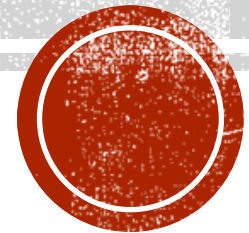


# **TIMES-TABLES WORKSHOP**

Year 3 & 4 Parent Workshop

Tuesday 20<sup>th</sup> January



# INTRODUCTION

Mastering times tables is often the "secret key" that unlocks a child's confidence in mathematics. When children can rapidly recall multiplication facts, they free up valuable "brain space" to tackle more complex problem-solving rather than getting stuck on basic calculations.

This fluency is particularly vital as your child prepares for the **Multiplication Tables Check (MTC)** in the summer term, a national assessment designed to ensure they have a solid foundation.



# COGNITIVE LOAD AND TIMES-TABLES

Cognitive Load Theory states that learners have a limited capacity in their working memory and we must not over load this.

This means that if pupils are having to work hard to recall or calculate times tables facts, they will have less capacity available to absorb new and more complex information.

Secure times tables knowledge ensures more capacity and a higher level of success when approaching new concepts in mathematics.



# KS2 TOPICS WHICH REQUIRE TIMES-TABLE KNOWLEDGE

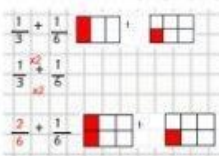
Looking ahead to **Upper Key Stage 2**, these facts become the essential building blocks for almost everything they will learn—from simplifying fractions and calculating percentages to finding areas and solving ratios. By helping them gain speed and confidence now, you are giving them the tools to approach more advanced challenges with ease and preventing the frustration that often comes when the "basics" feel like a hurdle.



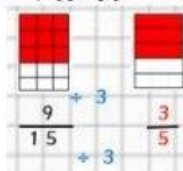
# KS2 TOPICS WHICH REQUIRE TIMES-TABLE KNOWLEDGE

- Fractions
- Decimals
- Multiplication
- Division
- Area
- Ratio
- Square and cube numbers
- Place value
- Prime numbers
- Common multiples
- Factors

Adding, subtracting, multiplying and dividing fractions

$$\frac{3}{4} \times \frac{2}{3} = \frac{6}{12}$$


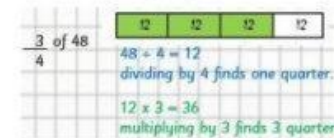
Simplifying fractions



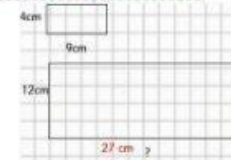
Using scale factors

2 people	1 person	5 people
6 eggs	$6 \div 2 = 3$ eggs	$3 \times 5 = 15$ eggs
100g flour	$100 \div 2 = 50$ g	$50 \times 5 = 250$ g

Finding a fraction or a percentage of a number



Calculating volume



Calculating ratio

A prize is shared in a ratio of 3 : 4 between Jamie and Dan. If Jamie gets £2.1, how much will Dan get?

3 : 4  
2.1 : 2.8

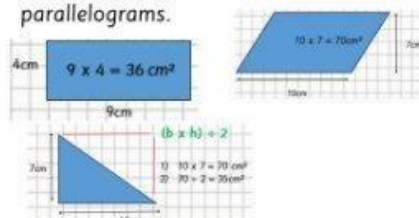
Using known facts

If  $3 \times 2 = 6$ , then  
 $3 \times 20 = 60$   
 $30 \times 2 = 60$   
 $30 \times 20 = 600$

Using algebraic rules

1st term:  $5 \times 1 - 4 = 1$   
 2nd term:  $5 \times 2 - 4 = 6$   
 3rd term:  $5 \times 3 - 4 = 11$   
 4th term:  $5 \times 4 - 4 = 16$   
 5th term:  $5 \times 5 - 4 = 21$

Finding the area of rectangles, triangles and parallelograms.



Why are times tables useful?

