Welcome to our Maths Morning!

“Why do they do it differently these days?”

‘When children reach the age of 5 many parents get a dreadful shock. They find their children bringing home vocabulary and methods that they just don’t recognise.’

‘Parents keen to help realise that…they don’t understand what their child is doing and… when they try to demonstrate how to do something differently, all they manage to do is confuse the child.’

Taken from: ‘*Maths for Mums and Dads*’

This morning we will…

- Inform you how we teach maths at Cherry Orchard in line with the National Curriculum
- Focus on the methods we teach and use for the 4 calculations.
- Look at resources we use in school to support our teaching and learning.
- Introduce you to TTRockstars- a home to school online resource to consolidate and enhance your child's rapid recall of Times tables.

In Key Stage 1 your child will learn 45 minutes of maths each Day
In LKS2 your child will learn 60 minutes of maths each Day
In UKS2 your child will learn 75 minutes of maths each Day

Year Group	Number & Place Value	Four Operations	Measurement	Geometry	Fractions, Decimals and Percentages	Statistics
Year 1	*Count concrete and pictorial objects. *Identify and represent numbers on a tens frame. *Read and write numbers to 20. *Count one more/less from any number. *Complete number lines to 50. *Compare amounts using <,> and =.	*Add 1-digit numbers. *Make number bonds to 20. *Double numbers. *Subtract 1-digit from 2-digit numbers. *Count in 2s. *Count in 10s. *Count in 5s. *Share amounts into equal groups.	*Measuring lengths in cm using a ruler. *Compare and measure masses using balance scales. *Compare and measure capacity using cups. *Recognise coins and notes. *Identify the days of the week and months of the year. *Tell the time to O'clock and half past.	*Name and sort 2D shapes. *Name and sort 3D shapes. *Describe position and direction (left, right, above, below, behind, in front).	*Recognise and find half/quarter of a shape. *Find half of a shape and amounts.	
Year 2	*Count amounts through tens and ones. *Represent 2-digit numbers using a place value chart. *Partition 2-digit numbers. *Read and write numbers to 100. *Complete number lines to 100. *Compare and order numbers to 100. *Count in 3s.	*Number bonds to 100. *Add three 1-digit numbers. *Add and subtract 10s. *Add 2-digit numbers. *Subtract 2-digit numbers. *Make and add equal groups. * Dividing using equal groups. *Multiply and divide by 2. *Identify odd and even numbers. *Multiply and divide by 10. *Multply and divide by 5.	*Count pounds and pence. *Compare amounts of money. *Add money and subtract money. *Compare and order lengths and heights in cm and m. *Measure weight in grams and kilograms. *Measure capacity in millilitres and litres. *Tell the time to quarter past and quarter to.	*Count sides and vertices on 2D shapes. *Draw and use lines of symmetry. *Count faces, vertices and edges on 3D shapes. *Describe movement and turns on a grid.	*Find half, a quarter and a third of amounts. *Find a third of amount. *Unit and non-unit fractions. *Find 2-quarters and 3-quarters of amounts.	*Make tally charts. *Draw and interpret pictograms .
