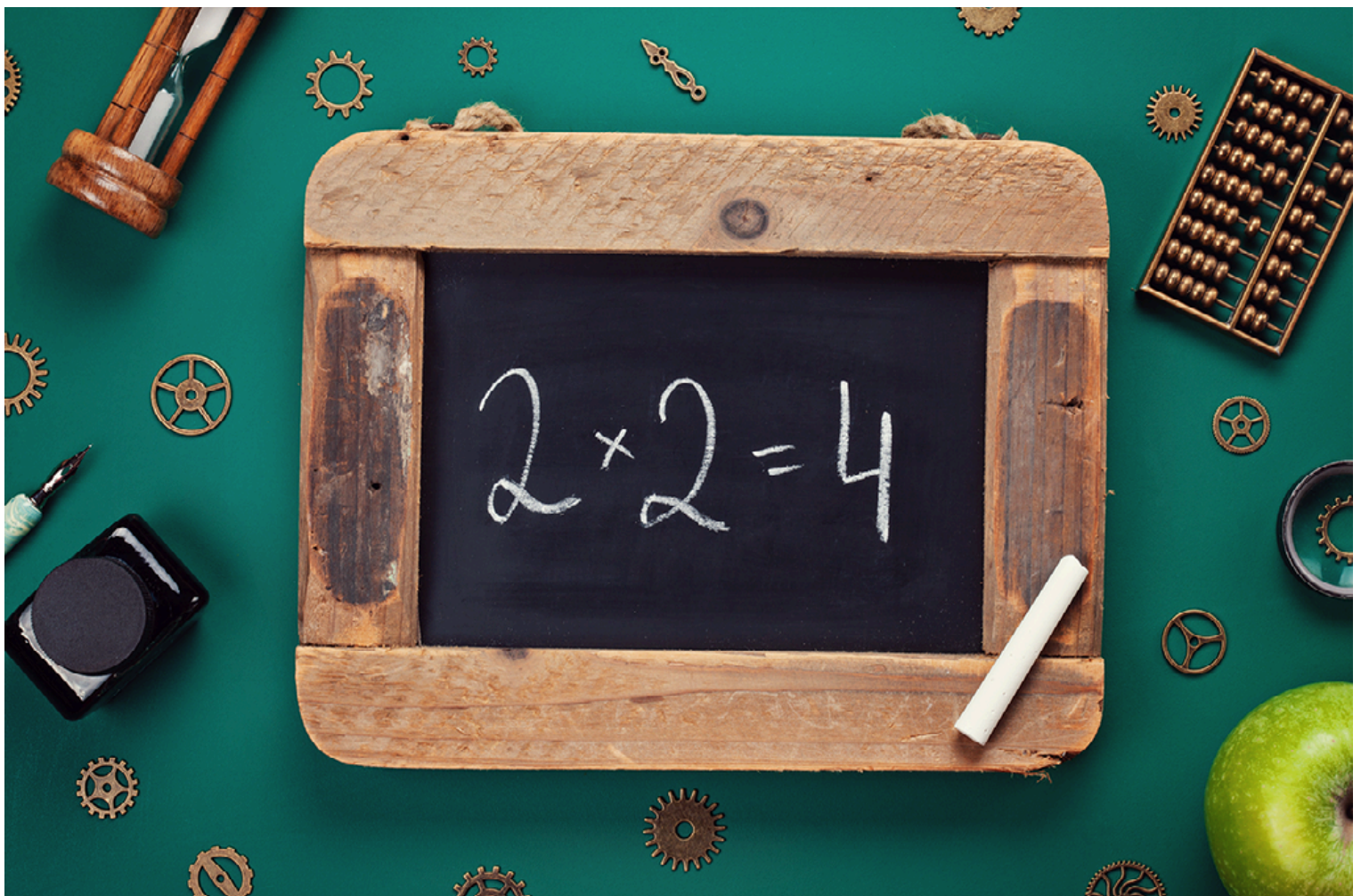




Times Tables Approach

West Meadows Primary School

Why do we learn times tables?



