Year 4 Computing Knowledge Organiser

Golden Thread: Sustainability and Stewardship

Objectives and Sticky Knowledge

Previous Knowledge:

Understand that programs require precise instructions.

Land Objectives and Sticky Knowledge:

To identify that accuracy in programming is important	To create a program in a text-based language	To modify a count-controlled loop to produce a given outcome	. To create a program that uses count-controlled loops to produce a given outcome
1. I can program a computer by typing commands 2. I can explain the effect of changing a value of a command 3.I can create a code snippet for a given purpose	1. I can use a template to draw what I want my program to do 2. I can write an algorithm to produce a given outcome 3. I can test my algorithm in a text-based language	1. I can identify the effect of changing the number of times a task is repeated 2. I can predict the outcome of a program containing a count-controlled loop 3. I can choose which values to change in a loop	1. I can design a program that includes count-controlled loops 2. I can make use of my design to write a program 3. I can develop my program by debugging it

Sea:

Links with 'Sustainability and Stewardship' Golden Thread

Links with CST and CTK Values:

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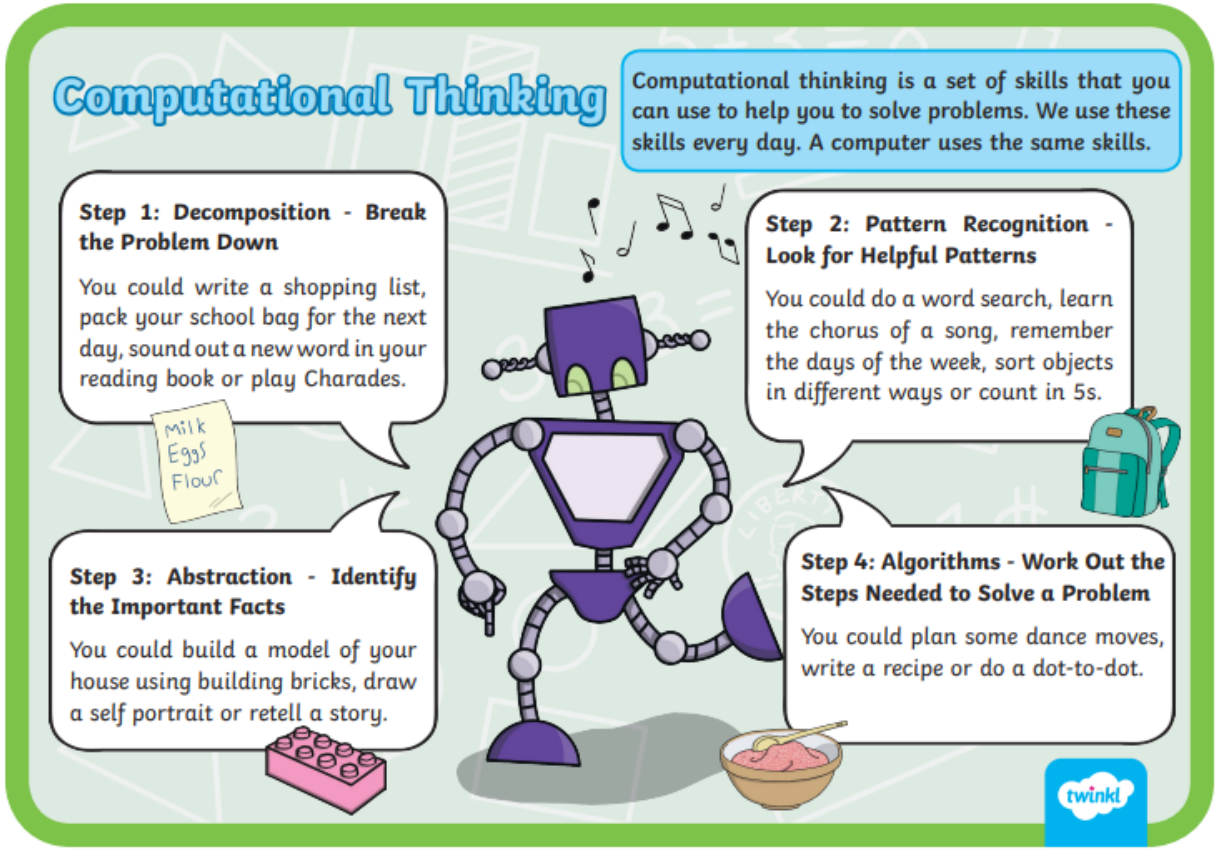
Key Vocabulary

algorithm	**An algorithm is a set of sequenced instructions or rules for solving a problem or completing a task in a logical order.**
debug	**To find, remove or correct errors in a computer program.**
sequence	**The order in which a set of instructions are performed or carried out.**
deconstruct	**Breaking down existing algorithms into smaller parts to see what they want to do.**
animate	**To bring something to life through interactive features, such as moving objects, sounds and buttons.**

Debugging

Debugging is the process of testing code and removing any errors or bugs from the program. The term 'computer bug' was first used in 1947 by computer scientist Grace Hopper, who discovered that a dead moth in the computer was causing an error.



Sky Objectives:

1. Use repetition in programs to aid in programming efficiency.
2. Select, use and combine a variety of software (including internet services) to design and create programs.
3. Help others to understand the importance of online safety and the range of ways inappropriate content and contact can be reported.