Short and long division



Converting between mixed and improper fractions

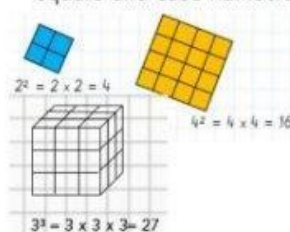


Convert between miles and kilometres

To convert km to miles:  
 5 miles = 8km  
 30 miles = 48km

1) Divide by 8 ( $48 \div 8 = 6$ )  
 2) Multiply by 5 ( $6 \times 5 = 30$ )

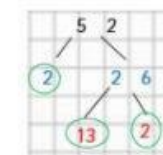
Square and cube numbers



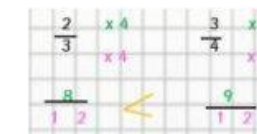
Factors and common factors



Finding prime factors



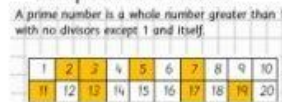
Ordering and comparing fractions



Finding equivalent fractions



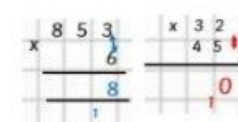
Identifying prime and composite numbers



Multiples and common multiples

Multiples of 3: 3, 6, 9, 12, 15, 18, 21, 24  
 Multiples of 4: 4, 8, 12, 16, 20, 24, 28, 32

Short and long multiplication



# NATIONAL EXPECTATIONS

Year Group	Expectation
Year 1	Count in multiples of <b>2, 5 and 10</b> . Recall and use all <b>doubles to 10</b> and corresponding halves.
Year 2	Recall and use multiplication and division facts for the <b>2, 5 and 10</b> times tables including recognising <b>odd and even numbers</b> .
Year 3	Recall and use multiplication and division facts for the <b>3, 4 and 8</b> times tables.
Year 4	Recall and use multiplication and division facts for tables up to <b>12 x 12</b>
Year 5	Revision of all times tables and division facts up to <b>12 x 12</b>
Year 6	Revision of all times tables and division facts up to <b>12 x 12</b>



# NUMBER SENSE

## Times Tables Fluency Programme

### Teacher Guidance

[Introduction](#)

[Essential facts and teaching approach](#)

[Daily fluency session guidance](#)

[Planning and preparation](#)

[Training videos](#)

[FAQ videos](#)

### Teaching Resources

Stage  
1

Programme  
Foundations

Stage  
2

Essential Facts: Set  
1 (21 facts)

Stage  
3

Essential Facts: Set  
2 (15 facts)

Stage  
4

MTC Preparation

Stage  
5

Consolidation

### Targeted Support & Interventions

[Stage 1-4 targeted support](#)

[Stage 5 targeted support](#)

[Individual pupil intervention](#)

[Practice sheet generator](#)

[Facts card generator](#)

# NUMBER SENSE

## Introductory video

This short video looks at how the Times Tables Fluency programme is taught. It provides an overview of the programme structure and the teaching approach, it reviews the resources included in the programme, and it outlines the training support available to all teachers and teaching assistants implementing the programme.

[Introduction to Times Tables Fluency | Number Sense Maths](#)



# DAILY SESSION STRUCTURE

All teaching units in the Times Tables Fluency Programme follow the same 5 step teaching approach:



# NUMBER SENSE



## Stage 1: Programme Foundations

Stage 1 familiarises you and the children with the programme using facts children are already confident with: their doubles facts. It is an intentionally slow start. It builds the foundations for every child to be able to recall 40 2 times table facts in 2 minutes from the first day of Stage 2. Don't decide to miss this stage out!

### Unit 1

---

### Doubles

# NUMBER SENSE



## Stage 2: Essential Facts Set 1 (21 facts)

The two, the square and the five times tables are taught in Stage 2 because children typically find them easiest to remember. By the end of this stage, children have learnt 21 of the 36 essential facts – over half of the facts they need to know.

### Unit 1

---

2 Times Table

### Unit 2

---

Square Times  
Table

### Unit 3

---

5 Times Table

### Unit 4

---

Consolidation

# NUMBER SENSE



## Stage 3: Essential Facts - Set 2 (15 facts)

Stage 3 is typically taught after the summer holidays, so starts with a recap of the 21 facts learnt in Stage 2. Although there are six new times tables taught during Stage 3, there are actually only 15 remaining essential facts to learn within them.

