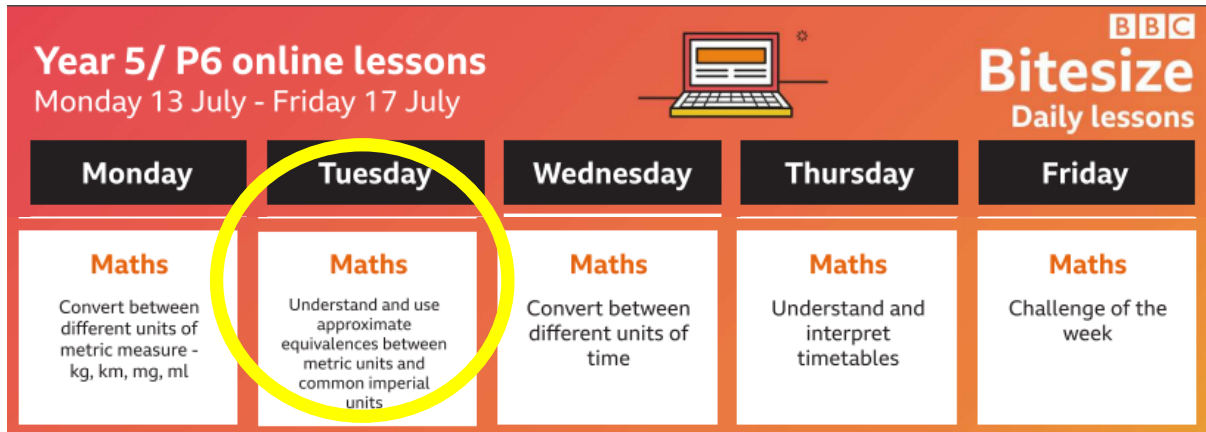


Summer 2 Week 7 Maths Day 2

Try BBC Bitesize for daily lessons

<https://www.bbc.co.uk/bitesize/dailylessons>

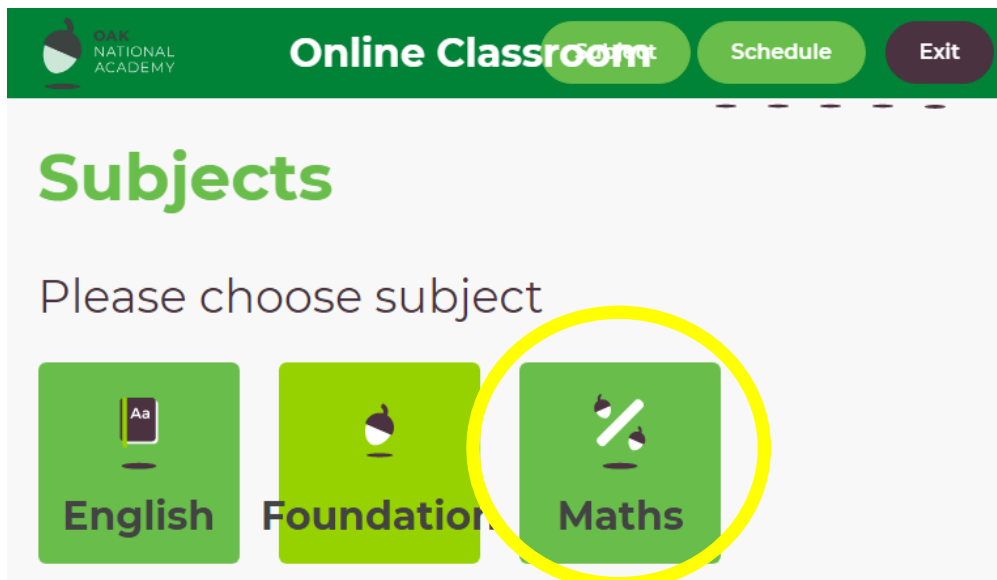


The screenshot shows the BBC Bitesize website for Year 5/ P6 online lessons, running from Monday 13 July to Friday 17 July. The page features a grid of daily lesson topics. The 'Tuesday' column is highlighted with a yellow circle. The lessons are as follows:

Monday	Tuesday	Wednesday	Thursday	Friday
Maths Convert between different units of metric measure - kg, km, mg, ml	Maths Understand and use approximate equivalences between metric units and common imperial units	Maths Convert between different units of time	Maths Understand and interpret timetables	Maths Challenge of the week

