

Part 6 - Extensions

Students can use the [Sample project](#) and remix; the [Starter project](#) and develop it; or a project the student creates on their own. These three ways are differentiated.

Remixing the **Sample Project** has all the necessary blocks and actions included. This may be considered easy for most students.

Developing the **Starter Project**, that has a single block of each kind in the Coding Space (see screenshot below) means the student needs to duplicate, add inputs & text, and assemble the blocks in the order needed. This may be considered more of a challenge for students, depending on their coding background.

A student's **own project** can be considered the most challenging.

Then, within these three project types (Sample, Starter, New) there are the following ideas to enable all students to differentiate the coding even further.

Simple

- Change the sprite and the information the sprite says.
- Add a backdrop.
- Add sounds.
- Add a second sprite and a conversation between the two to explain the project.

Medium

- Add Makey Makey or MicroBit to bring the coding action commands out from the computer screen into the real world for the user. For example, building a touch switch and connect it to Makey Makey to start to identify the factors of a composite number as coded within the Scratch program rather than it being activated by clicking on the green flag or using MicroBit blocks to activate the program when it is tilted.

Difficult

- Code a program to identify even and odd numbers.
- Is there a way to take the list of factors and, if any are composite numbers, add blocks to find their prime factors? So, in the end, the program doesn't just report the factors of a composite number it reports the prime factors of a composite number?

[Factors for Composite Numbers Starter Project](#)

Inside project screenshot (see below)

