Computing – Year 2 – Autumn Term
What is a Computer?

Links to other subject units this term	
This is a stand alone unit	
Prior Learning	
We are using 'Kapow' Primary learning for the first time. This is, therefore, an initial trial of the scheme with no previous learning from Year 1 as yet recorded.	
Key vocabulary for this unit	
Battery, electricity, wires Computer, desktop, laptop, tablet, keyboard, buttons, mouse, monitor, screen, camera Device Digital, digital recorder Function, input, output Invention Paying till, scanner System Technology Video	
Learning Sequence	
Computer parts	• To recognise the parts of a computer • Name the key parts of a computer • Explain the purpose of different computer parts • Explain that a keyboard contains lots of buttons
Inputs	• To recognise how technology is controlled • Know that people control technology • Know that technology follows instructions • Predict what technology will do

Technology Safari	• To recognise technology • Suggest what might have a computer inside • Explain why I think this • Suggest what the technology does
Invention	• To create a design for an invention • Understand what abstraction is • Explain what abstraction is • Give an example of when abstraction might be useful
Real World Roleplay	• To understand the role of computers • Explain where computers are used • Suggest what their job is • Understand that computers work together

Assessment milestones	
• **Computing Skills:** • 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 cameras, tablets or computers. • Developing word processing skills, including altering text, copying and pasting and using keyboard shortcuts. • Using word processing software to type and reformat text. • Creating and labelling images. • Learning how computers are used in the wider world	**Computing Knowledge:** • To know the difference between a desktop and laptop computer. • To know that people control technology. • To know some input devices that give a computer an instruction about what to do (output). • To know that computers often work together.

Computing – Year 2 – Autumn Term
Algorithms and Debugging

Links to other subject units this term
English: Spoken language, writing – composition Maths: Geometry – position and direction Geography: Geographical skills and fieldwork
Prior Learning
Year 1: Understand what an algorithm is Follow instructions precisely to carry out an action Understand that computers and devices around us use inputs and outputs Understand and be able to explain what decomposition is Know how to debug a simple algorithm
Key vocabulary for this unit
algorithm, decomposition, predict, artificial intelligence, data, key features, loop, bug, debug, correct, error

Learning Sequence	
To decompose a game to predict the algorithms that are used	To understand what the term decomposition and algorithm mean To decompose a game to predict algorithms To plan algorithms for a more complex game
To understand that computers can use algorithms to make predictions (machine learning).	To explain what an algorithm is. To explain that computers use algorithms to make predictions. To write a clear and precise algorithm.
To plan algorithms that will solve problems.	To devise and create algorithms to solve problems. To include loops in my algorithms (count controlled). To visualise directions from a 2D environment.

To understand what abstraction is.	To explain what abstraction is. To give an example of when abstraction might be useful
To understand what debugging is	To understand the meaning of the word debugging To listen to their peer's verbal instructions To perform a task by following step-by-step instructions

Assessment milestones

- To decompose a game to predict the algorithms.
- To give a definition for 'decomposition'.
- To write clear and precise algorithms.
- To create algorithms to solve problems.
- To use loops in their algorithms to make their code more efficient.
- To explain what abstraction is.