



# Progress in Computing

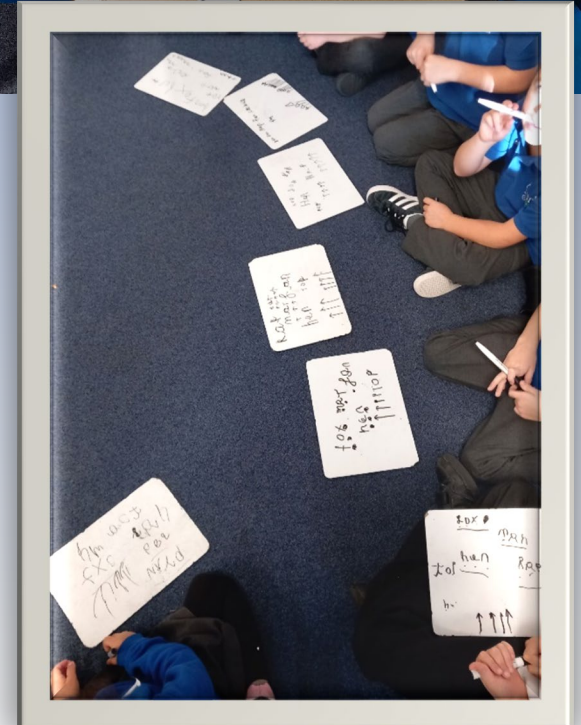
## Term 2

Our second topic is Programming & Algorithms, which is like writing instructions for machines or computers.

Sequencing and drawing the 'route' of a story with a series of events, helps children understand that programs follow a particular order.



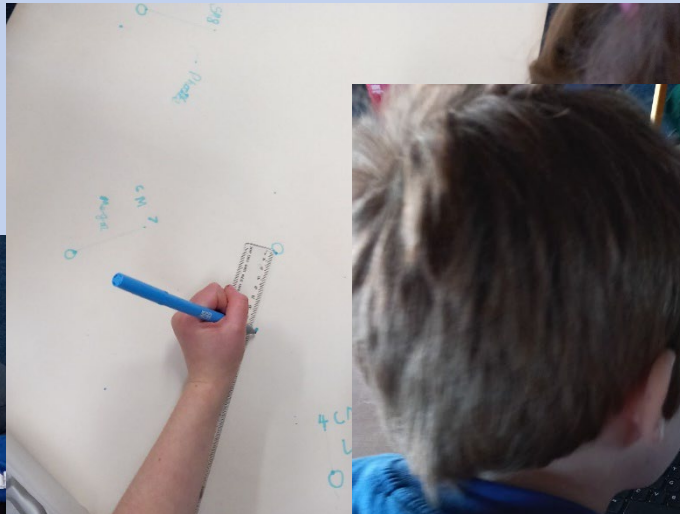
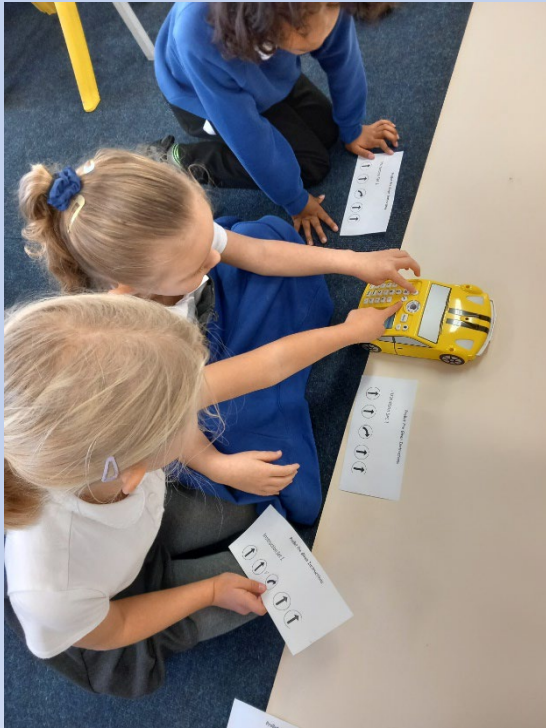
**Year 1** Children  
read and write the start  
and end points for a  
BeeBot and program it.





