Knowledge Organiser
Year 1 – Autumn Term – Algorithms Unplugged

What I should already know

What an instruction is.
How to follow an instruction.
How to give an instruction.

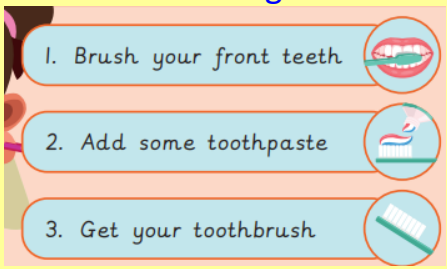
Things I need to know

What an algorithm is.
How to write clear algorithms.
How to follow an algorithm.
Identify bugs in an algorithm and how to fix them.

This will help me in the future:

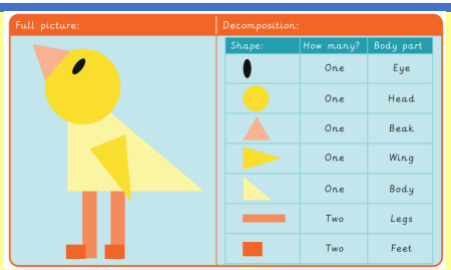
How to apply an algorithm to an electronic application.

Key Knowledge

What is an algorithm?	An algorithm is a clear set of instructions to carry out a task. For example an algorithm for brushing your teeth would be: 1. Get your tooth brush 2. Add some tooth paste 3. Brush your front teeth 4. Brush your back teeth 5. Rinse your mouth 6. Smile!	**What is a bug?**	A bug is an error or mistake in computer code. For example here step 1 and 3 are in the wrong order.  You can't brush your front teeth is you haven't got a tooth brush
What is debugging?	Debugging is when you fix the error in code.	**What is decomposition?**	Decomposition is when we break something down into smaller chunks.

Key Vocabulary

Algorithm – A clear set of instruction to carry out a task.
Bug – An error or mistake in computer code.
Computer – Electronic machine that accepts and processes information to produce an output, and then stores the results.
Debug – To fix the error in code.
Decompose – To break something down into smaller chunks.
Device – Equipment created for a certain purpose or job.
Input – A way of telling the computer what you want it to do.
Instructions – A list of commands and directions on how to do something.
Output – Information or data that is sent by the computer to an output device such as a printer or speakers.
Solution – The method to solve a problem

				 Full picture: Decomposition: Shape: How many? Body part One Eye One Head One Beak One Wing One Body Two Legs Two Feet	