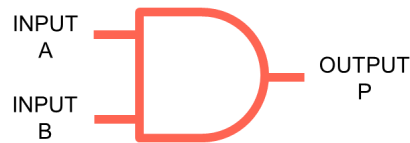


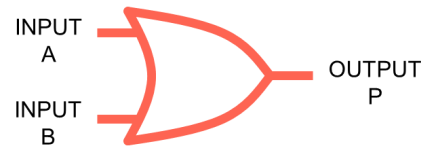
10: Yr9 Computer Science: Knowledge Organiser : Logic

AND Logic Gate Diagram & Statement



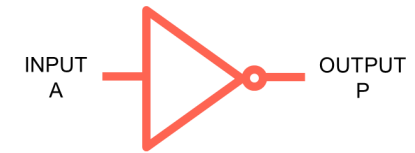
Logic statement: $P = A \text{ AND } B$

OR Logic Gate Diagram & Statement



Logic statement: $P = A \text{ OR } B$

Not Logic Gate Diagram & Statement



Logic statement: $P = \text{NOT } A$

AND Logic Gate Truth Table

A	B	P
0	0	0
0	1	0
1	0	0
1	1	1

OR Logic Gate Truth Table

A	B	P
0	0	0
0	1	1
1	0	1
1	1	1

Not Logic Gate Truth Table

A	P
0	1
1	0

AND Logic Gate Rule

Only when both inputs are True (1) will a output be True (1), otherwise outputs are False (0)

OR Logic Gate Rule

When either input is True (1) the an out-put be True (1), otherwise the output is False (0)

NOT Logic Gate Rule

The input is reversed when output, so if True (1) goes in , the output will be False (0), and vice versa.

Competencies:

I can draw a AND, OR and NOT logic gate

☐

I can combine 2 logic gates together to produce more complex logic diagrams

☐

I can write out a AND, OR and NOT truth table

☐

I can read more complex logic diagrams and state the output of each logic gate

☐

I can state when a 1 is produced from a AND, OR and NOT gate

☐

I can write out logic statements or truth tables for 2 gate logic diagrams

☐