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How to use this book

Rapid recall of times tables facts up to 12×12 by the end of Year 4 is a key expectation for all children in England. In fact, so key that all children will sit a Times Tables Check at the end of Year 4 from 2020.

Why are the times tables important?

They support mathematical learning and understanding. If you know your times tables, this frees up space to learn and work on new mathematical concepts and problems. And, as you know, we use them all the time in daily life, for example we use them when working out costs, doubling recipes or finding out how much we will need of something (for example, *we need to put 6 chairs at each of the 8 tables. 8×6 , we'll need 48 chairs*).

How does *Times Tables* help children master multiplication?

This *Practice Book* aims to give children the chance to practise their times tables, deepening their understanding as well as increasing their rapid recall. This means they understand the 'how and why' of multiplication as well as being able to answer multiplication facts quickly. They will understand, for example:

- ▶ You can multiply two numbers in any order and the answer will be the same:
If you know $2 \times 5 = 10$, then you know $5 \times 2 = 10$.
- ▶ You can break up a multiplication fact:
Don't remember 6×4 ? What if you think about it as $4 \times 4 + 2 \times 4$?
- ▶ Multiplication is repeated addition:
 $7 \times 2 = 2 + 2 + 2 + 2 + 2 + 2 + 2$
 $8 \times 2 = 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2$
This means that if you know that $7 \times 2 = 14$, then 8×2 will be two more.

How can you help?

- ▶ Encourage short bursts of practice. Focus on a couple of tables in the first instance and move on to others once your child is confident.
- ▶ Talk about the times tables. Encourage your child to think about what they know and explain their thinking. You'll have opportunities to do this throughout this *Practice Book* as well.
- ▶ Look for real-life situations for your child to use the times tables. Seeing how you use what you know and showing off what you already know is a great motivator.
- ▶ Remind your child that our brains are growing when we make mistakes. Celebrate this growth!
- ▶ Speed may be important but can also cause many children anxiety. Focus on understanding multiplication and rehearsing the times tables in fun ways. Speed will come in time!

Track your progress online using our *free* Times Tables Check:
www.scholastic.co.uk/timestables

Advice for children

This book is full of practice questions and activities to help you master your times tables.

Each unit focuses on a different topic or times table.

This box helps you review a topic before you get practising.

Work through the questions in order.

Explaining helps you understand. Be sure to share what you know with a friend or an adult.

7 Patterns in the tables

The times tables are full of hidden relationships, patterns and unusual facts.

There are numbers that appear several times, numbers that only appear once, and numbers that don't appear at all. What's more, there are numbers that have connections to each other. Understanding all these facts will improve your mathematics.

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

The diagonal line shows all the numbers that are multiplied by themselves, for example, 4×4 . These are the 'square numbers'.

Look carefully at the other two areas – they are like mirror images of each other.

Each fact in the top half has a 'partner fact' in the bottom half, like $3 \times 4 = 12$ and $4 \times 3 = 12$.

Now try this

1 Explain to an adult why 18 appears four times on the times tables square, but 16 only appears three times.

2 Only one quarter of numbers on the times tables square are odd. How many is that?

Explain to an adult the pattern the odd numbers make and why there are more even numbers.

3 Look at the times tables square and answer these questions.

a. What are the most frequent numbers and how many times do they occur?

b. Which numbers appear four times?

c. List all the numbers that appear only once on the times tables square.

d. List 6 numbers between 1 and 32 that are not on the times tables square.

4 24 books are shared equally onto shelves, with no books left over. How many shelves might be needed, and how many books would be on each shelf? How many possible combinations can you find?

Use a separate piece of paper for calculations if you need to.

Choose a number from the times tables square, and challenge an adult to say every way that it can be made. Can they find all the ways?

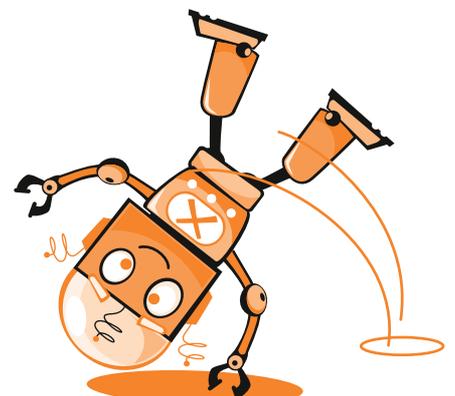
Try these questions to extend your learning and deepen understanding.

