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A King's Group Academy

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RE: TT Rockstars

Dear Parents and Carers,

From today all pupils who have access to TT Rockstars have been set on Automatic Training Mode. This is a great way for pupils to make progress on their times tables as it constantly assesses their recall of multiplication facts.

As a guide, pupils should be able to do the following:

- By the end of Year 2: Recall the 2, 5 and 10 times tables and related division facts (Level 96)
- By the end of Year 3: Recall the 3, 4 and 8 times tables and related division facts (Level 216)
- By the end of Year 4: Recall all the multiplication and division facts up to 12 x 12 (Level 420)

Pupils in Year 4 this year will have to sit the Multiplication Tables Check (MTC) which assesses their recall of facts up to 12 x 12 by presenting them with 25 randomly chosen multiplication facts to complete. More information on this can be found [here](#).

Even if your child is not in Year 4, it is vitally important to know their multiplication facts as it enables them to be successful in so many other areas of mathematics. We recommend they try to play on TT Rockstars **for at least 3 minutes, 3 times per week** to make a difference in their progress.

On the next page you will find information on Automatic Training mode from TT Rockstars.

Yours Faithfully,

Miss N Pullen

Deputy Headteacher



With Automatic Training Mode (ATM) enabled, your learners will go through our pre-programmed levels when they play in the Garage or Arena. ATM will shorten the time it takes for your learner to become a Rock Star!

Background

Over the years, we have accumulated billions of times tables answers from children around the world. From that data, we've formed a sophisticated understanding of how pupils internalise each multiplication and division fact and how they begin to understand the underlying concepts. We then deconstructed all the tables up to, and including, the 12s and reassembled them several times, until we created a highly effective sequence to learning the answers.

How does it work?

Learners play in the Garage or the Arena and begin with our first set of questions (1×10 up to 4×10). When they can answer at a rate of 20 per minute, we'll introduce the next set of questions. As learners progress, ATM brings in commutativity, missing number questions and division facts. So the first 9 levels, look like this:

Level 1: 1×10 to 4×10

Level 2: 10×1 to 10×4

Level 3: A mix of 1 and 2

Level 4: $10 \times ? = 10$ to $10 \times ? = 40$

Level 5: $? \times 10 = 10$ to $? \times 10 = 40$

Level 6: A mix of 4 and 5

Level 7: $10 \div 10$ to $40 \div 10$

Level 8: $10 \div 1$ to $40 \div 4$

Level 9: A mix of 7 and 8

Then the process repeats for 5×10 to 8×10 and once more for 9×10 to 12×10 before moving onto the next table and starting the process again.

Once they have a few tables under their belt, ATM combines them for a while, to consolidate recall, and then brings in a fresh table. The process repeats - all the while giving plenty of opportunity to revisit prior learning, by interleaving earlier tables and giving due weight to the facts we know learners struggle with the most - until your learner has become a Rock Star at all the tables!

Where do learners start?

They start by playing a game called 'Gig'. Gig games diagnose each learner's abilities on the tables and then determines which table they need to practise first.

What is Gig?

Gig is our game mode for:

- Establishing a baseline
- Periodically checking on progress
- Determining which table a learner needs to prioritise

Establishing a Baseline

A baseline is an initial assessment of a learner's ability. Our baseline measurement is a score out of 100, which is simply derived from the number of correct answers given to 100 questions. A Gig game lasts a maximum of 5 minutes even if there are questions remaining.

Periodically checking on progress

Once learners have a baseline, if they repeat the same test in the future, the scores can be used to measure progress from one timepoint to the next. In fact, the system is designed for everyone to play a Gig every time they "complete a table" on our Auto Training course (approx every 30-45 levels).

Determining which table a learner needs to prioritise

As learners go through a Gig game, they're tested on the 10s, 2s, 5s, 3s, 4s...etc in a more-or-less age-expected order. TTRS uses their performance data from each of the tables to place them on the highest priority table when playing in the Garage.

Every time they play a Gig, they will be put through their paces in the same way and each time, our system will work out where they go next. That could mean they repeat a table or it could mean they carry on.

Note that it's not simply a score out 100 that determines this, it's how they do on each table. So one person may score 70 and another 60 yet the first one continues on a lower Auto level. That will be because they underperformed on the easier tables and so need to go back to them.

Important things you need to know about Gig

Gig...

- only works with Automatic Training Mode switched on
- is appropriate for times tables novices
- issues up to 100 questions starting with ten on the 10s
- has a 5 minute cut off
- is used to diagnose the children's initial strengths
- determines where they start Automatic Training
- appears periodically to quiz them again
- determines whether they repeat a table or continue
- allows you to measure progress over time
- replaces the Garage thumbnail when a Gig is due

How do you move on a level?

By getting an average speed of 3 seconds or less per question, by answering at least 20 questions correctly a minute (i.e. 20 correct answers in a 1 minute game, 40 in 2 minutes, or 60 in 3 minute games).