BILSTON CHURCH OF ENGLAND PRIMARY

MEDIUM TERM PLANNING

Subject	Topic/Key Question	Year Group	Term	Time Allocation
Computing	Algorithms (Bee Bots)	2	Spr 1	6 hours

Software/App – Bee Bots / Blue Bots / Blue Bot app on I pads

Vocabulary

- Instructions
- Sequence
- Clear
- Unambiguous
- Program
- Bee bot
- Forward
- Backward
- Left
- Right
- Prediction

- Artwork
- Design
- Route
- Mat
- Algorithm
- Debugging
- Decomposition

Lesson Sequence	Time Allocation	Key Question/ WALT	Teaching Activities	Resources
Lesson 1	1 hour	WALT: follow and give clear instructions	**Activity 1:** You can assess whether learners can follow instructions to create a drawing. **Activity 2:** You can assess whether learners can think of instructions that can and cannot be enacted by another learner. **Activity 3:** You can assess whether learners can select appropriate instructions from the class list and issue those instructions clearly for another learner to follow. **Activity 4:** You can assess whether learners can issue two or three appropriate instructions at a time. You can also assess whether learners enacting instructions only do as instructed and do not act until a "Go" command is given.	Bee Bots Blue Bots i-pads with Blue bot app Floor mats Resources for lesson 1 in teams folder from teach computing
Lesson 2	1 hour	WALT: use the same instructions to create different algorithms	**Activity 1:** You can assess whether learners can create four algorithms using only the commands provided. **Activity 2:** You can assess whether learners can enter their algorithms as programs on the floor robot and record where the robot stops after it has executed each program.	Bee Bots Blue Bots i-pads with Blue bot app Floor mats Resources for lesson 2 in teams folder from teach computing
Lesson 3	1 hour	WALT predict the outcome of a sequence	**Activity 1:** You can assess whether learners can move the paper-bot according to the algorithms and identify the outcome of each. **Activity 2:** You can assess whether learners can enter the algorithms as programs on a floor robot and compare the robot's stopping square to their prediction. **Activity 3:** You can assess whether learners can follow a randomly produced program and predict what its outcome will be.	Bee Bots Blue Bots i-pads with Blue bot app Floor mats

				Resources for lesson 3 in teams folder from teach computing
Lesson 4	1 hour	WALT: create a mat for a programmable device	**Activity 1:** You can assess whether learners can think of six pictures related to a theme and draw them in suitable squares on a mat. **Activity 2:** You can assess whether learners can plan and test two algorithms that move the robot between squares that they have selected. **Activity 3:** You can assess whether learners can add obstacles to their mats in suitable squares.	Bee Bots Blue Bots i-pads with Blue bot app Floor mats Resources for lesson 4 in teams folder from teach computing
Lesson 5	1 hour	WALT: use an algorithm to create a program	**Activity 1:** You can assess whether learners can select a 'start' and 'end' square and plan a route between the two. **Activity 2:** You can assess whether learners can draw an algorithm for the route that they have identified. **Activity 3:** You can assess whether learners can test their algorithm as a program on the floor robot.	Bee Bots Blue Bots i-pads with Blue bot app Floor mats Resources for lesson 5 in teams folder from teach computing
Lesson 6	1 hour	WALT: debug parts of a program	**Activity 1:** You can assess whether learners can identify the bugs in the given algorithms. **Activity 2:** You can assess whether learners can select two squares on the mat for the robot to visit. **Activity 3:** You can assess whether learners can design and test two programs that move the robot between two squares on the mat. **Activity 4:** You can assess whether learners can combine two tested programs into one larger program.	Bee Bots Blue Bots i-pads with Blue bot app Floor mats

				Resources for lesson 6 in teams folder from teach computing