# Year 2

Year 2 program a floor robot called Probot to draw lines in cms. They 'debug' as mistakes are made, and transfer their learning to programming on screen.



# Year 3



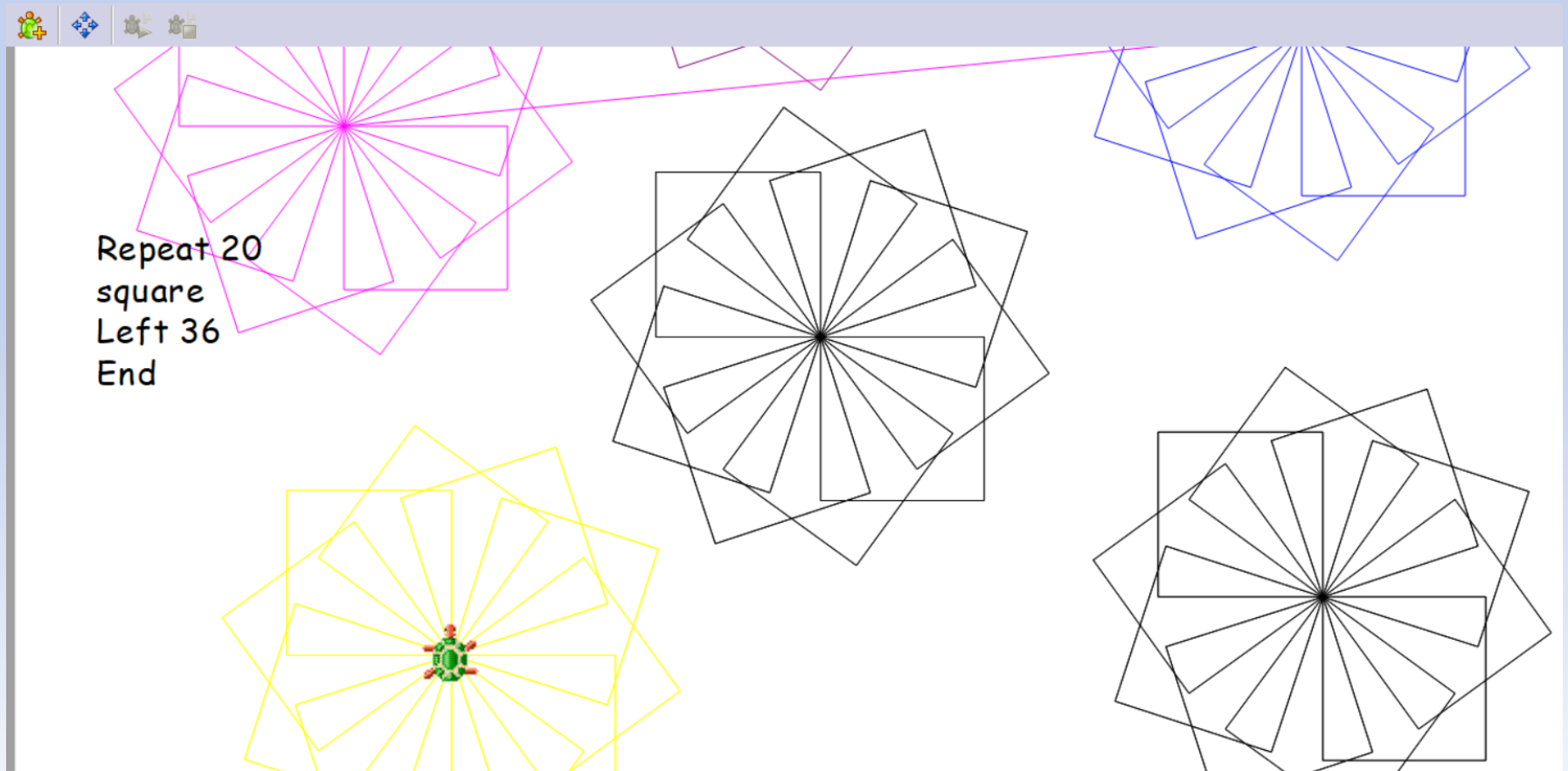
Year 3 use Probot to draw different sized shapes with right angles. They also worked out the angles to program a triangle and hexagon. They tested their learning by programming an on screen turtle using LOGO.





