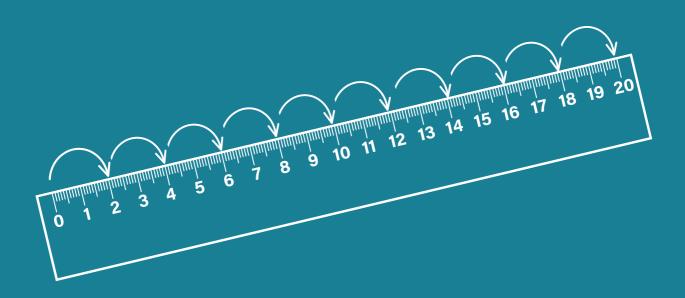


# Multiply by 2

## doubling and skip counting

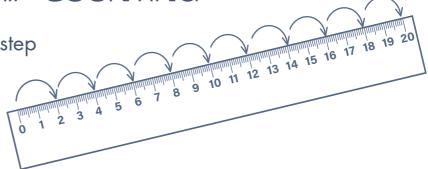


### Here's what you'll achieve:

- skip count by 2 all the way to 20
- understand the meaning of double
- master multiplying by 2
- practice using the commutative property of multiplication
- apply multiplication to real life situations

#### SKIP COUNTING

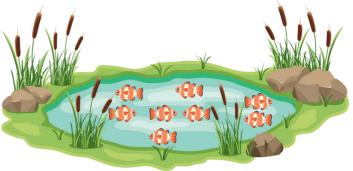
Skip counting is an early step in multiplying. We haven't looked at it yet because you can't skip count 0 or 1.

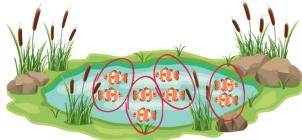


When we skip count, we only say some of the numbers. If we skip count by 2, we miss the odd numbers (1, 3, 5 etc) and only say the even numbers (2, 4, 6) etc.

Skip counting is a way of fast counting because we don't count every number.

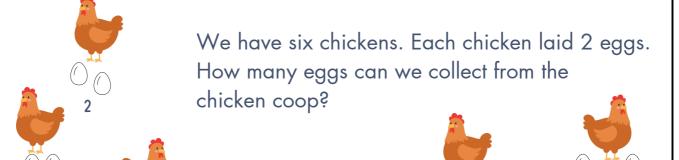
How many fish are in the pond?





We can skip count by 2 2, 4, 6, 8

There are 8 fish in the pond



#### SKIP COUNTING

Let's skip count all the way to 20.























Unleash Your Inner Genius with Multisensory Activities!

How many marbles do you have?



Skip count by 2 to quickly find the answer.





















There are many things that come in twos: eyes, legs, arms, ears, nostrils, socks, gloves, and bicycle wheels to name a few.

Take math on a stroll! On your next walk, tally up some things, and once you're back home, jot down the multiplication facts to match.

How many people did you count? Multiply by 2 to know how many eyes, ears, legs, arms etc.



How many birds did you see flying? Each bird has two wings.

Count each step you take with your right foot. Multiply by 2 to know your total steps.





#### Sometimes it helps to see the maths



Here are 2 units together.



We know that 1 unit counted twice is the same as 2 units. We also know that 2 units counted 1 time is 2 units (the Identity principle).



If we skip count 2 twice, we have 2 lots of 2.

$$2 \times 2 = 4$$



If we skip count 2 three times, we have 3 lots of 2.

$$3 \times 2 = 6$$



If we skip count 2 four times, we have 4 lots of 2.

$$4 \times 2 = 8$$



You got it! If we skip count 2 five times, we have 5 lots of 2.

$$5 \times 2 = 10$$



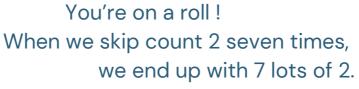
#### Visible numbers

#### Sometimes it helps to see the maths

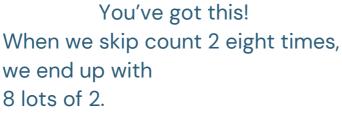


If we skip count 2 six times, we have 6 lots of 2.





 $7 \times 2 = 14$ 



 $8 \times 2 = 16$ 



9 lots of 2.

 $9 \times 2 = 18$ 



when we skip count 2 ten times, we end up with

10 lots of 2.

 $10 \times 2 = 20$ 

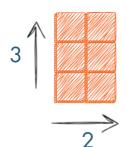






### Visible numbers

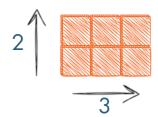
#### Sometimes it helps to see the maths



Look at a rectangle with **2** units stretching across and 3 units reaching up high.

These numbers are the "factors."

Multiply them together and boom - you get 6!



Check out this rectangle, **3** units wide and **2** units high. See how we multiplied 2 by 3 to get 6?

That's the commutative property of multiplication in action!



Can you write the multiplication fact for this rectangle? It has 2 units across and 5 units up.

And this one?



How about this one?



Now you can do this one

And this one too!





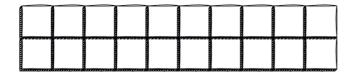
Did you notice that each time we multiply by 2, we **double** the number? Useful.....

