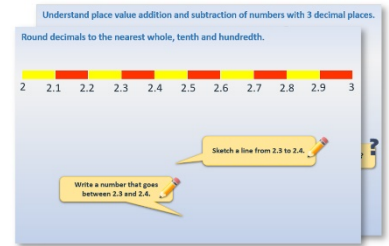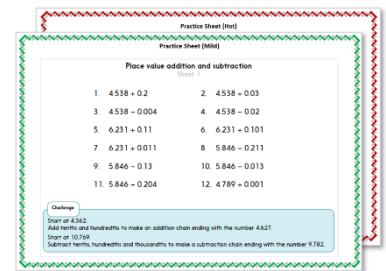# Year 3: Week 6, Day 5
Perimeter (2)

Each day covers one maths topic. It should take you about 1 hour or just a little more.
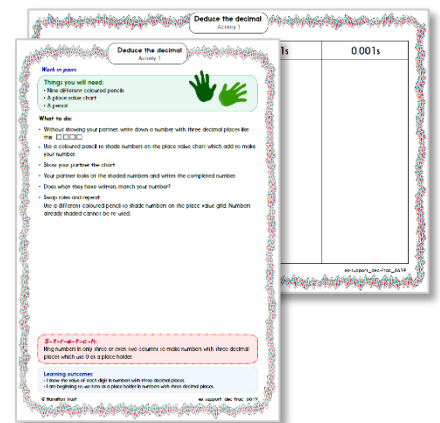
1. Start by reading through the **Learning Reminders**.
   They come from our *PowerPoint* slides.

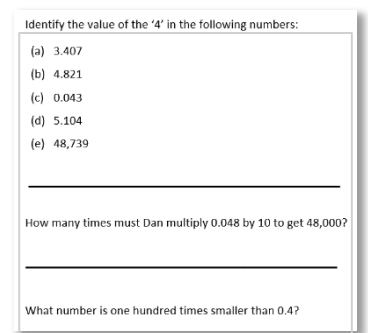2. Tackle the questions on the **Practice Sheet**.
   There might be a choice of either Mild (easier) or Hot (harder)!
   Check the answers.

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

4. Have I mastered the topic? A few questions to **Check your understanding**.
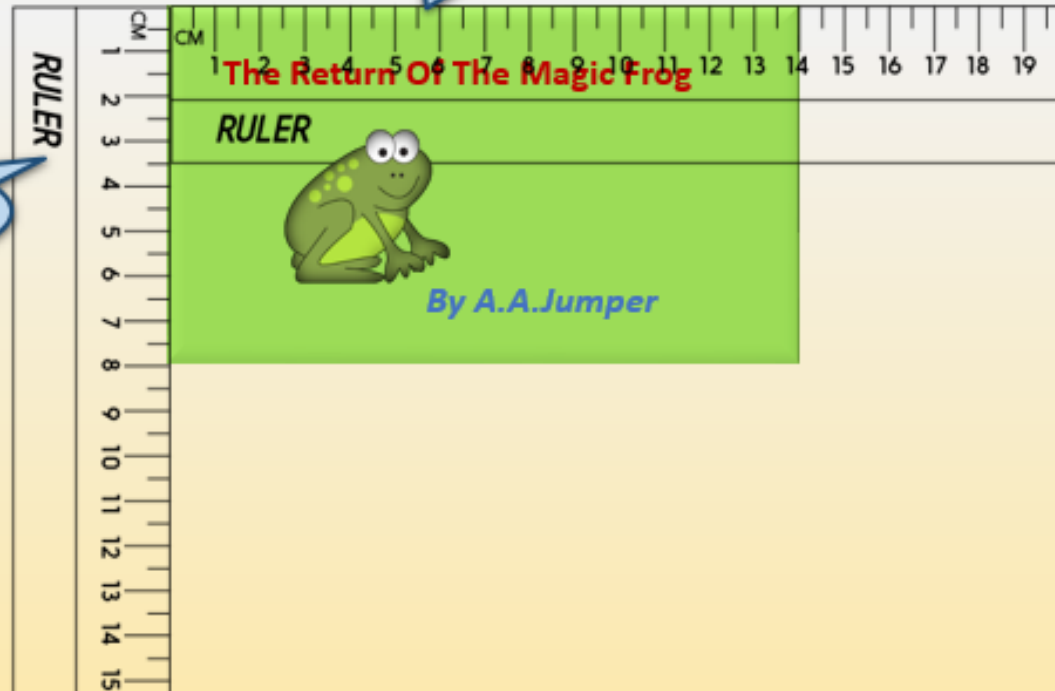   Fold the page to hide the answers!