Unit 1

Recap

Unit 2

3 Times Table

Unit 3

4 Times Table

Unit 4

6 Times Table

Unit 5

7 Times Table

Unit 6

8 Times Table

Unit 7

9 Times Table

# NUMBER SENSE



## Stage 4: MTC preparation

This stage is written to prepare children in England for the statutory Multiplication Tables Check in June of Year 4 and teachers children all the times tables facts to  $12 \times 12$ . If you are working with older children, or you are outside England, you can consider whether you need to teach times tables to  $12 \times 12$ . If instead you decide to focus on the 36 essential times tables facts you can move to teaching Stage 5 unit 1 'Consolidation to  $9 \times 9$ '.

### Unit 1

More Squares

### Unit 2

10 and 11  
Times Tables

### Unit 3

12 Times  
Table

### Unit 4

Multiplication  
Tables Check  
Preparation

# NUMBER SENSE



## Stage 5: Consolidation

Once children have learnt all of their times table facts, they will need continued practice to retain them. In Stage 5 you will start with daily booklet practice and ramp down - at the rate which is right for your class - to weekly booklet practice, with more of your time moving to the conceptual activities animations. Within your school you will need to decide whether you just focus on the 36 essential facts, in which case you will follow Unit 1 'Consolidation to 9 x 9' or whether you continue practising facts to 12 x 12 in which case you will follow Unit 2 'Consolidation to 12 x 12'.

### Unit 1

**Consolidation  
to 9 x 9**

### Unit 2

**Consolidation  
to 12 x 12**

# My 6 Times Table Practice Booklet

Name: \_\_\_\_\_

Class: \_\_\_\_\_

New facts in this booklet:

$$7 \times 6 = 42$$

$$8 \times 6 = 48$$

$$9 \times 6 = 54$$

1		2	
$6 \times 9 = \underline{\hspace{2cm}}$	$24 \div 3 = \underline{\hspace{2cm}}$	$6 \times 8 = \underline{\hspace{2cm}}$	$8 \times 8 = \underline{\hspace{2cm}}$
$54 \div 6 = \underline{\hspace{2cm}}$	$4 \times 2 = \underline{\hspace{2cm}}$	$6 \times 7 = \underline{\hspace{2cm}}$	$8 \times 3 = \underline{\hspace{2cm}}$
$7 \times 6 = \underline{\hspace{2cm}}$	$5 \times 4 = \underline{\hspace{2cm}}$	$54 \div 6 = \underline{\hspace{2cm}}$	$4 \times 9 = \underline{\hspace{2cm}}$
$6 \times 9 = \underline{\hspace{2cm}}$	$8 \times 5 = \underline{\hspace{2cm}}$	$7 \times 6 = \underline{\hspace{2cm}}$	$3 \times 5 = \underline{\hspace{2cm}}$
$7 \times 6 = \underline{\hspace{2cm}}$	$28 \div 4 = \underline{\hspace{2cm}}$	$6 \times 8 = \underline{\hspace{2cm}}$	$7 \times 5 = \underline{\hspace{2cm}}$
$8 \times 6 = \underline{\hspace{2cm}}$	$6 \times 3 = \underline{\hspace{2cm}}$	$8 \times 6 = \underline{\hspace{2cm}}$	$16 \div 4 = \underline{\hspace{2cm}}$
$48 \div 6 = \underline{\hspace{2cm}}$	$6 \times 6 = \underline{\hspace{2cm}}$	$7 \times 6 = \underline{\hspace{2cm}}$	$6 \times 2 = \underline{\hspace{2cm}}$
$8 \times 6 = \underline{\hspace{2cm}}$	$2 \times 9 = \underline{\hspace{2cm}}$	$54 \div 6 = \underline{\hspace{2cm}}$	$27 \div 3 = \underline{\hspace{2cm}}$
$9 \times 6 = \underline{\hspace{2cm}}$	$3 \times 2 = \underline{\hspace{2cm}}$	$6 \times 7 = \underline{\hspace{2cm}}$	$9 \times 2 = \underline{\hspace{2cm}}$
$7 \times 6 = \underline{\hspace{2cm}}$	$15 \div 5 = \underline{\hspace{2cm}}$	$6 \times 7 = \underline{\hspace{2cm}}$	$5 \times 2 = \underline{\hspace{2cm}}$
$9 \times 6 = \underline{\hspace{2cm}}$	$3 \times 4 = \underline{\hspace{2cm}}$	$9 \times 6 = \underline{\hspace{2cm}}$	$9 \times 9 = \underline{\hspace{2cm}}$
$6 \times 9 = \underline{\hspace{2cm}}$	$5 \times 8 = \underline{\hspace{2cm}}$	$42 \div 6 = \underline{\hspace{2cm}}$	$8 \times 6 = \underline{\hspace{2cm}}$
$48 \div 6 = \underline{\hspace{2cm}}$	$4 \times 6 = \underline{\hspace{2cm}}$	$6 \times 8 = \underline{\hspace{2cm}}$	$5 \times 9 = \underline{\hspace{2cm}}$
$9 \times 6 = \underline{\hspace{2cm}}$	$4 \times 4 = \underline{\hspace{2cm}}$	$6 \times 8 = \underline{\hspace{2cm}}$	$2 \times 6 = \underline{\hspace{2cm}}$
$6 \times 8 = \underline{\hspace{2cm}}$	$2 \times 2 = \underline{\hspace{2cm}}$	$7 \times 6 = \underline{\hspace{2cm}}$	$5 \times 5 = \underline{\hspace{2cm}}$
$42 \div 6 = \underline{\hspace{2cm}}$	$2 \times 5 = \underline{\hspace{2cm}}$	$48 \div 6 = \underline{\hspace{2cm}}$	$40 \div 5 = \underline{\hspace{2cm}}$
$8 \times 6 = \underline{\hspace{2cm}}$	$6 \times 9 = \underline{\hspace{2cm}}$	$6 \times 9 = \underline{\hspace{2cm}}$	$9 \times 9 = \underline{\hspace{2cm}}$
$9 \times 6 = \underline{\hspace{2cm}}$	$36 \div 6 = \underline{\hspace{2cm}}$	$6 \times 8 = \underline{\hspace{2cm}}$	$4 \times 7 = \underline{\hspace{2cm}}$
$9 \times 6 = \underline{\hspace{2cm}}$	$7 \times 7 = \underline{\hspace{2cm}}$	$6 \times 7 = \underline{\hspace{2cm}}$	$2 \times 3 = \underline{\hspace{2cm}}$
$6 \times 7 = \underline{\hspace{2cm}}$	$7 \times 6 = \underline{\hspace{2cm}}$	$42 \div 6 = \underline{\hspace{2cm}}$	$3 \times 3 = \underline{\hspace{2cm}}$

7x6, 8x6, 9x6 first column, all facts learnt so far in second column

# WORKING WALL

3 new facts

Our 36 times tables facts

30 facts learnt so far

3 facts to go

$7 \times 6 = 42$   
 $8 \times 6 = 48$   
 $9 \times 6 = 54$

$2 \times 2 = 4$								
$3 \times 2 = 6$	$3 \times 3 = 9$							
$4 \times 2 = 8$	$4 \times 3 = 12$	$4 \times 4 = 16$						
$5 \times 2 = 10$	$5 \times 3 = 15$	$5 \times 4 = 20$	$5 \times 5 = 25$					
$6 \times 2 = 12$	$6 \times 3 = 18$	$6 \times 4 = 24$	$6 \times 5 = 30$	$6 \times 6 = 36$				
$7 \times 2 = 14$	$7 \times 3 = 21$	$7 \times 4 = 28$	$7 \times 5 = 35$	$7 \times 6 = 42$	$7 \times 7 = 49$			
$8 \times 2 = 16$	$8 \times 3 = 24$	$8 \times 4 = 32$	$8 \times 5 = 40$	$8 \times 6 = 48$	$8 \times 7 = 56$	$8 \times 8 = 64$		
$9 \times 2 = 18$	$9 \times 3 = 27$	$9 \times 4 = 36$	$9 \times 5 = 45$	$9 \times 6 = 54$	$9 \times 7 = 63$	$9 \times 8 = 72$	$9 \times 9 = 81$	



# THE MULTIPLICATION TIMES-TABLE CHECK (MTC)

The Multiplication Tables Check (MTC) will be administered to children in Year 4, from Monday 1<sup>st</sup> June to the Friday 12<sup>th</sup> June 2026. It is a statutory assessment for most pupils.

