

# WELCOME TO THE YEAR 4 TIMES TABLE MEETING

## AIMS OF THIS MEETING

- Improve understanding of the Times Tables expectations of the National Curriculum
- Explore different areas that link to Times Tables
- ‘Jargon bust’ terms from the curriculum
- Share information about the Year 4 Multiplication Check
- Familiarise with methods and strategies to support learning Times Tables at home through a carousel of activities

For Year 4, times table knowledge is central, especially as students are expected to know all times tables up to 12 by the end of the year. Here's a breakdown of curriculum objectives that connect to times tables for Year 4:

### Multiplication and Division Facts

- Recall and use **multiplication and division facts** for multiplication tables up to  $12 \times 12$ .
- **Count in multiples** of 6, 7, 9, 25, and 1,000.
- Recognize and use **factor pairs and commutativity** in mental calculations.

### Mental Calculation Strategies

- **Use place value, known and derived facts to multiply and divide** mentally, including: multiplying by 0 and 1; dividing by 1; and multiplying together three numbers.
- Multiply two-digit and three-digit numbers by a one-digit number using **formal written layout** (e.g., grid or column method).

## Understanding Multiplication and Division Concepts

- Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one-digit, integer scaling problems, and harder correspondence problems (e.g.,  $n$  objects are connected to  $m$  objects).

## Fractions (Related to Multiplication and Division)

- Recognize that fractions can be related to division (e.g., a quarter of 12 is equivalent to  $12 \div 4$ ).
- Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.

## Application in Word Problems

- Apply times table knowledge to solve contextual problems, such as those involving measures (e.g., lengths, masses, capacities), money, and time.

# COMMUTATIVITY

It doesn't matter what order the numbers are in a multiplication equation

5 x 4 is the same as 4 x 5

6 x 3 is the same as 3 x 6

4 x 7 is the same as 7 x 4

What is more efficient?

4 x 7? = 7, 14, 21, 28


Or

7 x 4 = 4, 8, 12, 16, 20, 24, 28

# FACTOR PAIRS

3 x 8 If we have to multiply 8 by another number, we can multiply the number by 4 and then double (x2).

$$3 \times 8 =$$


$$3 \times (2 \times 4) =$$
$$3 \times 4 \times 2 =$$
$$12 \times 2 = 24$$

# FACTOR PAIRS

Strategies for learning larger time tables (11-20)

Even numbers (12, 14, 16, 18 and 20)

Use factor pairs!

Eg- for 14x, we know that  $14 = 7 \times 2$

So if we have to multiply 14 by another number, we can multiply the number by 7 and then double (x2).

$$\begin{array}{l} 14 \times 8 = \\ \swarrow \quad \searrow \\ 7 \times 2 \times 8 = \\ 8 \times 7 \times 2 = \\ 56 \times 2 = 112 \end{array}$$

It takes some practise but we can become very quick and fluent once we have the mental process in place! Also, these times tables come up on 120 times table C and D tests so worth learning.

# USE KNOWN AND DERIVED FACTS TO MULTIPLY AND DIVIDE

In school we use the phrase “If I know..., Then I know...”

Buy one, get three free

When we know a times table fact, we can **derive facts** from this fact

For example, if we know  $3 \times 4 = 12$ , then we know that

$$12 = 4 \times 3$$

$$12 \div 3 = 4$$

$$12 \div 4 = 3$$

It is really useful to practise this, as division comes up a lot in tests to try to trick children out, when all we need to know is one times table fact!

# USE PLACE VALUE TO MULTIPLY AND DIVIDE

If I know  $4 \times 8 = 32$ , then I know...

$$40 \times 8 =$$

$$0.4 \times 8 =$$

$$\underline{\quad} \times 0.8 = 3.2$$

etc



# FORMAL WRITTEN LAYOUT

Multiplication



Short Multiplication



1)  $957 \times 6 =$

	9	5	7
x			6

2)  $639 \times 8 =$

x			

3)  $4,876 \times 9 =$

x			

4)  $9,386 \times 7 =$

x			

# 'DISTRIBUTIVE' LAW (PARTITIONING)

Sarah has 23 packs of stickers. Each pack contains 6 stickers. How many stickers does she have altogether?

How to Solve Using the Distributive Law:

1. Break down (Partition) the number 23 into 20 and 3 (since  $23 = 20 + 3$ ).
2. Then, multiply each part by 6:
  1.  $20 \times 6 = 120$
  2.  $3 \times 6 = 18$
  3. Add the results together:
  4.  $120 + 18 = 138$
  5. Answer:

Sarah has 138 stickers altogether.

