

# BINARY NUMBERS

DECIMAL	BINARY				CORRECT?
0	8	4	2	1	
1	8	4	2	1	
2	8	4	2	1	
3	8	4	2	1	
4	8	4	2	1	
5	8	4	2	1	<b>Example</b>
	0	1	0	1	
6	8	4	2	1	
7	8	4	2	1	
8	8	4	2	1	
9	8	4	2	1	
10	8	4	2	1	
11	8	4	2	1	
12	8	4	2	1	
13	8	4	2	1	
14	8	4	2	1	
15	8	4	2	1	

Name and teaching group:

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TOTAL OUT OF 14:

## BINARY NUMBERS

Binary means two. All numbers in the binary system are made up of either a **0** or a **1**.

To work out the equivalent of a decimal number in binary we need to use a grid like the one below:

8	4	2	1

We are going to work out the equivalent of the decimal

number : **5**

Are there any eights in **5**? NO! So we put a **0** in the eights column.

Are there any fours in **5**? Yes! So we put a **1** in the fours column.  
(THIS LEAVES REMAINDER 1)

Are there any twos in **1**? No! So we put a **0** in the twos column.

This leaves '**1**' for the one column.

8	4	2	1
0	1	0	1

**5 in decimal is 0101 in binary!**