Use a separate piece of paper if you need more space.

These fun activities will help you recall your times tables facts outside of the practice book.

Times Tables tips

- ▶ Don't rush through the units. Concentrate on one unit at a time. Record your progress using the chart on page 45.
- ▶ Celebrate what you already know and think more deeply about it.
- ▶ Challenge yourself to master any parts you find tricky. Make your brain grow!
- ▶ Use equipment or draw pictures to help you. They are fantastic tools!
- ▶ Focus on memorising one or two times tables at a time. Master them, then move on to new ones.
- ▶ Times tables speed is great, but understanding is best.
- ▶ Look for opportunities to use your times tables every day, for example work out how many minutes you spend each week brushing your teeth.
- ▶ Keep trying. Keep thinking and exploring. You can do it!

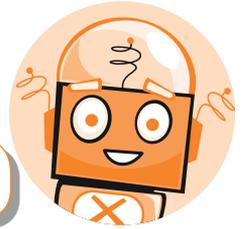




Mixed tables test: 2, 3, 5, 6, 9, 10

These tests check your knowledge of all the times tables.

Use your tables skills wisely!



TEST 1

a. $2 \times 6 =$

b. $2 \times 8 =$

c. $6 \times$ $= 30$

d. $10 \times 9 =$

e. $5 \times 3 =$

f. $6 \times 1 =$

g. $3 \times$ $= 24$

h. $10 \times$ $= 100$

i. $2 \times$ $= 8$

j. $3 \times 4 =$

k. $5 \times$ $= 35$

l. $3 \times$ $= 36$

TEST 2

a. $10 \times$ $= 50$

b. $3 \times 11 =$

c. $2 \times$ $= 20$

d. $2 \times$ $= 6$

e. $10 \times 4 =$

f. $9 \times$ $= 36$

g. $5 \times$ $= 25$

h. $6 \times 6 =$

i. $9 \times 5 =$

j. $6 \times$ $= 18$

k. $6 \times 8 =$

l. $9 \times 12 =$

TEST 3

a. $\times 9 = 81$

b. $5 \times 8 =$

c. $\times 11 = 22$

d. $3 \times$ $= 18$

e. $3 \times 9 =$

f. $5 \times$ $= 20$

g. $\times 3 = 30$

h. $9 \times 6 =$

i. $\times 12 = 72$

j. $2 \times 12 =$

k. $5 \times$ $= 60$

l. $\times 12 = 120$

7

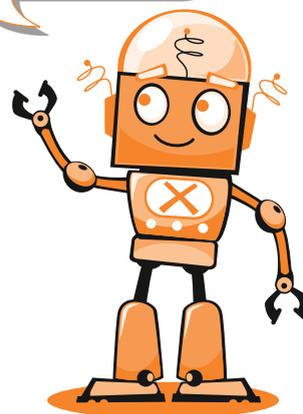
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6	6	12	18	24	30	36	42	48	54	60	66	72
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8	8	16	24	32	40	48	56	64	72	80	88	96
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This makes learning the tables a bit easier!



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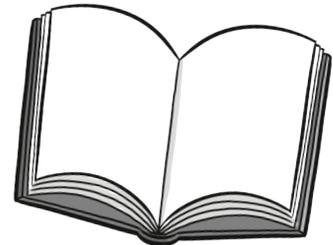
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12-minute times tables

This is a game for 2 players.

You will need:

two different-coloured pencils; two 6-sided dice; a timer

	1	2	3	4	5	6	7	8	9	10	11	12
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

Take turns to roll the two dice. You may either:

- Write both the products of the two numbers you roll, for example if you roll 4 and 5, write 20 twice.
- Double the value of one or both of the dice then find their product, for example double 4 is 8 and double 5 is 10, $8 \times 10 = 80$ so write in 80 in both squares.
- Whoever has the most numbers written in 12 minutes wins.

