Medium Term Planning Year 3 Computing Spring 2019

Spring One – Block Coding

Curriculum Reference

Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.

Design, write and debug programs that accomplish specific goals, *including controlling or simulating physical systems;* solve problems by decomposing them into smaller parts.

Week	Learning Intention	Outcome
Week 1	LI: To be able to identify what a good password is and how it can keep us safe.	Children will learn about how important it is to create safe passwords and the importance of doing so.
Week 2	LI: To use J2code to program a 'turtle/sprite' using the 'Advanced mode.'	Explain that using advanced mode means you cannot see your commands until you have finished programming your sprite and pressed play. Demonstrate programming a turtle, followed by pressing 'play' to actually 'see' the instructions 'run'. Children create their own sequence and test it to check it works.
Week 3	LI: To code using blocks, rename sprites and add simple speech commands.	Model and then have children explore the range of commands available including: • renaming a sprite and moving sprite around the screen • slotting code together • inserting some simple speech • using the control command to run their program. •
Week 4	LI: To program two sprites to tell each other a joke.	Create a conversation between the 2 sprites, remembering to program each sprite separately and use the 'wait' command to ensure the conversation flows.
Week 5	LI: To create a broadcast conversation between three (or more) sprites.	Explain how a broadcast is different from a conversation. Model how to create one for the children and then have them create their own.
Week 6	LI: To complete and blog my animation.	Children complete their animations using the skills they have learnt over the last few weeks. Publish using j2bloggy.

Spring 2 – Robot Shapes

Curriculum Reference

Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.

Week 1	LI: To recognise whether a website is trustworthy or not.	Discuss the difference between fact and opinion. Consider why people 'fake' information on the internet.
Week 2	LI: I can program a robot to make a square.	Ask the class to program a floor robot to 'make a square' working in pairs or small groups. Set further challenges to make a bigger or smaller squares and rectangles and come up with a way to show their instructions.
Week 3	LI: To create repeat instructions to program a robot.	Children to program their robots to make different shapes with the minimum amount of instructions.
Week 4	LI: To program a robot to carry out a more difficult sequence.	Program a 'cleaning bot' to move around a space, with X obstacles, in as few moves as possible, (repeating sequence).
Week 5/6	LI: To program a sprite to complete a task in the fewest amount of steps possible.	Children access the Mole Maze activity to transfer their skills from the floor to screen and orientating.