KS1 Maths Parent Workshop

February 2023

Aims

- To become familiar with the aims of the national curriculum.
- To understand the importance of number facts.
- To become familiar with the use of Numbots and Timestables Rockstars.
- To know how to further support your child at home.

Aims of National Curriculum

The national curriculum for mathematics aims to ensure that all pupils:

1. Become fluent in the fundamentals of mathematics which includes having a good understanding of numbers in relation to each other, making connections between numbers and being able to manipulate numbers mentally.

2. Reason mathematically by following a line of enquiry, identify relationships and generalisations and developing an argument, justification or proof using mathematical language.

3. Can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Depth and not breadth of understanding.

White Rose Maths - Teaching for Mastery
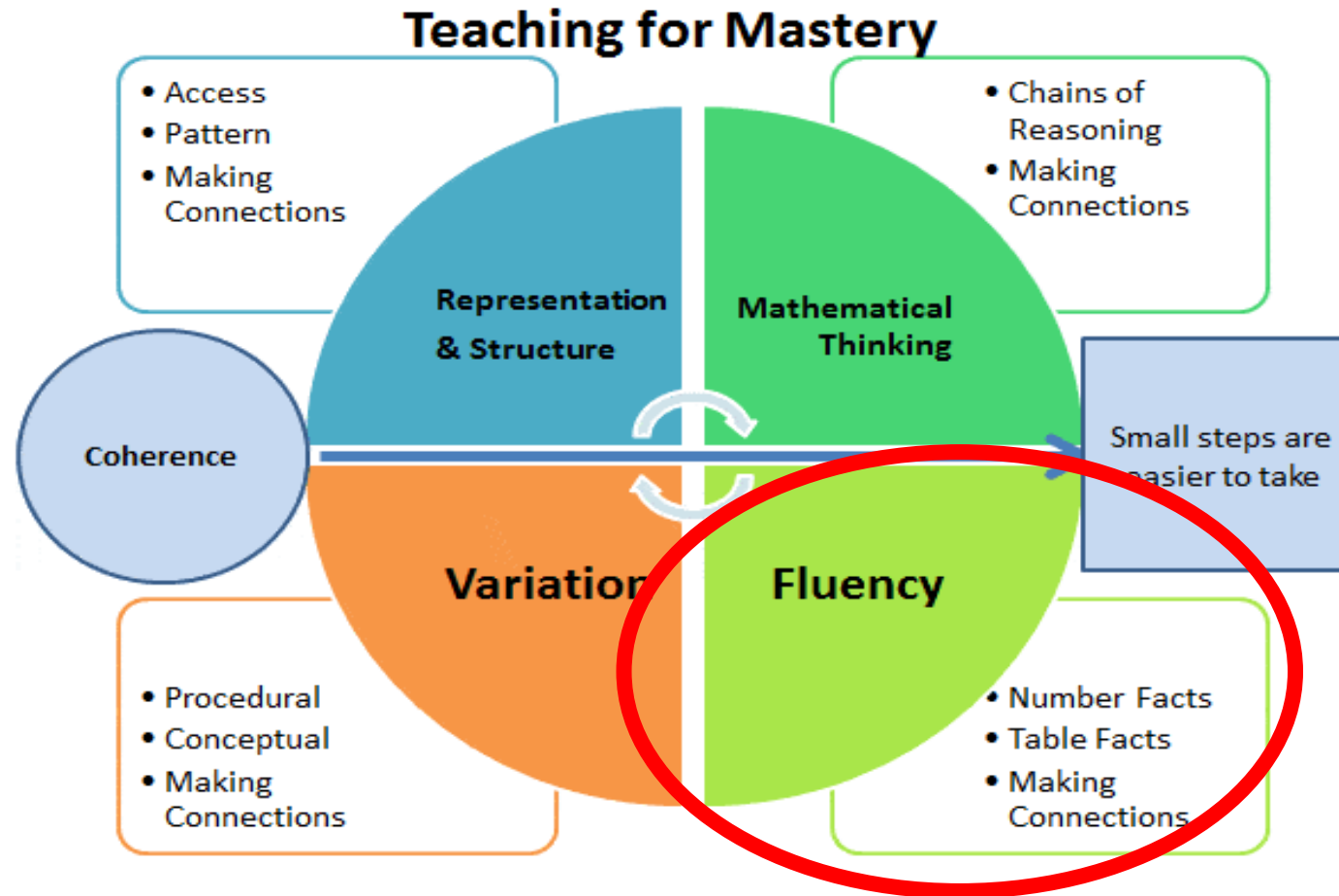
The Importance of Recall and Fluency

