

Year 2 Maths Activities - Week Beginning 25.1.21

Dear Parents and Carers,

We are going to continue with our multiplication learning this week.

Some of the activities have again been organised into levels so that you can choose the most appropriate ones for your child; some activities are for everyone to try.

We would like to see the children's work for Day 2. Please email us in a picture of their arrays to y2@elystjohns.cambs.sch.uk

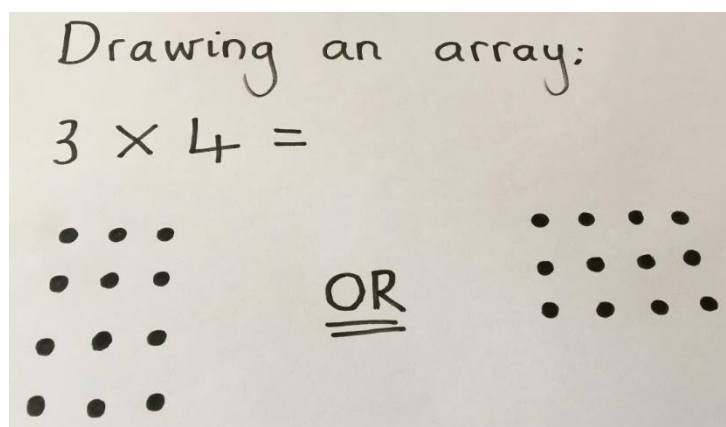
Before you get the activities, please familiarise yourself with the method for multiplying we teach in year 2.

Multiplication

- By now, the children should know that multiplication can be done in any order and that it is the same as **repeated addition**. So 3×4 is the same as 4×3 , which is also the same as $3 + 3 + 3 + 3$, and this is also the same as $4 + 4 + 4$.
- By the end of this week, the children should know that if they see a multiplication question that they don't know the answer to, they can draw an array to find the answer.

Drawing arrays:

The easiest way to think of an array is like an egg box. You might have an egg box that holds 12 eggs and it is set out in 2 rows of 6. This shows us that $2 \times 6 = 12$.



It doesn't matter if you do 3 rows or 4 or 4 rows of 3, you will still get the same answer.

- The children in year 2 should use their times tables as a first resort (by the end of year 2 they should know their 2s, 5s 10s and 3s). They might automatically know that $3 \times 4 = 12$ (if they know their tables off by heart), or they might be able to count in 3's (3, 6, 9, 12) to find the answer
- Arrays should be used when children don't know the answer (e.g. 6×7 as neither times table is covered in year 2).

Day 1

Objective: To multiply using repeated addition

Starter: <https://youtu.be/n11N2wU0e6A>

Activities: Working Towards the Expected Standard

- Work with the 2, 5, 10 and 3 times table. Or just stick to one of these tables. Say aloud the times tables. Children are working towards being able to recall their tables forwards and backwards.
- Similarly to last week, use physical objects to work out the answers (pieces of pasta, small beads, pennies, lego). You might want to lay out plates or pieces of paper to put them on, e.g. for 2×3 , you might put down 3 plates with 2 pieces of pasta on each plate. How many pieces of pasta do we have altogether? Keep going, with lots of examples.

Working At the Expected Standard

We would be trying to explain to the children that when we multiply (or do a times calculation) we can think of it as repeated addition or adding the same number several times. They will have done this last week and seen this in the videos so it would be good to refer back to this.

Play game -

<http://www.snappymaths.com/multiplication/earlymult/interactive/repadd/repaddframe.htm> You could do the first few so your child can see the method.

When it's their turn, type the answers as your child tells you the answers for these repeated addition sentences and their corresponding times number sentence.

Depending on how your child found the early steps of repeated addition last week, there are two initial activities to try:

Activity 1a is a scaffolded way to support your child seeing repeated addition as a multiplication

Activity 1b is a less scaffolded way.

Once 1a or 1b (or both!) have successfully been completed, move to **Activity 2**. This aims to consolidate the learning. If you have any building bricks like this at home (or anything to count with really), let your child physically build the repeated additions.

Extra activities for 'stretching further':

Solve these puzzles and write a repeated addition calculation for each one.

How many legs do three cats have?



How many ears do four rabbits have?



How many legs do two spiders have?