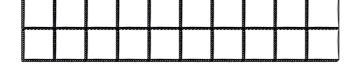


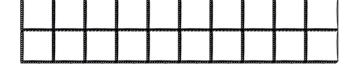
#### Visible numbers

#### Sometimes it helps to see the maths

Colour in the correct number of blocks to show the multiplication fact.



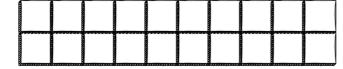


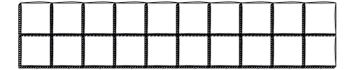




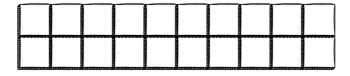
















#### In Real Life

Who knew multiplication could be such a useful tool in everyday life?

Emma is baking and wants to give 2 biscuits to each of her 6 friends. How many biscuits will Emma give away?





My first job was babysitting for \$2 an hour. How much money did I earn for 3 hours of babysitting?

One meal from the local fast food joint costs \$10. How much will you spend if you want to buy one for yourself and one for your best friend?





Max received nine pairs of socks for his birthday. Considering each pair contains 2 socks, how many socks did Max get altogether?

Mum is baking twice as many cupcakes as usual so she has to double the recipe.

If the original recipe calls for 2 eggs, how many eggs will Mum need for double the yummy?





When decorating for a party, each balloon costs \$2. How much will eight balloons cost?

### Multiply by 2

#### Learning goal:

- Practice multiplying by one, two, and zero
- Use the commutative property of multiplication

$$2 \times 6 =$$

$$6 \times 2 =$$

$$2 \times 4 =$$

$$4 \times 2 =$$

$$2 \times 11 =$$

$$2 \times 5 =$$

$$5 \times 2 =$$

$$12 \times 2 =$$

$$2 \times 2 =$$

$$2 \times 2 =$$

$$4 \times 5 \times 9 \times 0 =$$

$$2 \times 1 =$$

$$1 \times 2 =$$

$$1 \times 15 =$$

$$2 \times 8 =$$

$$8 \times 2 =$$

$$14 \times 2 =$$

$$2 \times 10 =$$

$$10 \times 2 =$$

$$0 \times 56 =$$

$$2 \times 3 =$$

$$3 \times 2 =$$

$$89 \times 0 \times 4 =$$

$$2 \times 9 =$$

$$9 \times 2 =$$

$$8 \times 1 =$$

$$2 \times 7 =$$

$$7 \times 2 =$$

$$2 \times 13 =$$

$$2 \times 0 =$$

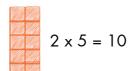
$$0 \times 2 =$$

$$1 \times 243 =$$

#### **Answers**

#### MULTIPLY BY 2

#### Skip Counting



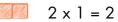
$$2 \times 7 = 14$$

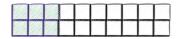


$$2 \times 4 = 8$$



$$2 \times 10 = 20$$





$$2 \times 3 = 6$$

$$2 \times 5 = 10$$

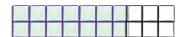
$$2 \times 6 = 12$$

$$2 \times 10 = 20$$

$$2 \times 8 = 16$$

$$2 \times 4 = 8$$

$$2 \times 9 = 18$$



$$2 \times 7 = 14$$

$$2 \times 2 = 4$$

IRL 2 biscuits for 6 friends =  $2 \times 6 = 12$  biscuits

3 hours for \$2 per hour =  $3 \times 2 = $6$ 

2 meals at \$10 per meal =  $2 \times 10 = $20$ 

9 pairs with 2 socks per pair =  $9 \times 2 = 18$  socks

 $2 \text{ eggs doubled} = 2 \times 2 = 4 \text{ eggs}$ 

 $8 \$ 2 \text{ balloons} = 8 \times 2 = 16$ 

$$2 \times 6 = 12$$

$$2 \times 4 = 8$$

$$2 \times 5 = 10$$

$$2 \times 2 = 4$$

$$2 \times 1 = 2$$

$$2 \times 8 = 16$$

$$Z \times O = 10$$

$$2 \times 10 = 20$$

$$2 \times 3 = 6$$

$$Z \times 3 = 0$$

$$2 \times 9 = 18$$

$$2 \times 7 = 14$$

$$2 \times 0 = 0$$

$$6 \times 2 = 12$$

$$4 \times 2 = 8$$

$$5 \times 2 = 10$$

$$2 \times 2 = 4$$

$$1 \times 2 = 2$$

$$8 \times 2 = 16$$

$$10 \times 2 = 20$$

$$3 \times 2 = 6$$

$$3 \times 2 = 0$$

$$9 \times 2 = 18$$
  
 $7 \times 2 = 4$ 

$$0 \times 2 = 0$$

$$20 \times 1 = 20$$

$$2 \times 11 = 22$$

$$12 \times 2 = 24$$

$$4 \times 5 \times 9 \times 0 = 0$$

$$1 \times 15 = 15$$

$$14 \times 2 = 28$$

$$0 \times 56 = 0$$

$$89 \times 0 \times 4 = 0$$

$$8 \times 1 = 8$$

$$2 \times 13 = 26$$

$$1 \times 243 = 243$$