

# Summer Term - NCCE Computing Curriculum

## Nursery Development Matters and Birth to 5

- Children can switch a camera on and off.
- Children can take photos on the camera.
- Can play simple games on the Interactive Whiteboard by pressing buttons.
- Mark make on paint software on the Interactive Whiteboard.

## Year 1: Programming A - Moving a robot

- Understand the individual commands of floor robots.
- Write short algorithms and programs for floor robots.
- Predict program outcomes.

## Programming B - Introduction to animation

- Use programming blocks to modify and create programs.
- Design and program the movement of a character on screen to tell stories.

## Year 3: Programming A - Sequence in music

- Explore sequences in block-based programming language to make music.
- Create their own sequence based on a familiar song.

## Programming B - Events and actions

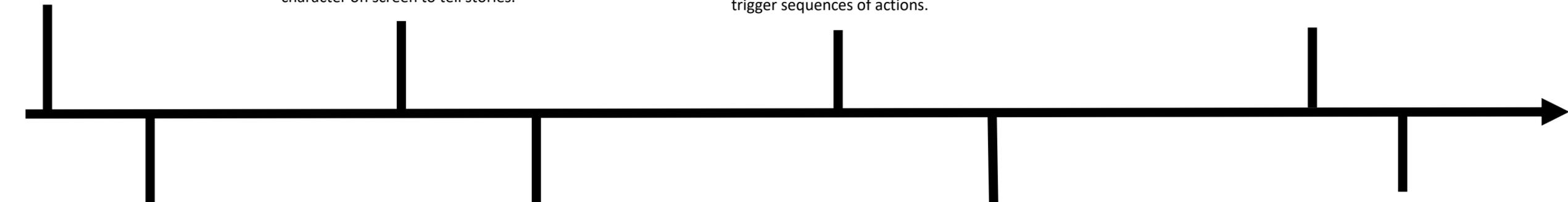
- Move a beebot in four directions (up, down, left and right).
- Explore movement within the context of a maze, using design to choose an appropriately sized Beebot.
- Write algorithms that use a range of events to trigger sequences of actions.

## Year 5: Programming A - Selection in physical computing

- Learn how to connect and program components.
- Program a flow of actions to make a Crumble Controller move.

## Programming B - Selection in quizzes

- Design and code an interactive quiz using previous programming knowledge.



## Reception Development Matters and Birth to 5

- Children can record videos on the camera.
- Children can edit photos.
- Erases content and understands how to charge the cameras.
- Can play simple games on the Interactive Whiteboard by dragging and dropping items.
- Children can independently change games or increase levels of difficulty on games.
- Select brushes, colours and rubbers when drawing on paint software

## Year 2: Programming A - Robot algorithms

- Create and debug programs.
- Use logical reasoning to make predictions.

## Programming B - An introduction to quizzes

- Understand that sequences of commands have an outcome
- Make predictions based on their learning.
- Create their own quiz questions.
- Use events to trigger sequences of code to make an interactive quiz

## Year 4: Programming A - Repetition in shapes

- Create programs by planning, modifying, and testing commands to create shapes and patterns.

## Programming B - Repetition in games

- Look at the difference between count-controlled and infinite loops.
- Modify existing animations and games using repetition.
- Design and create a game which uses repetition, applying stages of programming design throughout.

## Year 6: Programming A - Variables in games

- Learn what variables are.
- Use variables to create a simulation of a scoreboard-based game.

## Programming B - Sensing

- Build their own simple program.
- Test their program using Micro:bit
- Evaluate their program.