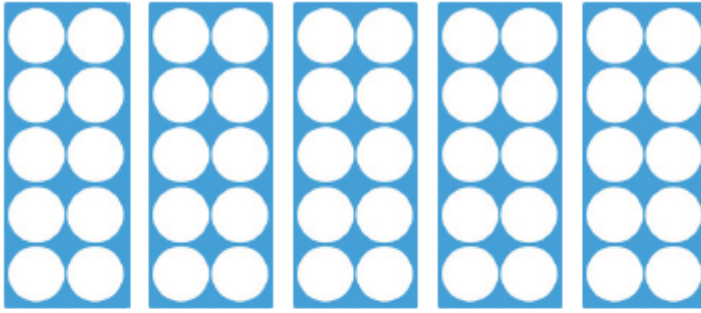


How many spots do three ladybirds have?

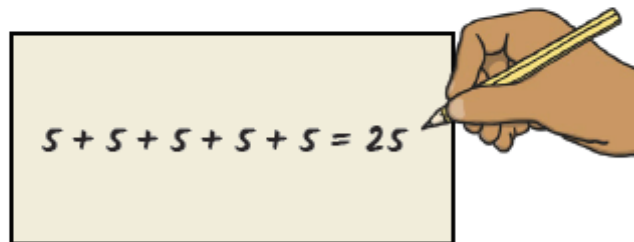


Can your child write a problem like this for you to solve?

Look at Laura's groups.



She wrote a calculation to find the total of her groups.



Do you agree with Laura's calculation?

Explain your answer.

How could you represent Laura's calculation?

Day
2

Objective: To use arrays

Starter: <https://youtu.be/hwWEIR60Vlg>

Learning video: <https://youtu.be/lz2gPC2Vx2Y>

Activity: Once the video has ended, show/write out for your child these arrays we'd like them to draw (as seen in the last slide on the video):

- 4 groups of 3
- 3 groups of 4
- 2 groups of 6
- 6 groups of 2
- 4 groups of 5

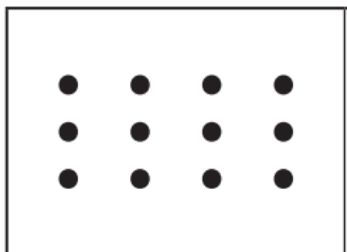
Ask your child: what do you notice in the first two arrays? Do you notice anything in the 3rd and 4th arrays?

Please email us in these arrays to y2@elystjohns.cambs.sch.uk

Extra activities for 'stretching further':

For each of the arrays your child has drawn, can they write out a multiplication sentence for each of them?

Here's an example:



$$3 \times 4 = 12 \text{ or } 4 \times 3 = 12$$

Do you agree or disagree with each child? Why?

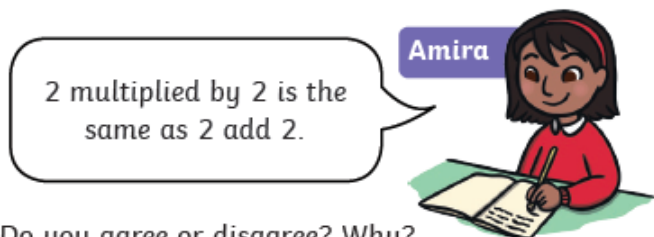
Use arrays to explain your answers.



James

3 multiplied by 10 is the same as 10 lots of 3.

Do you agree or disagree? Why?



Amira

2 multiplied by 2 is the same as 2 add 2.

Do you agree or disagree? Why?

Question prompts

Here are some question prompts to ask/state whilst your child is working:

Is 3×10 the same as 10×3 ? How do you know? Can you draw arrays to prove it? How can you find the total?

Do you agree with Amira? What is 2×2 ? Can you show me with an array? What is $2 + 2$? Why are the answers the same?

Day
3

Objective: To use arrays

Starter: https://youtu.be/_oAgm0eMhcw

Activity: Use **Activity 3** worksheet alongside the learning video. For question 7, your child may need more room than is given on the sheet so please do this question in their books (if they aren't already doing so).

Learning video: <https://vimeo.com/490417143>

Day
4

Objective: To use arrays

Starter: https://youtu.be/_jT8MklYmiY

To recap

Children in year 2 represent arrays in two ways using the multiplication symbol. They demonstrate their understanding that multiplication is commutative and can be done in any order. They draw an array to match a given multiplication. Children may benefit from having some practical apparatus to recreate the arrays (pennies, pencils, counters, lego, dried pasta etc. - don't worry at all if this isn't easily accessible though). Encourage children to keep their own array picture very simple.

Activity: Activity 4

Here are some question prompts to ask/state whilst your child is working:

Which array represents seven lots of two?

How do you know?