Year 3	*Represent 3-digit numbers on a place value chart. *Partition 3-digit numbers. *Find 1, 10 or 100 more or less. *Complete number lines to 1000. *Compare and order 3-digit numbers.	*Add 3-digit numbers using column addition (no exchange). *Subtract 2-digit from 3-digit numbers using column subtraction. *Add 3-digit numbers using column addition (with exchange).	*Measure in mm, cm and m. *Compare lengths. *Add and subtract lengths. *Calculate perimeter. *Measure mass in g and kg. *Measure capacity in l and ml.	*Acute, obtuse and right angles. *Parallel and perpendicular lines. *Describe 2D and 3D shapes.	*Compare and order unit fractions. *Fractions on a number line. *Equivalent fractions. *Add and subtract fractions with the same denominator. *Making a whole.	*Interpret and draw bar charts.
		*Subtract 3-digit numbers (with exchange). *Multiply and divide by 4. *Multiply and divide by 8. *Multiply a 2-digit by a 1-digit number (no exchange). *Multiply a 2-digit by a 1-digit number (with exchange). *Divide a 2-digit by a 1-digit number (no exchange). *Dividea 2-digit by a 1-digit number (with remainders).	Measure volume in l and ml. *Convert pounds and pence. *Find change. *Tell the time to 5 minutes. *Use am and pm on a digital clock. *Days and hours.			
Year 4	*Represent 4-digit numbers using a place value chart. *Partition 4-digit numbers. *Find 10, 100, 1000 more or less. *Complete number lines to 10,000. *Round to the nearest 10, 100 and 1000.	*Add 4-digit numbers (one exchange). *Add 4-digit numbers (more than one exchange). *Subtract 4-digit numbers (one exchange). *Subtract 4-digit numbers (more than one exchange). *Multiply and divide by 6. *Multiply and divide by 9. Multply and divide by 7. *Multiply three numbers. *Multiply by 10 and 100. *Divide by 10 and 100. *Multiply 3-digit by 1-digit numbers. *Divide 3-digit by 1-digit numbers.	*Calculate area by counting squares. *Measure in km and m. *Calculate perimeter of rectilinear shapes. *Calculate perimeter of polygons. *Convert between pounds and pence. *Convert between analogue and digital times. *Convert to the 24-hour clock.	*Identify angles. *Identify types of triangles. Identify types of quadrilaterals. *Complete a symmetric figure. *Plot coordinates. *Translate on a grid.	*Add fractions and mixed numbers. *Subtract fractions from whole amounts. *Tenths and hundredths as decimals. *Divide 1-digit and 2-digit numbers by 10. *Divide a 1-digit and 2-digit number by 100. *Compare and order decimals. *Round to the nearest whole number.	*Interpret and draw line graphs.