Try the National Academy online classroom for lessons

<https://www.thenational.academy/online-classroom/year-5/#subjects>



The screenshot shows the National Academy Online Classroom interface. At the top, there is a green header with the National Academy logo, the text 'Online Classroom', and buttons for 'Sign in', 'Schedule', and 'Exit'. Below the header, the word 'Subjects' is displayed in large green letters. A prompt 'Please choose subject' is followed by three green buttons: 'English' (with an 'Aa' icon), 'Foundation' (with a lightbulb icon), and 'Maths' (with a pencil and paper icon). The 'Maths' button is highlighted with a yellow circle.

Don't forget TT Rockstars!

<https://play.ttrockstars.com/auth/school/student>

Use short division, expressing the remainders as fractions.
Each day covers one maths topic. It should take you about 1 hour or just a little more.

1. Look at the learning reminders.
2. Complete 'Mild' or 'Hot' practice questions
3. Finding it tricky? Have a look at 'A bit stuck' and ask a grown up
4. Completed the practise sheets? Try the investigation!

Learning Reminders

Use short division to divide 4-digit numbers by single-digit numbers, expressing the remainders as fractions.

5466 ÷ 4 using short division

Step 1: Start by dividing 5 by 4.
There is one 4 in 5 and 1 left over.
Write 1 above the line, in the 1000s place.
Write 1 in front of the next digit.

Step 2: Now divide 14 by 4.
There are three 4s in 14 and 2 left over.
Write 3 above the line, in the 100s place.
Write 2 in front of the next digit.

Step 3: Now divide 26 by 4.
There are six 4s in 26 and 2 left over.
Write 6 above the line, in the 10s place.
Write 2 in front of the next digit.

Step 4: Again, there are six 4s in 26.
Write 6 in the 1s place.
There are 2 left over, so write r 2.

Long Division Layout:

$$\begin{array}{r} 1366 \text{ r } 2 \\ 4 \overline{) 5466} \\ \underline{4} \\ 14 \\ \underline{12} \\ 26 \\ \underline{24} \\ 26 \\ \underline{24} \\ 2 \end{array}$$

Use short division to divide 4-digit numbers by single-digit numbers, expressing the remainders as fractions.

If we want an exact answer we can divide 2 by 4 to give $\frac{2}{4}$. We can simplify that to $\frac{1}{2}$.

$$\begin{array}{r} 1366 \text{ r } 2 \\ 4 \overline{) 51426} \end{array}$$

The exact answer is $1366\frac{1}{2}$

Use short division to divide 4-digit numbers by single-digit numbers, expressing the remainders as fractions.

1520 ÷ 6 using short division

Start with the 1000s. There are no 6s in 1 so leave a space above the 1 and move on.

Now divide 15 by 6.
There are 2 6s in 15 and 3 left over.
Write 2 above the line, in the 100s place.
Write 3 in front of the next digit.

Now divide 32 by 6.
There are 5 6s in 32 and 2 left over.
Write 5 above the line, in the 10s place.
Write 2 in front of the next digit.

Now divide 20 by 6.
There are 3 6s in 20 and 2 left over.
Write 3 above the line in the 1s place.
There are 2 left over, so write r 2.

$$\begin{array}{r} 253 \text{ r } 2 \\ 6 \overline{) 1520} \end{array}$$

Try to write this with a fraction instead of the remainder.

The exact answer!

$253\frac{1}{3}$ or $253\frac{2}{6}$

Practice Sheet Mild
More short division with remainders

1. Calculate:

$$\begin{array}{lll} 100 \times 3 & 200 \times 3 & 300 \times 3 \\ 100 \times 4 & 200 \times 4 & \\ 100 \times 5 & 200 \times 5 & \end{array}$$

2. Use your answers from above to help you with the following challenges:

452	731	278	625	927	541	394	847
------------	------------	------------	------------	------------	------------	------------	------------

- a) Choose a number to divide by 3. Your answer must be between 100 and 200.
- b) Choose a number to divide by 3. Your answer must be between 200 and 300.
- c) Choose a number to divide by 4. Your answer must be between 100 and 200.
- d) Choose a different number to divide by 4. Your answer must be between 100 and 200.
- e) Choose a number to divide by 5. Your answer must be between 100 and 200.
- f) Choose a different number to divide by 5. Your answer must be between 100 and 200.

