

Programming - Year Five

Vocabulary	Word Definition
Algorithm	A set of guidelines that describes how to perform a task. Think of an algorithm as step-by-step instructions.
Debugging	To identify and remove errors from computer software.
Selection	Selection is a programming construct where a section of code is run only if a condition is met. In programming , there are occasions when a decision needs to be made. Selection is the process of making a decision. The result of the decision determines which path the program will take next.
Conditions	Conditions are statements that are created by the programmer which evaluates actions in the program and evaluates if it's true or false. " If-then-else " statement allows conditional execution based on the evaluation of an expression.
Loop	A loop in a computer program is an instruction that repeats until a specified condition is reached.

Questions

1. Write an algorithm for how to make a piece of toast
2. Define 'debugging'
3. Create a quiz on 'Scratch' and practise using 'selection' in programming
4. Test your programme out. How could it be made better?

```
when clicked
  set score to 0
  ask What is 3x3? and wait
  if answer = 9
    change score by 1
    say Correct for 2 secs
  else
    say Incorrect for 2 secs
  say join Your score is score for 2 secs
```

The image shows a Scratch script starting with a 'when clicked' event. It sets a 'score' variable to 0, then asks the user 'What is 3x3?' and waits for an answer. An 'if' block checks if the answer is 9. If true, it increases the score by 1 and says 'Correct for 2 secs'. If false, it says 'Incorrect for 2 secs'. Finally, it says 'Your score is' followed by the 'score' variable and 'for 2 secs'.