Our lessons look like:

- An out-of-context starter/ arithmetic starter
- Main teaching input (on carpet or in seats using whiteboards)
- Independent learning time (children consolidate their learning through fluency, reasoning and problem solving questions).
- Maths challenges if they finish their learning.

Complete the table.

	Round 39,476
to the nearest 10,000	
to the nearest 1,000	
to the nearest 100	

Fluency

1)84733+13849
2)653828+274394
3)34823+729732
4)143728-22581
5)737283-384720
6)607402-348251

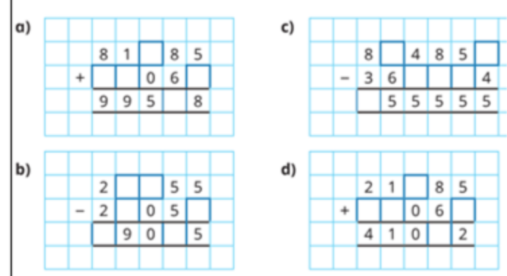
Reasoning

Stefan completes this calculation.

$$95 - 67 = 28$$

Write an **addition** calculation he could use to check his answer.

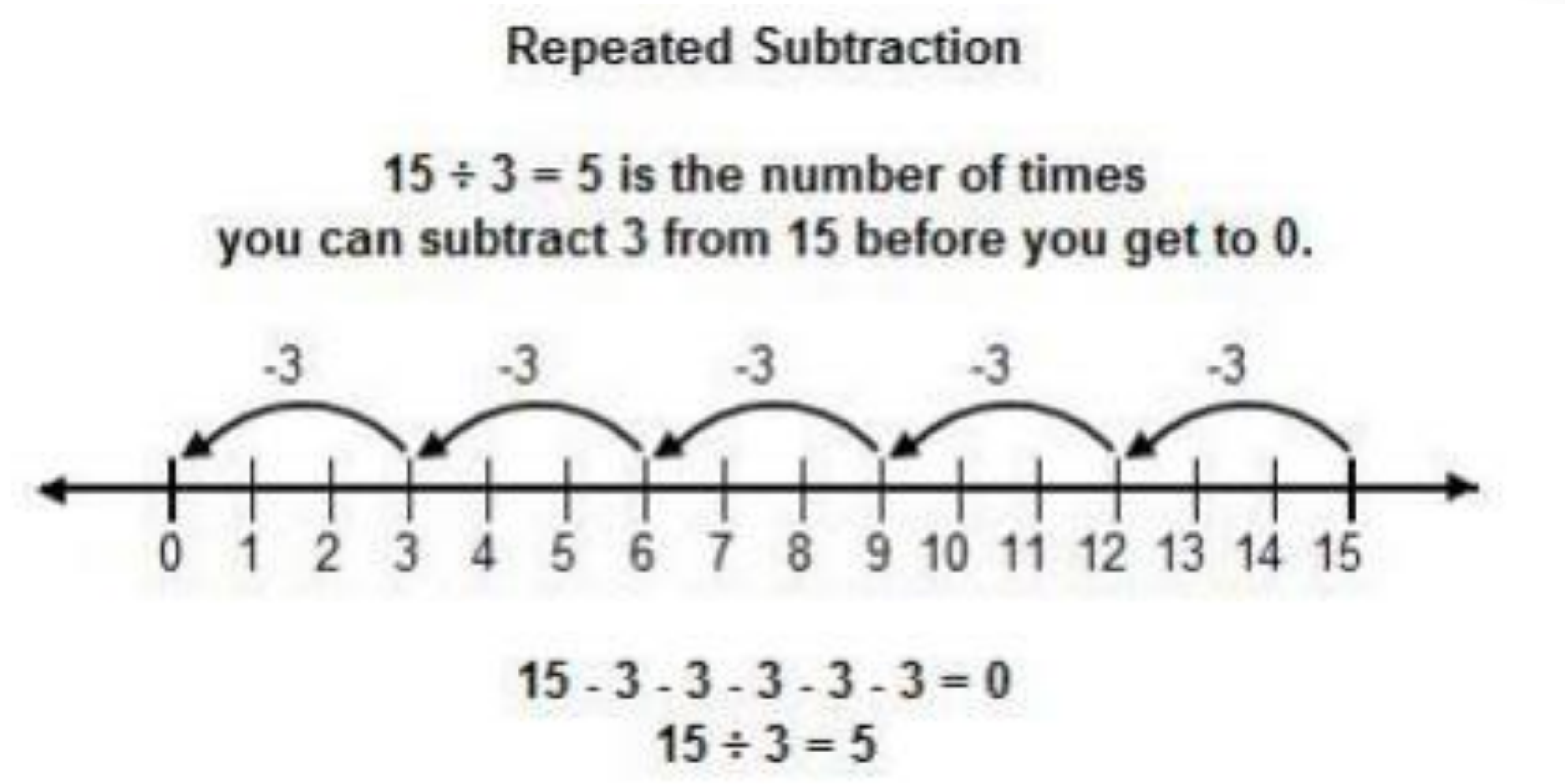
Problem solving



Key themes in mathematics in the maths curriculum

- Fluency, Reasoning and Problem Solving.
- End of KS2 SATS- what is expected of our children is increasing every year.

At the end of

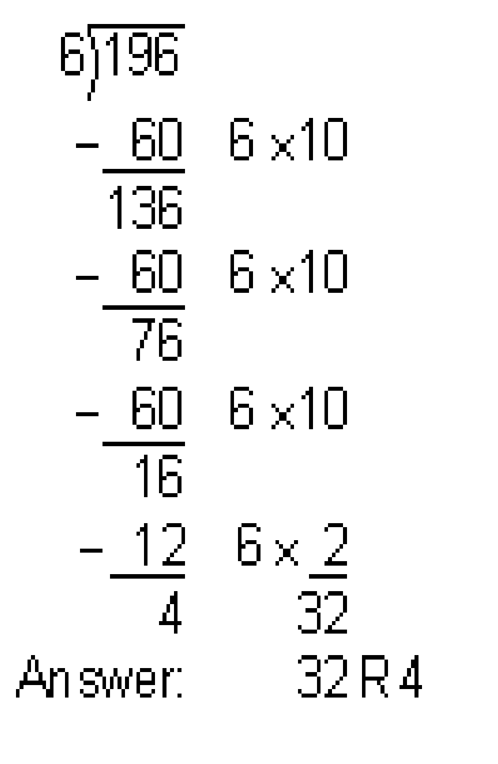

Repeated Subtraction
15 ÷ 3 = 5 is the number of times
you can subtract 3 from 15 before you get to 0.
-3
-3
-3
-3
-3
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
15 - 3 - 3 - 3 - 3 - 3 = 0
15 ÷ 3 = 5

Written methods for division

In the old curriculum this method, often referred to as 'chunking', was based on subtracting multiples of the divisor, or 'chunks'.

It is useful for reminding children of the link between division and repeated subtraction.

However, children need to recognise that chunking is inefficient if too many subtractions have to be carried out.



Short division in the new curriculum
Or 'bus stop' method!

98 ÷ 7 becomes

$$\begin{array}{r|l} & 1\ \ 4 \\ \hline 7 & 9\ {}^{2}8 \end{array}$$

Answer: 14

432 ÷ 5 becomes

$$\begin{array}{r|l} & 8\ \ 6\ \ r\,2 \\ \hline 5 & 4\ \ 3\ {}^{3}2 \end{array}$$

Answer: 86 remainder 2

496 ÷ 11 becomes

$$\begin{array}{r|l} & 4\ \ 5\ \ r\,1 \\ \hline 11 & 4\ \ 9\ {}^{5}6 \end{array}$$