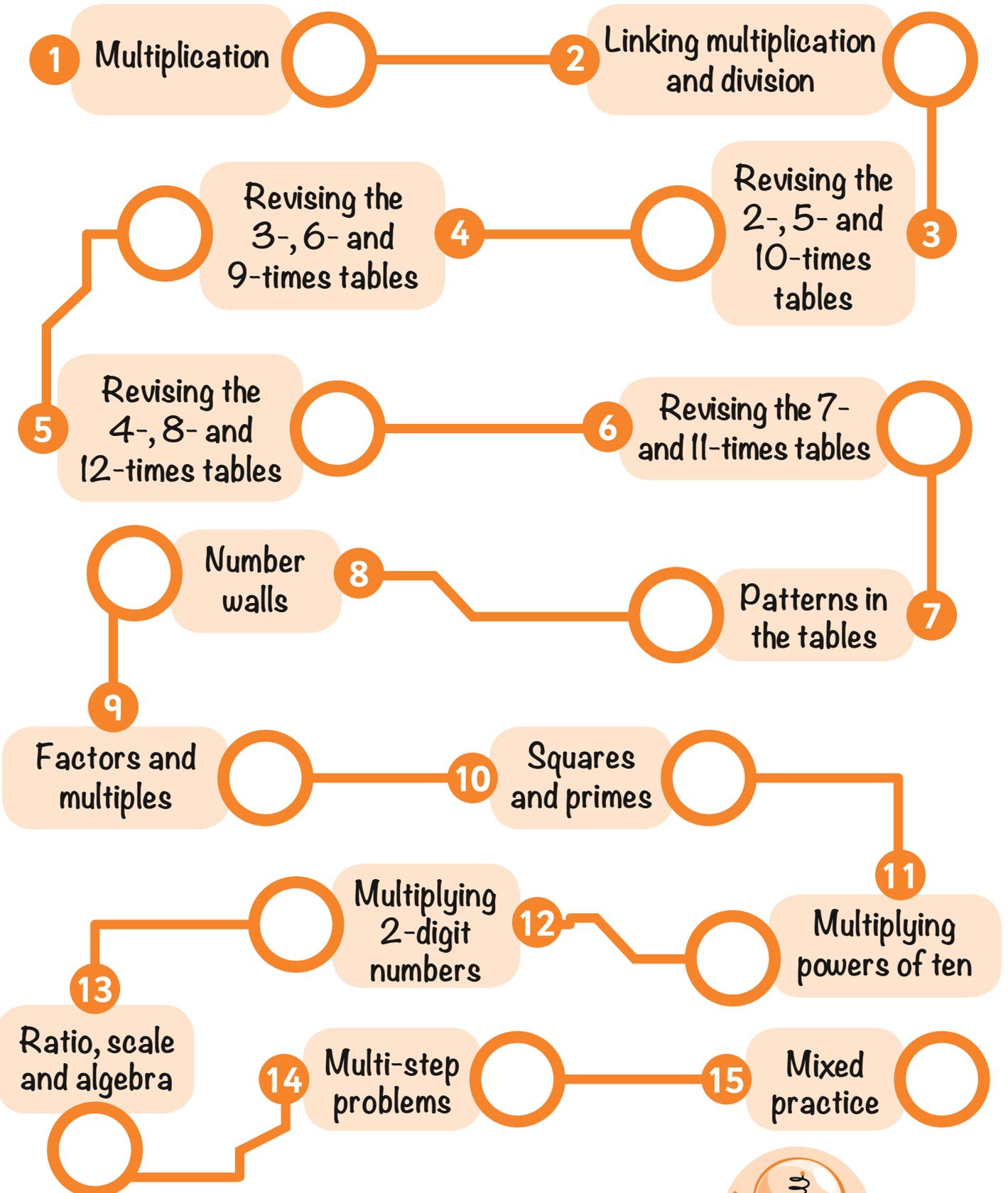


Progress chart

Work through one unit at a time before moving on to the next one.



Making progress? Tick (✓) the circles as you complete each section of the book.



Well Done!