In primary education, knowing times tables is essential for quick mental arithmetic and tackling problems, as well as for many KS2 topics such as division, fractions, and percentages. As pupils move into secondary school, strong multiplication skills provide valuable support when beginning algebra, and are equally important in subjects like chemistry, physics, biology, and computing, all of which rely heavily on mathematical understanding.

Is chanting enough?

Rote learning isn't enough to help children recall or apply their tables facts and a strategy-based approach is required to allow children to understand and make use of the properties of and connections within maths.

What are the expectations of each child?

EYFS focus on the development of number patterns and repeated addition.

Y1 pupils will explore 2, 5 and 10 times tables throughout the year.

Doubling <i>'Lots of' linked to doubling</i> Numicon & other objects to show doubles Show doubles in an array Hide half of an amount & predict what's hiding Double the number on a dice	Count in 2's <i>Repeated addition</i> How many lots of or groups of Part: part whole model- give the whole and how many equal groups fit? Counting stick- 2's - remove and guess	Count in 2's <i>Real life problems involving concrete</i> Use arrays to show counting in 2's and doubling Group spots or crosses within an array to show double 5 Numberline- does it show 2 lot of 5 Or 5 lots of 2?
Y1 underlying skills Times tables HCAT		
Count in 10's <i>Repeated addition</i> Lots of and x symbol used Place tens on 100 square to show relationship Bead string to show ones in ten Move onto counting stick Card with multiples of ten on - jumble up	10x table <i>Make arrays to show repeated addition & different multiplications</i> Draw arrays to show repeated additions & vice versa	5x table <i>Become confident with repeated addition</i> Use ten frames to make links between 5's and 10's Use part: part whole model with groups of 5 Discuss the commutative property Counting stick jumping in 5's 100 square- show relationship visually between 5's & 10's

Y2 pupils will be taught 2, 5, 10, with the more able also covering 3 times tables.

Doubling

Revise doubling and use partitioning to work out new facts up to $10 + 10$
Use facts to work out $7+7$ ($5+5$ $2+2$)
Continue with repeated addition & arrays

Count in 2's

Reading and recording repeated addition can be time consuming so push lots of
Explore different ways to represent multiplication – show 3 lots of 2 as a repeated addition, 100 square, number line or array
Include examples of $x1$ and $x0$
Use the x symbol as the quickest way
Counting stick – missing numbers

2x table

Link $x2$ to doubling
Twice as much and two times
Match calculation to concrete resources
Investigate 2 lots of 5 = 5 lots of 2 prove it
Write calculations that have the same value
6 lots of 2 and 2 lots of 6
Show this using bar model or part, part whole

42 underlying skills

10x table

Explore repeated addition and then compare it to lots of $10+10+10+10=4$ lots of 10
Show $10x10$ peg board
How many 10's in 40, 50 etc
Explore relationships on counting stick
Part part whole, what would we $x10$ by to get the whole?

10x table

Investigate ten times greater than
Make arrays
What happens when we make 1's ten x bigger?
Use visuals – what's the same/different?
Explore multiples of 10

Times tables HCAT

5x table

Show jumps of 5 on a numberline
Write repeated additions and represent with concrete
Counting stick to show relationships
Explore known facts, what would $11x5$ $12x5$?
Match calculations to arrays, rep add, ppw model
Use and solve problems on an empty num line

5x table

Exploit doubling linked to 5's & 10's
Make arrays to show multiplication and division
Explore the commutative property
Explore bar model $5x4$ then $4x5$
What's the same & different?
Make links $5x10=50$ so what is $5x5$?
Compare multiplication facts \leftrightarrow

3x table

Explore 3x table using repeated addition & concrete
Use counting stick to explore 3's pattern and known facts
How can 10×3 help you answer 5×3 ?
Ensure the 7th and 10th multiple is focused upon
Discuss how this strategy can help with other multiples
Look at tripling a number – triple 4 = 4×3
Show 6 lots of 3 predict 12 lots of 3 etc

Y3 will continue to work on 2, 5 and 10 times tables and also 4 and 8s.

Doubling

Revise doubles up to $12+12$

Double multiples of 10

Double multiples that end in 5

Bring doubles/near doubles when working with money, measures etc
When doubling make links to $\times 2$ (mental strat)

What is double 56? Strategies?