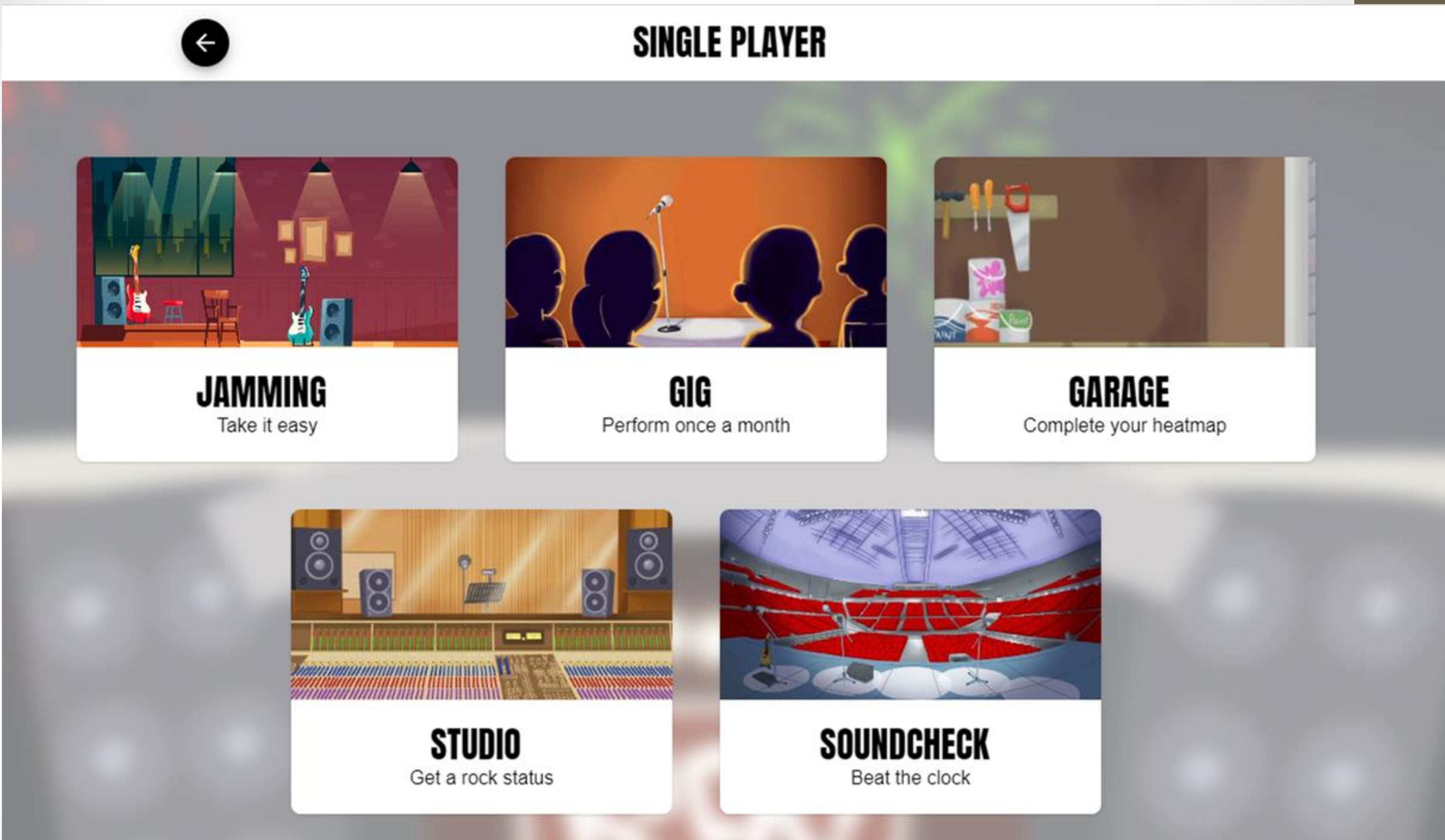
Answer: $45\frac{1}{11}$

$3\overline{)537}$ $\quad$ $6\overline{)702}$ $\quad$ $5\overline{)575}$ $\quad$ $3\overline{)417}$

Maths can be a part of everyday life…

- *Time- ask your children what the time is? How long do we have until dinner?
- **Money- encourage children to count money, look at the prices of items, to work out what they can purchase with the money they have? Encourage them to work out the change or discounts in shops or online e.g. The beans are buy one get one free for 2 500g can, would it be cheaper to purchase a 4 pack of beans?*
- *Distances- estimating the distance between places. What is the appropriate unit of measurement to use… Metres? Miles? KM? CM? Involve children in cooking activities to weigh ingredients (this also involves time!)
- *Converting currencies for holiday- How many Euros are equivalent to £1?


TIMES TABLES ROCK STARS
SINGLE PLAYER
MULTIPLAYER


SINGLE PLAYER
JAMMING
Take it easy
GIG
Perform once a month
GARAGE
Complete your heatmap
STUDIO
Get a rock status
SOUNDCHECK
Beat the clock

