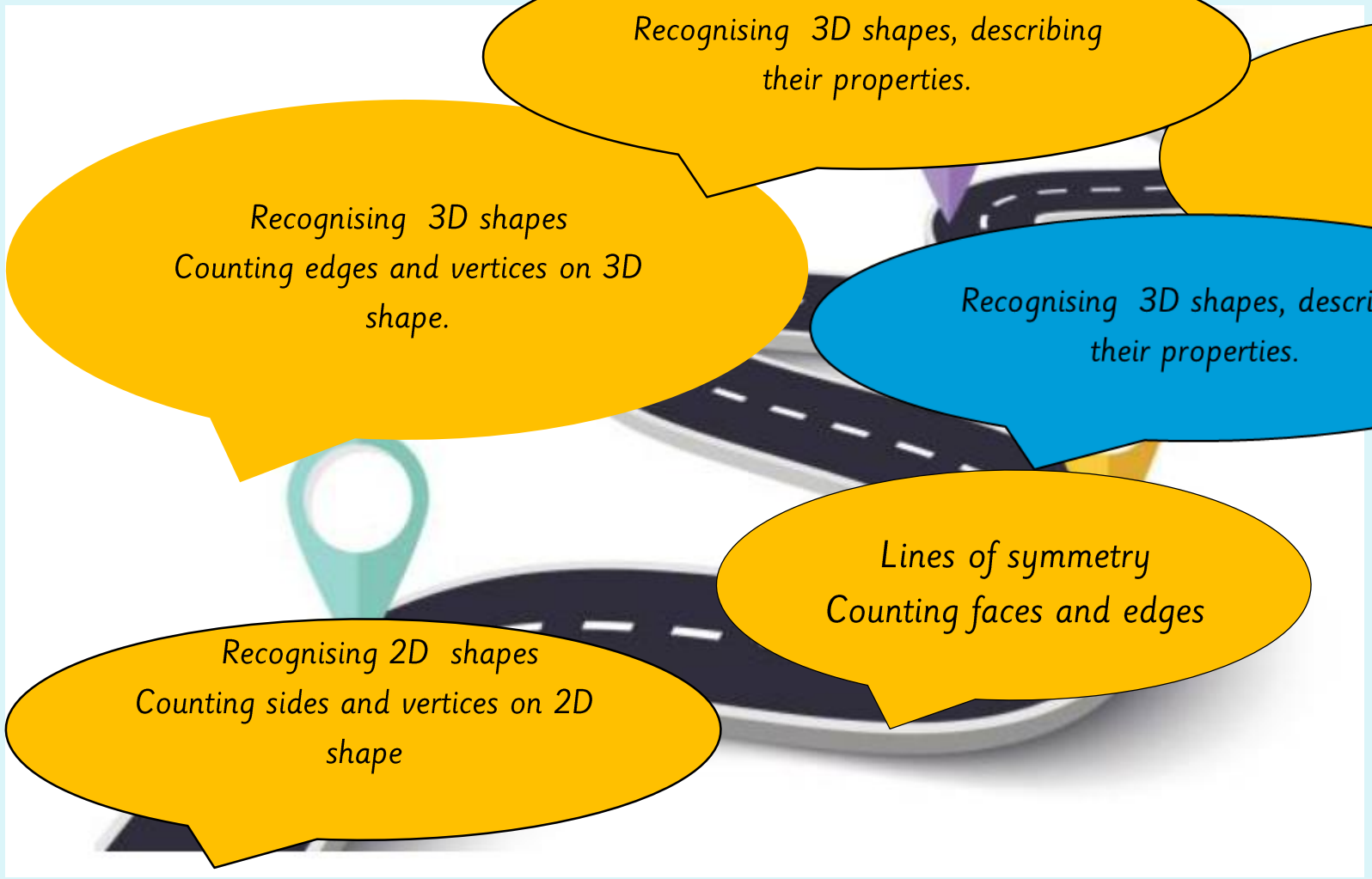
Our Maths Learning Journey

Key vocabulary:

Half
Quarter
Third
Equivalent
Equal part
Numerator
Denominator
Fraction
Unit fraction
Non-unit fraction
Edges
Vertices
Faces



Unit Fractions
½ and 1/4 , 1/3
Non Unit fractions
2/4, ¾

Recognising 3D shapes, describing their properties.

Shape Fractions
½ and 1/4 , 1/3

Recognising 3D shapes
Counting edges and vertices on 3D shape.

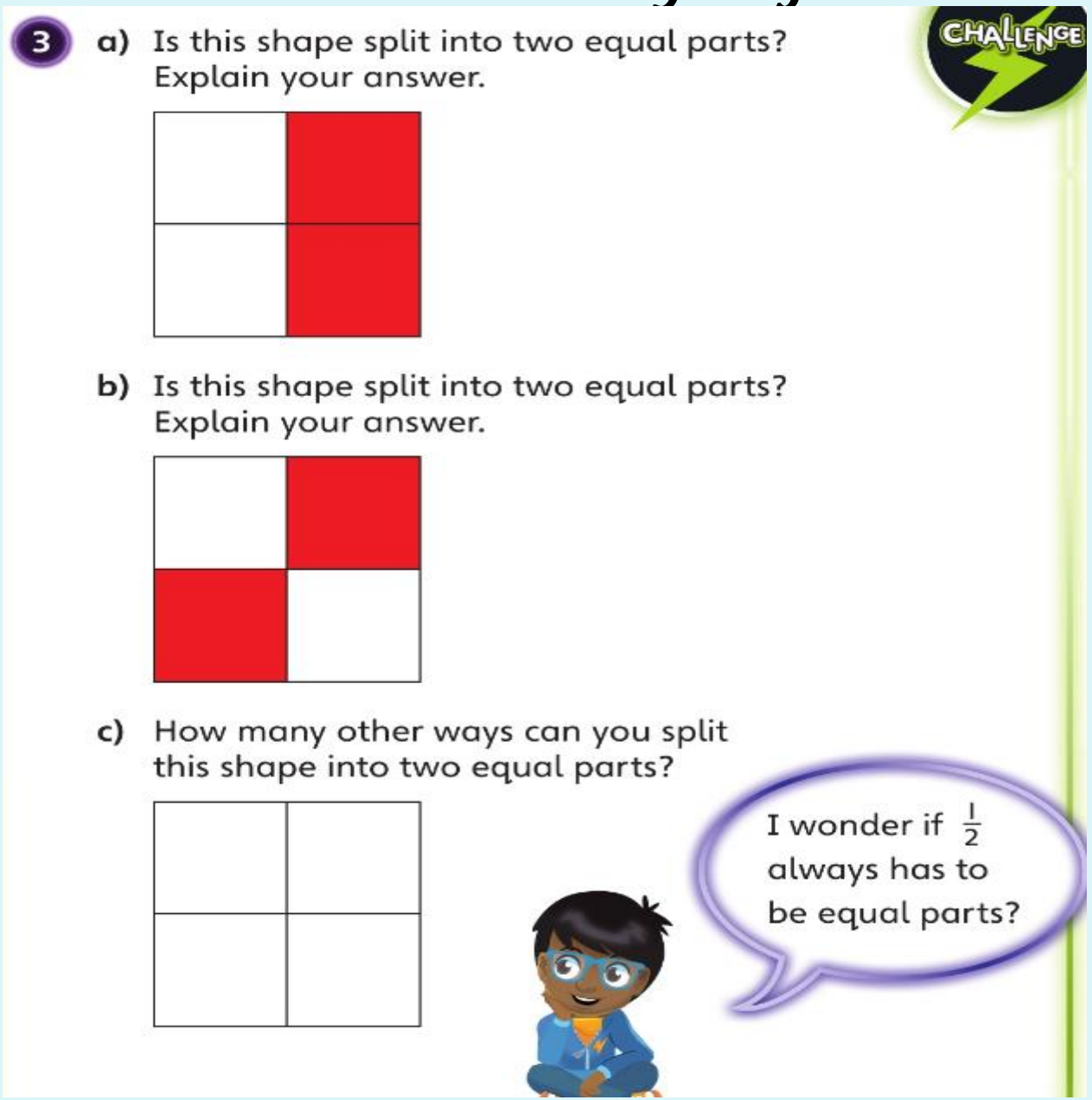
Recognising 3D shapes, describing their properties.

Lines of symmetry
Counting faces and edges

Recognising 2D shapes
Counting sides and vertices on 2D shape

18.03.2024

Challenge of the week



18.03.2024

LQ: Can I make patterns of 3D shapes?

Steps to Success:

I can spot and describe the core of a 3D shape pattern.

I can complete a 3D shape pattern.

I can predict which 3D shape will appear in a sequence.

I can create my own 3D shape pattern.

vertex

vertices

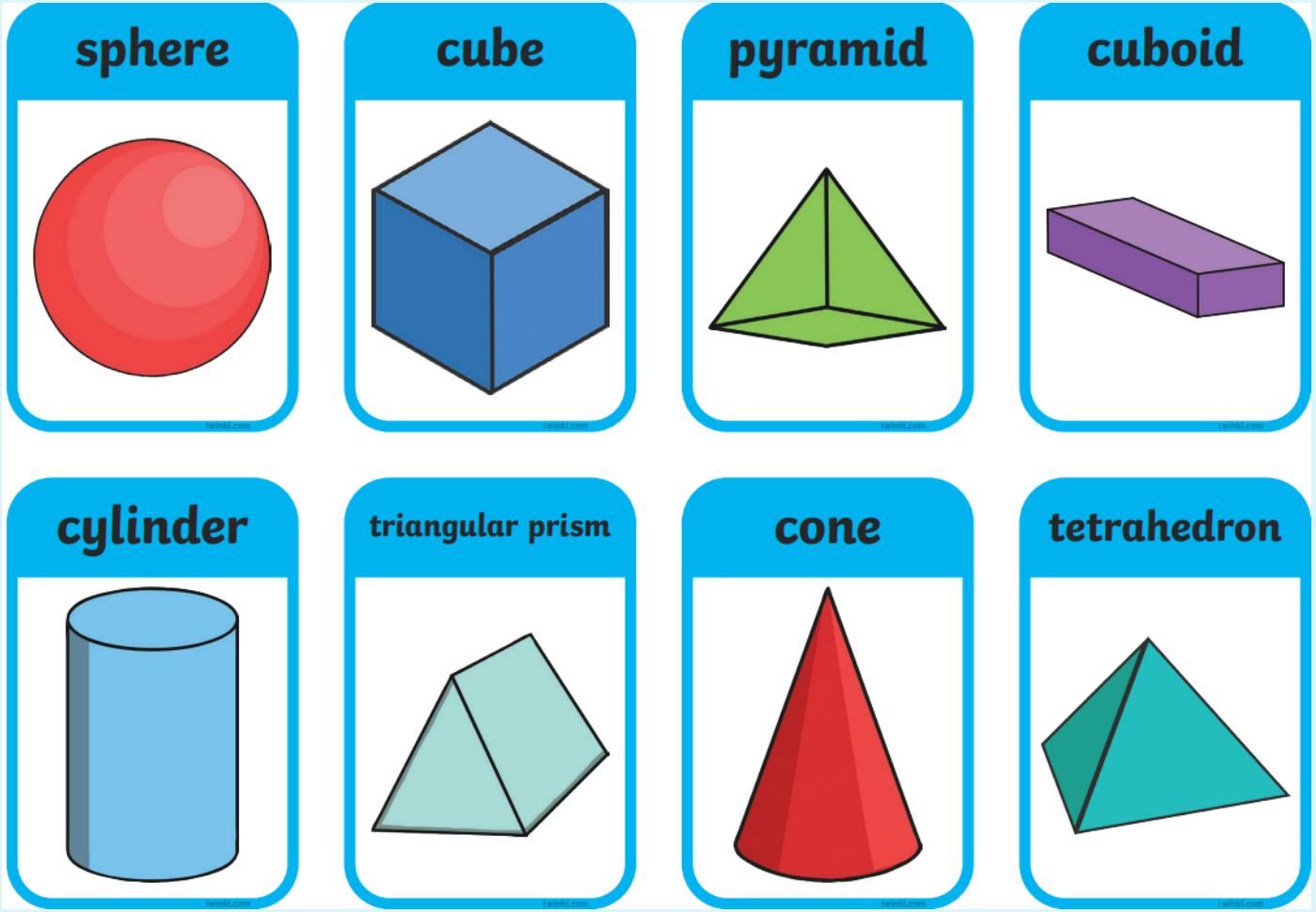
flat

curved

edges

faces

STAR WORDS



3D shapes

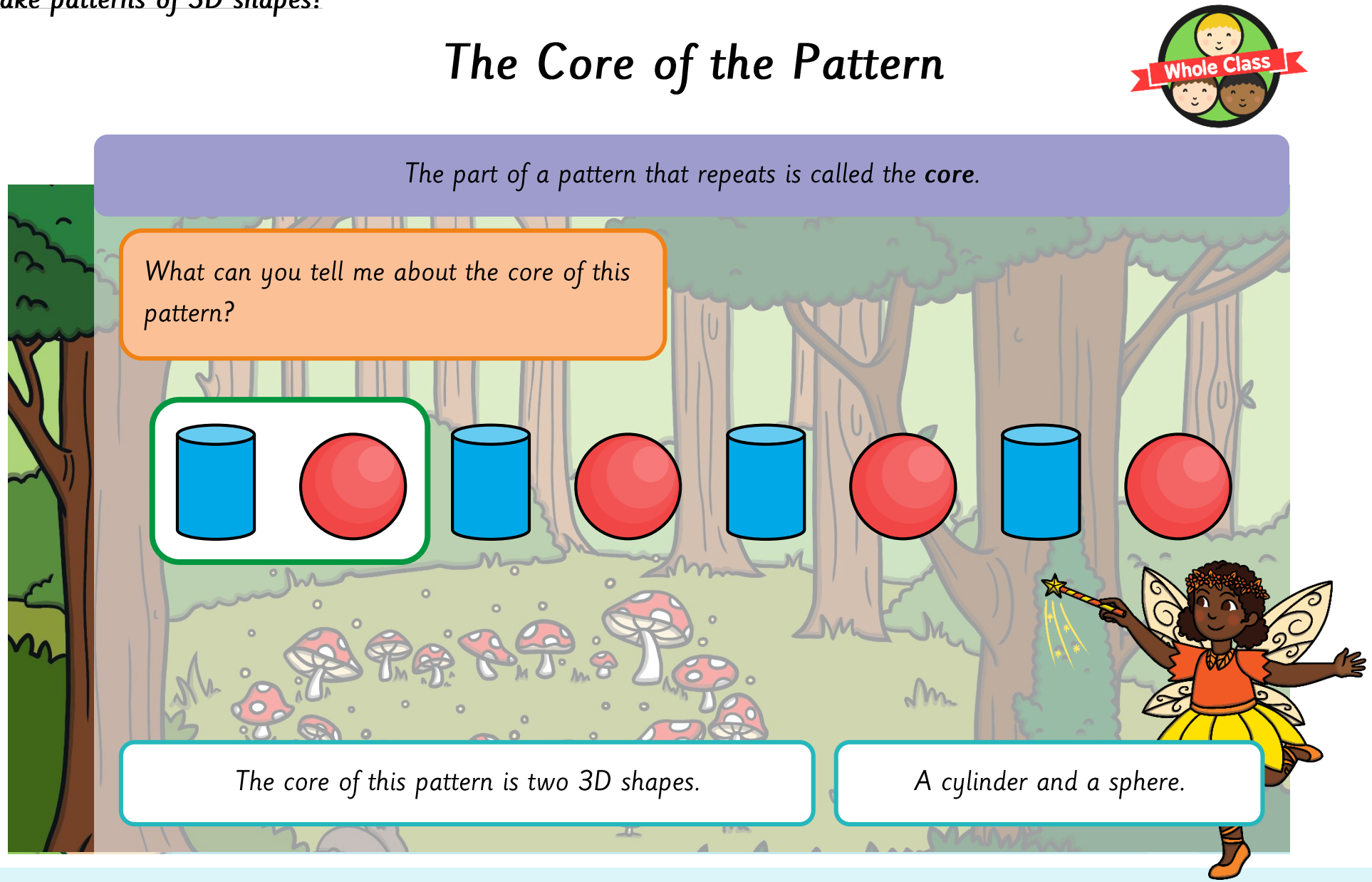
2D shapes

surface

18.03.2024

LQ: Can I make patterns of 3D shapes?

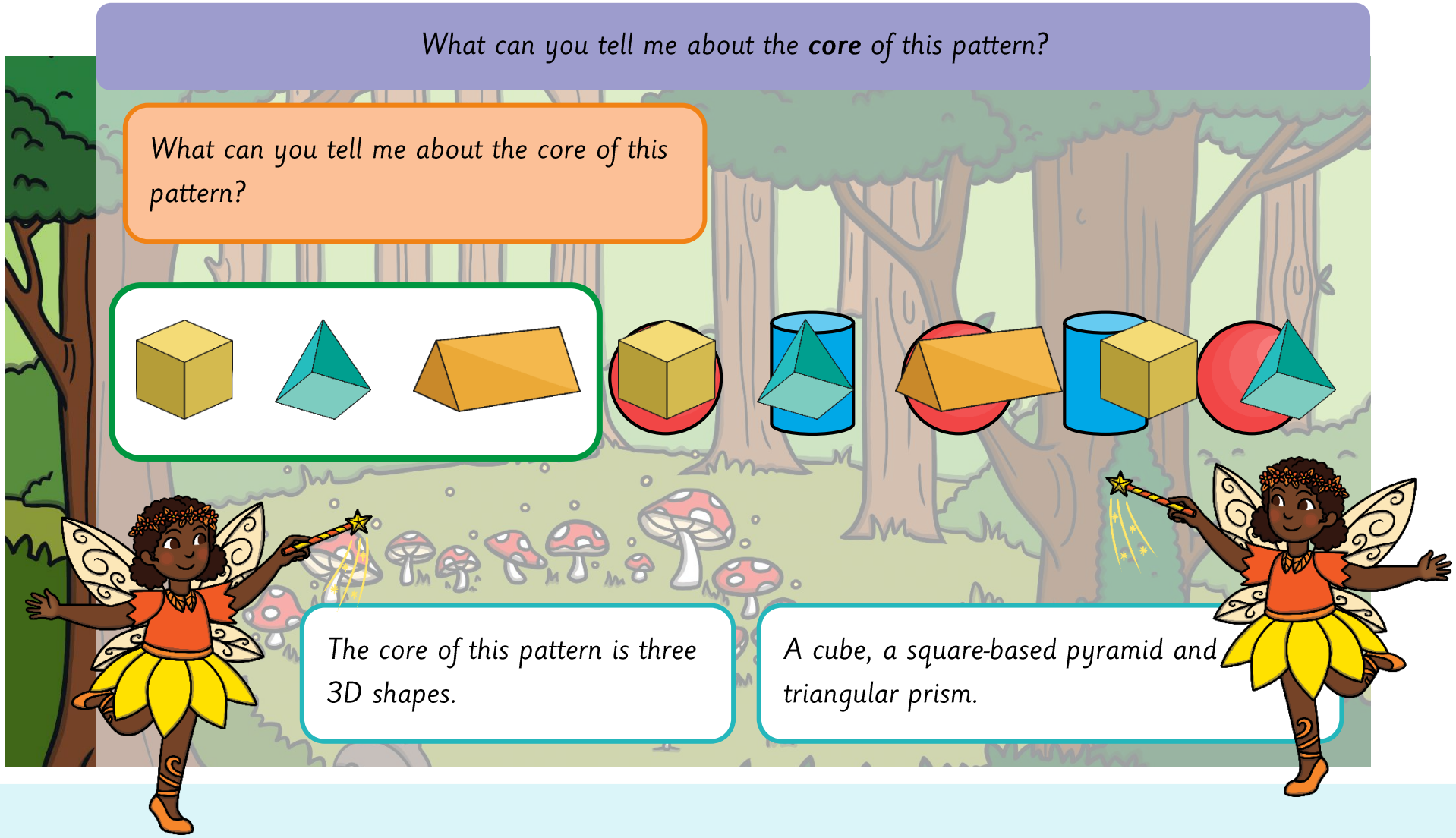
The Core of the Pattern



18.03.2024

LQ: Can I make patterns of 3D shapes?

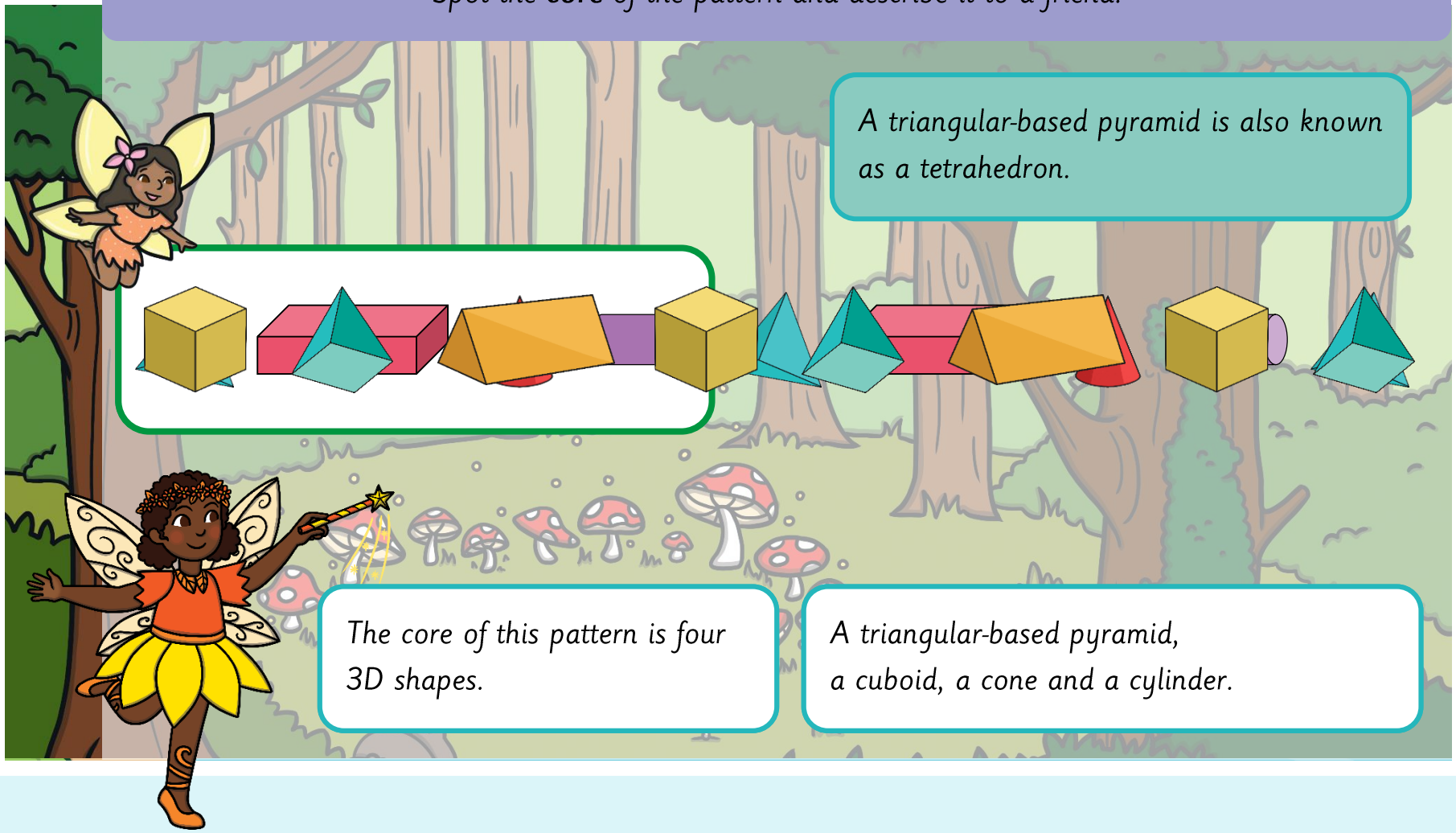
The Core of the Pattern



18.03.2024

LQ: Can I make patterns of 3D shapes?

The Core of the Pattern

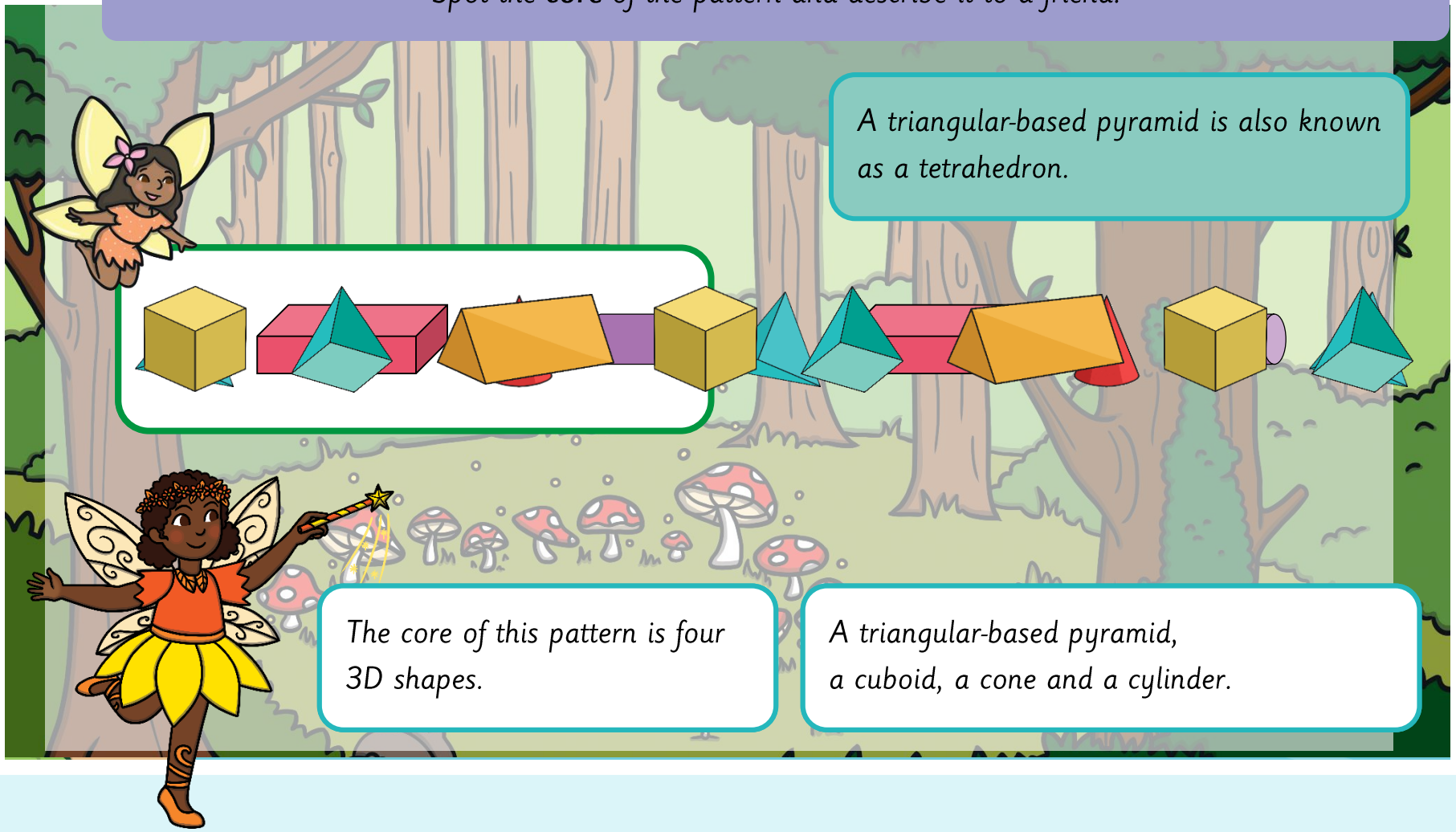


18.03.2024

LQ: Can I make patterns of 3D shapes?

The Core of the Pattern

Spot the **core** of the pattern and describe it to a friend.



A triangular-based pyramid is also known as a tetrahedron.

The core of this pattern is four 3D shapes.

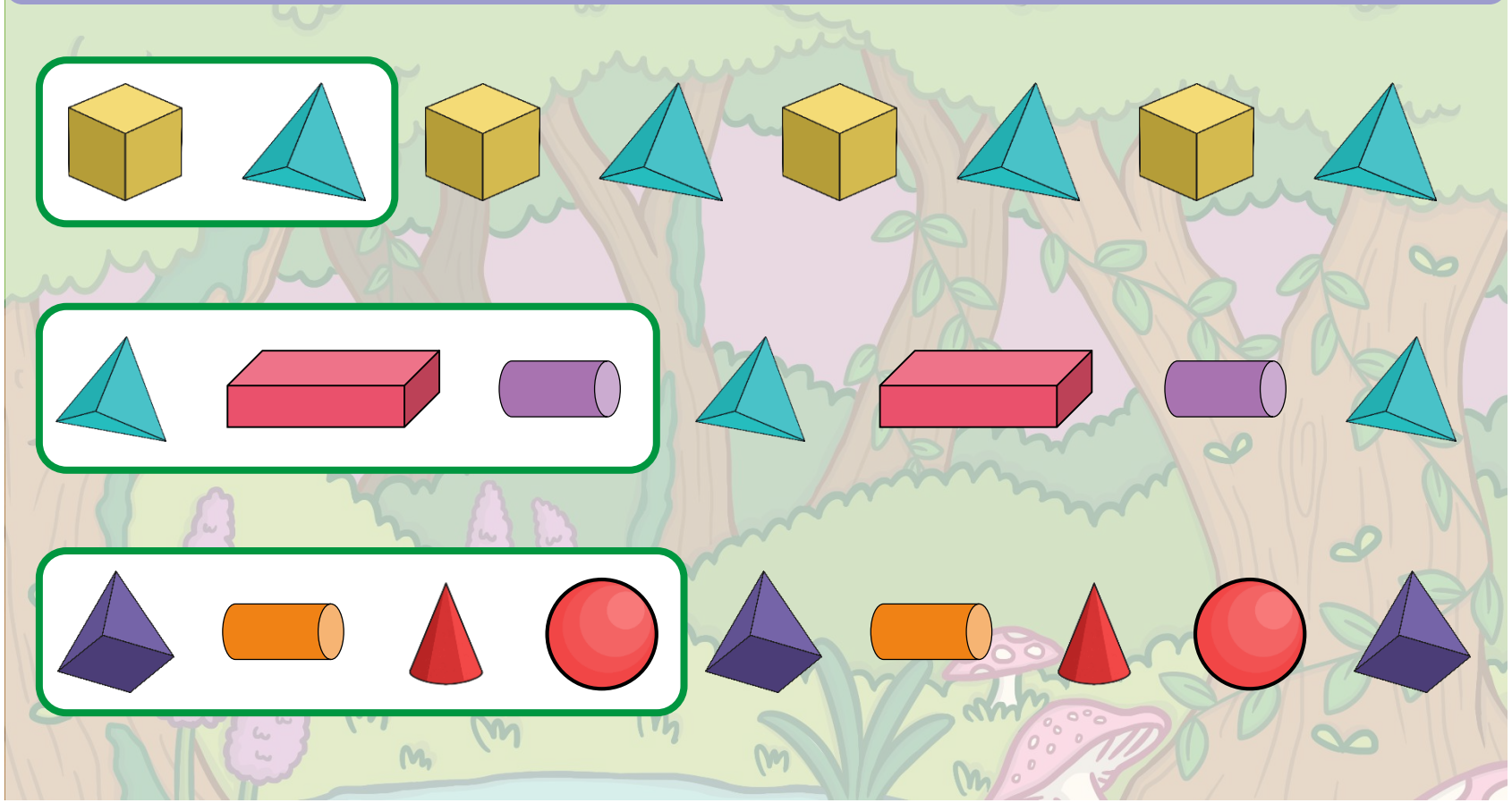
A triangular-based pyramid, a cuboid, a cone and a cylinder.

18.03.2024

LQ: Can I make patterns of 3D shapes?

The Core of the Pattern

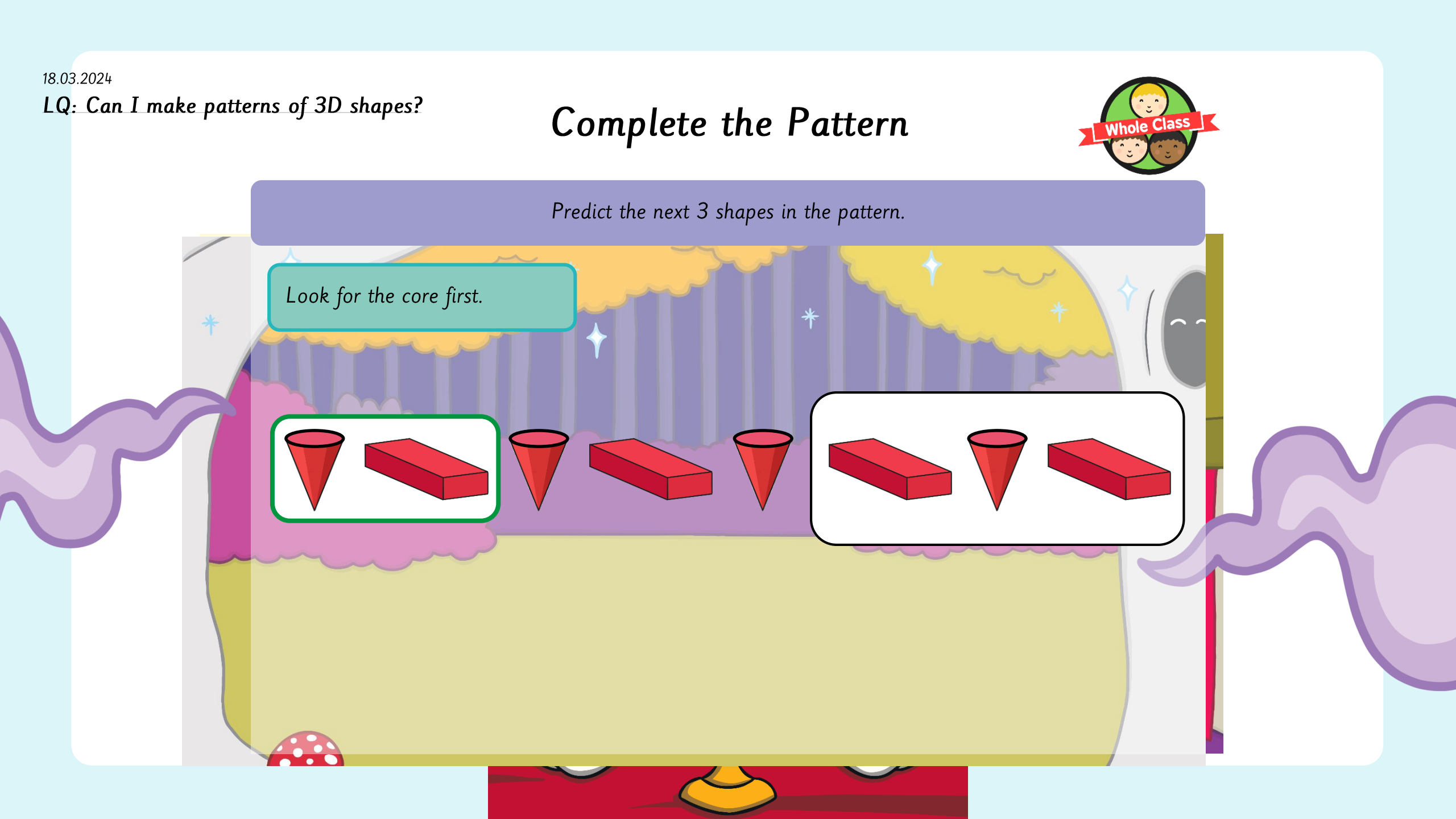
Spot the **core** of the patterns and describe them to a friend.



18.03.2024

LQ: Can I make patterns of 3D shapes?

Complete the Pattern



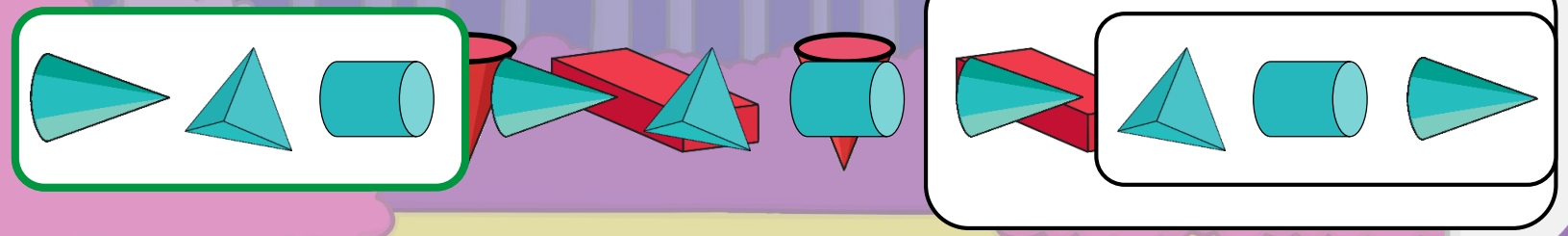
18.03.2024

LQ: Can I make patterns of 3D shapes?

Complete the Pattern

Predict the next 3 shapes in the pattern.

Look for the core first.



How do you know you are correct?

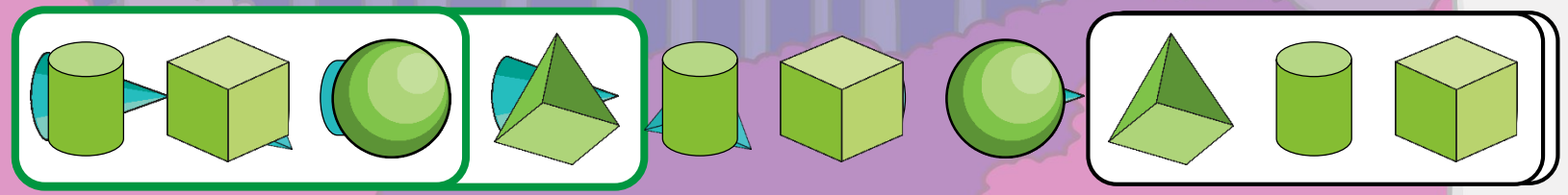
18.03.2024

LQ: Can I make patterns of 3D shapes?

Complete the Pattern

Predict the next 3 shapes in the pattern.

Look for the core first.



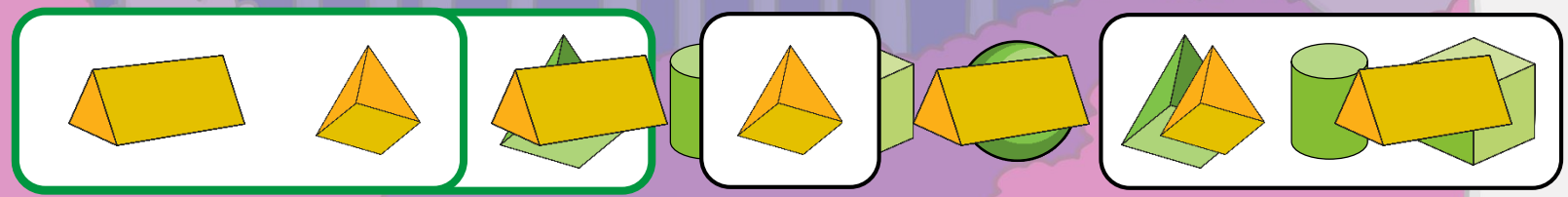
18.03.2024

LQ: Can I make patterns of 3D shapes?

Complete the Pattern

Which shape is missing from the pattern?

Finding the core will help you.

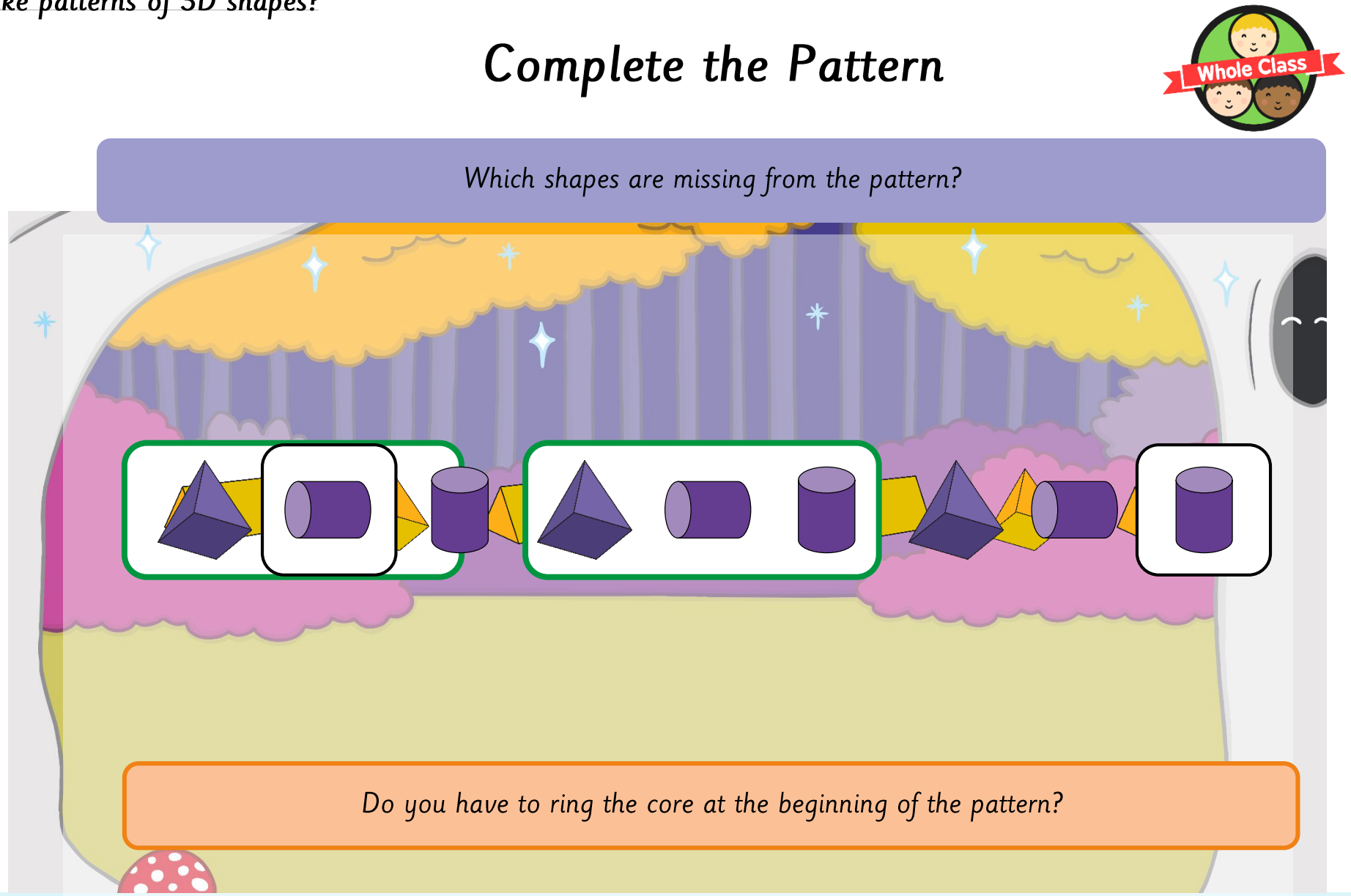


How do you know?

18.03.2024

LQ: Can I make patterns of 3D shapes?

Complete the Pattern

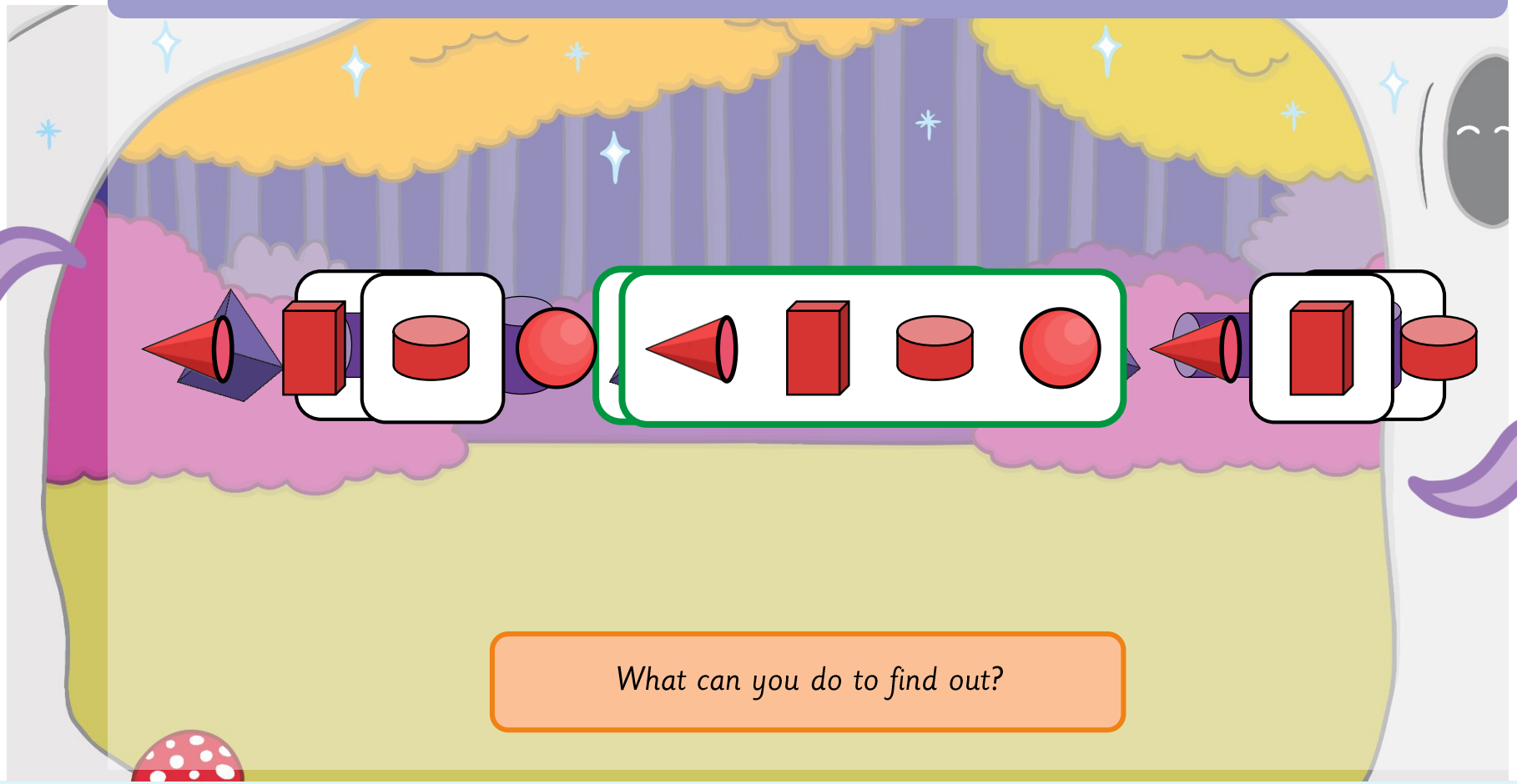


18.03.2024

LQ: Can I make patterns of 3D shapes?

Complete the Pattern

Which shapes are missing from the pattern?



What can you do to find out?

18.03.2024

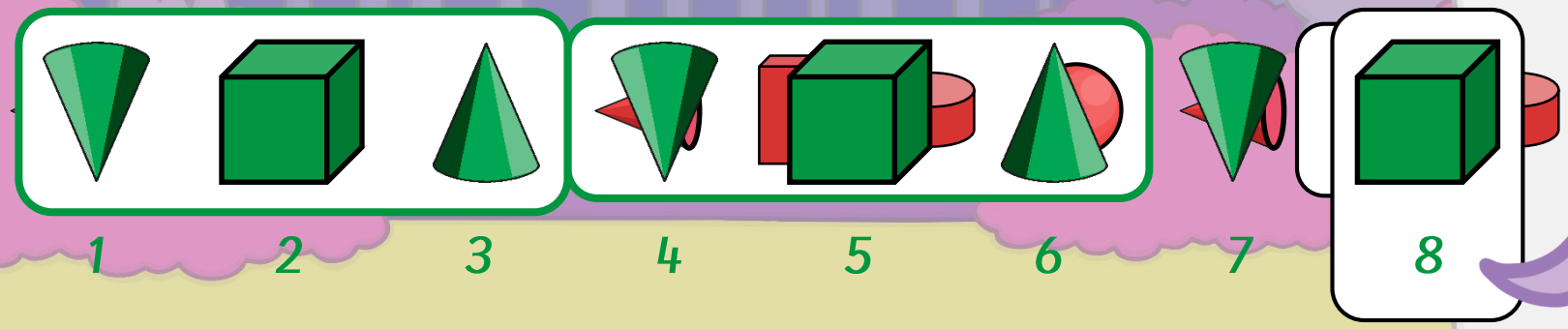
LQ: Can I make patterns of 3D shapes?

Complete the Pattern

Whole Class

Can you predict what the 8th shape in this pattern will be?

What can you do to find out?



I can continue the pattern to check.

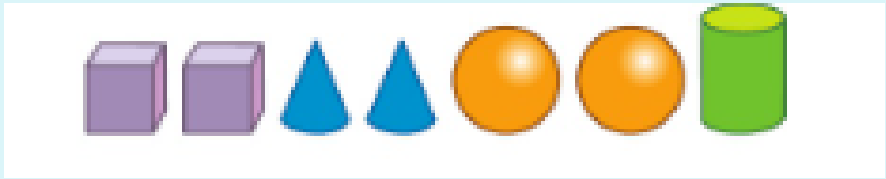
The 8th shape in this pattern is a cube.

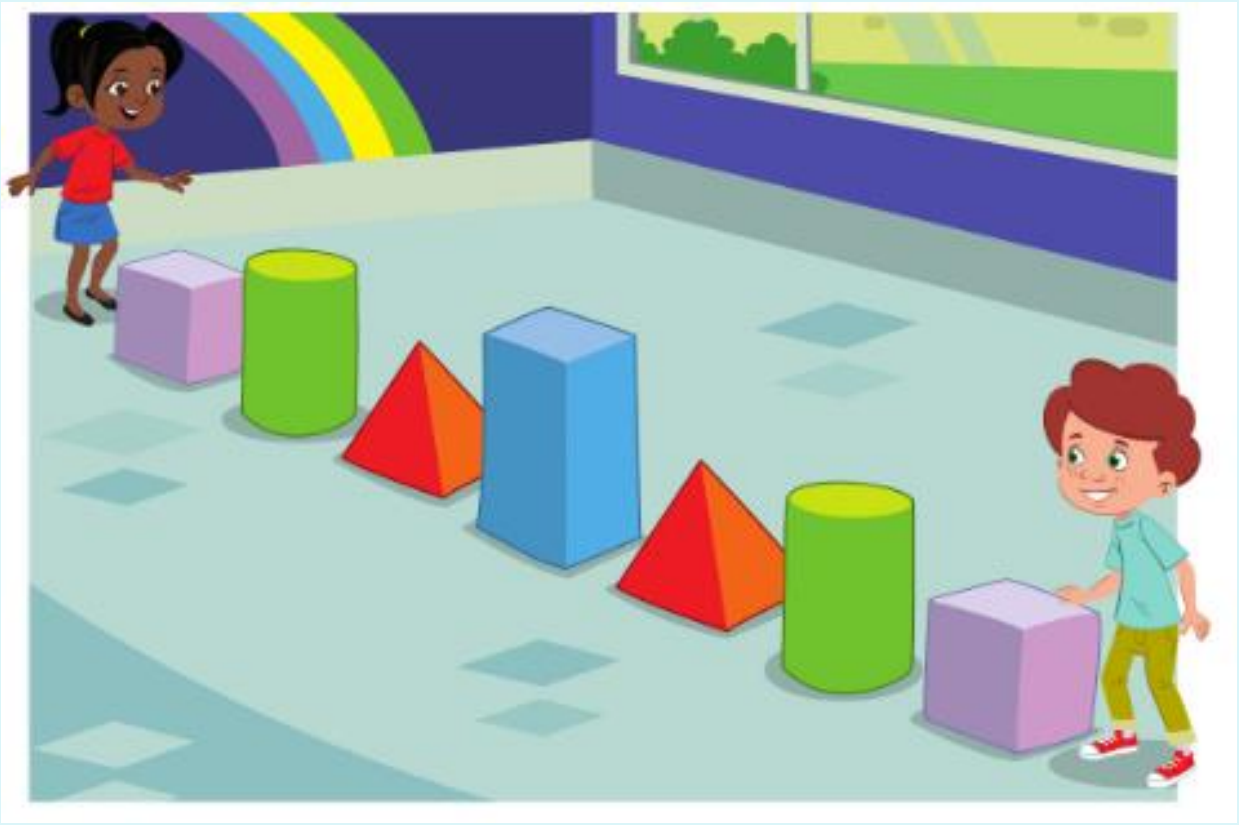
18.03.2024

LQ: Can I make patterns of 3D shapes?

a) Describe the pattern of 3 D shapes.

b) Create the same sort of pattern using these shapes.



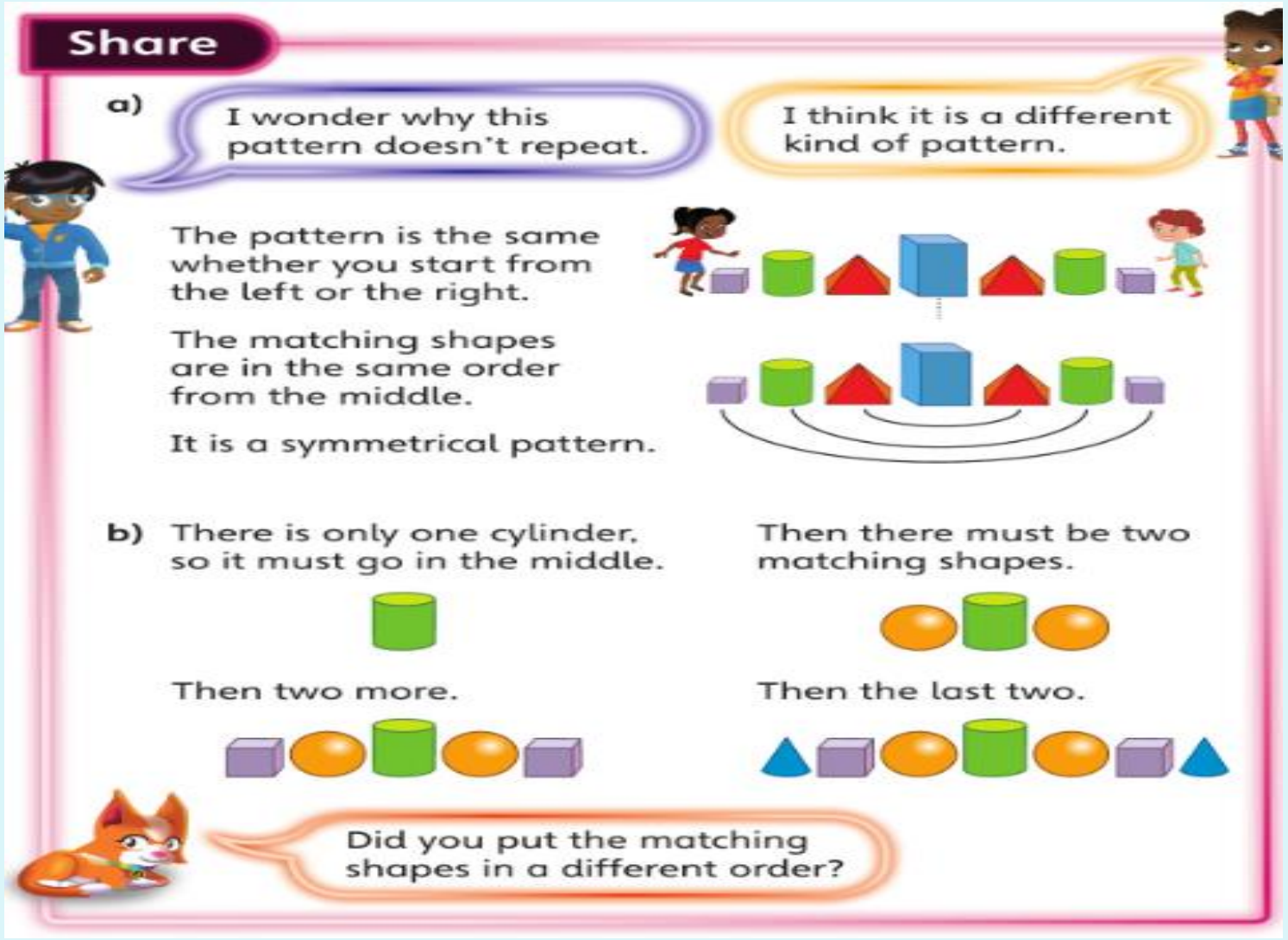


Self assessment

Do you understand what to do?

18.03.2024

LQ: Can I make patterns of 3D shapes?

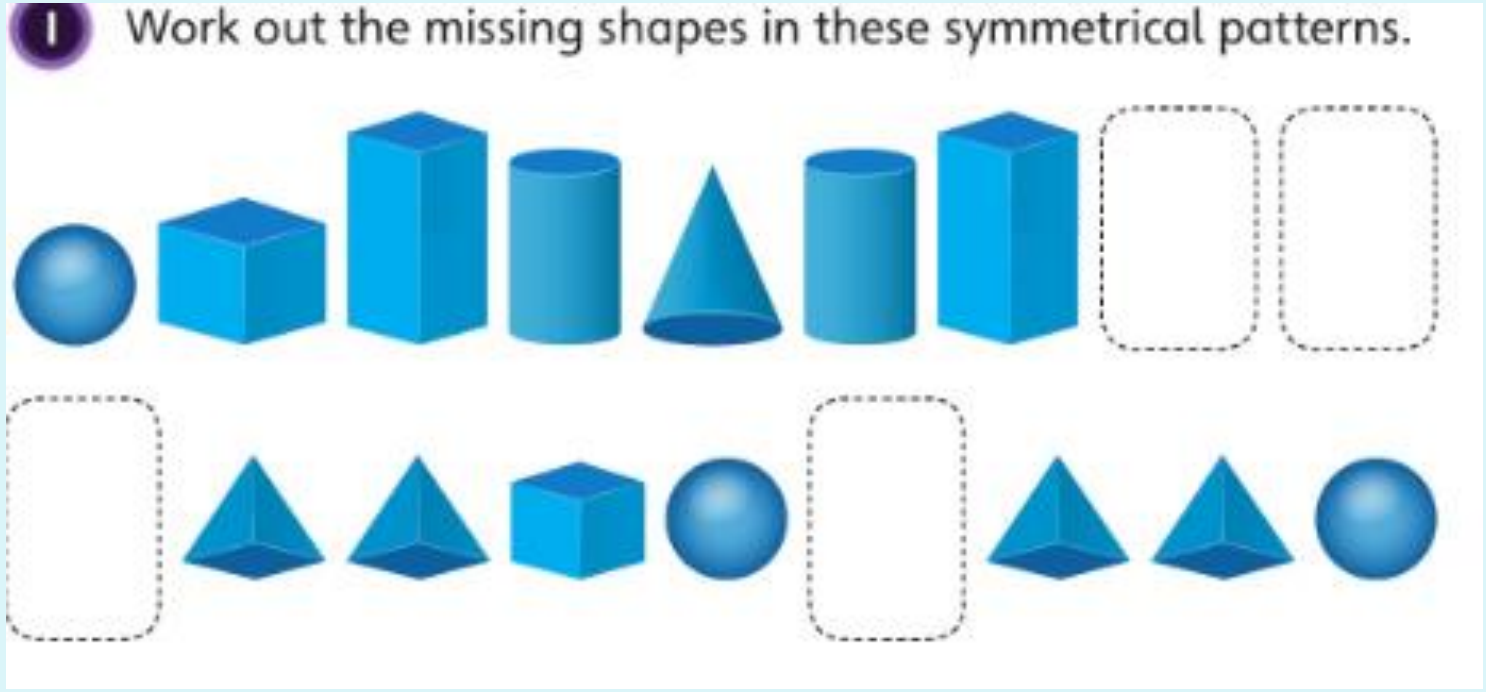


Self assessment

Do you understand what to do?

18.03.2024

LQ: Can I make patterns of 3D shapes?



Self assessment

Do you understand what to do?

18.03.2024

LQ: Can I make patterns of 3D shapes?

2 Create a symmetrical pattern with these sets of shapes.

a) 

b) 

c) 

Self assessment

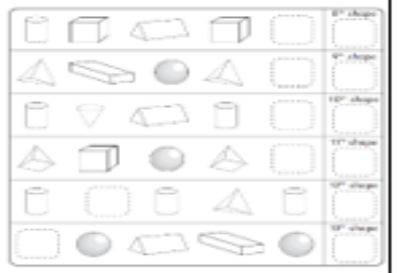
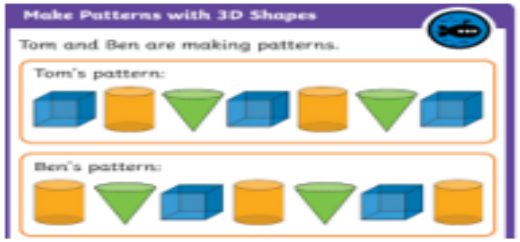
Do you understand what to do?

18.03.2024

LQ: Can I make patterns of 3D shapes?

Complete the tasks in your books.

Patterns, 3 D shapes, repeating, different, similar

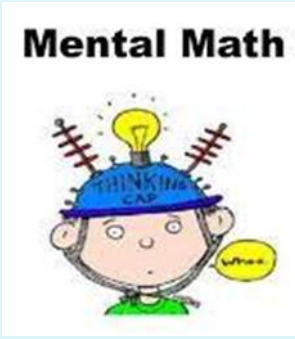
Complete the patterns, then predict the shape later in the sequence. 	Tom says: Our patterns are the same. Ben says: The patterns are different. How are the patterns the same? How are the patterns different? 	Here is a repeating pattern which has been made using 2D and 3D shapes.  If the pattern was continued for 5 more shapes, would the shape be a 2D shape or a 3D shape? What would the shape be?

Self assessment

Do you understand what to do?

Mental Maths

19.03.2024



Share these amounts equally:

10 ÷ 5 = ____ 14 ÷ 2 = ____ 16 ÷ 4 = ____

19.03.2024

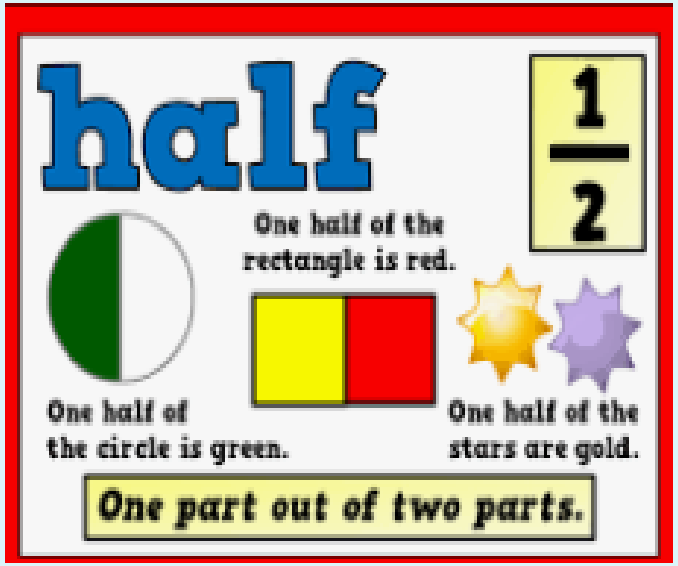
LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

Steps to Success:

I know what whole means.

I can describe the equal parts.

I can find a quarter ¼, a half ½



STAR WORDS

half ($\frac{1}{2}$) quarter ($\frac{1}{4}$) whole

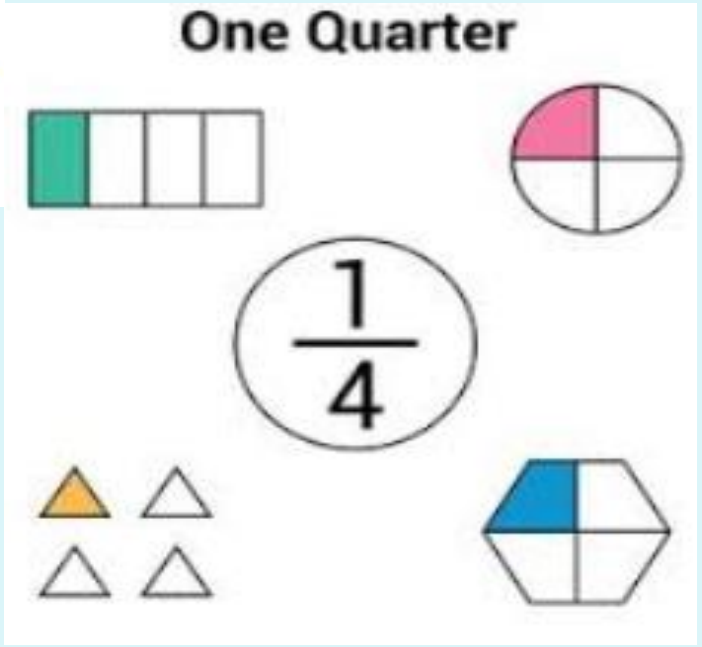
third ($\frac{1}{3}$) equivalent

equal part numerator

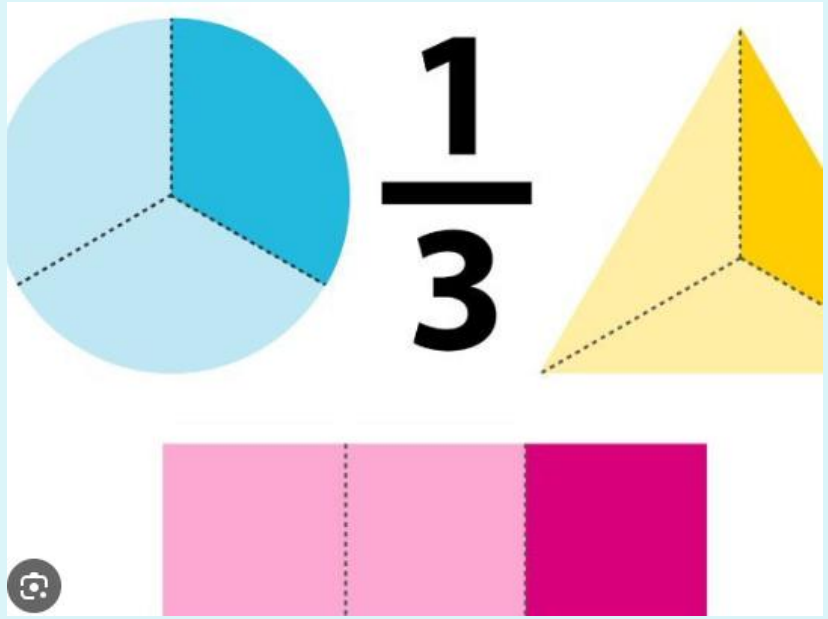
denominator fraction bar

non-unit fraction

unit fraction



These shapes are whole:



19.03.2024

LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

Today you are going to learn about the whole and equal parts.

TP: What do you remember about the whole ?

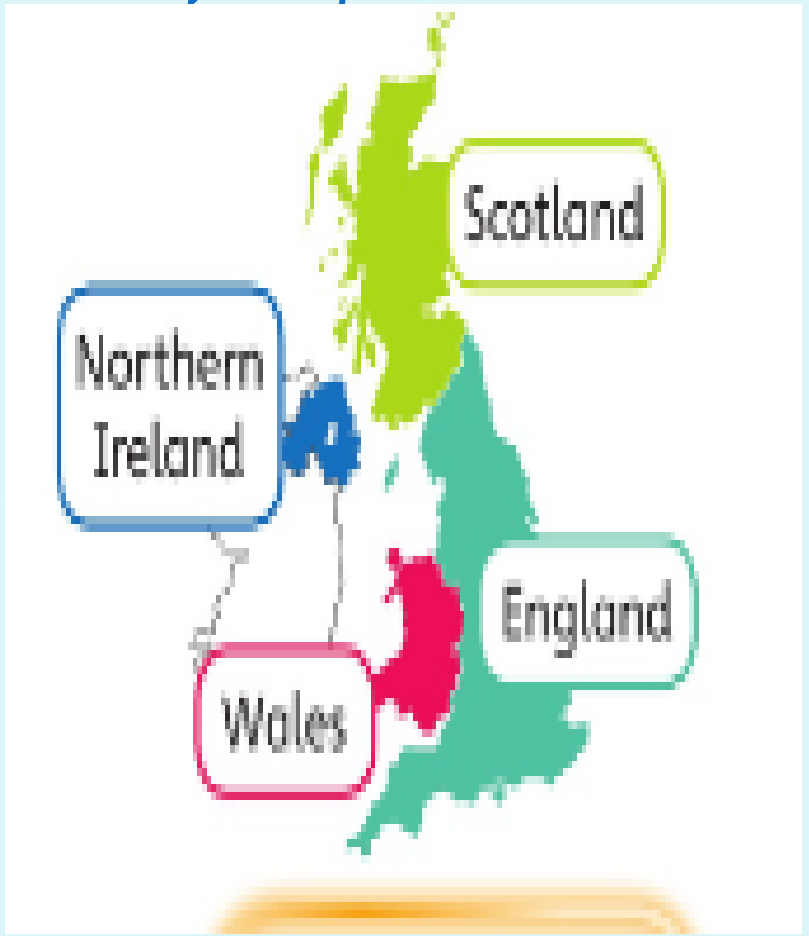
What do you remember about the parts?

Here is the United Kingdom.

There are four countries in the United Kingdom.

The UK is the whole.

Wales is a part.



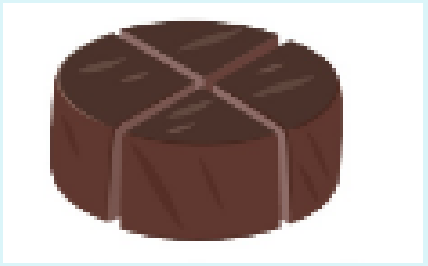
19.03.2024

LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

TP: Is this the whole cake?

TP: Is this the whole cake?

Do all of the parts look the same or different?



Are the parts of the cake equal?

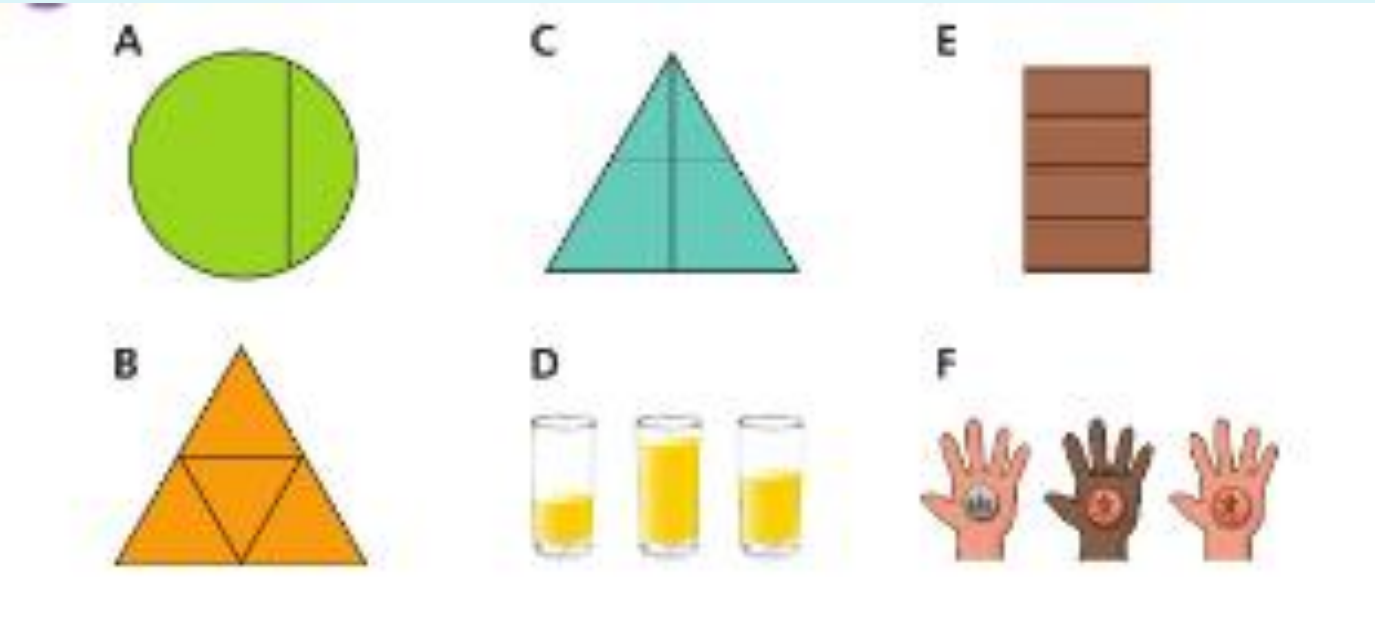
What makes them equal?

How many parts do you see?

19.03.2024

LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

TP: Which show equal parts?



Do all of the parts look the same or different?

What makes them equal?

How many parts has each been split into?

Have all of the shapes been split?

Sentence starter:

--------- show equal parts.

19.03.2024

LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

Now I am going to show you the square.

We are going to find equal parts.

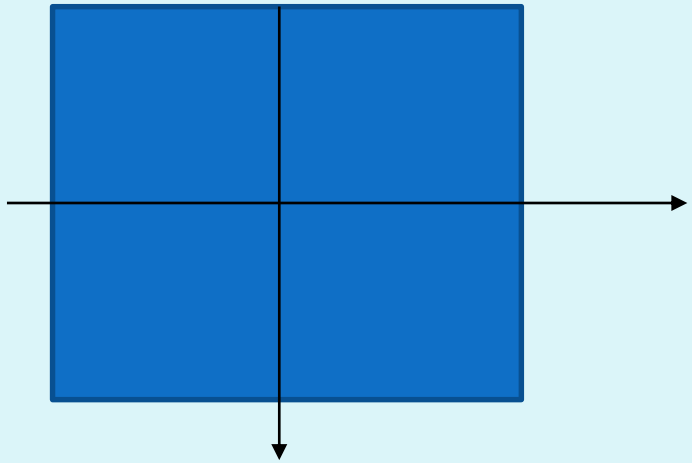
Is this whole square?

How many equal parts does it have?

Let's try to fold it.

The square has 4 equal parts.

Can you find more equal parts?



Self - Assessment:

Do you understand how to find equal parts?

19.03.2024

LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

Task 1

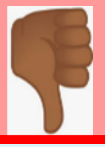
Now you are going to fold shapes and find equal parts.

- Fold shapes. (square, rectangle, triangle)
- Are they equal parts?

Self - Assessment:

Do you understand what to do?





19.03.2024

LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

Now you are going to find half ½ of the whole .

TP: What do you remember about the whole and equal parts?

TP - What does this symbol mean?

$\frac{1}{2}$

½ means 1 of 2 equal parts.

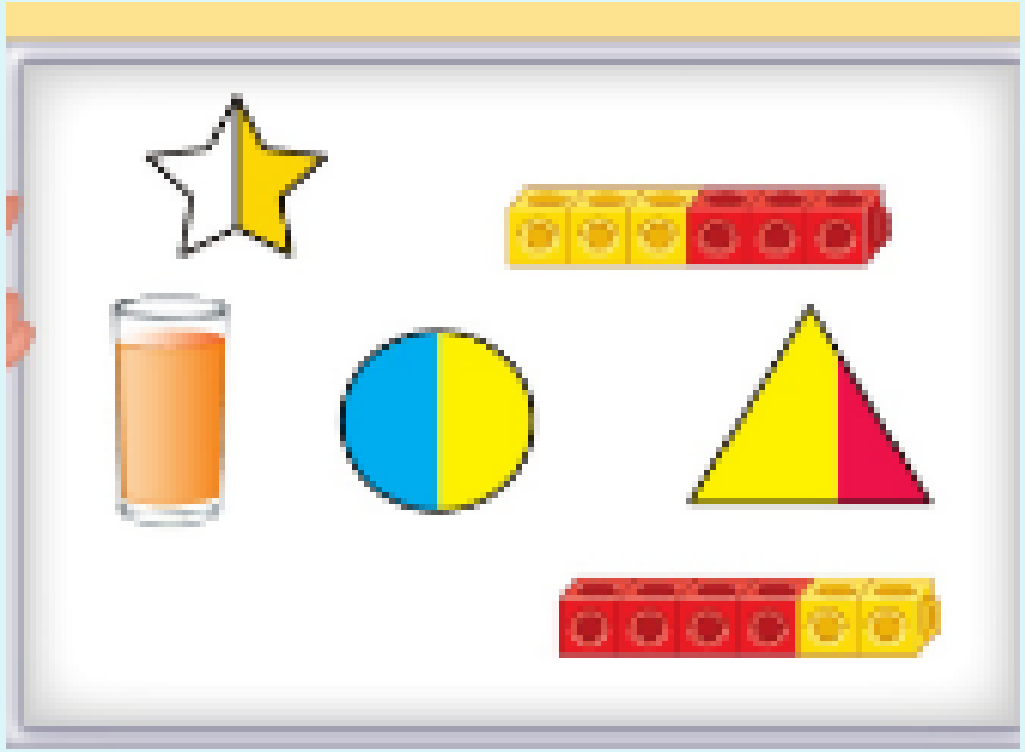
19.03.2024

LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

TP: What does ½ mean?

Which diagrams show halves?

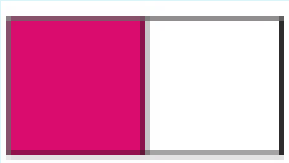
Which ones do not show halves?



½ means 1 of 2 equal parts.

We read ½ as a half.

It means we share equally between 2.



I know that sharing equally between 2 is like dividing by 2.

19.03.2024

LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

Task 2

Let's work together and divide each shape into two equal parts.

Self - Assessment:

Do you understand how to find half ½ of the whole?

19.03.2024

LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

Task 2

Now you are going to fold shapes and 1/2 parts and shade 1/2 .

Fold shapes. (square, rectangle, triangle)

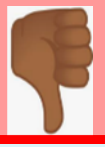
Shade ½

- Are they equal parts?

Self - Assessment:

Do you understand what to do?





19.03.2024

LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

Now we are going to find a quarter ¼ of the whole .

TP: What do you remember about the whole and equal parts?

What is ½?

TP - What does this symbol mean?

$\frac{1}{4}$

¼ means 1 of 4 equal parts.

19.03.2024

LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

At lunchtime three children compare their sandwiches.

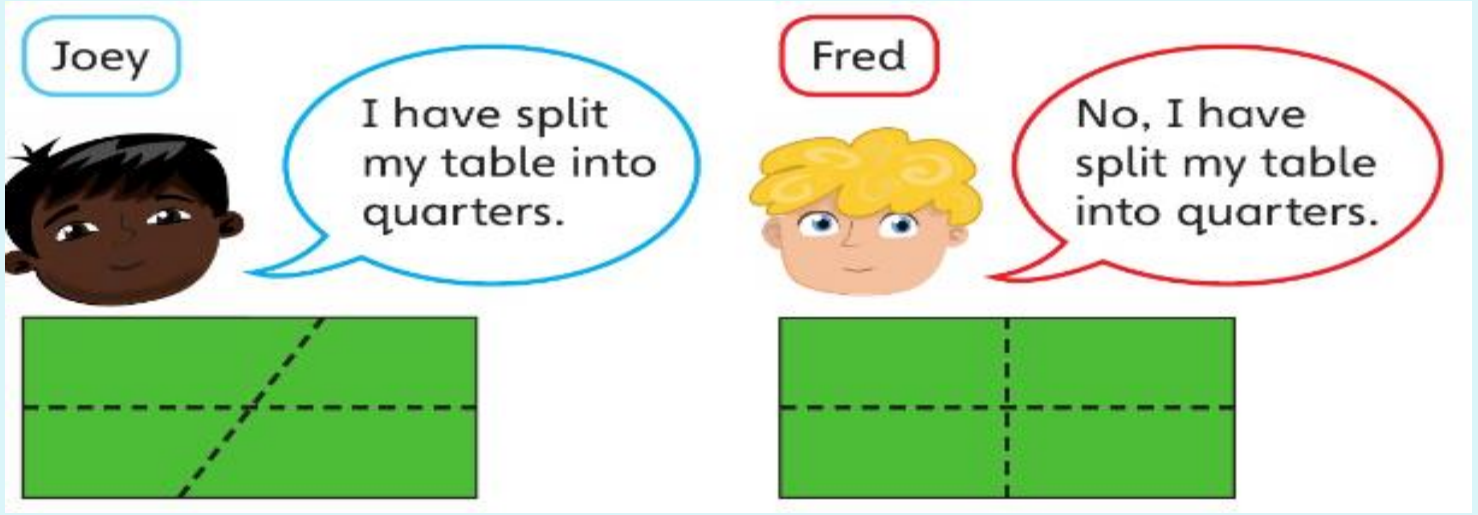
Which children's sandwiches have been cut into quarters? How do you know?

Sentence starter:

----------sandwiches have been cut into quarters because ----------

19.03.2024

LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?



Who is correct?

How do you know?

Sentence starter:

----------is correct because ----------

Self - Assessment:

Do you understand how to find ¼ ?

19.03.2024

LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

Task 3

Now you are going to fold shapes, find ¼ parts and shade 1/4.

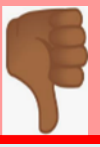
- Fold shapes. (square, rectangle)
- Shade ¼ .
- Are they equal parts?

Challenge:

Shade ½ and ¼ in the sheets on your table.

Self - Assessment:

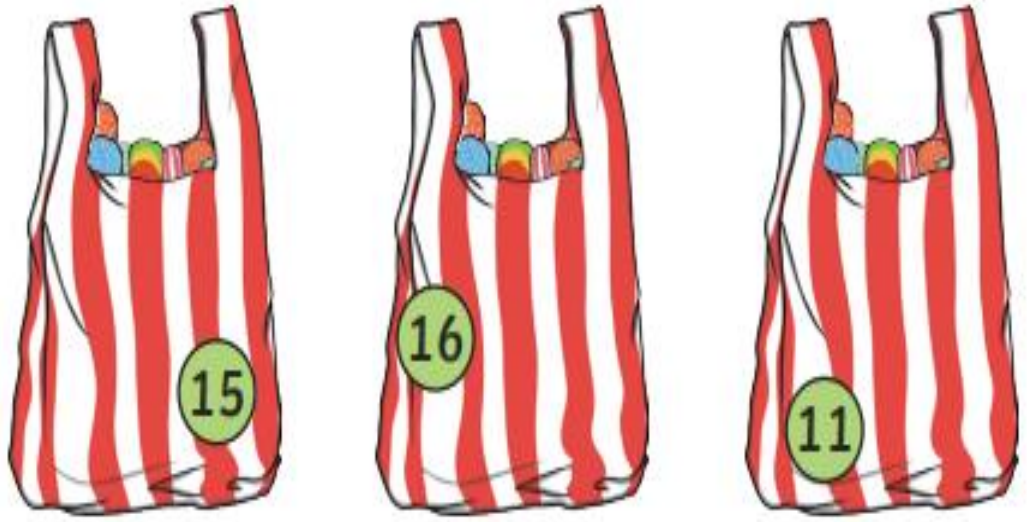
Do you understand what to do?



20.03.2024

Mental maths

5 children want to buy sweets from the shop.
They want to share them equally.
Which bag should they buy? Explain why.



Ben has **40** cards.

He shares them equally between
4 party bags.

How many cards does he put in each bag?

cards

20.03.2024

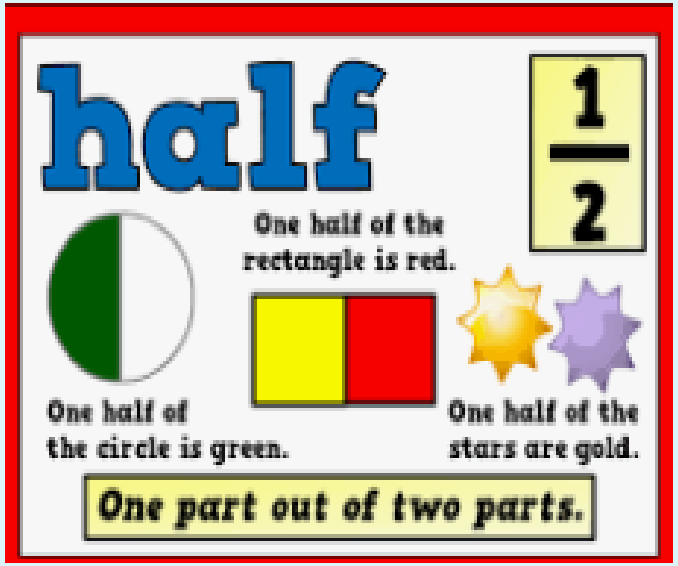
LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

Steps to Success:

I know what whole means.

I can describe the equal parts.

