

# The Logic Maze

## *Summary*

A teamwork maze that uses logic gates puzzles on gates to allow the players to continue in the maze (note the gates literally have the symbol of the logic gate it represents on them). this exercise uses association, repetition and familiarisation to teach the how to identify and navigate logic gates (except for the “or” type logic gate) in addition to reinforcing teamwork practices. the gate will be locked behind switches that act as the input on a logic gate, teams will decipher clues within the gate’s room to solve the puzzle and continue with the maze. clues will be thing like a diagram or maybe the name of the logic type.

## *What are logic gates?*

Logic gates are electronic gates that respond/open to certain triggers. For example, a lightbulb, it can be turned on or off by pushing a switch up or down. Though this is a simple logic puzzle it is still a good example of how they work. The most basic logic gates are;

- AND
- NOT
- OR.

NOT gates work when the switch is off, AND gates work when all connected circuits are on and OR gates work when at least 1 connected circuit is on. using the lightbulb as an example again when it is switched off it is using the NOT gate and when it is on it is using either the AND or OR gate.

## *Age rating*

Possibly 15+, mainly because it requires a higher level of problem solving as well as communication and patience.

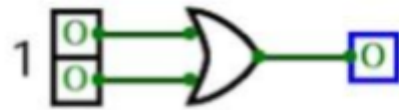
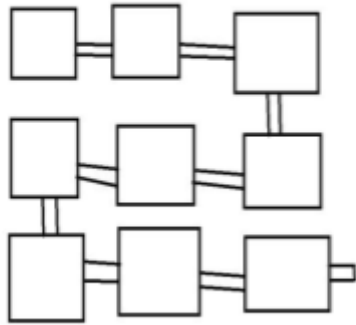
## *Setup required*

- This will require the creation of question/ puzzles involving logic gates
- A large area/ building
- Construction of the maze

## *Game run through*

1. A team of 2(can be more but 2 is optimal) navigate the maze.
2. The team enter a gate room, there are clues as to the gate’s nature.
3. The team uses or does not use the switches in the room to solve the gate puzzle
4. Once the gate is opened, they proceed on in the maze

5. Repeat 1-4 till finished



Diagrams above are maze example(above right) and gate examples(above left)