# INTEGER 'SCALING'

Question:

Ben has a ribbon that is 8 cm long. His sister needs a ribbon that is 3 **times** longer than Ben's ribbon. How long is her ribbon?

How to Solve Using Integer Scaling:

1. **Understand the problem:** Ben's sister needs a ribbon that is 3 **times** as long as Ben's ribbon.
2. **Multiply Ben's ribbon length by 3:**
  1.  $8 \times 3 = 24$
  2. **Answer:** Ben's sister's ribbon is 24 cm long.

8	16	24
8		

# CORRESPONDENCE PROBLEMS

Amy is setting up a display table with 5 rows of gift bags. She places 4 gift bags in **each** row. How many gift bags does she have on the table altogether?

How to Solve Using Correspondence:

1. Identify the **groups**: Amy has 5 rows, and each row has 4 gift bags.
2. Multiply the number of rows by the number of bags **per** row:
  1.  $5 \times 4 = 20$
3. Answer: Amy has 20 gift bags on the table.

20				
4	4	4	4	4

Groups  
Sets  
Lots  
Boxes  
Rows  
Columns

# CONTEXTUAL PROBLEMS

## 'Real Life' Maths

- Money (& decimals)
- Telling the time, days of the week, calendars, train/bus timetables
- Measurements- cooking, art projects
- 'Magnitude' of number- how many people attend a football match? Would you really use 300kg of sugar or 300g?

# OTHER AREAS OF MATHS THAT LINK TO TIMES TABLES IN YEAR 4 AND BEYOND...

## **Year 4**

Multiplication and Division (times tables)  
Scaling and Enlarging  
Factors and Multiples  
Mental Math  
Area of Rectangles  
Division and Repeated Subtraction  
Fractions

## **Year 5**

Multiplication and Division (Times Tables Review)  
Prime Numbers  
Factors and Multiples  
Fractions and Division  
Multiplying and Dividing Decimals  
Volume of Cubes and Cuboids  
Decimals Percentage

## **Year 6**

Multiplication and Division  
Fractions, Decimals, and Percentages  
Ratio and Proportion  
Algebraic Thinking  
Long Division  
Area, Perimeter, and Volume  
Multi-Step Problems

# THE MULTIPLICATION CHECK...

## Do you have a child in year 4 at primary school?

If so, your child will be participating in the multiplication tables check (MTC) in June.

The purpose of the check is to determine whether your child can fluently recall their times tables up to 12, which is essential for future success in mathematics. It will also help your child's school to identify if your child may need additional support.

## What is the multiplication tables check?

It is an on-screen check consisting of 25 times table questions. Your child will be able to answer 3 practice questions before taking the actual check. They will then have 6 seconds to answer each question. On average, the check should take no longer than 5 minutes to complete.

## What if my child cannot access the check?

There are several access arrangements available for the check, which can be used to support pupils with specific needs. Your child's teacher will ensure that the access arrangements are appropriate for your child before they take the check in June.

The check was designed to be inclusive and accessible to as many children as possible, including those with special educational needs or disability (SEND) or English as an additional language (EAL). However, there may be some circumstances in which it will not be appropriate for a pupil to take the check, even when using suitable access arrangements.

If you have any concerns about your child accessing the check, you should discuss this with your child's headteacher.

## Do I need to do anything to prepare my child for the check?

No, you do not need to do anything additional to prepare your child for the check. As part of usual practice, teachers may ask you to practise times tables with your child.

Schools will have unlimited access to a 'try it out' area from April. They can use this to make sure pupils have the necessary support to access the check. This includes opportunities for pupils to familiarise themselves with the check application and try out any access arrangements that may be required.

## How will the results be used?

Schools will have access to all their pupils' results, to allow them to identify pupils who need additional support.

## Will I receive feedback on my child's check?

Yes. Your child's teacher will share your child's score with you, as they would with all national curriculum assessments. There is no pass mark for the check.