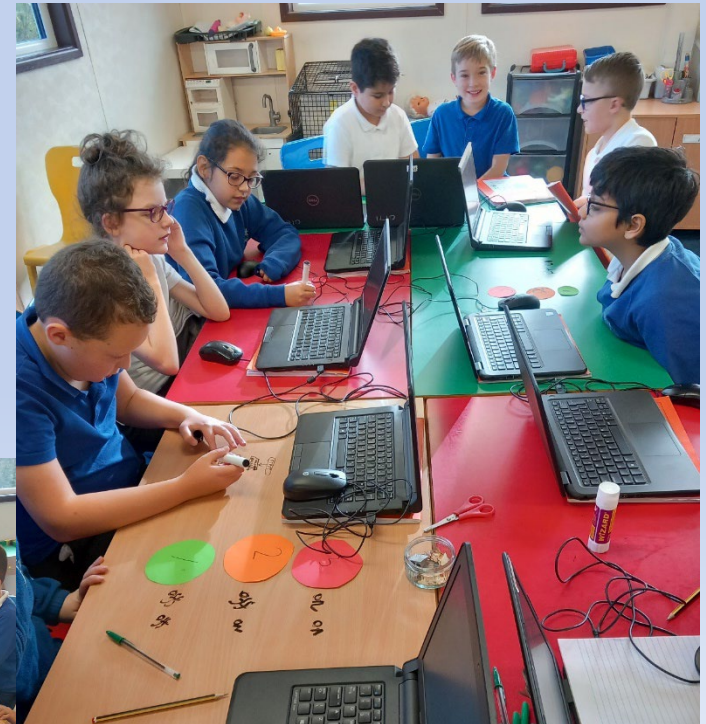
# Year 4

Pupils use LOGO programming language to plan, test and 'debug' their own algorithms.



# Year 5

Year 5 use flowcharts to plan and 'debug' programs to control simulations of real life systems, like traffic lights.



# Year 6

Pupils use flowcharts and programming language to mimic real life systems that include a switch.

Santa\* - Flowol 3 - Copyright Keep I.T. Easy

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80% CCW Cursive Writing 28 B I U

7/12/2022 This program controls outputs when input 1 the switch is on  
Erin

The image displays three flowcharts and a photograph of a Christmas scene. The first flowchart on the left starts with a 'Start' oval, leading to a decision diamond 'Is Input 1 on'. If 'YES', it goes to a parallelogram 'Turn Output 6 on', then a rectangle 'Delay 2', then another parallelogram 'Turn Output 6 off', and finally another rectangle 'Delay 2' before looping back to the decision diamond. If 'NO', it loops back directly. The second flowchart in the middle starts with a 'Start' oval, leading to a decision diamond 'Is Input 1 on'. If 'YES', it goes to a parallelogram 'Turn Output 7 on' and then loops back to the decision diamond. If 'NO', it loops back directly. The third flowchart on the right starts with a 'Start' oval, leading to a decision diamond 'Is Input 1 on'. If 'YES', it goes to a parallelogram 'Turn Output 8 on' and then loops back to the decision diamond. If 'NO', it loops back directly. To the right of the flowcharts is a handwritten note in cursive: '7/12/2022 This program controls outputs when input 1 the switch is on Erin'. Below the flowcharts is a photograph of a Christmas scene with a fireplace, a Christmas tree, and various decorations. The photo is labeled with 'in 1' (a switch on the left), and eight 'out' labels: 'out 1' (top left), 'out 2' (top right), 'out 3' (middle right), 'out 4' (middle left), 'out 5' (top center), 'out 6' (middle left), 'out 7' (bottom center), and 'out 8' (bottom right).