Distributive & associative law

Explore the distributive ($4 \times 5 + 4 \times 5 = 8 \times 5$)

Explore the associative ($2 \times 4 \times 5$)

Draw arrays and number lines to represent calculations based around the distributive law

Explore the effect of multiplying by 10 using part whole and bar models
 10×20 so predict 10×40 etc

Make links between known facts. I know $3 \times 4 = 12$ so I know 3×40 4×30 etc

Explore cuisine rods/number pieces. If each

piece is worth one whole how many quarters in 123?

How many quarters in 5 whole ones- notice?

Make links between quarters and dividing by 4

Quarter a whole by halving and halving again

Give $\frac{1}{4}$ on a bar model to find the whole amount

Y3 underlying skills

4x relationships

Revise repeated addition until secure

Counting stick method to explore relationship between 4's

Ensure discussion on 11×4 and 12×4

Focus upon $\times 8$ and $\times 9$

Explore numbers below 40, which are multiples of 4?

Solving missing num questions making links

4x table

Ensure doubling is secure

Explore arrays and decide what calculation they show

Link 4x table to 2x table - what would the array look like?

Explore if multiples of 2's are also multiples of 4's

Explore & explain incorrect multiplication q's

Reasoning- $5 \times 4 > \underline{\quad}$ What could go there? What couldn't?

Times tables HCAT

8x table

Chd should know facts from 0×8 to 5×8 from previous x tables & quickly know $\times 9$ 10 11

The only new facts are 6×8 7×8 8×8

Use counting stick starting with 4's and make links to 8's

Explore different ways to find table facts

8×8 could be double 4×8

Always sometimes never. A multiple of 4

Is always a multiple of 8? Etc

8x table

Discuss making an amount 8 times bigger

Match repeated addition and multiplication calc to

Concrete and visual arrays

Explore how many 4's would be in 9 8's etc- why?

How many ways can you find 8×9

Make arrays with ones and apply to tens etc

Make links between single digits and larger numbers

Link eighths to fractions.

How many eighths make 1 whole?

How do quarters link to eighths?

How many quarters would six eighths make?

Y4 pupils should know all the times tables – they will need regular practise opportunities and should be able to mix times tables confidently.

Associative property

Investigate and talk about the associative property

$$8 \times 6 = 2 \times 4 \times 6$$

Explore breaking down arrays into smaller groups

Use multi link to make cupsticks to show associative

$$6 \times 2 \times 3$$

Compare calculations and predict who will need to most cubes

Investigate cuboids with a given amount of cubes

6x table

Ensure doubling halving and bridging are secure
Most x6 tables are already known from related x tables

Only 6x6 and 6x7 are new

Use counting stick to make links to the 6x tables

Use part-part-whole models- given answer how many parts?

Use and explore relationships- if 6x6 is 36 then what will 12x6 be?

Make links to fractions. How many sixths in 123 wholes?

Are there links between 3's and 6's? Explore

Explore two digit numbers below 60- which are multiples?

6x table

Make links between x6 and x3 and between x6 and x5

Look at making something 6 times greater

Look at an array for 3x4- predict what 6x4 would be

Link tens to arrays - if we know 4x6 what would 40x60 be?

Distributive property explored when using 2d num

17x6- 10x6 and 7x6

Explore misconceptions within reasoning

Y4 underlying skills

9x table

Explore the facts already learnt through other x tables

Use the 10x table to help with the 9x

Use counting stick method to link to known facts

Circle multiples of 10 on 100grid

How can this be used to identify the 9x table?

(Add 10 and subtract 1)

11x table

Look at the pattern of the 11x table

Use the 11x table

to link to all the other x tables

Times tables HCAI

12x table

Link back to the 6x table facts using counting stick

Make links to the 6x and 12x through doubling

Break down the 12x table

$$12 \times 8 = 10 \times 8 \text{ and } 2 \times 8$$

7x table

Compare repeated addition & multiplication calcs

Use counting stick method to explore relationships

How can 3x7 help you find 6x7

How can x5 and x2 help to find x7?

How can 6x7 help you find 6x70 etc?

Y5 and 6 pupils will continue to rehearse and develop their times table skills using larger numbers.