## JAMMING

Take it easy



## GIG

Perform once a month



## GARAGE

Complete your heatmap



## STUDIO

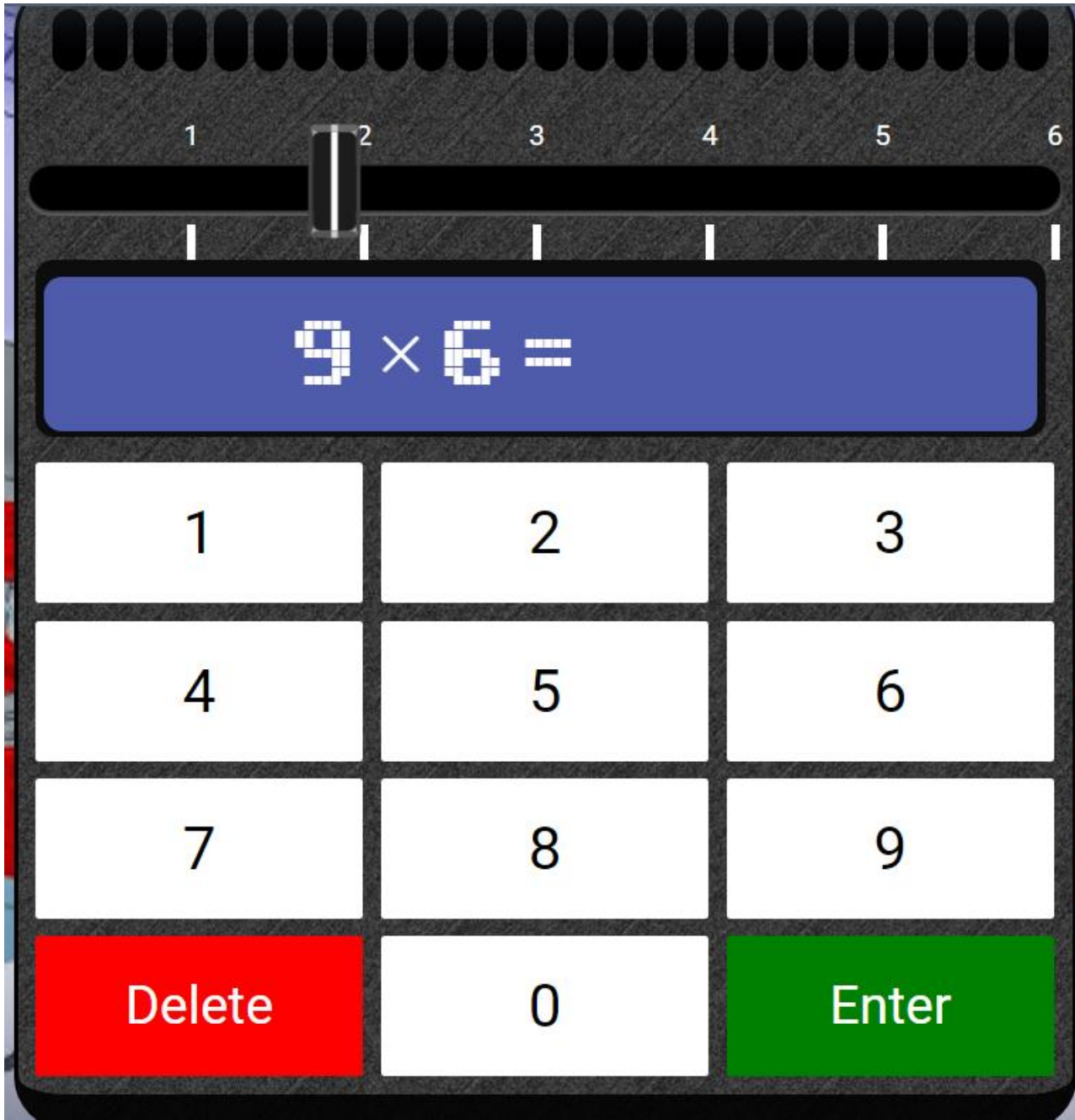
Get a rock status



## SOUNDCHECK

Beat the clock





# HOW TO PRACTISE

- TT Rockstars – same format as actual test
- All the other ways in the booklet and carousel!

# HOW TO BUILD CONFIDENCE AND SUPPORT CHILDREN

## Growth Mindset

'I can't do this.. yet'

'I'm stuck... for now'