The purpose of the MTC is to determine whether Year 4 pupils can recall their multiplication table up to 12 x 12 fluently as outlined in the National Curriculum.

Children will be tested using a ipad, where they will have to answer multiplication questions against a clock. The test will last no longer than 5 minutes; children will have 6 seconds to answer each question in a series of 25.

The results will be reported to the Department of Education.

Parents will be informed about results in end of school report.



# WHAT DOES THE MTC LOOK LIKE?

Similar to this:

[Multiplication Tables Check - 2025 - Timestables.co.uk](https://www.timestables.co.uk/MultiplicationTablesCheck-2025)

Multiplication tables check

00:02

🕒 0 / 25

12 x 8 =

1

2

3

4

5

6

7

8

9

<-

0

Enter



# HOW YOU CAN SUPPORT YOUR CHILD AT HOME

## Free Digital Games

These are popular in schools and designed to mimic the "feel" of the MTC test without the stress:

- **Hit the Button**: A fast-paced game where children "hit" the correct answer. It's excellent for building speed.
- **TimesTables.co.uk MTC Simulator**: This is a great "no-frills" tool that looks exactly like the official Year 4 check, helping children get used to the 6-second timer.
- **Mathsframe - Tommy's Trek**: An arcade-style game where children solve facts to move through levels.



# HOW YOU CAN SUPPORT YOUR CHILD AT HOME

## "Screen-Free" Games

- **Times-table bingo:** Write products on a bingo sheet and call out multiplication questions.
- **Card games:** Use a deck of cards—flip two cards and multiply them. First to answer keeps the pair.
- **Dice battles:** Roll two dice, multiply, and score points.
- **LEGO arrays:** Build  $3 \times 4$ ,  $6 \times 2$ , etc., using bricks to show how multiplication works.
- **Beads or pasta:** Create groups to represent each fact (e.g., 4 groups of 5).
- **Hopscotch multiplication:** Draw a grid and have them jump to the answer.



# HOW YOU CAN SUPPORT YOUR CHILD AT HOME

## "Screen-Free" Games

- **Times-table jigsaws:** Write questions on one piece and answers on another.
- **Matching cards:** Spread them out and play memory match.
- **Multiplication mazes:** Create a path where only correct answers lead forward.
- **Throw-and-answer:** Toss a ball back and forth; each catch is a new question.
- **Staircase tables:** Say a fact on each step as you climb.
- **Scavenger hunt:** Hide answers around the house and give clues.



# TT ROCKSTARS

Times Tables Rock Stars (TTRS) features a variety of game modes, each designed to help you master your tables in a different way. The games are split into **Single Player** and **Multiplayer** categories.



# TT ROCKSTARS — SINGLE PLAYER MODES

These are best for focused practice and building your personal stats.