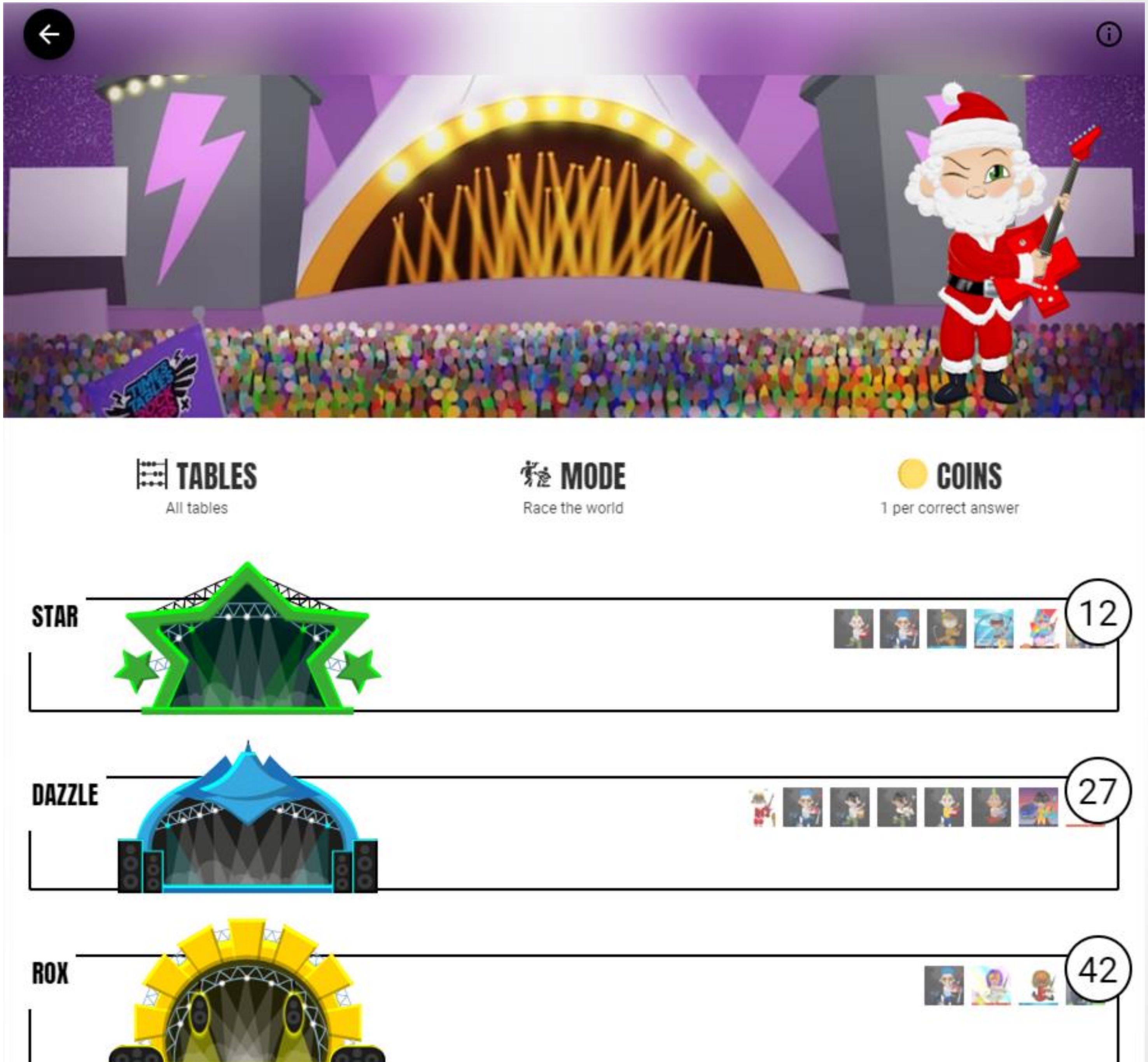
You won't immediately get all these questions from these tables.

In each game, you will focus on the facts you need the most to help you get high scores and complete your heatmap sooner.

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

he questions with a thick border are the ones we have selected from your heatmap for you to practise in the next game. Once you et quicker on these, the questions will change.

Play


TABLES
All tables
MODE
Race the world
COINS
1 per correct answer
STAR
12
DAZZLE
27
ROX
42

Thank you for taking part……..

- MyMaths is a fantastic online resource which gives children a chance to revise and consolidate their learning. MyMaths has online tutorials if children need to revisit specific units.

- Please feel free to ask any questions .

- Recommended reading:

Maths for Mums and Dads
by Rob Eastaway and Mike Askew