Can a robot get through an obstacle course?

St. Peter's CE Primary Academy

Coding Y4

Computational thinking

Empowered Learner:

- Use what I know to use new technology effectively
- Solve my own technology problems.

Computational thinking

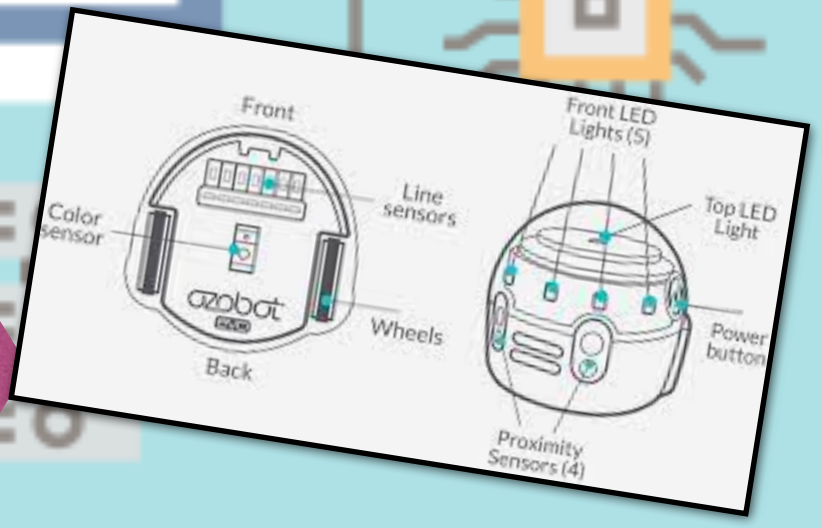
- Design algorithms
- Detect errors in algorithms
- Break problems to solve
- Use sequences to accomplish

Key learning

- Program Ozobots to move in different ways including using sounds, light and a range of movements.
- Use sensors with conditionals to get Ozobots to avoid objects in their path.
- Use loops to repeat movements.
- Use logic for conditional commands, including 'else' function.

Key vocabulary

Sensors	Detects and measures when objects get too close.
Detecting	To discover or identify objects using sensors.
Conditionals	These tell a computer to run different codes depending on the conditions.
Debugging	Finding and fixing problems in a computer program or algorithm.
Logical operator	A type of operator that you can use to make conditional code more specific.
For loop	Grouping tasks together and giving them a number of times to run together.
Error	A mistake that requires debugging to occur.
Algorithm	A set of rules for the Ozobot to follow.
Proximity	How near something is to the robot.



Coding - Our Learning Journey

Year 1/2

- Using simple commands to move and change direction
- Editing characters and backgrounds
- Using repeat functions
- Debugging simple programmes

Year 3/4

- Using different controls and conditionals - when and if commands
- Creating and editing functions
- Detecting and correct simple algorithm errors

Year 5/6

- Using a range of sequences and functions to accomplish specific goals in the most efficient way
- Using comparison and logical operators in a range of programmes
- Design, write and debug computer games