Practice Sheet Hot
Short division: remainders written as fractions

Calculate the EXACT answers to these divisions. Write any remainders as fractions.

- 1. $7453 \div 3$
- 2. $8342 \div 5$
- 3. $2589 \div 3$
- 4. $3801 \div 7$
- 5. $5124 \div 6$
- 6. $3456 \div 5$
- 7. $8346 \div 4$
- 8. $7621 \div 6$
- 9. $2897 \div 3$
- 10. $3247 \div 4$
- 11. $6532 \div 6$
- 12. $5214 \div 8$

A bit stuck?

Short division practice

Things you will need:

- A pencil



1. $43 \div 3$

$$\begin{array}{r} 14 \text{ r } 1 \\ 3 \overline{) 43} \end{array}$$

Now solve these divisions, just like the example:

2. $51 \div 4$

3. $83 \div 5$

4. $74 \div 6$

5. $56 \div 3$

6. $75 \div 4$

7. $93 \div 6$

8. $112 \div 5$

How to do this...

- o Look at the first digit
- o How many 3s in 4?
- o There is 1 so write 1 above the line
- o Write the remainder in front of the second digit
- o How many 3s in 13?
- o There are 4 so write 4 above the line
- o How many remaining?
- o Write r 1 after the answer.

Investigation

Remainder runners

1. Calculate $1234 \div 3$, $2345 \div 3$, $3456 \div 3$,
 $4567 \div 3$, $5678 \div 3$ and $6789 \div 3$.
What do you notice about the remainders?
2. Divide the same numbers by 4.
After the first five, can you predict what
the next remainder will be?
3. What do you think the pattern will be if
you divide by 5? Try it out!
4. With a partner, split the questions between
you to divide the same numbers by 6, 7, 8...
all the way up to 12 if you like!
What patterns do you find?
Did any surprise you?

	$411 \text{ r } 1$
	$3 \overline{)1234}$
	$3 \overline{)2345}$

Which patterns of remainders are similar to when you are dividing by 3 and 4?
Which are different?
Which of these are similar to each other?
Do ALL divisors give a pattern?

Answers

Practice Sheet (Mild)

1.

$100 \times 3 = 300 \quad 200 \times 3 = 600 \quad 300 \times 3 = 900$

$100 \times 4 = 400 \quad 200 \times 4 = 800$

$100 \times 5 = 500 \quad 200 \times 5 = 1000$

2.

a) $452 \div 3 = 150 \text{ r}2$ or $541 \div 3 = 180 \text{ r}1$ or $394 \div 3 = 131 \text{ r}1$

b) $731 \div 3 = 243 \text{ r}2$ or $625 \div 3 = 208 \text{ r}1$ or $847 \div 3 = 282 \text{ r}1$

c) $452 \div 4 = 113$ or $731 \div 4 = 182 \text{ r}3$ or $541 \div 4 = 135 \text{ r}1$

d) $452 \div 4 = 113$ or $731 \div 4 = 182 \text{ r}3$ or $541 \div 4 = 135 \text{ r}1$

e) $731 \div 5 = 146 \text{ r}1$ or $927 \div 5 = 185 \text{ r}2$ or $541 \div 5 = 108 \text{ r}1$ or $847 \div 5 = 169 \text{ r}2$

f) $731 \div 5 = 146 \text{ r}1$ or $927 \div 5 = 185 \text{ r}2$ or $541 \div 5 = 108 \text{ r}1$ or $847 \div 5 = 169 \text{ r}2$

Practice Sheet (Hot)

1. $7453 \div 3 = 2484 \frac{1}{3}$

2. $8342 \div 5 = 1668 \frac{2}{5}$

3. $2589 \div 3 = 863$

4. $3801 \div 7 = 543$

5. $5124 \div 6 = 854$

6. $3456 \div 5 = 691 \frac{1}{5}$

7. $8346 \div 4 = 2086 \frac{1}{2}$

8. $7621 \div 6 = 1270 \frac{1}{6}$

9. $2897 \div 3 = 965 \frac{2}{3}$

10. $3247 \div 4 = 811 \frac{3}{4}$

11. $6532 \div 6 = 1088 \frac{2}{3}$

12. $5214 \div 8 = 651 \frac{3}{4}$