



Joyfulmathswithruth

Functional Skills i/GCSE Foundation

Edexcel

**Unit 1: Number
Lesson 4 - Multiples**



To join in please bring:



**24 or more lego bricks or other blocks you can build with (they need to be the same size)
OR - you can bring some square paper and coloured pencil**

Start thinking:

Start thinking:

I am a number

I am in the 10 x table

I divide into 100 exactly

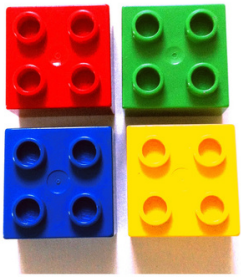
What number am I?

Building towers

Tower 1: You can only add 4 blocks at a time

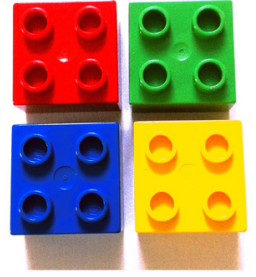
Tower 2: You can only add 6 blocks at a time

Stop when your towers are the same size





Building towers:



Challenge 1:

Tower 1: You can only add 2 blocks at a time

Tower 2: You can only add 3 blocks at a time

Stop when your towers are the same size

Challenge 2:

Tower 1: You can only add 4 blocks at a time

Tower 2: You can only add 6 blocks at a time

Stop when your towers are the same size

Lowest Common Multiple

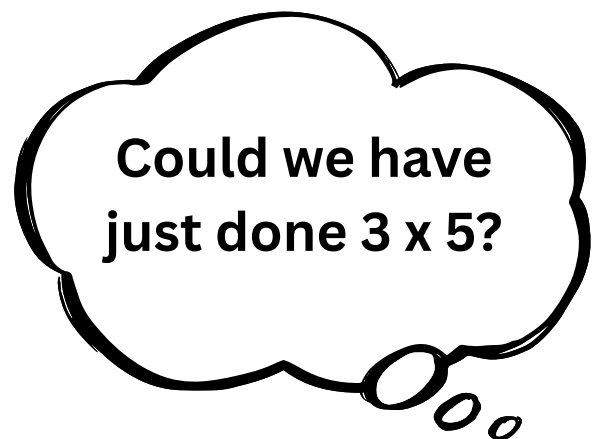
Smallest
number

In both/all

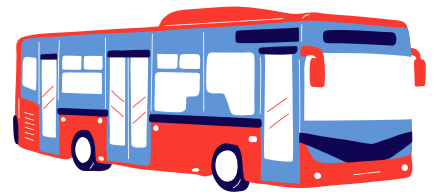
Timestables

Lowest common multiple of 3 and 5

3	5
6	10
9	15
12	20
15	25
18	30
21	
24	
27	
30	



FS1	<input checked="" type="checkbox"/>
FS2	<input checked="" type="checkbox"/>
GCSE	<input checked="" type="checkbox"/>
iGCSE	<input checked="" type="checkbox"/>



Question:

The bus to Carlisle leaves every 25 minute.
The bus to Lancaster leaves every 30 minutes.
The first busses both leave at 9am.

When will the 2 busses leave at the same time again?



Why could we not do 30 x 25?

3 and **5**

1 x 3

1 x 5

The only common factor is 1

30 and **25**

1 x 30

2 x 15

3 x 10

5 x 6

1 x 25

5 x 5

There is also a common factor of 5 (so they will share other numbers in their timestable)



Fizz Buzz

We are going to **count to 20**

If it is a **multiple of 2** replace the number with
FIZZ

If it is **multiple of 3** replace the word with **BUZZ**

If it is a **common multiple**, say **FIZZBUZZ**

1	11
2	12
3	13
4	14
5	15
6	16
7	17
8	18
9	19
10	20

At home:



I only have
time to do 3
questions

1. Which ones are **not** multiples of 5?

30 55 21 100 62 5 10

2. What is the lowest common multiple of 5 and 6?

3. Find the lowest common multiple of 14 and 18.



At home:

The 1st set of traffic lights change every $2\frac{1}{2}$ minutes

The 2nd set changes every 4 minutes.

They are both green now.

In the next hour, how many times will both sets of lights be green at the same time?



Practice questions

At home:

Here is a lovely problem to dive into on nrich

For more LCM practice head to here for some Corbett maths questions

With Lowest Common Multiple, often the language is the hardest bit

Worded problems are often easier to understand than the mathematical language because we don't use it often

Break it down into the individual words:

Lowest = Smallest

Common = Means in both or all

Multiple = In the multiplication table