Learning Reminders

Understand, measure and calculate perimeters.

Let's find the **perimeter** of *this* book.

Top **14cm.**

Left **8cm.**

The Return Of The Magic Frog

RULER

By A.A.Jumper

Learning Reminders

Learning Reminders

Understand, measure and calculate perimeters.

That was a small book! What if the top side was **25cm** and the left side **20cm**?

What if the top side was **15cm** and the left side **17cm**?

Work to find the perimeter.

Work to find the perimeter.

25cm + 20cm = ?

15cm + 17cm = ?

Double 45cm = ?

Double 32cm = ?

Practice Sheet Mild
Shape practice

Calculate the perimeters of these rectangles from the length of two sides. Remember to find the total and double.

Length of long side	Length of short side	Total of sides given	Double the total to find the perimeter
5cm	3cm		
6cm	2cm		
8cm	4cm		
12cm	8cm		
15cm	10cm		
20cm	5cm		
28cm	22cm		
38cm	36cm		

Do any of the rectangles have the same perimeter?

Challenge

What are the possible lengths of sides for a rectangle with a perimeter of 30cm?

Practice Sheet Hot
Shape practice

Calculate the perimeters of these rectangles from the length of two sides. Remember to find the total and double.

Length of long side	Length of short side	Total of sides given	Double the total to find the perimeter
64cm	36cm		
57cm	20cm		
49cm	16cm		
55cm	45cm		
38cm	28cm		
35cm		60cm	120cm
	25cm		200cm

Do any of the rectangles have the same perimeter?

Challenge

What are the possible lengths of sides for a rectangle with a perimeter of 30cm?

Explore more Hamilton Trust Learning Materials at https://wrht.org.uk/hamilton

Practice Sheet Answers

Shapes practice (Mild)

Length of long side	Length of short side	Total of sides given	Double the total to find the perimeter
5cm	3cm	8cm	16cm
6cm	2cm	8cm	16cm
8cm	4cm	12cm	24cm
12cm	8cm	20cm	40cm
15cm	10cm	25cm	50cm
20cm	5cm	25cm	50cm
28cm	22cm	50cm	100cm

Shapes practice (Hot)

Length of long side	Length of short side	Total of sides given	Double the total to find the perimeter
64cm	36cm		
57cm	20cm		
49cm	16cm		
55cm	45cm		
38cm	28cm		
35cm		60cm	120cm
	25cm		200cm

Work in pairs

Things you will need:
• A pencil
• Lots of cm² paper
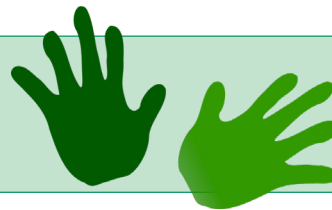
What to do:

• Take it in turns to draw a rectangle on squared paper, making sure that each side is a whole number of centimetres. Both sides should be less than 10cm.

• Find the lengths of two different sides.

• One person adds these two sides, then doubles the answer to find the perimeter.

• The other person adds the four sides together to find the perimeter.

• Check that you both get the same answer.

• Once agreed, write the perimeter by the rectangle.

• Swap roles and repeat.

S-t-r-e-t-c-h:
Try and draw a rectangle with a perimeter of 14cm.

