personalised for individuals and strategies used will be indicated in planning. Specific programmes for use have been identified throughout the planning document. These have been chosen to ensure children can achieve the planned curricular goals.

EYFS

Computing is not part of the EYFS curriculum. Although there is not an outcome the children are exposed to Computing throughout the Early Years. The children come to school with a wealth of knowledge in a technological world.

Year 1

Digital Literacy	Data	Computer Science	Multimedia	Safe Use (Ongoing Throughout Every Unit)
Key Concept – Information and Presentation **Big Question: How do you add pictures and text to a page?** **Curricular Goal:** To use the JIT programme to add pictures and text on a page	**Key Concept – Data Handling** **Big Question: Can a computer display information?** **Curricular Goal:** To be able to use the JIT programme to display information using pictographs	**Key Concept – Algorithms** **Big Question: How do you debug a journey to reach a goal?** **Curricular Goal:** Create a series of instructions and plan a journey for an on screen turtle/sprite	**Key Concept – Story Telling** **Big Question: Can you make a short animation?** **Curricular Goal:** To be able to make a short animation using a piece of clip art	**Key Concept – Privacy** **Big Question: How do we keep personal information on the computer private?** **Curricular Goal:** To understand the term E-Safety and how to keep personal information private

Year 2

Digital Literacy	Data	Computer Science	Multimedia	Safe Use (Ongoing Throughout Every Unit)
Key Concept – Information and Presentation **Big Question: Can you organise layout including pictures and font?** **Curricular Goal:** To be able to create an e-book using the JIT programme that incorporates pictures, layout and font	**Key Concept – Data Handling** **Big Question: Can you input temperature data into a chart?** **Curricular Goal:** To be able to use the JIT programme to input data in a bar chart or pie chart	**Key Concept – Algorithms** **Big Question: Can you debug a journey to avoid an obstacle?** **Curricular Goal:** To be able to write an algorithm to accomplish a specific task using block based software on J2E level 1	**Key Concept – Story Telling** **Big Question: Can you make an animation using different sounds?** **Curricular Goal:** To be able to make an animation using two pieces of clip art and speech bubbles to enhance on screen work using the JIT programme	**Key Concept – Support** **Big Question: How do I know where to go for help when I am concerned about using technology?** **Curricular Goal:** To know how to identify dangers and where to find help when using technology

Year 3

Digital Literacy	Data	Computer Science	Multimedia	Safe Use (Ongoing Throughout Every Unit)
Key Concept – Information and Presentation **Big Question: Can I include sound to enhance my work?** **Curricular Goal:** To be able to publish a non-narrative piece of writing with an audio commentary using the J2E programme	**Key Concept – Data Handling / Data Logging** **Big Question: Can I use information from a data loggers to interpret a graph?** **Curricular Goal:** To record information about light, temperature or sound and producing a graph	**Key Concept – Algorithms** **Big Question: Does your game have a sequence of instructions?** **Curricular Goal:** To be able to use coding to create a simple game using J2E level 2	**Key Concept – Story Telling** **Big Question: How is a webcam used to create an animation?** **Curricular Goal:** To be able to create an animation using a webcam	**Key Concept – Personal Safety** **Big Question: How do I game online safely?** **Curricular Goal:** To make a presentation to explain how to game on line safely

Year 4

Digital Literacy	Data	Computer Science	Multimedia	Safe Use (Ongoing Throughout Every Unit)
Key Concept – Information and Presentation **Big Question: Can I choose the most effective tools to create a poster?** **Curricular Goal:** To be able to make an online presentation on J2E using appropriate and carefully selected complimentary music	**Key Concept – Data Handling / Data Logging** **Big Question: What advantages do data loggers give over manual methods?** **Curricular Goal:** To be able to use different software to construct a graph To use a data logger to record more than one of light, temperature or sound and produce a graph and interpret the results	**Key Concept – Algorithms** **Big Question: Does your game have both an objective to complete and obstacles to avoid?** **Curricular Goal:** To be able to create a game to achieve more than one goal on J2E – Level 2	**Key Concept – Story Telling and Virtual Locations** **Big Question: What is green screen technology?** **Curricular Goal:** To explore using green screen technology To be able to create an animation with multiple characters for a purpose	**Key Concept – Personal Safety** **Big Question: Why do I need to know about E-Safety?** **Curricular Goal:** To be able to create a set of E-Safety rules that can be followed at home and at school and explain why these are important

Year 5

Digital Literacy	Data	Computer Science	Multimedia	Safe Use (Ongoing Throughout Every Unit)
Key Concept – Information and Presentation **Big Question: When would I need to use a QR code?** **Curricular Goal:** To be able to create a multi-page presentation including pages that have a consistent layout and include transitions on J2Office to share information	**Key Concept – Data Handling / Data Logging** **Big Question: Why do finances need management?** **Curricular Goal:** To be able to use data loggers to formulate and test a hypothesis To be able to use a spreadsheet to record data	**Key Concept – Algorithms** **Big Question: Do you understand why penalties make your game more challenging to play for the user?** **Curricular Goal:** To be able to code to create a game where actions incur penalties on J2E – Level 3	**Key Concept – Virtual Locations** **Big Question: Can you identify examples of green screen technology?** **Curricular Goal:** To be able to use green screen technology to produce a video presentation	**Key Concept – Personal Responsibility** **Big Question: Do you understand why you have to take responsibility for yourself to keep safe online?** **Curricular Goal:** To be able to write a code of conduct for working online

Year 6

Digital Literacy	Data	Computer Science	Multimedia	Safe Use (Ongoing Throughout Every Unit)
Key Concept – Information and Presentation **Big Question: Would you know when you may need to present information in a presentation?** **Curricular Goal:** To be able to create a presentation for a purpose incorporating visual, sound and text elements that includes appropriate software using J2Office	**Key Concept – Data Handling / Data Logging** **Big Question: Would you know when to use a spreadsheet or a database and for what purpose?** **Where are data bases used in real life?** **Curricular Goal:** To be able to make decisions about when to use data loggers to investigate scientifically To be able to use formulae to manipulate data within a spreadsheet	**Key Concept – Algorithms** **Big Question: Can you design a game with a specific audience/theme in mind?** **Curricular Goal:** To be able to develop a game to include a timer or a score using J2E – Level 3	**Key Concept – Film Making** **Big Question: Do you understand how films and videos are made?** **Curricular Goal:** To be able to create a video with various green screen locations for a given purpose	**Key Concept – Personal Protection** **Big Question: How do you protect devices from threat?** **Curricular Goal:** To be able to write a code of conduct for working online, messaging and using social media