<h2>Larger numbers & decimals</h2> <p>Multiply and divide numbers mentally linking to known facts Explore ways to find 17×6 ($17 \times 2 \times 3$ or 34×2 - explore) What would 70×6 be? And 17×6? Use visuals to show doubling one side and halving the other Count forwards and backwards in powers of 10 Multiply and divide by 10, 100, 1000 including decimals</p>	<p>Link table facts to new facts - counting stick 40, 80, 120... 0.4, 0.8, 1.2 Generate & describe linear sequences Explore fact families including decimals Is $7 \times 0.4 = 4.2$ what would 7×1.4 be? Convert between metric measurements Use 6x table linked with time 60, 120, 180 etc</p>	
<h1>Y5/6 underlying skills</h1>		
<h2>Prime</h2> <p>Explore numbers 1-20, which can only make a rectangle from a single line of cubes Which can't be prime? Why?</p>	<h2>Cube</h2> <p>Get 16 multi-link cubes, how many diff cuboids can you make? Investigate which numbers make a cube, why? Can chd calculate the volume of the cube quickly? Make links to multiplication here. Mentally start to generate cube number answers</p>	<h2>Times tables HCAT</h2>
<h2>Multiples, factors & square</h2> <p>Make links to multiplication by finding factor pairs If ten is a factor of the number what else will be? What amount of cubes would only make a square? How are these square numbers? Draw rectangles to show factor pairs then draw on factor rainbow Link to other areas of maths. A rectangle has an area of 48cm squared What could it's sides be? (Factor pairs/rainbow)</p>	<h2>F.D.P</h2> <p>When looking at fifths, discuss how many tenths are equal If you know what a whole looks like what would a tenth look like? Colour $1/10$ of 100 square is that is the whole If $3/8$ of a number is 21, what will $6/8$ be? Explore diff denominators when + & - fractions Convert between decimals and % x10/100</p>	

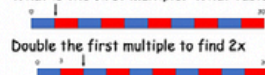
How do we teach Times Tables across school?

Our policy will share a number of ideas for the teaching of key strategies in KS1 and KS2 and provide ideas to support children in developing rapid recall of times tables through understanding the underlying structure of and relationships with multiplication.

Counting stick

This is a wooden stick, one metre long, divided into ten equal parts. If you don't have one, a metre stick can easily be converted using tape to divide. An empty number line can also be used in the same way. This is a powerful way to represent number relationships and can also be used in Foundation Stage for counting in ones and finding missing numbers. Example below is for 3x table but can be adapted for any.

What is the first multiple? What table are we exploring?



Double the first multiple to find 2x



Discuss how the 4th multiple can be found by doubling the 2nd multiple.



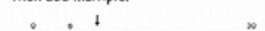
The 9th multiple can be found by subtracting one multiple from the 10th multiple, i.e. 30-3).



5th multiple - halve the tenth multiple).



3rd multiple - triple the first multiple or double then add multiple.



6th multiple - double the third multiple,



2x3



4x3



9x3



5x3



3x3



6x3



Multiplication Grids

With older children, multiplication grids can be rearranged to highlight the links between different tables, investigate patterns and help reduce memory load. Some examples are given below.

It is important to focus upon making links to known facts and stressing that often one fact can help find another.

	1x	2x	3x
1	1	2	3
2	2	4	6
3	3	6	9
4	4	8	12
5	5	10	15
6	6	12	18
7	7	14	21
8	8	16	24
9	9	18	27
10	10	20	30

Fill in the tables grid for your 1 and 2 times table. Now fill it in for your 3x table. What do you notice? This strategy could be adapted to show the link between 10x, 5x and 15x.

Use the tens times table to help find your 5x facts.

	10x	5x
1	10	5
2	20	10
3	30	15
4	40	20
5	50	25
6	60	30
7	70	35
8	80	40
9	90	45
10	100	50

This could be adapted to explore multiplying by twenty or to explore the link between x1 and x0.5 (or $\times \frac{1}{2}$) as well as other obvious doubling relationships (twos/ eights or threes/ sixes/ twelves).

Fill in the tables grid for your 10 and 1 times table. Now fill it in for your 9x table.

