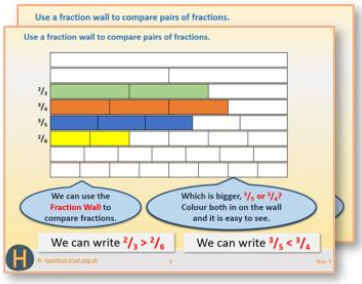
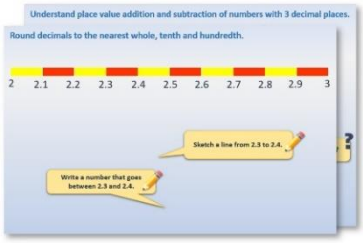
Year 2: Week 3, Day 2
Multiplication

Each day covers one maths topic. It should take you about 1 hour or just a little more.

1. If possible, watch the **PowerPoint presentation** with a teacher or another grown-up.



OR start by carefully reading through the **Learning Reminders**.



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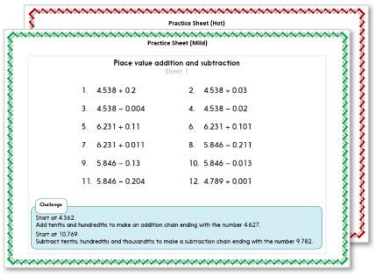
2. Tackle the questions on the **Practice Sheet**.
There might be a choice of either Mild (easier) or Hot (harder)!
Check the answers.



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3. Finding it tricky? That's OK… have a go with a grown-up at **A Bit Stuck?**