- Children need to be able to rapidly recall facts.
- Automaticity reduces cognitive overload in the working memory and enable them to focus on new concepts.
- Basic number facts are need for continued learning and progression.
- Knowing these facts helps to build children's confidence.
- Gives them the best chance of success in formal statutory assessments.
- Prepares them for life outside school.

Aims of National Curriculum

Year 1: Counting in 2s, 5s and 10s
Times table calculations - **10s** and 2s (if you feel they are ready)

Year 2: Counting in 2s, 5s, 10s and 3s
Times table calculations - **2s, 5s, 10s** and 3s (if you feel they are ready)

Year 3: Counting 2s, 3s, 4s, 5s, 8s, 10s,
Times table calculations - **3s, 4s, 8s** as well as 2s, 5s and 10s from KS1

Year 4: Counting 6s, 7s, 9s
Times table calculations - **6s, 7s, 9s, 11s and 12s** as well as 3s, 4s, 8s from Year 3 and 2s, 5s and 10s from KS1

Year 5 and Year 6: recall multiplication and division facts for multiplication tables up to 12 × 12

Number Facts children should know by the end of KS1

- Number bonds within 10 (5+2=10)
- Number bonds to 10 (8+2)
- Number bonds to 20 (18+2)
- Number bonds to 100 (80 +20)
- Doubles
- Halves
- 2s,5s and 10 timetables – by the end of Year 2

NumBots

What is NumBots?

NumBots is an online maths game which supports children with their *understanding, recall and fluency in mental addition and subtraction, so that they move from counting to calculating.*

It focuses on significantly improving your child's recall and understanding of *number bonds and addition and subtraction facts*. These are critical foundations in maths.

NumBots

How often should my child use NumBots and for how long?

In order to get the best out of NumBots children should regularly play for short bursts so we would ask you to give them <u>5 minutes at least 4 times per week.</u>

Little and often is key, so rather than 20 minutes once a week, aim for 5 minutes 4 times a week.
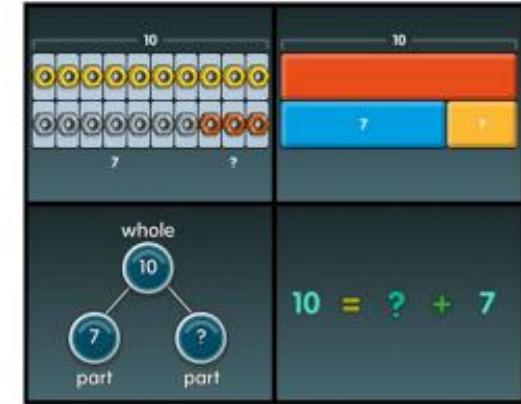
NumBots

Story Mode

- When playing story mode the emphasis is on learning the ideas and concepts behind addition and subtraction so it features more diagrams, shapes and question styles.

Challenge Mode

- Challenge Mode for Recall. In Challenge Mode, the emphasis is on rapid responses to essential facts and simple sums, against the clock.
- Each level tests a different skill.

