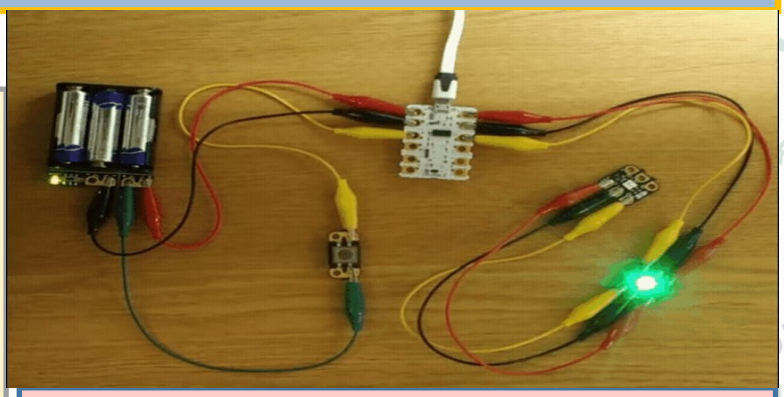
WINKLEIGH Primary School

Programming A – Selection in physical computing

Construction



Prior Knowledge

Year 1– Create an algorithm that with a given command can control and move a robot.

Year 2 - Describe a series of instructions as part of a sequence and identify where an algorithm is wrong.

Year 3 – Exploring new programming environments to identify commands that lead to an outcome.

Year 4 – Identify the importance of accuracy in programming a design.

Future Knowledge

Year 6—Define a variable and explain its use in a program.

My Component Knowledge:

Lesson 1: I can create a simple circuit to connect a microcontroller.

Lesson 2: I can design sequences that use count-controlled loops.

Lesson 3: I can explain if a condition is true or false.

Lesson 4: I can identify a condition and an action.

Lesson 5: I can design a project that includes selection.

Lesson 6: I can write an algorithm that describes my model.

My Composite Knowledge:

I can write and debug programs that accomplish specific goals, including controlling or simulating physical systems and solve problems.

My Powerful Knowledge:

I can select, use and combine a variety of software on a range of digital devices to design and create a range of programs.

Key Vocabulary

Tier 1: controller, LED, task, design, action, evaluate, battery box

Tier 2: crumble, components, sparkle, crocodile clips, program, repetition, selection, condition

Tier 3: microcontroller, infinite loop, debug

What is a algorithm?

"What do you think the term 'microcontroller' could mean?"