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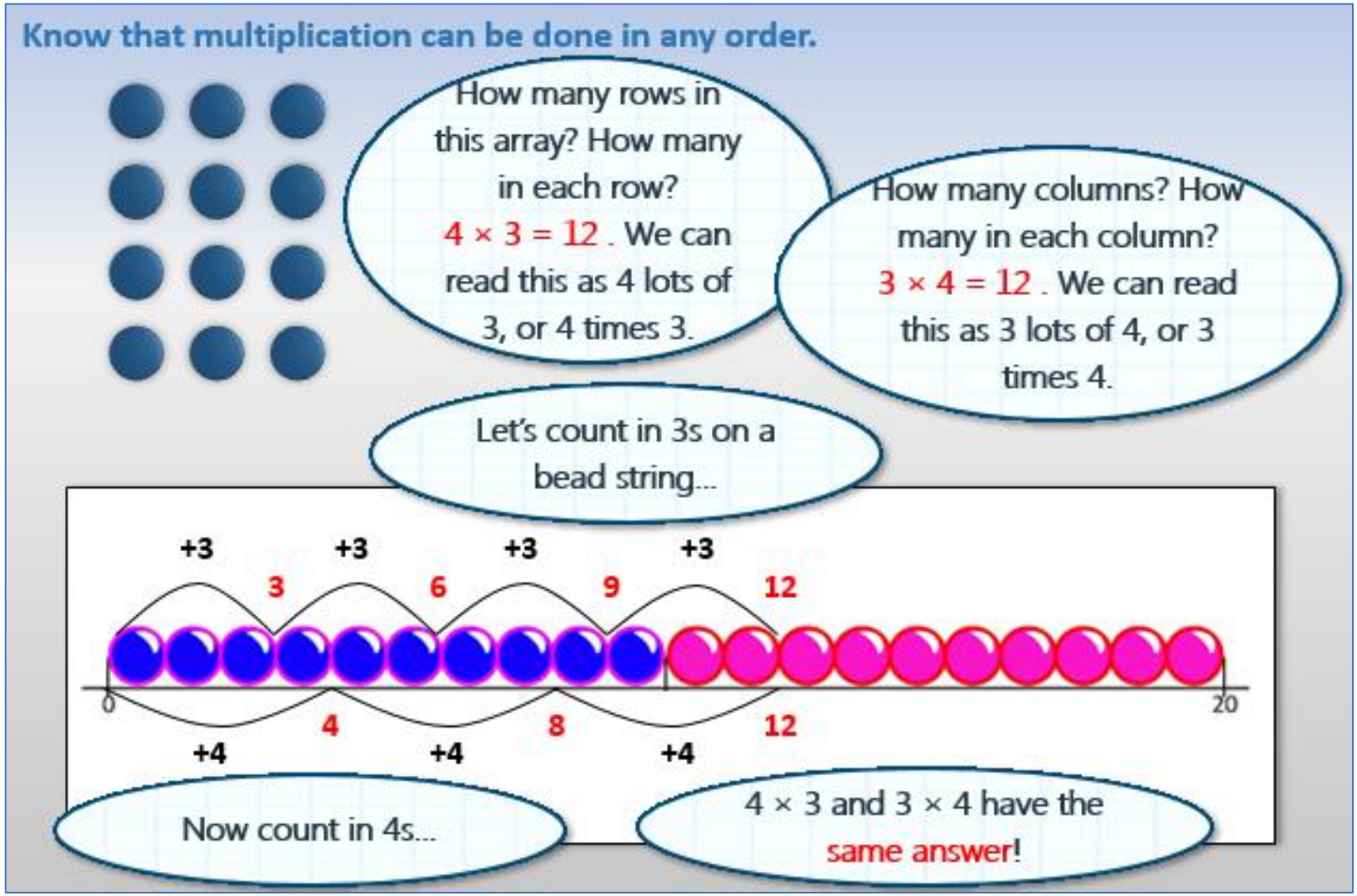
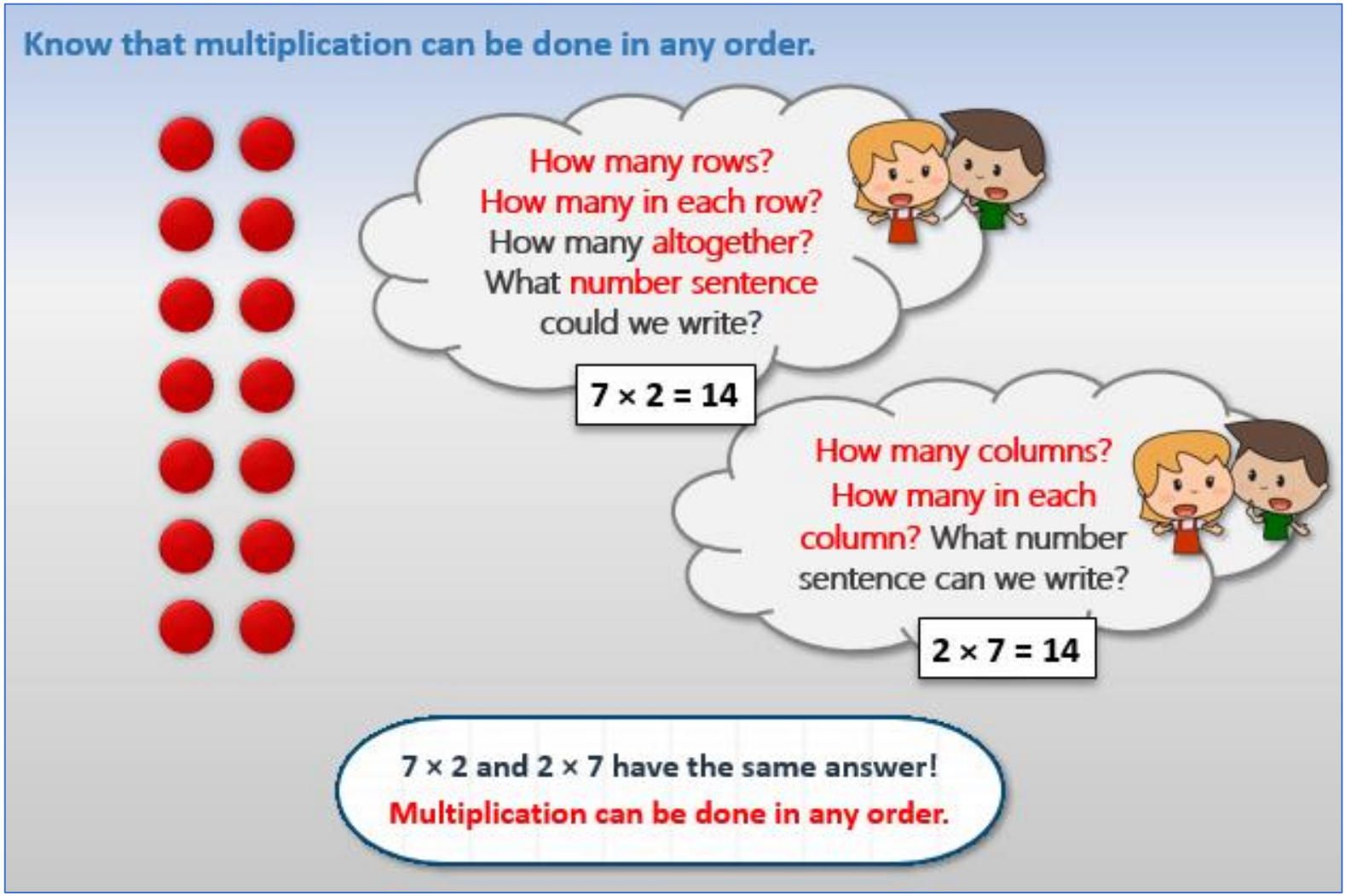
4. Think you've cracked it? Whizzed through the Practice Sheets? Have a go at the **Investigation**…