I can find a quarter ¼, a half ½



STAR WORDS

half ($\frac{1}{2}$) quarter ($\frac{1}{4}$) whole

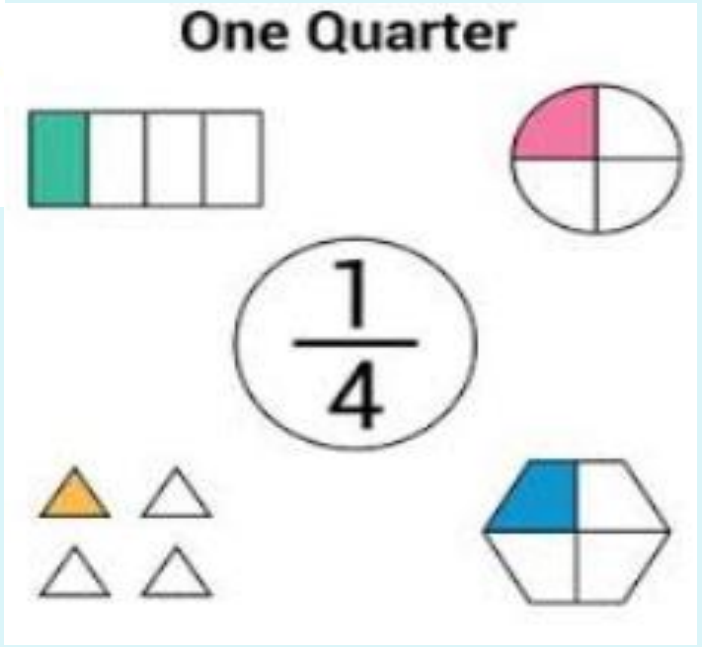
third ($\frac{1}{3}$) equivalent

equal part numerator

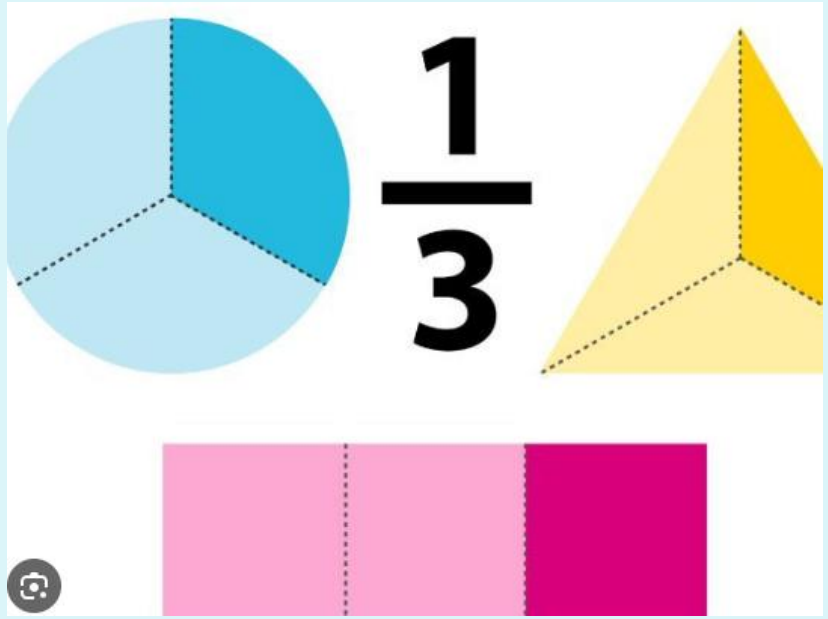
denominator fraction bar

non-unit fraction

unit fraction



These shapes are whole:



20.03.2024

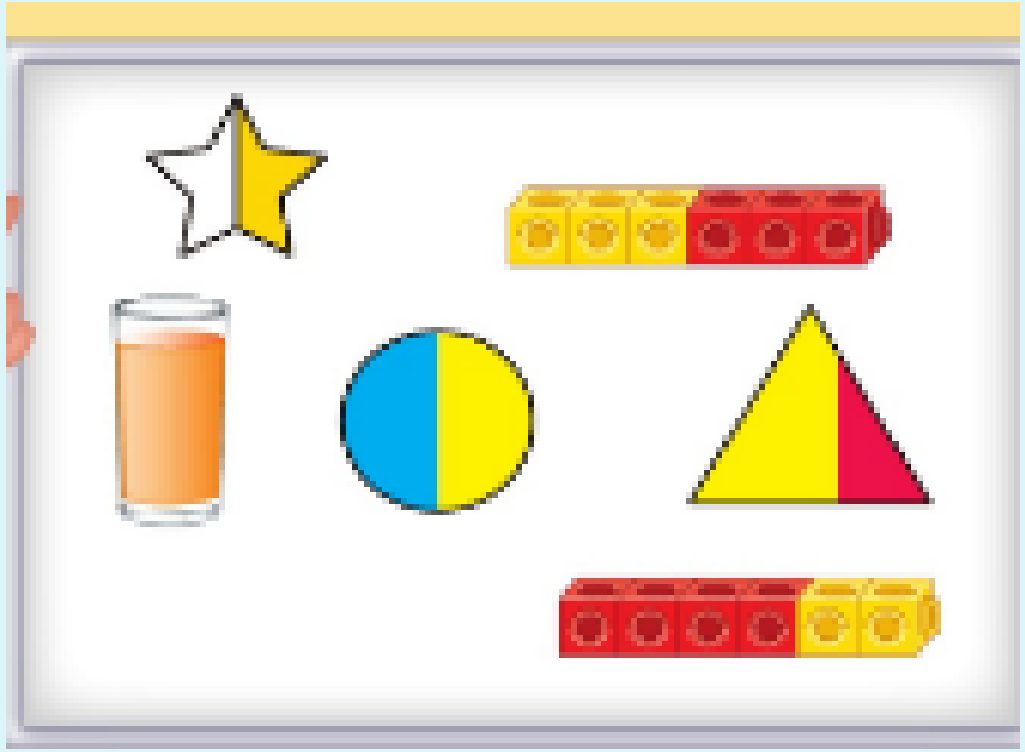
LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

Let's recap:

TP: What does ½ mean?

Which diagrams show halves?

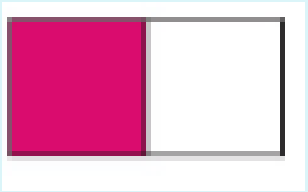
Which ones do not show halves?



½ means 1 of 2 equal parts.

We read ½ as a half.

It means we share equally between 2.



I know that sharing equally between 2 is like dividing by 2.

20.03.2024

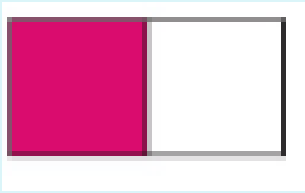
LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

½ means 1 of 2 equal parts.

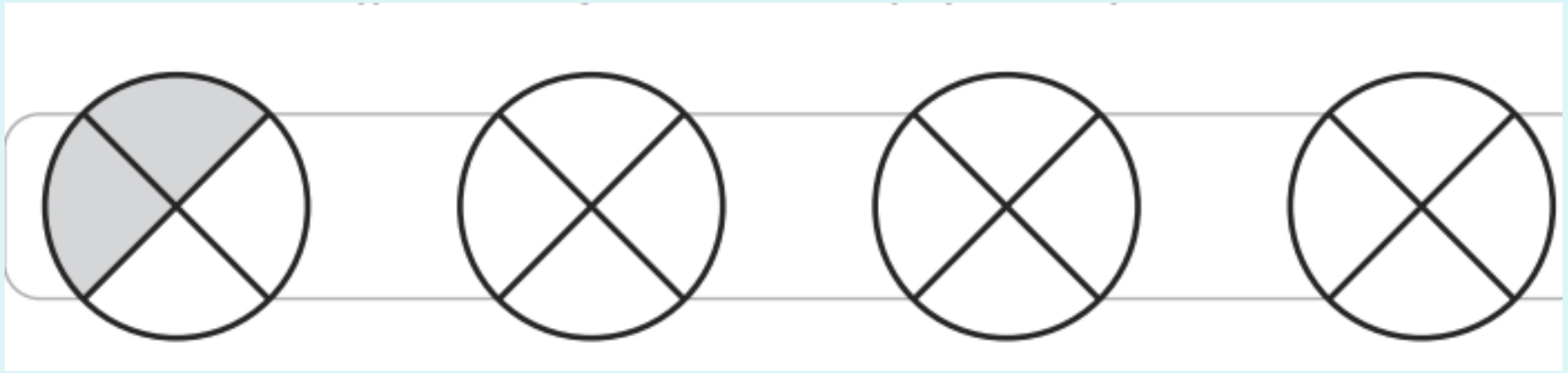
We read ½ as a half.

It means we share equally between 2.

Let's shade together.



I know that sharing equally between 2 is like dividing by 2.



20.03.2024

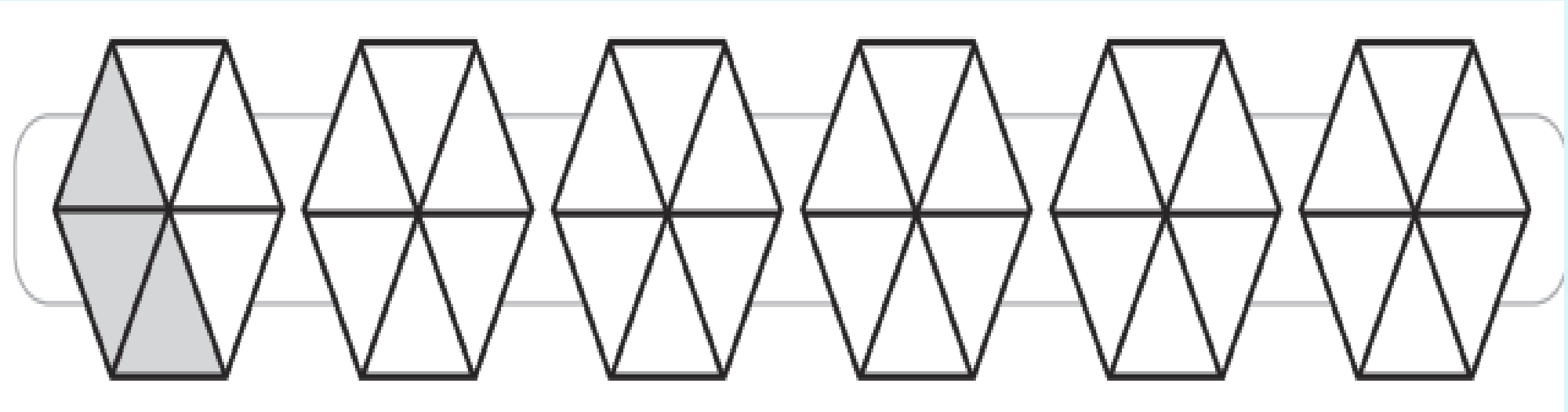
LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

½ means 1 of 2 equal parts.

We read ½ as a half.

It means we share equally between 2.

Let's shade together.



20.03.2024

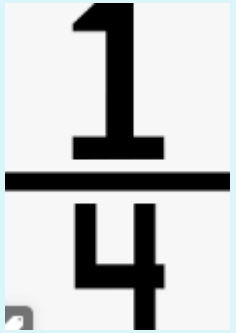
LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

Let's recap:

TP: What do you remember about the whole and equal parts?

What is ½?

TP: - What does this symbol mean?



¼ means 1 of 4 equal parts.

20.03.2024

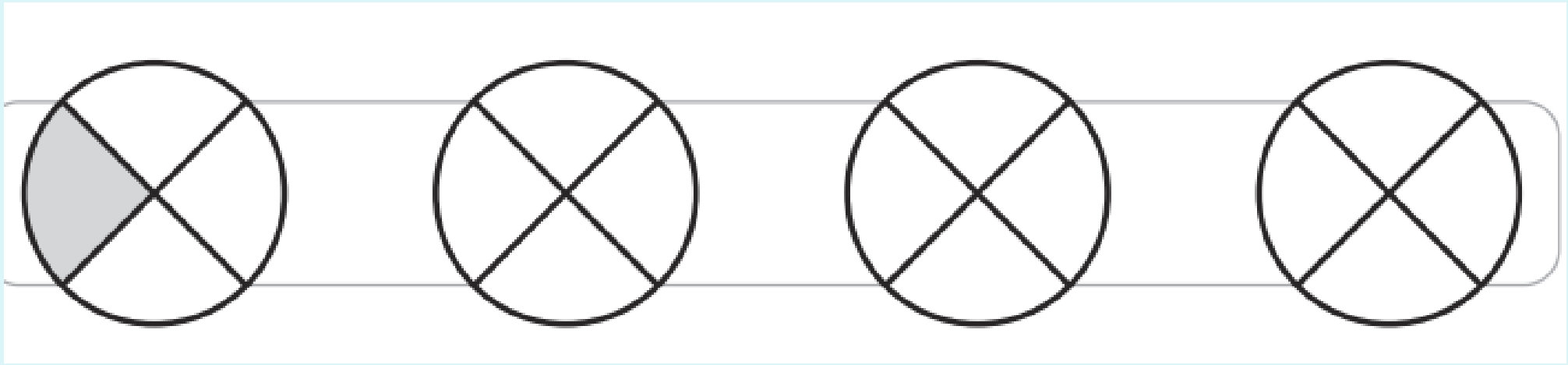
LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

1/4 means 1 of 4 equal parts.

We read 1/4 as a quarter.

It means we share equally between 4.

Let's shade together.



20.03.2024

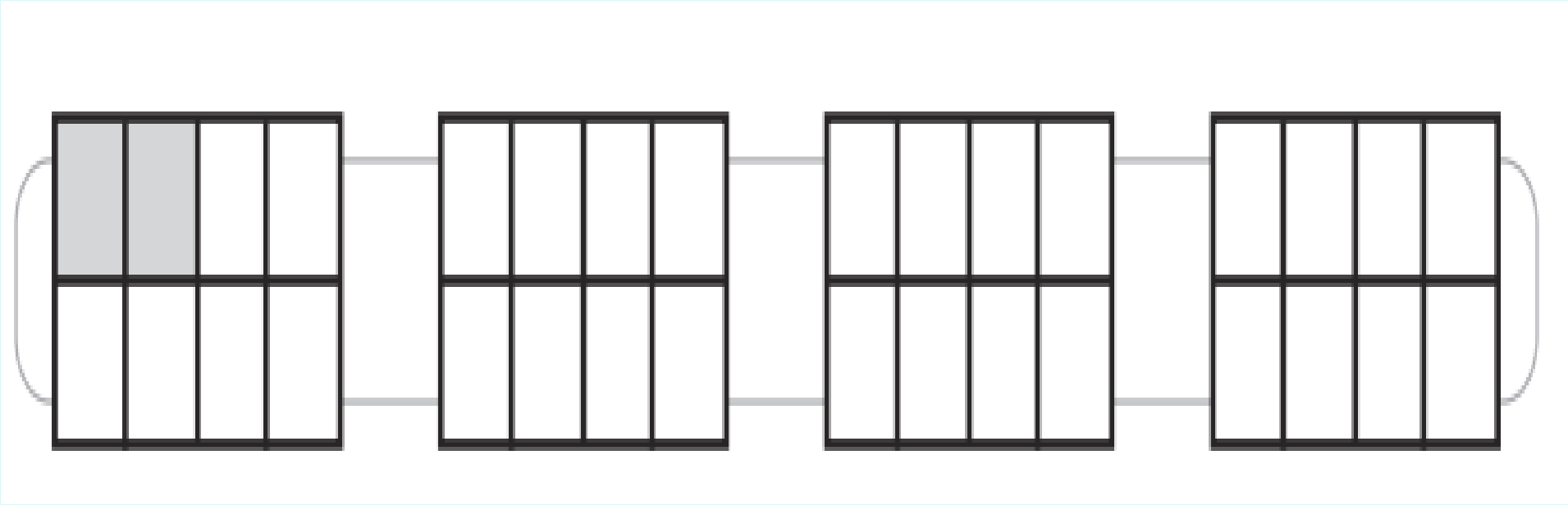
LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

1/4 means 1 of 4 equal parts.

We read 1/4 as a quarter.

It means we share equally between 4.

Let's shade together.



20.03.2024

LQ: Can I recognise a quarter ¼, a half ½ and a whole of the shape?

Complete the tasks in your books.

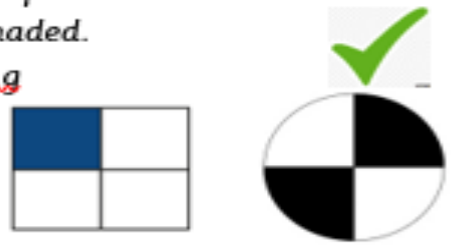
Use the star words to help you explain your answers:

Whole, equal parts, shaded, equal groups, odd

1.

On the sheet below tick the shapes that show ½ shaded.

E.g

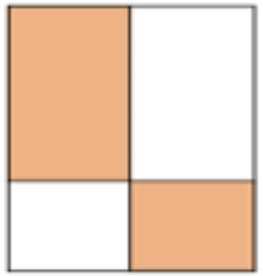


2.

Is Joe correct? Explain how you know.

3.

Rosie says the shaded part of the shape does not show a half because there are four parts, not two equal parts.



Do you agree? Explain why.

Self assessment

Do you understand what to do?

21.03.2024

21.02.2023

LQ: Can I find half of a quantity?

Steps to Success:

I know what half means.

I can find a half of an amount.

I can record half using my own strategy.

21.03.2024

LQ: Can I find half of a quantity?

Today you are going to learn about fractions. Fraction means when an amount or shape is divided into equal parts from a whole.

TP - What does this symbol mean?

Denominator – The number at the bottom is the denominator. It tells us the total parts in a whole.

$$\frac{1}{2}$$

Numerator – The number on top is a numerator. It tells us how many equal parts we have from a whole.

Today you going to find half of a quantity.

21.03.2024

LQ: Can I find half of a quantity?

TP- How many players are there?

What strategy could you use to split these players into two teams?

If another player joins the group, how many players are there now?

Will the groups be equal or unequal? Explain how do you know?

21.03.2024

LQ: Can I find half of a quantity?

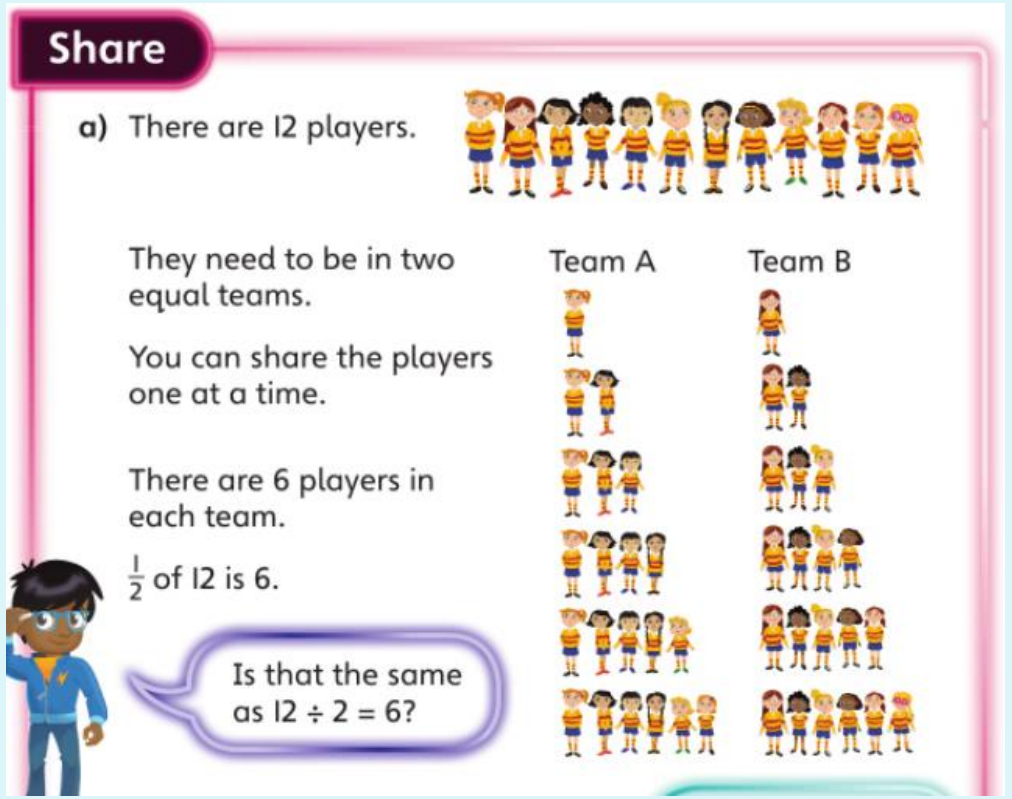
There are 12 players. They are split into two teams.

