

Maths- Skills

This lesson will be live on teams for
your class at;

9am-5L

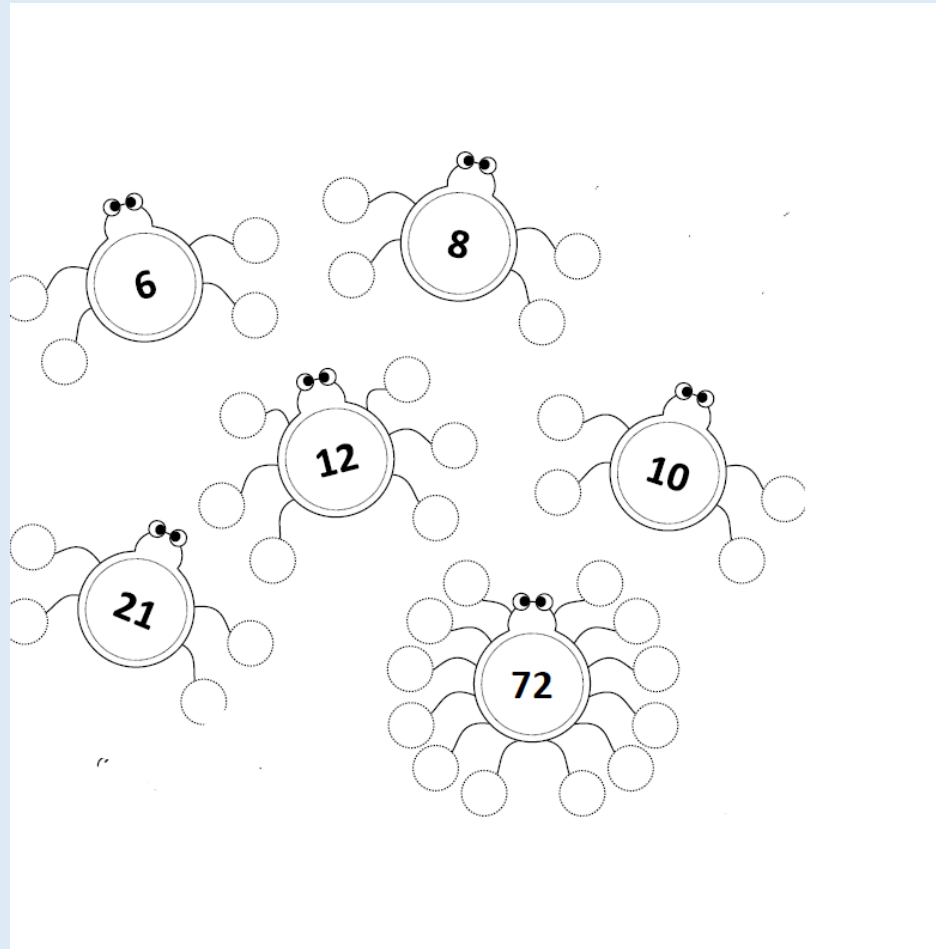
10am-5H

11am-5M

Learning objective; To revisit factors and identify
common factors.

Warm up - Factor bugs

- Copy and complete these factor bugs identifying the factors for each number.



Multiples

Multiples are really just extended times tables.

- The multiples of 2 are all the numbers in the 2 times table, such as 2, 4, 6, 8, 10 and so on.
- Multiples of 2 always end with a 2, 4, 6, 8 or 0. You can tell 2286, for example, is a multiple of 2 because it ends with a 6.
- The multiples of 5 are all the numbers in the 5 times table, such as 5, 10, 15, 20, 25 and so on.
- Multiples of 5 always end with a 5 or a 0. You can tell 465, for example, is a multiple of 5 because it ends with a 5.

Take a look at this video from BBC bitesize-

<https://www.bbc.co.uk/bitesize/topics/zqbg87h/articles/zgbpnbk>

Today the lesson is going to follow a video from White Rose Hub.

I would like you to watch and listen to the video, think about pausing it at the correct times to answer the questions.

The video gives excellent answers and reasoning around them. When you have answered each question you can continue the video.

Please ignore the suggestions to work from a 'workbook', there are questions for you to answer afterwards.

The link is here; <https://vimeo.com/468940874>

Questions

- 1) Write the numbers in the correct columns (some numbers might belong in more than one column).



16, 40, 36, 55, 72, 24, 30

Multiples of 2	Multiples of 3	Multiples of 5	Multiples of 10

- 3) Using your rules from question 2, sort the following numbers correctly.

7362, 8654, 6246, 3475, 4530, 3513

Multiples of 2	Multiples of 3	Multiples of 5	Multiples of 10

- 2) Look at the numbers in each column. What do you notice? Write a rule for each column about how to identify if a number is a multiple.
- a) Multiples of 2
 - b) Multiples of 3
 - c) Multiples of 5
 - d) Multiples of 10

Answers

1)

Multiples of 2	Multiples of 3	Multiples of 5	Multiples of 10
16	36	40	40
40	72	55	30
36	24	30	90
72	30	90	
24	90		
30			
90			

2)

- a) *The final digit is even.*
- b) *The digit total is 3, 6 or 9 (or a multiple of 3).*
- c) *The final digit is 0 or 5.*
- d) *The final digit is 0.*

3)

Multiples of 2	Multiples of 3	Multiples of 5	Multiples of 10
7362	7362	3475	4530
8654	6246	4530	2940
6246	4530	2940	
4530	3513		
2940	2940		

Code breaking

Use your knowledge around multiples and factors to break this code.

You will also need to remember a square number is the product of multiplying the same number together; e.g. $5 \times 5 = 25$

A cube number is when you multiply a number by itself, and then multiply that answer by the original number; e.g. $5 \times 5 = 25 \times 5 = 125$.

Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes.

Each answer to the questions below will be a number. Match the number to a letter in the grid below. If your answers are correct, your letters will spell out a phrase.

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
14	15	16	17	18	19	20	21	22	23	24	25	26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

Which number?	Notes/Number	Letter
This number is a multiple of seven and two and is a factor of 28.		
This number is a square number, a multiple of three and one more than a cube number.		
This number is a prime number and a factor of 36.		
When this number is squared, the answer is the largest square number in the list above.		
This prime number is > 19 and < 29 .		
This number is a multiple of five and three.		
This multiple of nine is in between two prime numbers.		
This number is the difference between 5^2 and 6^2 .		

Crack the Code with Factors, Multiples, Square Numbers and Cube Numbers

Answers

Which number?	Notes/Number	Letter
This number is a multiple of seven and two and is a factor of 28.	14	N
This number is a square number, a multiple of three and one more than a cube number.	9	I
This number is a prime number and a factor of 36.	3	C
When this number is squared, the answer is the largest square number in the list above.	5	E
This prime number is > 19 and < 29 .	23	W
This number is a multiple of five and three.	15	O
This multiple of nine is in between two prime numbers.	18	R
This number is the difference between 5^2 and 6^2 .	11	K