	10x	1x	9x
1	10	1	9
2	20	2	18
3	30	3	27
4	40	4	36
5	50	5	45
6	60	6	54
7	70	7	63
8	80	8	72
9	90	9	81
10	100	10	90

What do you notice? Why does this happen? Can you prove it? Does it work with other numbers? Can you use this to find new facts?

Fill in the tables grid for your 10 and 2 times table. Now fill it in for your 8x table.

	10x	2x	8x
1	10	2	8
2	20	4	16
3	30	6	24
4	40	8	32
5	50	10	40
6	60	12	48
7	70	14	56
8	80	16	64
9	90	18	72
10	100	20	80

How do we keep it engaging?



Times table Activity Ideas

Card shuffle



Deck of cards shared with class. Children to turn over cards and they have to multiply the numbers together. Playing cards to be stuck around the room, children to go around and multiply the cards together against each other.

Relay race

Times tables on large piece of paper. Positioned for each table to have a relay race based on specific times tables. Play music as children race to answer the times table questions. Differentiate depending on focus times tables.



Ping pong

Children to play ping pong saying multiples of a specific number as they bat/ throw the ball to each other. This can be done with a ball or an imaginary one.

Music jingle



Use times table jingles off Youtube to encourage children to sing their times tables. Share them on your class blog and encourage children to watch them at home. Could children create their own music jingles and record for other classes in school?

Repetition. Repetition.



Encourage children to chant the times tables as a class or group. Could they chant as they line up at playtime? Think about specific times of the day that children can utilise for the repetition of times tables.

Rock, paper..

Children pair up and play rock, paper, scissors. When they say scissors, they show a certain amount of fingers each and they have to multiply them both together and say the answer as fast as they can.



Ball mix up

Plastic balls could have answers on to specific times tables. Question shared with class on IWB. Children have to find the answers in teams. Balls could have numbers on and children pick two and multiply them together.



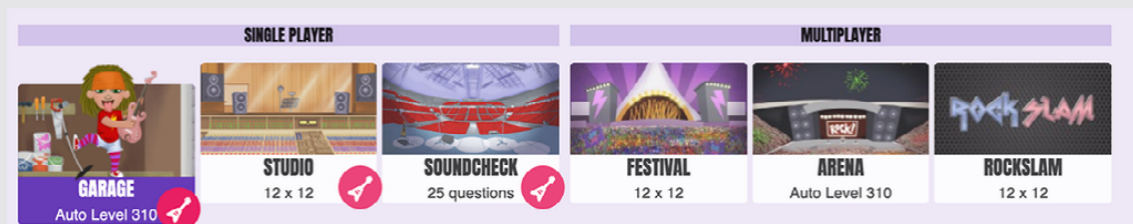


Times Table Rockstars: Tracking, improve and assess pupils times table knowledge

How do we baseline children?

Using TTRS, the baseline is needed to see and compare improvement. When using the iPad the baseline simply requires playing a 'Gig' game. This issues 100 multiplication questions on the 10s, followed by 10 questions on each of the 2s, 5s, 3s, 4s, 8s, 6s, 7s and 9s and then 5 questions on the 11s and the 12s. There is a 5 minute time limit and pupils will not necessarily get round to answering all 100 questions during that time which is fine.

After the gig, pupils will be placed at the best starting point on the training course. IMPORTANT: Automatic training mode needs to be turned on for 'gig' game to appear! (Set tables>choose class>automatic training turn on)



1

2

3

4

5

6

7

8

9



How can we personalise Times Tables for every pupil?

Using TTRS, we select specific tables that we want the pupils to work on. We also use our maths 'Year on a page' and each pupil's 'personalised heatmap' for guidance on what times tables the children in our classes need to be focusing on. It is easy to ensure that all pupils are challenged through a wide variety of times tables.