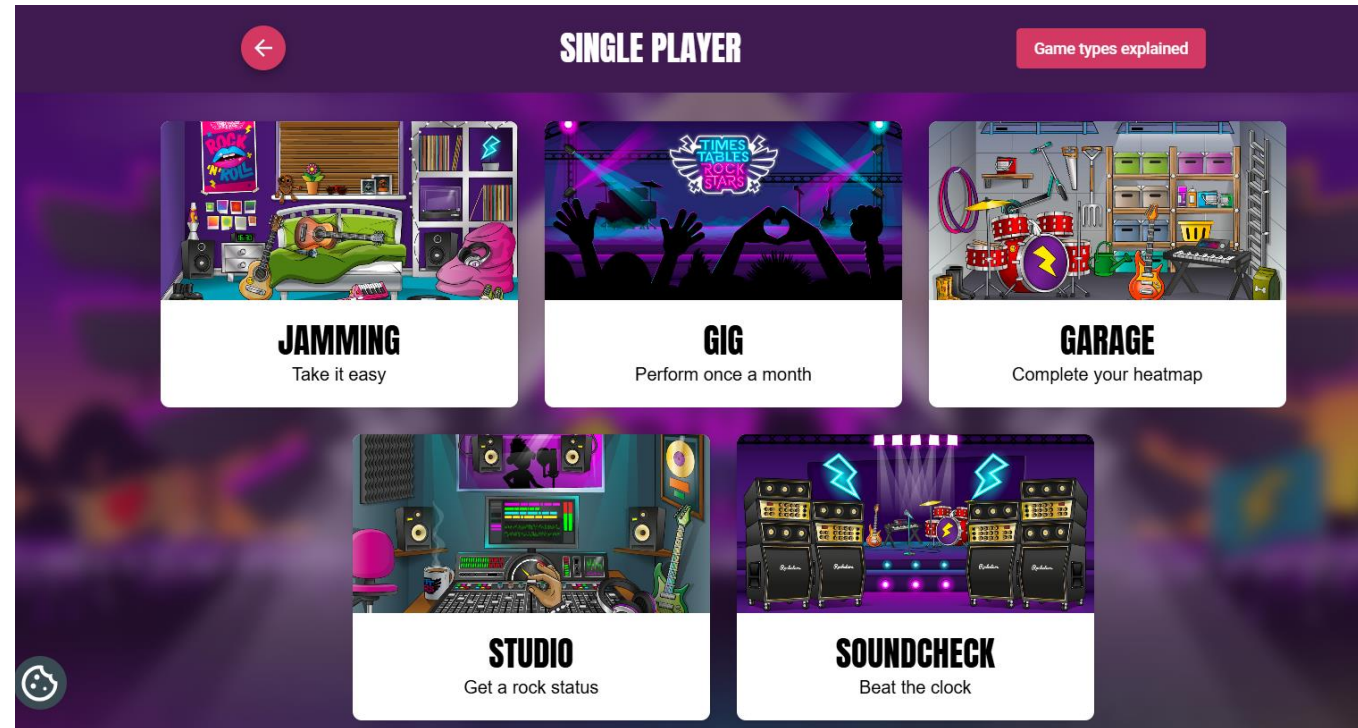
**Garage:** This is the most important area for daily practice. The "smart" algorithm gives you a small number of specific tables to master. You earn the most coins here (**10 coins** per correct answer).

**Jamming:** The only mode with **no timer**. It's perfect for building confidence without pressure. You can choose which tables to practice and whether to include multiplication, division, or both.

**Gig:** Usually played once a month (or when you first start). It's a 5-minute baseline test with 100 questions to see which tables you already know and which ones you need to work on.

**Studio:** This is where you earn your **Rock Status** (like "Rock Legend" or "Rock Hero"). It includes all tables up to 12 x 12. Your status is based on your average speed over the last 10 games.

**Soundcheck:** This mimics the official Year 4 Multiplication Tables Check. You get 25 questions with a strict **6-second time limit** for each.