Learning Reminders



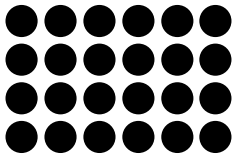
Learning Reminders

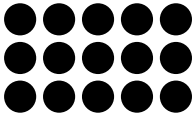


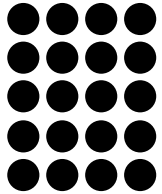
Practice Sheet Mild

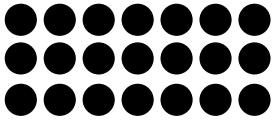
Reading arrays

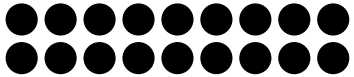
Write the two multiplication facts to go with each array.

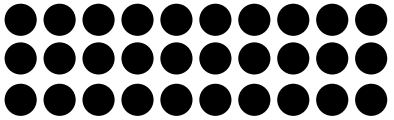












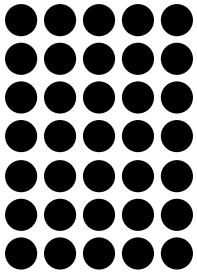
Challenge

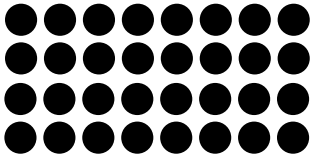
Draw one more array to show 6 x 3. What else does it show?

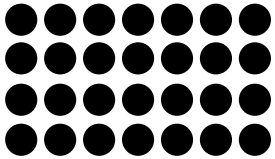
Practice Sheet Hot

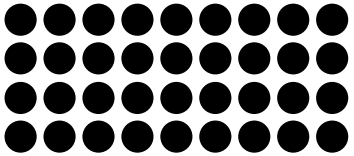
Reading arrays

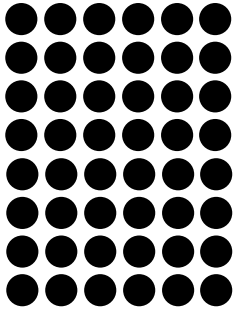
Write the two multiplication facts to go with each array.

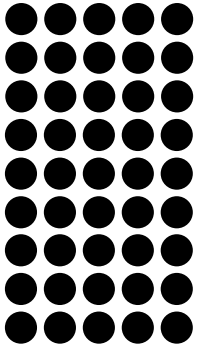


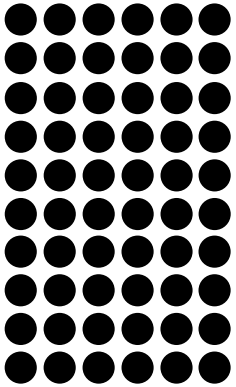










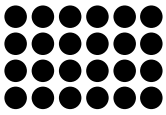


Challenge

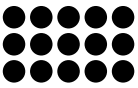
Draw one more array to show 1 x 11. What else does it show?

Practice Sheets Answers

Reading arrays (mild)

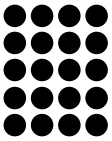


4 x 6 = 24
6 x 4 = 24

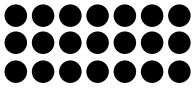


3 x 5 = 15
5 x 3 = 15

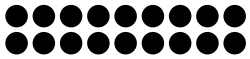
2 x 8 = 16
8 x 2 = 16



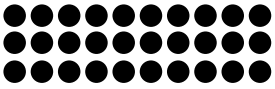
5 x 4 = 20
4 x 5 = 20



3 x 7 = 21
7 x 3 = 21

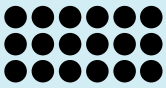


2 x 9 = 18
9 x 2 = 18



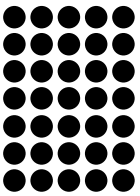
3 x 10 = 30
10 x 3 = 30

Challenge

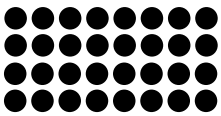


3 x 6 = 18 6 x 3 = 18

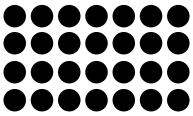
Reading arrays (hot)