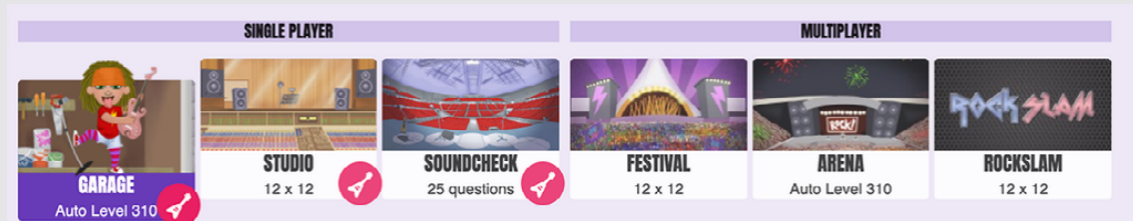
<div>1 to 1213 to 1920, 30, etc.</div> <p>To give learners robust understanding and recall, each selected table will issue all 46 related multiplication and division facts. Therefore learners who are new to TTRS succeed more quickly with only one table per week at the start. After two or three weeks on individual tables, have a combo week and then back to single tables. Gradually build up the combinations. Read more.</p> <table><tr><th>Week</th><th>10</th><th>2</th><th>5</th><th>3</th><th>4</th><th>8</th><th>6</th><th>7</th><th>9</th><th>1</th><th>11</th><th>12</th></tr><tr><td>Sun 13 Oct - Sat 19 Oct</td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Sun 20 Oct - Sat 26 Oct</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Sun 27 Oct - Sat 2 Nov</td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>Sun 3 Nov - Sat 9 Nov</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr></table>													Week	10	2	5	3	4	8	6	7	9	1	11	12	Sun 13 Oct - Sat 19 Oct	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sun 20 Oct - Sat 26 Oct	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sun 27 Oct - Sat 2 Nov	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sun 3 Nov - Sat 9 Nov	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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An example of how teachers can mould specific focus times tables to each child to create a tailored approach.

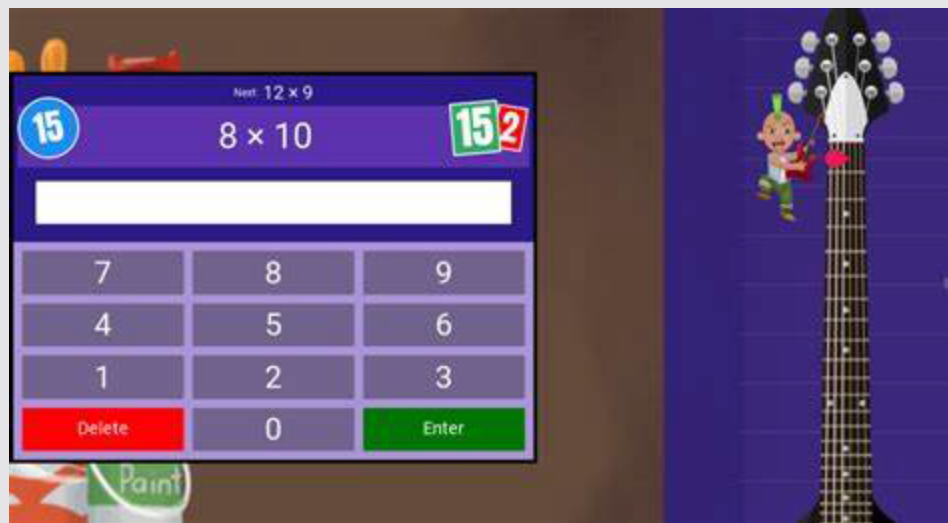


How do we ensure pupils are using the app correctly?

We provide time for pupils to practise their focus times tables and make sure they are set them on TTRS. When pupils have selected 'Garage' or 'Arena' they are purely tested on their focus tables set by teachers. If they choose 'Studio' or 'Festival' they are focusing on random tables up to 12 x 12.



Example of the types of games children can access on the app



Do we have a set time and structure to teach times tables?

Little and often is better than a long session once a week. Alongside the use of TTRS, we understand the importance that we teach strategies to build on conceptual understanding and progressive steps can be found on the calculation policy.

After pupils have completed their baseline, they will have their own personalised heatmap. These should be analysed by the class teacher to ensure personalised times tables are set for specific groups.