What strategy can you use to work out half?

This can be recorded as 12÷2=6

When we work with fraction we use this method instead:

½ of 12 = 6.



Can 13 players be split into two equal groups?

Why/Why not?

28.04.22

LQ: Can I find half of a quantity?

Let's recap finding half.

What symbol do we use to record half for quantity?

What is the number on top called?

Numerator – The number on top is a numerator. It tells us how many equal parts we have from a whole.

What is the number on the bottom called?

Denominator – The number at the bottom is the denominator. It tells us the total parts in a whole.

To record a half of 12 as a fraction we write it like this:

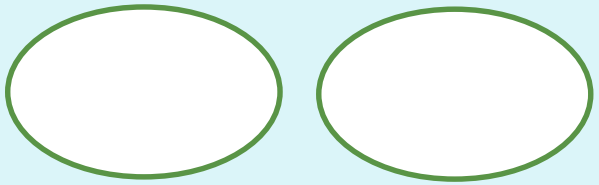
½ of 12 = 6

21.03.2024

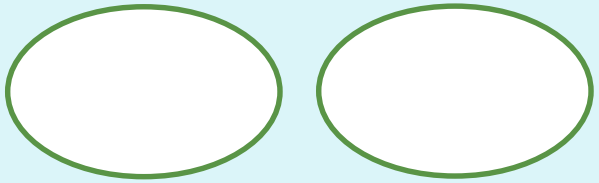
LQ: Can I find half of a quantity?

Let's find half for these quantities by sharing them out into two equal groups. Record as a fraction sentence.

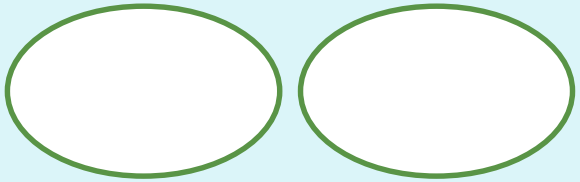
6



10



12



½ of ____ = _____

Use the cubes to help you divide the amount into two equal groups.

Self assessment

Do you understand how to find half of a quantity?

21.03.2024

LQ: Can I find half of a quantity?

Challenge

$\frac{1}{2}$ of 4 = ☐

$\frac{1}{2}$ of 40 = ☐

$\frac{1}{2}$ of 6 = ☐

$\frac{1}{2}$ of 60 = ☐

$\frac{1}{2}$ of 8 = ☐

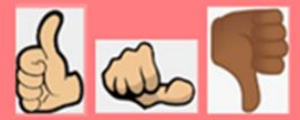
$\frac{1}{2}$ of 80 = ☐

21.03.2024

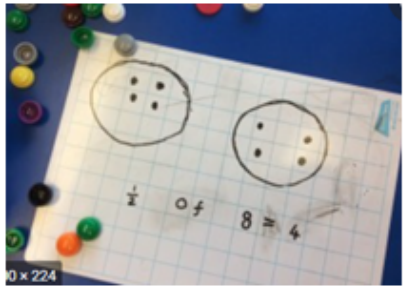
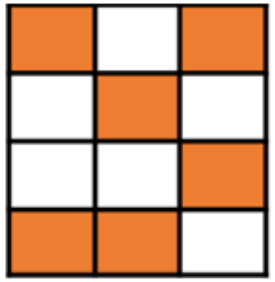
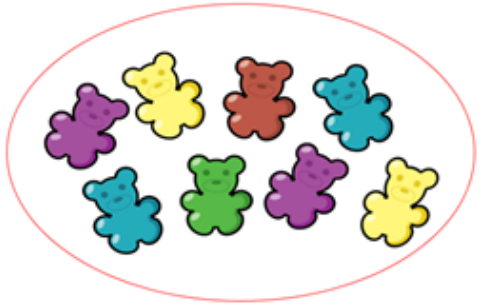
LQ: Can I find half of a quantity?

Self assessment

Do you understand how to record half for a fraction?

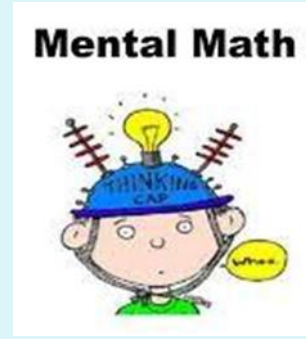


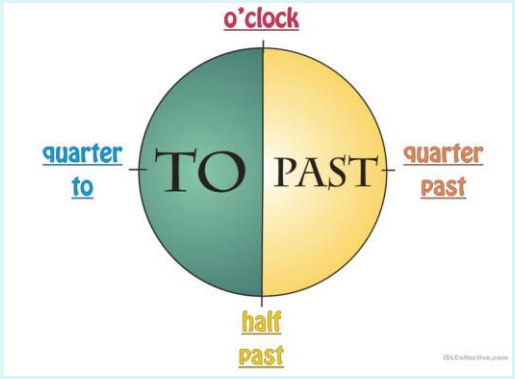
Complete the tasks in your book.

Most		
Fluency	**Reasoning**	**Problem Solving**
1. Find half for the following amounts by sharing them into equal groups. 8 10 14 18 22 24 Record using the fraction.  $\frac{1}{2}$ of 8 =	2. Dora is asked to shade half of her shape. This is what she shades.  Is she correct? Explain why. Dora is _____ because…	3. Annie has some gummy bears. She circles half of them.  How many gummy bears did she have at the start?

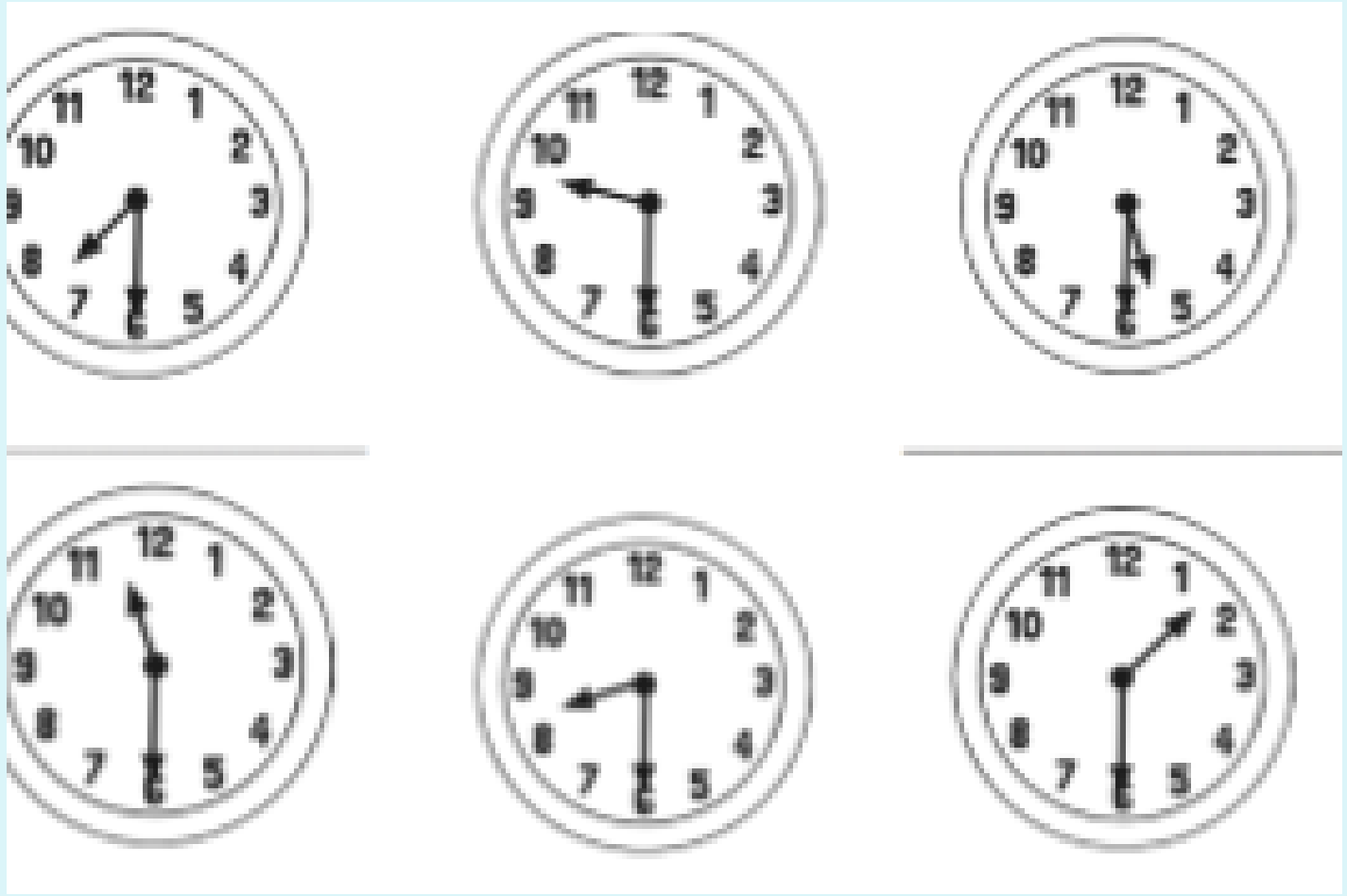
22.03.2024

Mental Maths





Read and write the times for half past.



Recap

1 minute = 60 seconds

1 hour = 60 minutes

1 day = 24 hours

Half of 1 minute = 30 seconds

Half of 1 hour = 30 minutes

Half of 1 day = 12 hours

22.03.2024

LQ: Can I find quarters of a quantity?

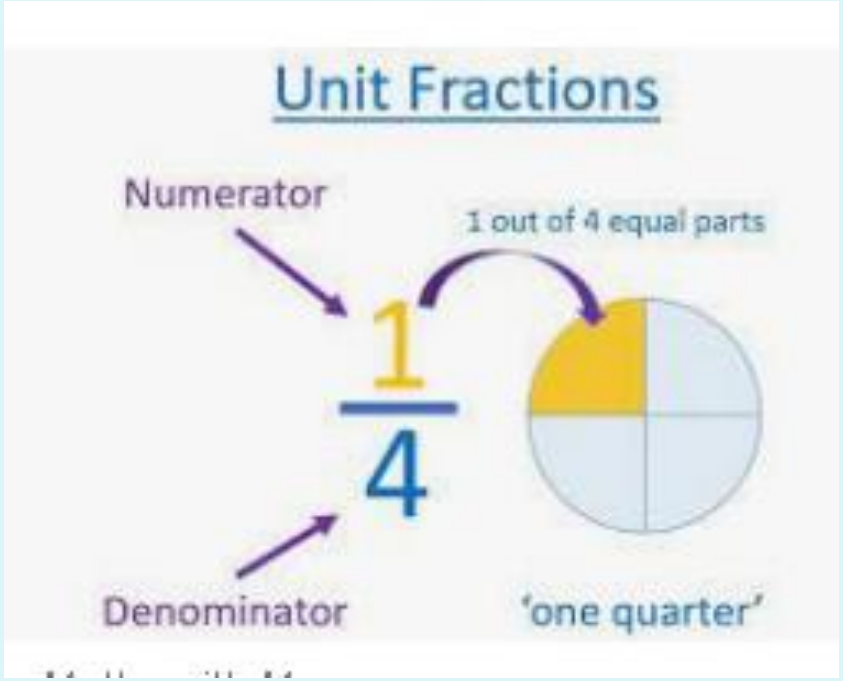
Steps to Success:

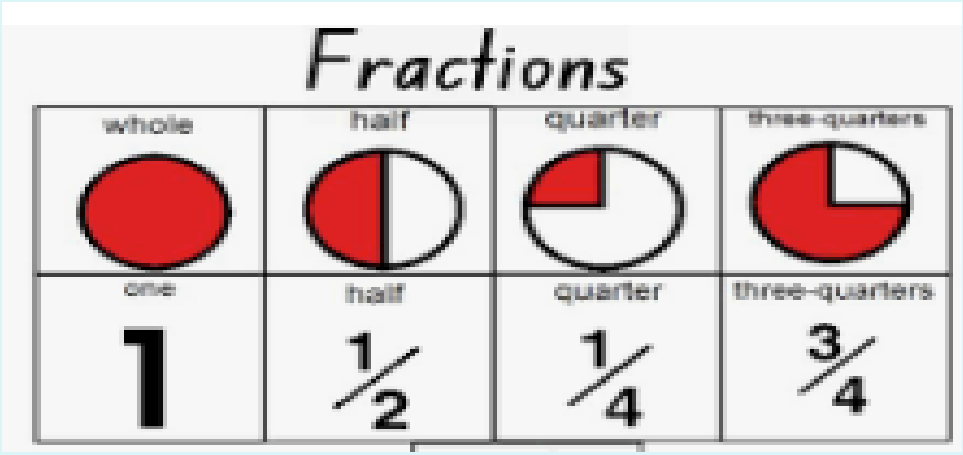
I know what a quarter is.

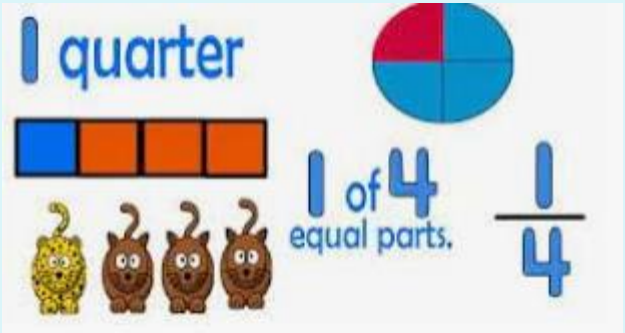
I can find quarters for given amount.

I can record quarters using an efficient strategy.

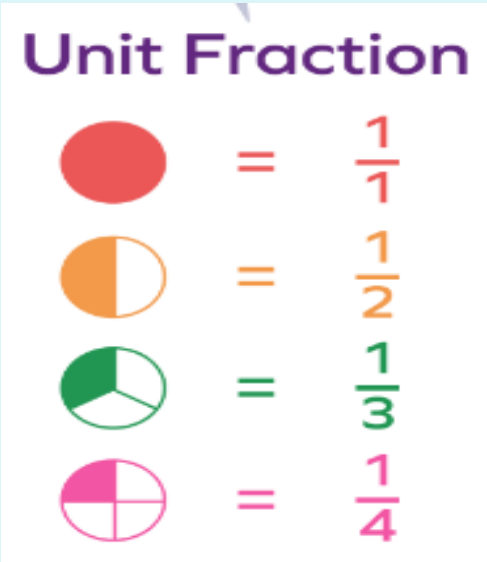
STAR WORDS


Unit Fractions
Numerator
1 out of 4 equal parts
1
4
Denominator
'one quarter'


Fractions
whole
half
quarter
three-quarters
one
1
half
1/2
quarter
1/4
three-quarters
3/4


1 quarter
1 of 4 equal parts.
1
4


NON-UNIT FRACTIONS
YEAR 7 - NUMBER - FRACTIONS
2/4
2/3
3/4


Unit Fraction
= 1/1
= 1/2
= 1/3
= 1/4

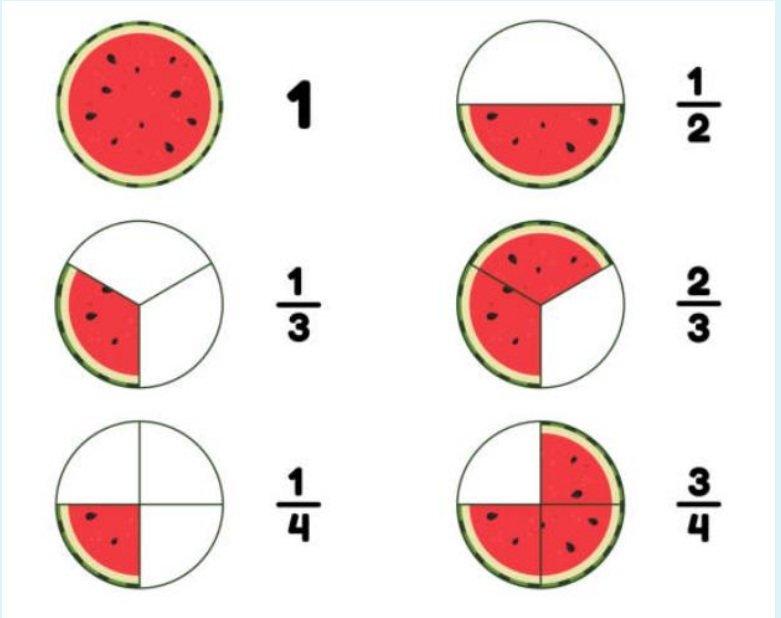
22.03.2024

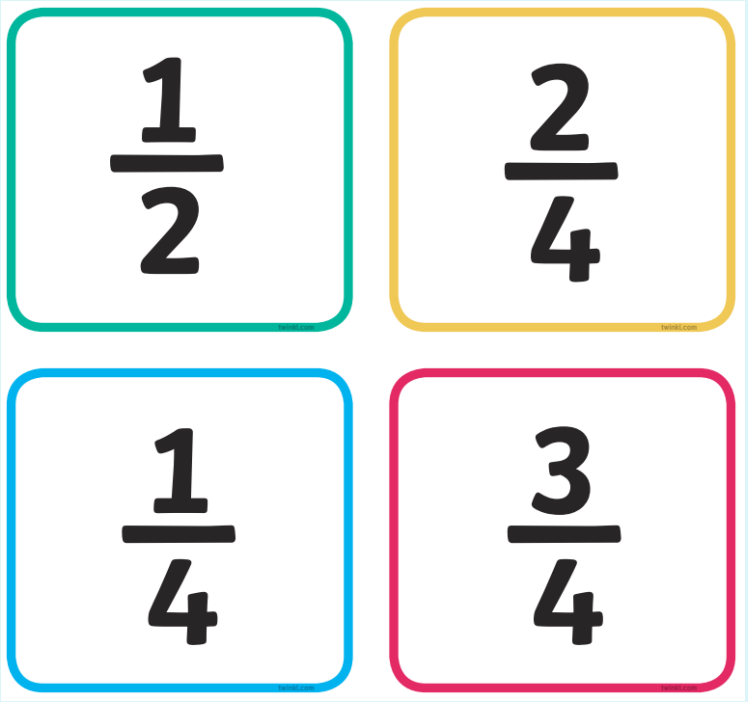
LQ: Can I find quarters of a quantity?

