

Year 4 Maths - Multiplication

Week beginning 29.06.20

This week in Maths we're going to focus on multiplication.

- Warm up by playing one of our favourite online games: Hit the Button!
- Here: <https://www.topmarks.co.uk/maths-games/hit-the-button>
- Try to practise both times table and division facts.

- Alternatively, if you fancy a change, try one of these games:
<https://www.topmarks.co.uk/times-tables/coconut-multiples>
<http://flash.topmarks.co.uk/3124>

Now log in to Mathletics here:

<https://login.mathletics.com/>

- Lesson one: You have had 3 short multiplication and division activities assigned to you on Mathletics. Complete these and then anything else you'd like to do on the multiplication facts area.

(If you've lost or forgotten your login let us know and we can resend it!)

- We will log in and look at your scores, or you can write them down and send them to us. Remember you can redo them if you want to try to improve!



Lesson two – product grid

- Try this activity about finding products. There's an example below and then more questions on the next slide. You can write down the answers on paper to send to it.
- Reminder: **product** means multiply the two numbers together.

42	

The diagram above means that you need to find two squares next to each other on the grid that have a product of 42.

Find these pairs of numbers on the grid.

4	6	3	7	6
9	2	8	10	5
8	3	5	8	2
5	10	6	3	4
7	9	4	9	7

So for this example question you're looking for a pair of numbers, which are next to each other on the grid, which multiply together to make 42. Can you spot them?

24	

18	

21	

63	

40	

36	

16	

12	

28

35

30

27

72

8

4	6	3	7	6
9	2	8	10	5
8	3	5	8	2
5	10	6	3	4
7	9	4	9	7

Now find pairs of products for these numbers, using the grid above.

Lesson three - investigation

- Now you're going to try this game using your knowledge of times tables and of factors and multiples.
- To warm up, try this game all about factors: <https://www.transum.org/Software/Game/Connect4/>. You can play on your own or with someone else.
- Reminder: **factors** are numbers we can multiply together to get another number. So 2 and 3 would be factors of 6 because $2 \times 3 = 6$. **Multiple** means it occurs in that times table, when you multiply it. So 12 and 6 are both multiples of 3.
- The game is on the next slide. You'll need someone else to play it with you. You may want to print the game board, or quickly sketch it out with the numbers. You can write down your calculations to show us.

1. Player 1 chooses and crosses off one of the green numbers from the game board:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60

Write down all the numbers that your number is a multiple of. Finally, add together all of those numbers to create a 'factor sum'.

This number is player 1's score for that round.

2. Player 2 takes a turn.
The winner is the first player to reach a total of 200!
If both/all three players reach 200 in the same round, the winner is the player closest to 200, so be careful which number you pick as the game nears its end.

How might you keep track of people's scores?

3. Will the biggest number always have the highest 'factor sum'?

○

○

○ 18

○ is a multiple of

○ 1, 18, 2, 9, 3, 6

○ $1 + 18 + 2 + 9 + 3 + 6$

○ = 39

○

○

Follow up question:

Challenge

Write something you notice about the grey numbers. Do you think it would be helpful to have these numbers in the game? Explain your ideas.