

6:11:20

WALT: Recall and use multiplication and division facts for the 3 times table.

Remember to draw a margin on each page.

Remember to leave a space between each question.

Remember to write the sub-heading Fluency.

## Vocabulary

groups of      array      lot of      multiply

repeated addition      product      times

multiplied by      multiple of      division

sharing      groups      related facts

Let's count forwards and backwards in 3's

## Counting in 3s

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

3	6	9	12	15	18	21	24	27	30	33	36
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$$1 \times 3 = 3$$

$$2 \times 3 = 6$$

$$3 \times 3 = 9$$

$$4 \times 3 = 12$$

$$5 \times 3 = 15$$

$$6 \times 3 = 18$$

$$7 \times 3 = 21$$

$$8 \times 3 = 24$$

$$9 \times 3 = 27$$

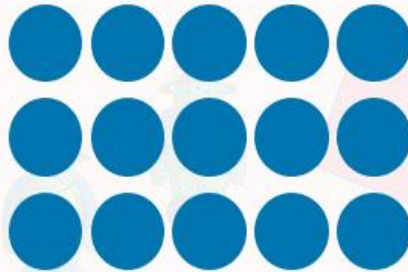
$$10 \times 3 = 30$$

$$11 \times 3 = 33$$

$$12 \times 3 = 36$$

# Arrays

Multiplication can be shown in an array:



This array shows '3 multiplied by 5' or '5 multiplied by 3'.

The total is 15.

This can be written as:

$$5 \times 3 = 15$$

or

$$5 \times 3 = 15$$

The **Commutative Law** of multiplication says that when you multiply numbers, you get the same answer if you swap the numbers around.

Show as an array.

## Rabbit Groups

There are three rabbits in each group. How many rabbits are there altogether?



There are 9 rabbits in 3 groups.

3 multiplied by 3 equals 9.

Show as an array.

# Isle of Man Flag

There are 3 legs on each flag. How many legs are there on 5 flags?



There are 15 legs on 5 flags.

3 multiplied by 5 is fifteen.

Show as an array.

## Monster Eyes

There are 9 monsters. Each has 3 eyes. How many eyes are there altogether?



There are 27 eyes on 9 monsters.

3 multiplied by 9 equals 27.



## Related facts

$$3 \times 2 = 6$$

$$2 \times 3 = 6$$

$$6 \div 3 = 2$$

$$6 \div 2 = 3$$

The **Commutative Law** of multiplication says that when you multiply numbers, you get the same answer if you swap the numbers around.

$$3 \times 8 = 24$$

$$8 \times 3 = 24$$

$$24 \div 3 = 8$$

$$24 \div 8 = 3$$

Now you try these. Write the related facts on your whiteboards.

$$3 \times 6 =$$

$$3 \times 5 =$$

## Fluency

Complete the calculation for each question and write the related facts.

1.  $4 \times 3 =$

2.  $3 \times 3 =$

3.  $5 \times 3 =$

4.  $2 \times 3 =$

5.  $9 \times 3 =$

6.  $6 \times 3 =$

7.  $7 \times 3 =$

8.  $11 \times 3 =$

9.  $8 \times 3 =$

10.  $10 \times 3 =$

11.  $12 \times 3 =$

12.  $1 \times 3 =$

## Reasoning

There are 8 children.

Each child has 3 sweets.

How many sweets altogether?

Use concrete or pictorial representations  
to show his problem.

### Recall Multiplication and Division Facts for the 3 Times Tables

#### Reasoning Challenge

Look at these calculations:

$$4 \times 3 = 12$$

$$27 \div 3 = 9$$

$$12 \div 3 = 4$$

$$9 \times 3 = 27$$

Talk about the patterns you can see.

### Problem solving

If  $5 \times 3 = 15$ , which number sentences would find the answer to  $6 \times 3$ ?

- $5 \times 3 + 6$
- $5 \times 3 + 3$
- $15 + 3$
- $15 + 6$
- $3 \times 6$

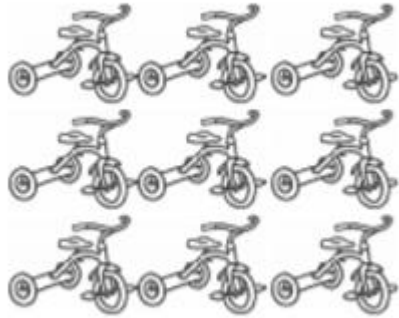
Explain how you know.

## Reasoning and problem solving answers

<p>There are 8 children. Each child has 3 sweets. How many sweets altogether?</p> <p>Use concrete or pictorial representations to show this problem.</p> <p>Write another repeated addition and multiplication problem and ask a friend to represent it.</p>	<p>There are 24 sweets altogether.</p> <p>Children may use items such as counters or cubes.</p> <p>They could draw a bar model for a pictorial representation.</p>	<p>If <math>5 \times 3 = 15</math>, which number sentences would find the answer to <math>6 \times 3</math>?</p> <ul style="list-style-type: none"><li>• <math>5 \times 3 + 6</math></li><li>• <math>5 \times 3 + 3</math></li><li>• <math>15 + 3</math></li><li>• <math>15 + 6</math></li><li>• <math>3 \times 6</math></li></ul> <p>Explain how you know.</p>	<p><math>5 \times 3 + 3</math> because one more lot of 3 will find the answer.</p> <p><math>15 + 3</math> because adding one more lot of 3 to the answer to 5 lots will give me 6 lots.</p> <p><math>3 \times 6</math> because <math>3 \times 6 = 6 \times 3</math> (because multiplication is commutative).</p>
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## Problem solving

1. How many wheels would 9 tricycles have?



7. Trish, Karen and Layla share equally a packet of nuts. There are 21 nuts in the pack. How many nuts do each get?



4. Three judges award 27 marks overall. They each give the same score. What score did they each give?



## Plenary

Starting with 3 each child in turn to say the next multiple of 3.