Show me two ways that you could represent the array using the multiplication symbol.

Can you count in twos, fives or tens to find the total?

Can you draw an array to represent 5×4 ?

Does it matter if you draw five rows of four or four rows of five?

A 'stretching further' challenge:

Fran has used arrays to represent a times table.



Which times table has Fran represented?
Write the calculations to match these three arrays.

How many oranges would be in the sixth array?
Write the calculation to match the tenth array.

Day 5

Objective: To use arrays

Starter: <https://youtu.be/Dna62kVI7g8>

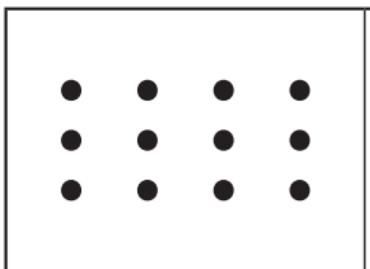
Activity: Watch this video which shows again how to use arrays to multiply:
www.youtube.com/watch?v=XOyOVDMjUdo

Hopefully your child is starting to understand that the number of rows multiplied by the number of columns equals the total number of dots.

Use Activity 5 to help make connect the learning from this week. Try the first few together by counting with your child each row then column to show the two possible multiplications. Tip: Draw around the rows in one colour and write that multiplication in that colour. The group the columns in a different colour and write that multiplication in that colour.

Stretching further:

Some children may be starting to see that Arrays can also be used for division, by grouping the dots into their rows or columns. This is where the learning is headed. Ask your child what would the fact families be for these multiplications? Can your child have a go at making these connections? Here's an example:



$$3 \times 4 = 12$$

$$4 \times 3 = 12$$

$$12 \div 3 = 4$$

$$12 \div 4 = 3$$

If your child is wanting a little extra, keep scrolling...!

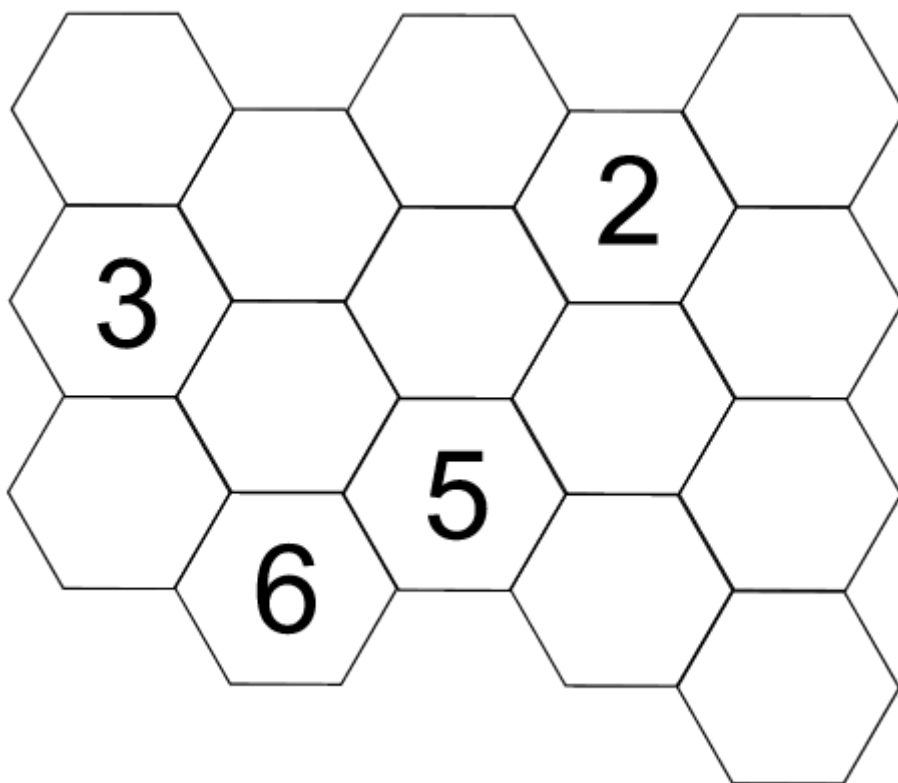
A Little Extra

Buzzy Bee

Buzzy Bee was building a honeycomb.

She decided to decorate the honeycomb with a pattern using numbers.

Can you discover Buzzy's pattern and fill in the empty hexagons for her?



If your child is unsure how to begin, use these prompt questions:

Which number might go in between the 3 and the 5?

What number could follow on from the 5 in that line going diagonally down to the right?

Solution:

