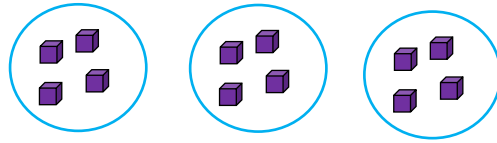


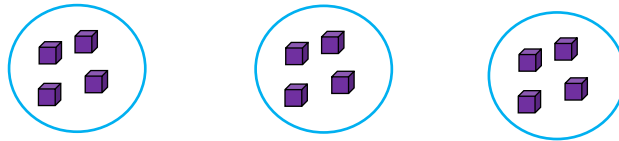
# Equal Groups



There are 3 groups with the same amount in each group. They are equal groups.

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# Equal Groups

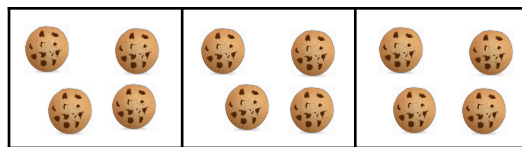


$$3 \times 4 = 12$$

There are 3 groups with the same amount in each group. They are equal groups.

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# Repeated Addition

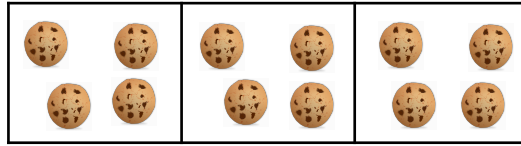


$$4 + 4 + 4$$

Adding the same number again and again.

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# Repeated Addition



$$3 \times 4 = 12$$

$$4 + 4 + 4$$

Adding the same number again and again.

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# Multiplication Symbol

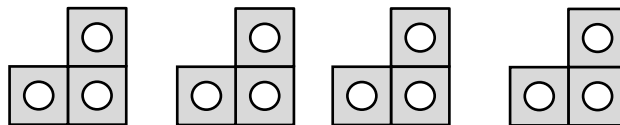


We use this symbol show we are **multiplying**  
(adding equal groups of numbers).

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# Multiply

To add equal groups of numbers.

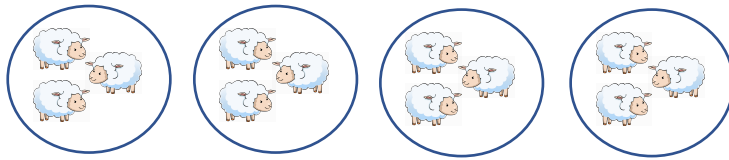


$$4 \times 3 = 12$$

There are 4 lots of 3s.

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# Lots Of..



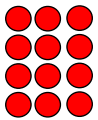
There are 4 lots of 3s.

This helps us write our multiplication sentence.

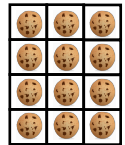
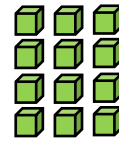
4 lots of 3 is the same as  $4 \times 3 = 12$

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# Arrays



These arrays show  
 $4 \times 3 = 12$



Arrays are objects or shapes in rows and columns.  
They help us to multiply.

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# Commutative Law



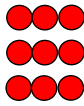
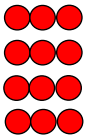
When you multiply numbers, you will get the same answer when you swap the numbers around.

$$3 \times 4 = 12 \quad 4 \times 3 = 12$$

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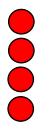
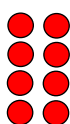
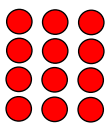
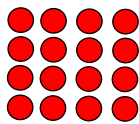
# Three Times Tables

Repeated addition in groups of 3s.  
We should learn our 3 times tables up to  $12 \times 3$ .

  $1 \times 3 = 3$     
   $2 \times 3 = 6$     
   $3 \times 3 = 9$     
   $4 \times 3 = 12$


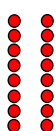
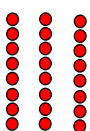
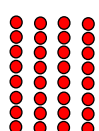
# Four Times Tables

Repeated addition in groups of 4s.  
We should learn our 4 times tables up to  $12 \times 4$ .

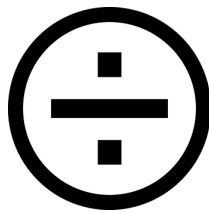
  $1 \times 4 = 4$     
   $2 \times 4 = 8$     
   $3 \times 4 = 12$     
   $4 \times 4 = 16$

# Eight Times Tables

Repeated addition in groups of 8s.  
We should learn our 8 times tables up to  $12 \times 8$ .

  $1 \times 8 = 8$     
   $2 \times 8 = 16$     
   $3 \times 8 = 24$     
   $4 \times 8 = 32$

# Division Symbol



We use this symbol show we are **dividing** (sharing or grouping into equal amounts).

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# Divide

To split (a number) into equal parts or groups.

$$12 \div 3 = 4$$

You can divide by sharing or grouping.

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# Sharing

I have twelve cakes and I share them equally into 3 plates.  
How many cakes will be in each plate?



$$12 \div 3 = 4$$



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# Grouping



A jar fits 3 marbles.  
I have 12 marbles to put away.  
How many jars will I need?

I have 4 groups of 3.



$$12 \div 3 = 4$$

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# Inverse

$$3 \times 4 = 12$$

$$12 \div 4 = 3$$

This means the opposite or reverse in maths.  
We use the inverse to check our calculations.  
The inverse of multiplication is division.  
The inverse of division is multiplication.

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# Concrete Methods

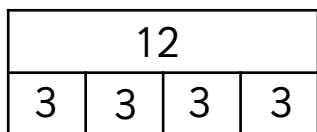
Equipment that you can touch to help you solve calculations.  
You could divide cubes or marbles into jars... or even chocolate!



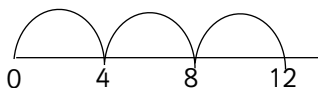
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# Pictorial Methods

Pictures that you can see or draw to help you solve calculations.



Bar methods



Number lines



Arrays

# Distributive Law

If you didn't know  $7 \times 8$ , you could do  $5 \times 8$  and add the answer to  $2 \times 8$ .  
You would get the correct answer!

$$\begin{array}{r} 5 \times 8 = 40 \\ 2 \times 8 = 16 \\ \hline 7 \qquad 56 \end{array}$$

$$7 \times 8 = 56$$

I have 'distributed' (spread out) the 7 into a 5 and a 2 and multiplied them both by 8. I then add the products.

# Multiplier

The number you are multiplying by.  
We can also call this a factor!

$$4 \times 3 = 12$$

Multiplier or factor (pointing to 4)  
Multiplicand or factor (pointing to 3)  
Product (pointing to 12)

# Multiplicand

The number that gets multiplied.  
We can also call this a factor!

$$4 \times 3 = 12$$

Multiplier or factor (purple arrow pointing to 4)  
Multiplicand or factor (green arrow pointing to 3)  
Product (red arrow pointing to 12)

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# Product

The answer of when two or more numbers are multiplied.


$$4 \times 3 = 12$$

Multiplier or factor (purple arrow pointing to 4)  
Multiplicand or factor (green arrow pointing to 3)  
Product (red arrow pointing to 12)

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Multiplication Year 3

## Equal Groups




There are 3 groups with the same amount in each group. They are equal groups.

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Multiplication Year 3

## Repeated Addition



$$3 \times 4 = 12$$


$$4 + 4 + 4$$

Adding the same number again and again.

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Multiplication Year 3

## Lots Of...




There are 4 lots of 3s.  
This helps us write our multiplication sentence.  
4 lots of 3 is the same as  $4 \times 3 = 12$

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Multiplication Year 3

## Equal Groups




$$3 \times 4 = 12$$

There are 3 groups with the same amount in each group. They are equal groups.

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Multiplication Year 3

## Multiplication Symbol

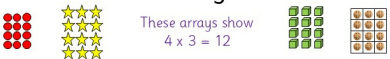


We use this symbol show we are **multiplying** (adding equal groups of numbers).