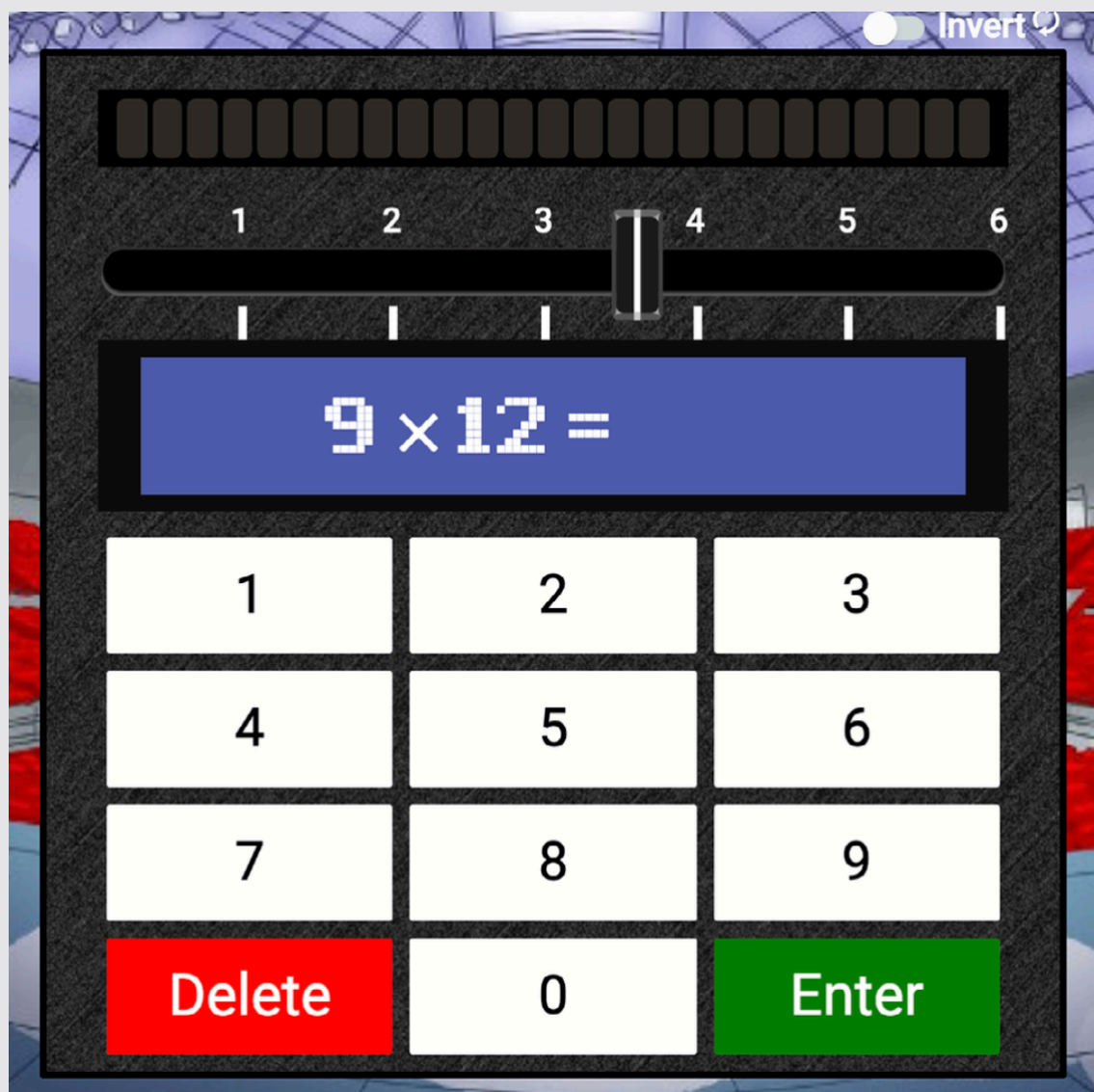
	Gender	Reg Group	SEN Status	Pupil Premium Indicator	Autumn 2 Score. Dec 2019	Spring Term 1 February 2020	
	F	Polar Bear	K		13	17	
	M	Polar Bear	K	Y	11	11	
	F	Polar Bear			22	25	
	F	Polar Bear			2	6	
	F	Polar Bear		Y	7	7	
	M	Polar Bear			7	11	
	F	Polar Bear			11	11	
	F	Polar Bear			8	15	
	F	Polar Bear	E	Y	0	1	
	M	Polar Bear			4	7	
	M	Polar Bear	K	Y	18	19	
	F	Polar Bear			10	10	
	F	Polar Bear			5	7	
	M	Polar Bear	K		0	2	

This is an example of a tracker that we use at Birdwell to ensure we know which pupils require extra practice and support to be ready for the Multiplication Check.