# TT ROCKSTARS — SINGLE PLAYER MODES

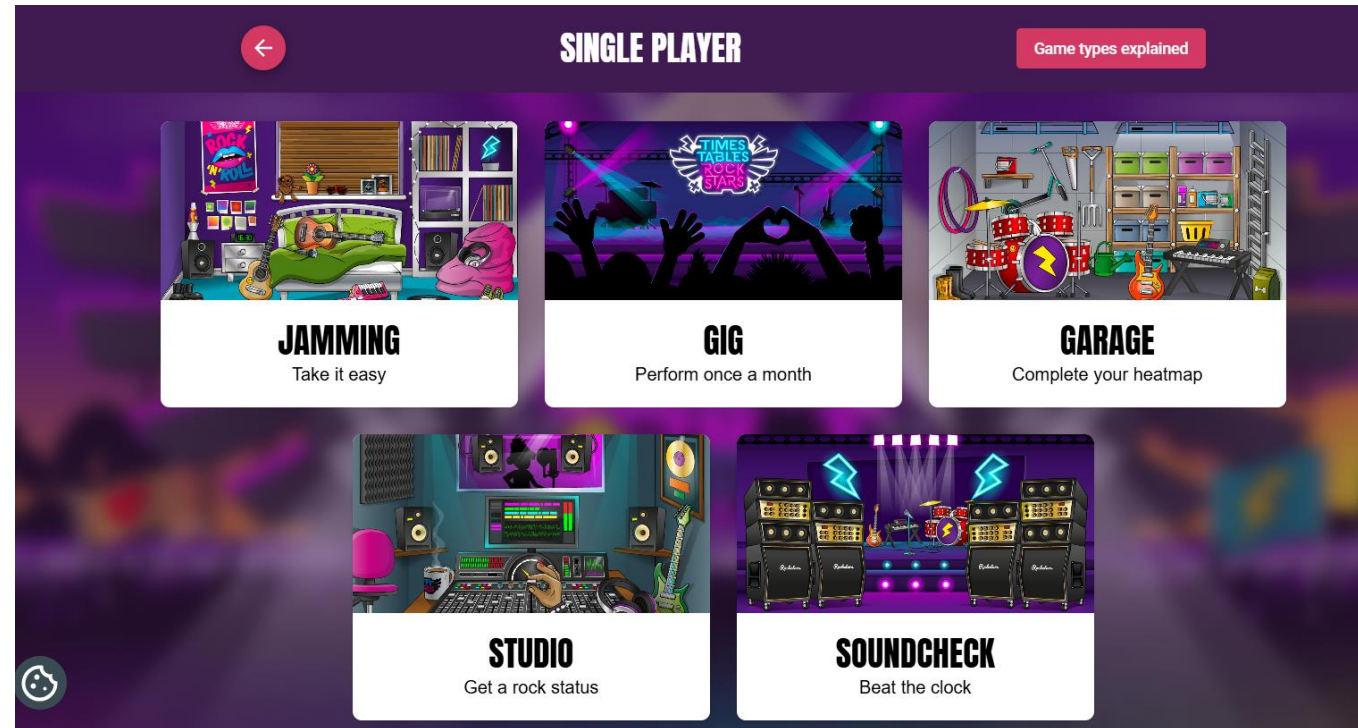
## Multiplayer Modes

These allow you to compete against others and see how you rank in real-time.

**Arena:** A live race against your **classmates**. Everyone in the game is asked the same tables (usually set by your teacher), and you can see your classmates' progress on the screen as you play.

**Festival:** Similar to Arena, but you compete against players from **all over the world**. It includes all tables up to 12 x 12.

**Rock Slam:** A 1-on-1 challenge. You can set a score and "send" it to a friend or teacher in your school. They can then play against your "ghost" later to see if they can beat your time.



# TT ROCKSTARS — HEATMAP

**The TT Rockstars Heatmap** is a visual grid that tracks your speed and accuracy for every single multiplication fact from  $1 \times 1$  to  $12 \times 12$ . It is essentially a "live map" of your brain's times table recall.

## **How it is Generated:**

The heatmap isn't a one-time test; it is constantly evolving based on your recent gameplay.

**The 10-Game Average:** For each specific fact (e.g.  $7 \times 8$ ), the system looks at the last 10 times you answered it correctly. It then calculates the average time it took you to type the answer.

**Active Game Modes:** Data is pulled from almost all game modes, including Garage, Studio, Soundcheck, Arena, and Festival.

**The "Jamming" Exception:** Questions answered in Jamming mode do not affect your heatmap because Jamming is untimed, and the heatmap is strictly a measure of speed (fluency)



	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

# TT ROCKSTARS HEATMAP

Dark Green	Under 1 second	Instant recall (Rock Hero level)
Light Green	1–3 seconds	Very fluent (Rock Star level)
Yellow/Orange	3–5 seconds	Getting there, but needs more practice
Red	Over 5–10 seconds	You are likely still counting in your head
Grey	N/A	You haven't answered this fact enough times yet



# TT ROCKSTARS



The Spring OUMTC is now... **OPEN** 🎉