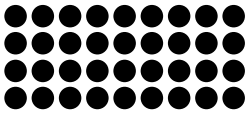
7 x 5 = 35
5 x 7 = 35



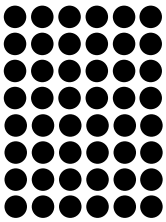
4 x 8 = 32
8 x 4 = 32



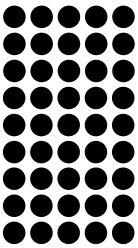
4 x 7 = 28
7 x 4 = 28



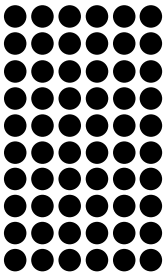
4 x 9 = 36
9 x 4 = 36



8 x 6 = 48
6 x 8 = 48



9 x 5 = 45
5 x 9 = 45



10 x 6 = 60
6 x 10 = 60

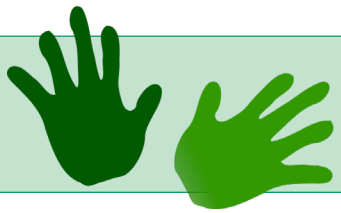
Challenge

1 x 11 = 11 11 x 1 = 11

A Bit Stuck?
Row-row-row your bakes

Work in pairs

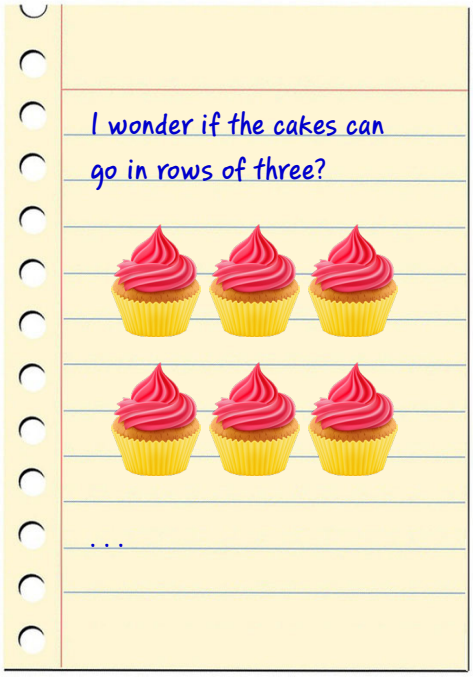
Things you will need:
- counters
- pencil and paper



What to do:

- On Monday, Mrs Multiple, the baker, made 12 cup cakes.

Rather than straight lines like this, she likes to arrange them in rectangles or **arrays**.
How could she do it? Use counters to help you explore the arrays you can make with 12 cakes.
Draw or write down what you discover.



- On Tuesday, Mrs Multiple made 15 cakes, how could she arrange them in an array? It's a larger number of cakes, so do you think there will be more or fewer ways to arrange them than with Monday's 12 cakes?

- On Wednesday, Mrs Multiple baked 19 cakes!
Can she place these in one or more **arrays**?

S-t-r-e-t-c-h:
Find which number of cakes from 10 to 20 can be arranged in the most ways. Which do you think it might be?

Learning outcomes:
- I understand that an array is a rectangular arrangement of objects with the same number in each of its rows.
- I can begin to use and remember multiplication facts.

Investigation
Mrs Multiple's cakes

1. Mrs Multiple, the baker, has made 12 cup cakes. She is thinking how to arrange them in her shop window. She likes to arrange them in rectangles like this:

In maths, these rectangles are called arrays.

She could also arrange the 12 cakes like this:

2. How else could she arrange them? Use 12 counters to help you and write down how many ways you found altogether.

3. In how many ways can she arrange 15 cakes in an array? Do you think there will be more or fewer ways of arranging 15 cakes than of arranging 12 cakes?

4. Which number of cakes from 10 to 20 can be arranged in the most ways?

Can bigger numbers of cakes always be arranged in more ways than smaller numbers?

Can you think of a number of cakes between 20 and 30 that can only be arranged in two ways? Which numbers of cakes between 20 and 30 do you think could be arranged in lots of ways? Why?