## Learning attitudes

Take a **risk**, you might get it right

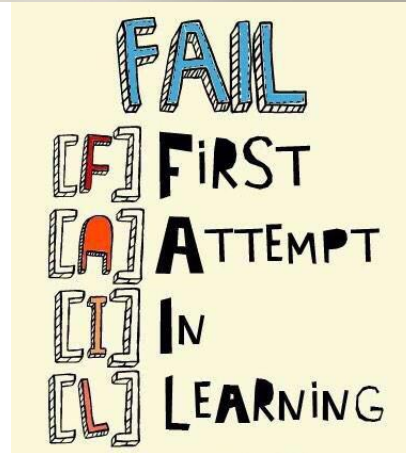
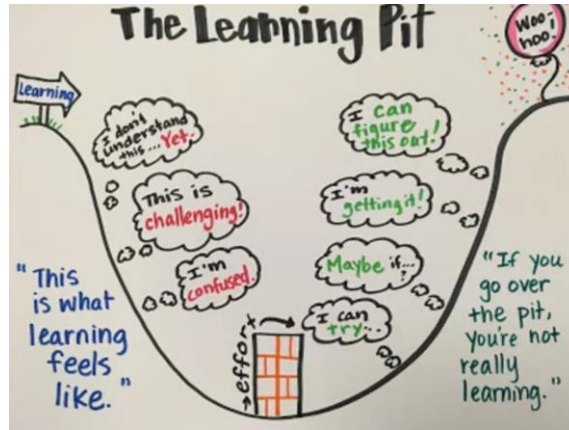
## Be resilient

Keep **persisting** - 'Don't practice until you get it right, practice until you can't get it wrong'

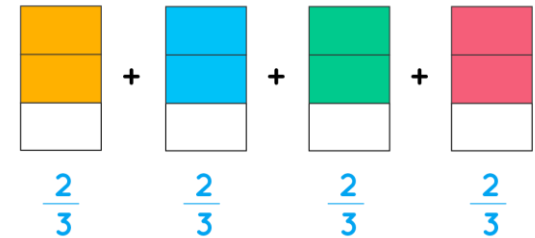
Can you think of an **original** way of tackling this?

If you make a mistake, can you **reflect** on it?

Let's **collaborate** & work on this together



## Provide a visual



$$4 \times \frac{2}{3} = \frac{8}{3}$$

## Check the understanding of the Language

Use the Stem Sentence and Language Progression documents for this

Don't be afraid to make mistakes too!

# TIPS

- Use a computer with a keyboard is preferred- they will complete the check using the school laptops so better to get in the habit
- Make sure you are using the correct mode- ‘Soundcheck’
- Reflect- Make notes of common mistakes and learn that particular fact. Come up with a memorable rhyme eg I ate and ate til I was sick on the floor, 8 times 8 is 64.
- Build confidence and growth mindset- “You don’t know this table/fact YET”
- Build in competition against themselves- try to beat their own time

# WHITE ROSE PARENTS' SECTION

## Enjoy maths together all year round

Here's another great way for your primary-aged child to enjoy maths at home. Our FREE workbooks for Years 1 - 6 give children and parents an extra tool for enjoying maths together.

[DOWNLOAD NOW](#)
[DOWNLOAD FROM AMAZON](#)



## Get the free workbooks

Year 1      Year 2      Year 3      **Year 4**      Year 5      Year 6



Autumn Block 1  
Place value



Autumn Block 2  
Addition and subtraction



Autumn Block 3  
Length and perimeter

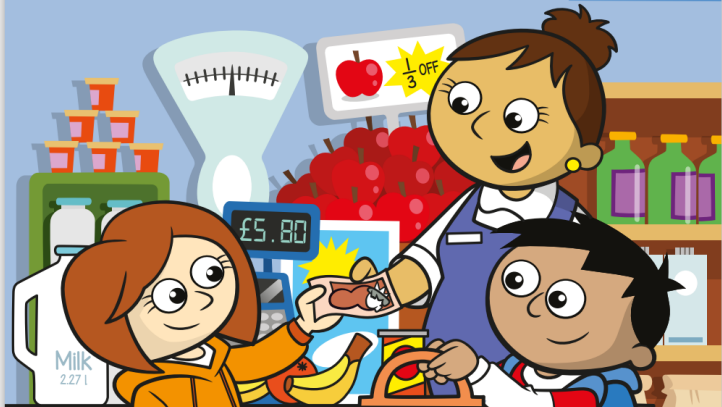


Autumn Block 4  
Multiplication and division



Spring Block 1a  
Multiplication and division  
(a)

## 4 MULTIPLICATION AND DIVISION

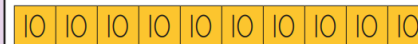


1 Match the statements to the bar models.

7 bags of 10 sweets



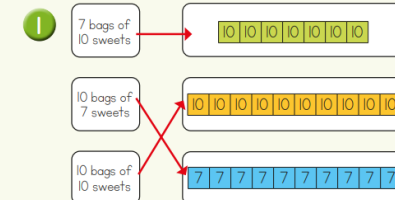
10 bags of 7 sweets



10 bags of 10 sweets



## Answers



# CAROUSEL

Board

120 tables  
tests

Booklets

TT  
Rockstars  
laptops

TT  
Rockstars  
ipads

Fractions

Area, factors  
and multiples

Make a  
game