Over the course of the term pupils should gain confidence in their set times tables when using the 'garage' feature.

On a weekly basis (especially with Y3 & Y4) pupils should take the 'soundcheck' assessment to evaluate their progress towards the expected standard. The 'soundcheck' replicates the test Y4 pupils will be taking nationally.

It is expected that children achieve a score of 20+ by the end of Y4 in order to pass the Multiplication Times Table Check



This is a snapshot taken from the 'soundcheck' mode which will help pupils to prepare for the Multiplication Tables Check in Year 4



How can I support my child as a parent?

At West Meadows, we involve parents and encourage them to support the use of the TTRS app, highlighting the importance of practising times tables at home. By sharing information about the Year 4 times tables check and sending home pupils' heat maps, parents can clearly see which times tables their children need more practice with.

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

An example of a pupil's 'Heatmap' which highlights the times table children are finding difficult. They are RAG rated so red means they need to practice through to bright green which means they are secure. If a times table is grey, it means a pupil has not had the opportunity to practise this times table question yet.

We also celebrated TTRockstar day and other National TTRS competitions where we dressed up in our favourite rock outfits and celebrated those children who had been using TTRockstars at home regularly.



**KNOWING MORE AND
REMEMBERING MORE**

How do we ensure that children know more and remember more in each year group?

It is important to ensure that children get a chance to revisit times tables they have previously been taught along with their focus tables that half term.

Questions can be generated through the TTRS website and teachers can select a range of tables they would like their children to answer. This enables children to revisit and make links to previous learning and further their understanding.

Year Group	Term	Sound Check (TTRS)	Expected Standard
Y1	Autumn (Baseline if appropriate)	Focussed times tables	% of correct answers increasing
	Spring	Focussed times tables	% of correct answers increasing
	Summer	Focussed times tables	% of correct answers increasing
Y2	Autumn (Baseline)	Complete 'Gig' (Turn ATM is on)	EXS = 10+
	Spring	Sound Check	EXS = 10+
	Summer	Sound Check	EXS = 10+
Y3	Autumn (Baseline)	Complete 'Gig' (Turn ATM is on)	Add score weekly to excel sheet
	Autumn 2	Sound Check	EXS= 15+ - Add score weekly to excel sheet
	Autumn 2 (Repeat baseline)	Reset Gig and complete to generate new heatmap.	Add score weekly to excel sheet
	Spring 1	Reset Gig and complete to generate new heatmap.	Add score weekly to excel sheet
	Spring 1	Sound Check	EXS = 15+
	Spring 2	Sound Check	<i>Results added to Excel at the end of every week.</i>
	Summer 1	Reset Gig and complete to generate new heatmap.	Add score weekly to excel sheet
	Summer 1	Sound Check	EXS = 20+
	Summer 2	Sound Check	<i>Results added to Excel at the end of every week.</i>
Y4	Autumn 1 (Baseline)	Complete 'Gig' (Turn ATM is on)	EXS = 20+
	Autumn 1	Sound Check	EXS= 20+ Add score weekly to excel sheet.
	Autumn 2	Reset Gig and complete to generate new heat map	Add score weekly to excel sheet
	Spring 1	Reset gig and complete to generate new heat map.	Add score weekly to excel sheet.
	Spring 1	Sound Check	EXS = 22+
	Spring 2	Sound Check	

			<i>Results added to Excel at the end of every week.</i>
	Summer 1	Rest gig and complete to generate new heatmap	Add score weekly excel sheet.
	Summer 1	Sound Check	EXS = 23+
	Summer 2 (before the check)	Sound Check	<i>Results added to Excel at the end of every week.</i>
Y5	Autumn (Baseline)	Complete 'Gig' (Turn ATM is on)	EXS = 25
	Spring	Sound Check	EXS = 25
	Summer	Sound Check	EXS = 25