What does fraction mean?

Equal parts of a whole .

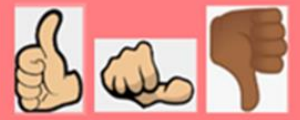
What do these symbols mean?





Self assessment

Do you understand what fraction means?

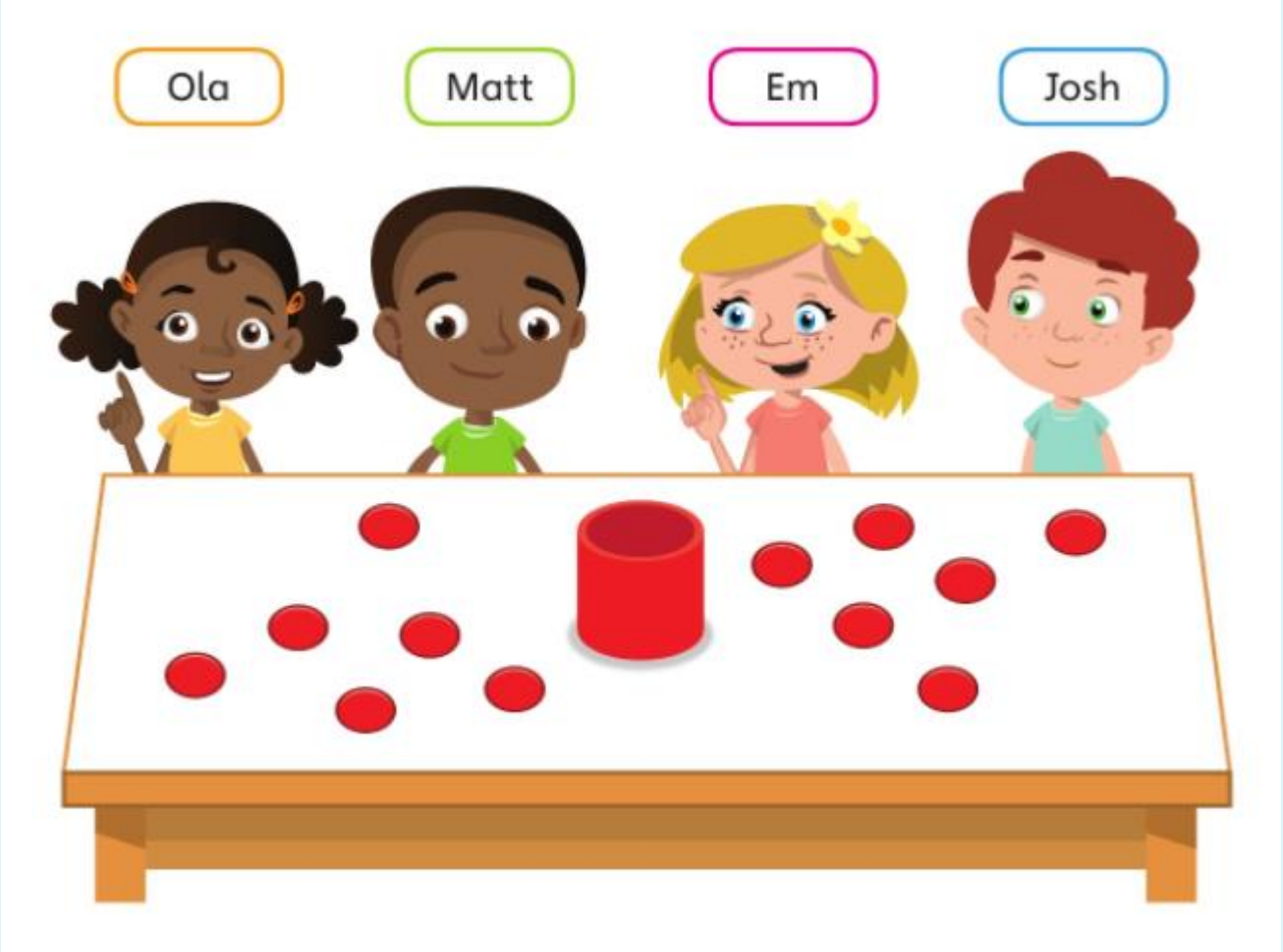


22.03.2024

LQ: Can I find quarters of a quantity?

There are 12 counters.

How can 12 be shared equally into 4 equal groups?

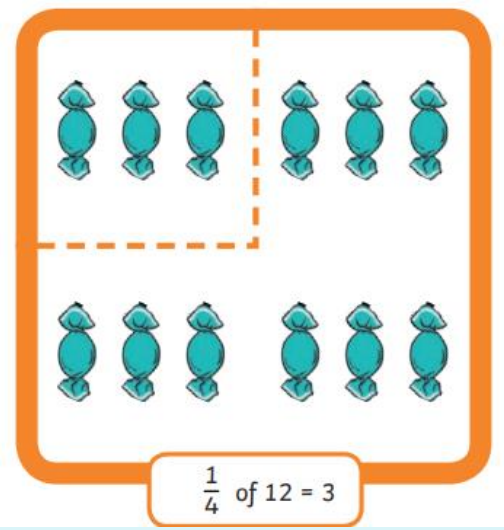


22.03.2024

LQ: Can I find quarters of a quantity?

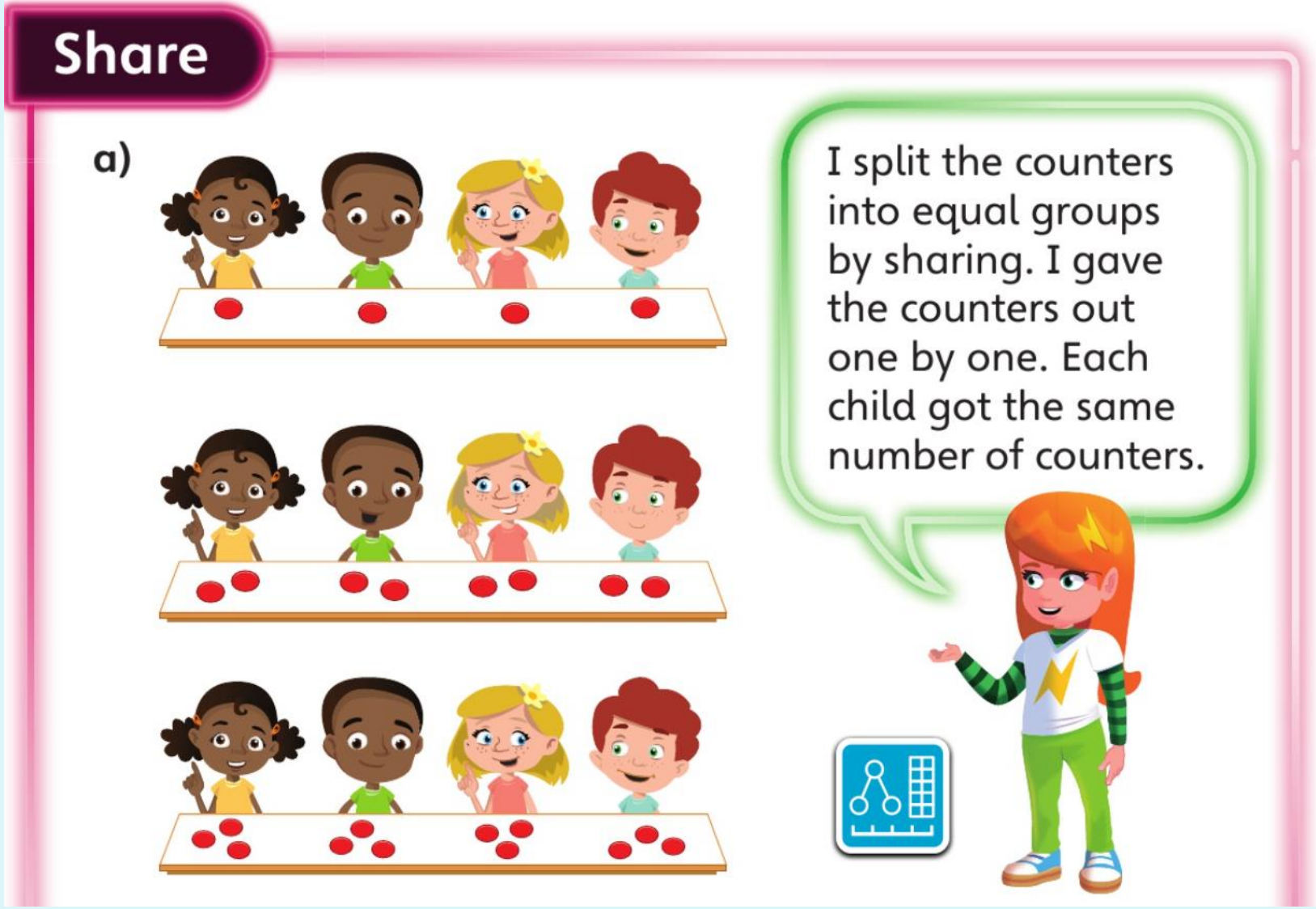
12 is shared between 4 people.

There are 4 equal parts when we split things or amounts into quarters.



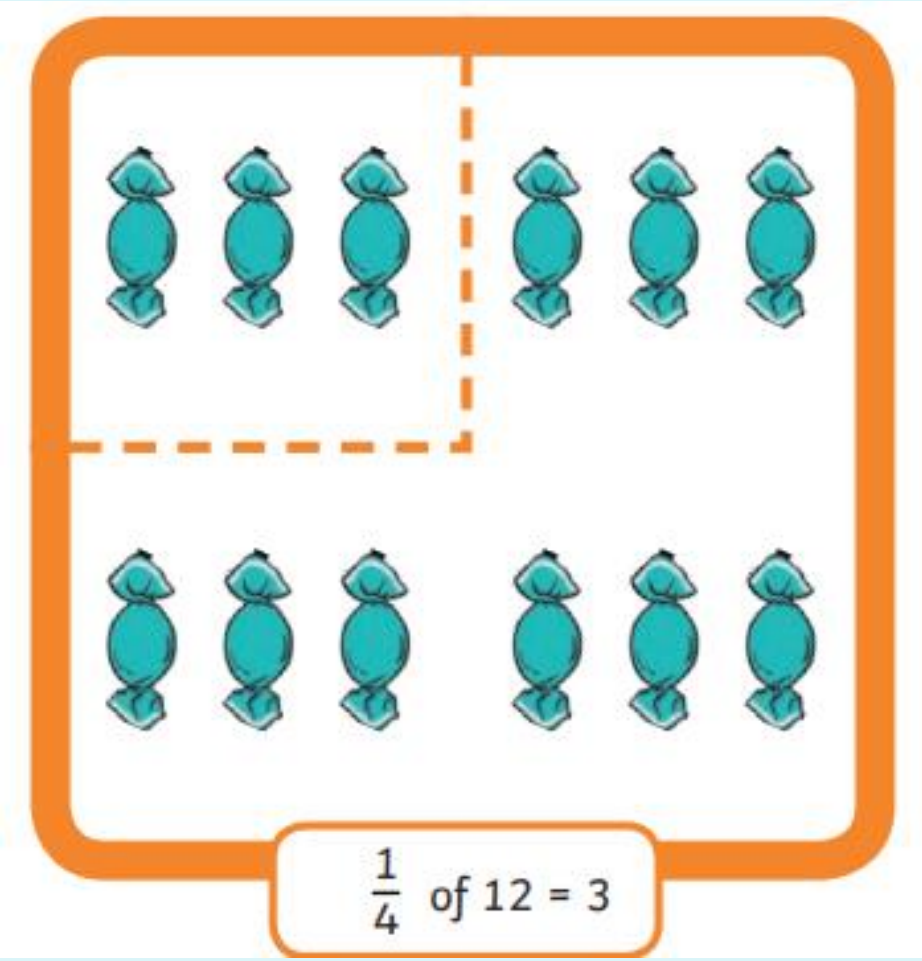
Each person gets 3.

So ¼ of 12 =3



22.03.2024

LQ: Can I find quarters of a quantity?



What will 2/4 be? How do you know?

Prove it

TP: What do you notice about 2/4 ?

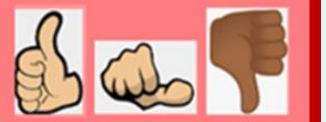
(It is the same as ½)

What will 3/4 be? How do you know?

Prove it

Self assessment

Do you understand what quarters are?



22.03.2024

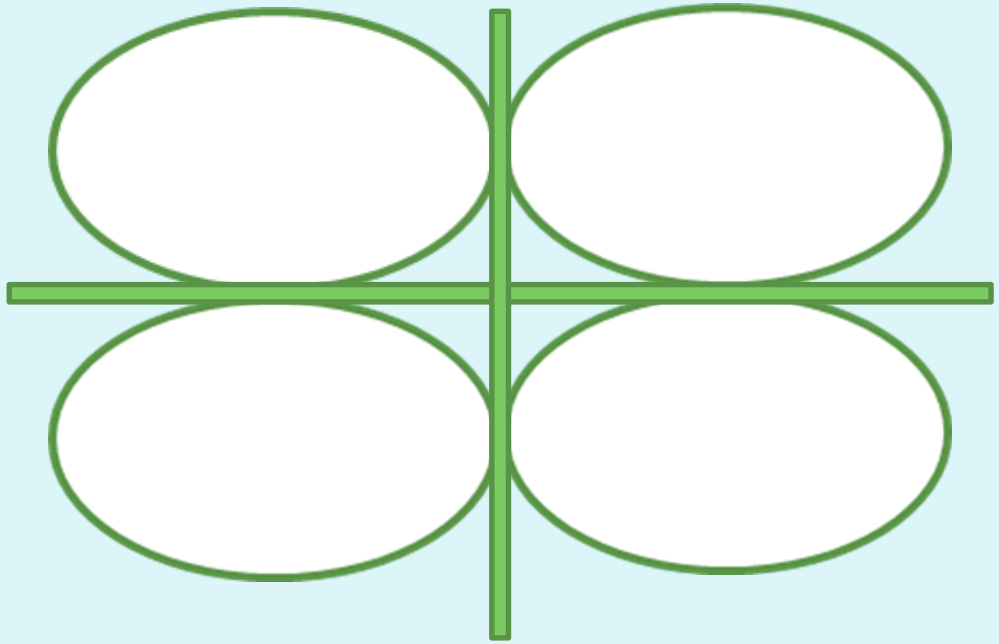
LQ: Can I find quarters of a quantity?

4 8 16

Let's find ¼ and 2/4 (1/2) for these amounts.

Remember to share them out into 4 equal parts

1/4 of ___ = ___



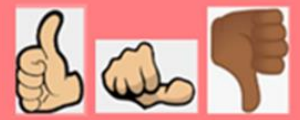
2/4 of ___ = ___

22.03.2024

LQ: Can I find quarters of a quantity?

Self assessment

Do you understand how to record quarters for fraction?



Complete the tasks in your book.

Most

Fluency

1.

Find ¼ of 8 20 24 and record using the written method. E.g. ¼ of ____ = ____

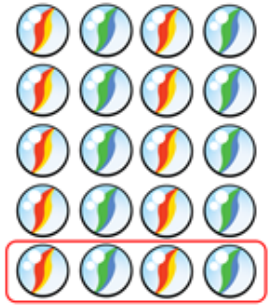
Find 2/4 of 8 16 24 and record using the written method. E.g. 2/4 of ____ = ____

Reasoning

2.

Eva says,

I have ¼ because I have 4 marbles.



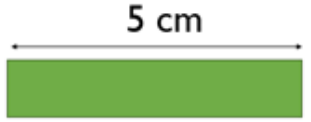
Do you agree? Explain why.

Problem Solving

3.

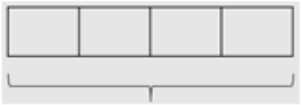
Mo has two ribbons. He cuts 1/4 from each ribbon.

¼ of ribbon A



¼ of ribbon B

Use the bar model to help you solve the problem.



How long were Mo's whole pieces of ribbon?
Which ribbon was the longest? How much longer?