Learning outcomes:
• I can find the perimeter of a rectangle by finding the total of all four sides.
• I am beginning to find the perimeter by doubling the total of two adjacent sides.
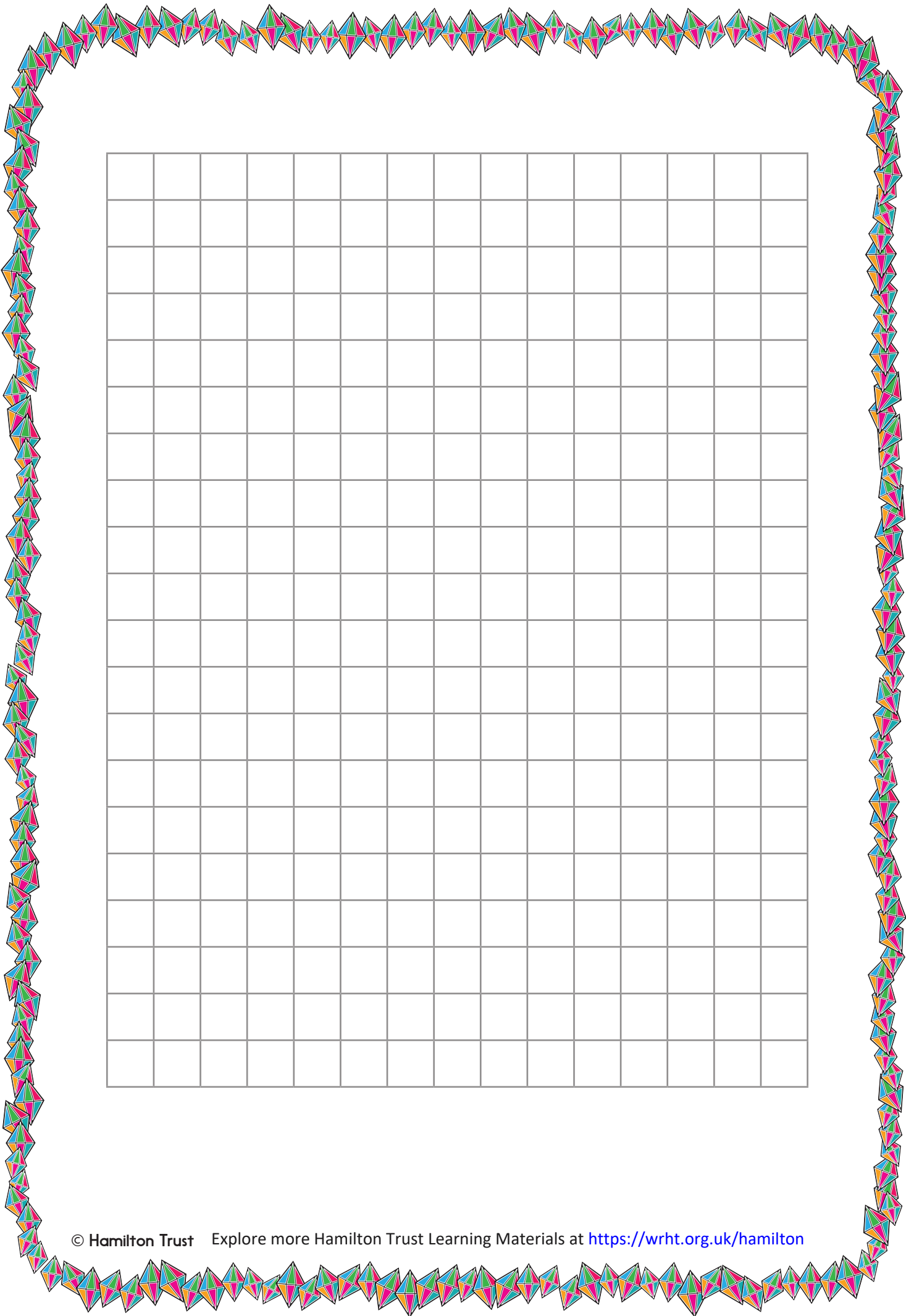
Check your understanding:
Questions

Find a large book (e.g. an atlas). Write its perimeter in three different ways, e.g. using m and cm or cm and mm…

10cm

This rectangle has a side of 10cm and a perimeter of 36cm.
What is the length of its shorter side?

A room measures four metres by three metres.
What is its perimeter?
If another room has walls half as long, is its perimeter also half?

The perimeter of a book is 22cm.
Both sides measure an exact number of centimetres.
If one side is 3cm longer than the other, what is the length of each side of the book?

Answers on the next page

Check your understanding:
Answers

Find a large book (e.g. an atlas). Write its perimeter in three different ways, e.g. using m and cm or cm and mm…

Perimeters will obviously vary but check that the different units are equivalent, i.e. 1m 26cm = 126cm = 1.26m.

Where answers seem inaccurate check children have included all four lengths in their measurement of perimeter.

10cm

This rectangle has a side of 10cm and a perimeter of 36cm.

What is the length of its shorter side? 8cm.

Children answering 26cm have clearly not understood the concept of perimeter. 13cm is another possible error (having 26cm rather than 16cm).

A room measures four metres by three metres.

What is its perimeter?   Its perimeter is 14 metres.

If another room has walls half as long, is its perimeter also half?

Yes, since each length is halved the perimeter will be half.

The perimeter of a book is 22cm.

Both sides measure an exact number of centimetres.

If one side is 3cm longer than the other, what is the length of each side of the book?

The book will be 7cm by 4cm, best found by trial and improvement strategies. Alternatively, since half of 22cm is 11cm, the answer will be 2 numbers that add to 11 with a difference of 3.