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Multiplication Year 3

## Arrays




These arrays show  $4 \times 3 = 12$

Arrays are objects or shapes in rows and columns. They help us to multiply.

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Multiplication Year 3

## Repeated Addition



$$4 + 4 + 4$$

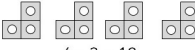
Adding the same number again and again.

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Multiplication Year 3

## Multiply

To add equal groups of numbers.



$$4 \times 3 = 12$$

There are 4 lots of 3s.

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Multiplication Year 3

## Commutative Law

When you multiply numbers, you will get the same answer when you swap the numbers around.

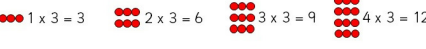
$$3 \times 4 = 12 \quad 4 \times 3 = 12$$

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Multiplication Year 3

## Three Times Tables


Repeated addition in groups of 3s.  
We should learn our 3 times tables up to  $12 \times 3$ .



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Multiplication Year 3

## Division Symbol



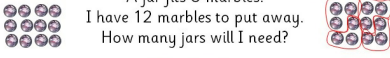
We use this symbol show we are **dividing** (sharing or grouping into equal amounts).

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Multiplication Year 3

## Grouping

A jar fits 3 marbles.  
I have 12 marbles to put away.  
How many jars will I need?




$$12 \div 3 = 4$$

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Multiplication Year 3

## Four Times Tables

Repeated addition in groups of 4s.  
We should learn our 4 times tables up to  $12 \times 4$ .



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Multiplication Year 3

## Divide

To split (a number) into equal parts or groups.

$$12 \div 3 = 4$$

You can divide by **sharing** or **grouping**.

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Multiplication Year 3

## Inverse

$$3 \times 4 = 12 \quad 12 \div 4 = 3$$


This means the opposite or reverse in maths. We use the inverse to check our calculations. The inverse of multiplication is division. The inverse of division is multiplication.

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Multiplication Year 3

## Eight Times Tables

Repeated addition in groups of 8s.  
We should learn our 8 times tables up to  $12 \times 8$ .

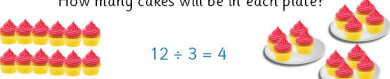


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Multiplication Year 3

## Sharing

I have twelve cakes and I share them equally into 3 plates.  
How many cakes will be in each plate?



$$12 \div 3 = 4$$

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Multiplication Year 3

## Concrete Methods

Equipment that you can touch to help you solve calculations.  
You could divide cubes or marbles into jars... or even chocolate!

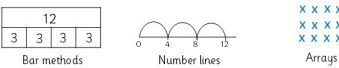


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Multiplication Year 3

## Pictorial Methods

Pictures that you can see or draw to help you solve calculations.




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Multiplication Year 3

## Multiplicand

The number that gets multiplied.  
We can also call this a factor!



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Multiplication Year 3

## Distributive Law

If you didn't know  $7 \times 8$ , you could do  $5 \times 8$  and add the answer to  $2 \times 8$ . You would get the correct answer!

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$$2 \times 8 = 16$$

$$\underline{7 \quad 56}$$

$$7 \times 8 = 56$$


I have 'distributed' (spread out) the 7 into a 5 and a 2 and multiplied them both by 8. I then add the products.

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Multiplication Year 3

## Product

The answer of when two or more numbers are multiplied.



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Multiplication Year 3

## Multiplier

The number you are multiplying by.  
We can also call this a factor!



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Year 3 – Multiplication Vocabulary Assessment

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Equal Groups		Equal Groups		Repeated Addition	
Repeated Addition		Multiplication Symbol		Multiply	
Lots Of...		Arrays		Commutative Law	
Three Times Tables		Four Times Tables		Eight Times Tables	
Division Symbol		Divide		Sharing	
Grouping		Inverse		Concrete Methods	
Pictorial Methods		Distributive Law		Multiplier	
Multiplicand		Product			

Year 3 – Multiplication Vocabulary Assessment

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Year 3 – Multiplication Vocabulary Assessment

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