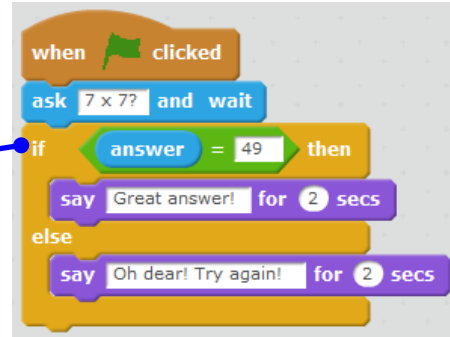# We are Software Developers

Things you already know:
- Some times tables appropriate to your year group.
- Know what an algorithm is.
- How to code using Scratch.

Knowledge you will gain:
- You will learn how to create a times tables game.
- Know what algorithm most games follow.
- Know how to use IF, THEN ELSE commands to get the computer to give feedback to your answers.
- Know how to create a variable to keep score. You'll also learn how you can make the variable change when the correct answer is given.
- Know how to change the user interface in order to make your game appealing to the end user.

The If, Then, Else block is vital to creating a game. The sentence we are creating here in plain English is:

If the answer they type in equals 49, **then** say "Great answer!" or **Else** say "Oh dear! Try again".

Vocabulary

Variable: A value that can be changed, such as the distance moved, a random number or an angle in degrees.

User interface: How the game looks to the person using it. This includes colours, images, fonts and how they are all arranged.

Repeat loop: A coding block that wraps around other blocks and tells them to repeat over and over, or to repeat a fixed number of times.

Progression: How a game gets more difficult the more you play. Often this will be another level with more questions/harder questions etc.

Random number: When the computer selects a number as if it is rolling the dice. It could be any number within a set range.

Specific skills/understanding

To understand that although a program follows a set order, loops and if/then/else commands can enable the computer to make choices and respond in ways that mimic intelligence.

Ongoing skill set

How to simplify code, using variables and repeat loops to save excessive amounts of coding.