No,	Key Skill	Example
1	Adding and subtracting 1 or 2 within 10	$1 + 3, 8 - 2$
2	Number bonds to 5	$3 + ? = 5$
3	Doubles within 10 (i.e. up to 5+5)	$4 + 4$
4	Adding and subtracting 1 and 2 within 20	$17 + 2, 11 - 1$
5	Number bonds to 10	$3 + ? = 10$
6	Adding and subtracting 10 within 20	$3 + 10, 16 - 10$
7	Doubles within 20 (i.e. up to 10+10)	$8 + 8$
8	Adding two 1-digit numbers	$5 + 7$
9	Number Bonds to 20	$8 + ? = 20$
10	Subtracting 1-digit numbers within 20	$14 - 6$
11	Adding and subtracting 1, 2 and 10 within 100	$1 + 74, 51 - 2, 38 + 10$
12	Adding and subtracting 2-digit numbers to/from multiples of 10	$20 + 64, 83 - 20$
13	Addition by bridging a multiple of 10	$25 + 6, 47 + 5$
14	Subtraction by bridging a multiple of 10	$25 - 6, 42 - 5$
15	Number bonds to 100	$52 + ? = 100$
16	Using compensation to add and subtract within 100	$35 + 19, 35 - 19$
17	Adding by partitioning two 2-digit numbers	$64 + 25, 10 + 64$
18	Subtracting by partitioning two 2-digit numbers	$64 - 23, 47 - 31$
19	Adding any two 2-digit numbers	$63 + 56, 63 + 58$
20	Subtracting any two 2-digit numbers	$76 - 43, 76 - 47$

NumBots

Children need to correctly answer the question with speed and accuracy.

In NumBots, if they are incorrect or very slow the level/ question will repeat until the child demonstrates sufficient proficiency.

The purpose of this is to build the children's number fluency skills so that they become automatic and do not need to use their fingers to work the answer out.

Y4 Multiplication Tables Check

A formal test of multiplication skills takes place in the summer term of Year 4.

The DfE says that the check is part of a new focus on mastering numeracy, giving children the skills and knowledge they need for secondary school and beyond.

The purpose of the MTC is to determine whether Y4 pupils can recall their multiplication tables fluently (being able to answer times tables questions accurately and quickly, without having to work out the answers).

The Multiplication Tables Check will be administered in the three-week period **starting on Monday 5 June 2023.**

Timetables Rockstars

Garage

The questions will only come from the times tables the teacher has set for the week. It will include multiplication and division questions. As pupils start to answer questions, TT Rock Stars works out which facts they take longer on and will give them more of these questions to answer.

Studio

The questions in the Studio can be anything from 1×1 up to 12×12. TT Rock Stars calculates the mean response time from their last 10 games in the Studio and translates that time into a Rock Status.

Soundcheck

When you play Soundcheck, you get 20 questions each with a 5-second time limit. The questions are multiplication only and evenly weighted in terms of difficulty each time you play. This is great practise for the Year 4 timetable check.

Timetables Rockstars

Jamming

Our only timer-free game, Jamming gives players the choice over the tables they practise and whether to include multiplication, division or both. It's perfect for building up confidence on the tables of your choice, at your own pace.

Gig

Gigs give pupils and their teachers a way to check overall performance each month. It's a good idea for pupils to play a Gig early in their TTRS journey so that you have a **baseline**. Once played, it becomes unavailable until the 1st of the next month.

Maths Assessments Across Primary School

KS1 SATs tests- Year 2
-Arithmetic
-Reasoning

Timetables Check- Year 4
Completed online

KS2 SATs tests- Year 6
-Arithmetic
-Reasoning 1
-Reasoning 2

12 $7 \times 2 =$ ▢   1 mark

14 $54 + 22 =$ ▢   1 mark

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15 $8 \div 2 =$ ▢   1 mark

17 $54 - 20 =$ ▢   1 mark

Other ways you can help your child at home

White Rose Maths – 1 Minute Maths app

What's the app about?

This first version of the app is aimed at Key Stage 1 pupils (ie, age 5-6 years). Individual one-minute tasks focus on adding and subtracting — and on 'Subitising', the skill of instantly recognising the number of items in a group without counting. Multiplication and division topics are also now available!
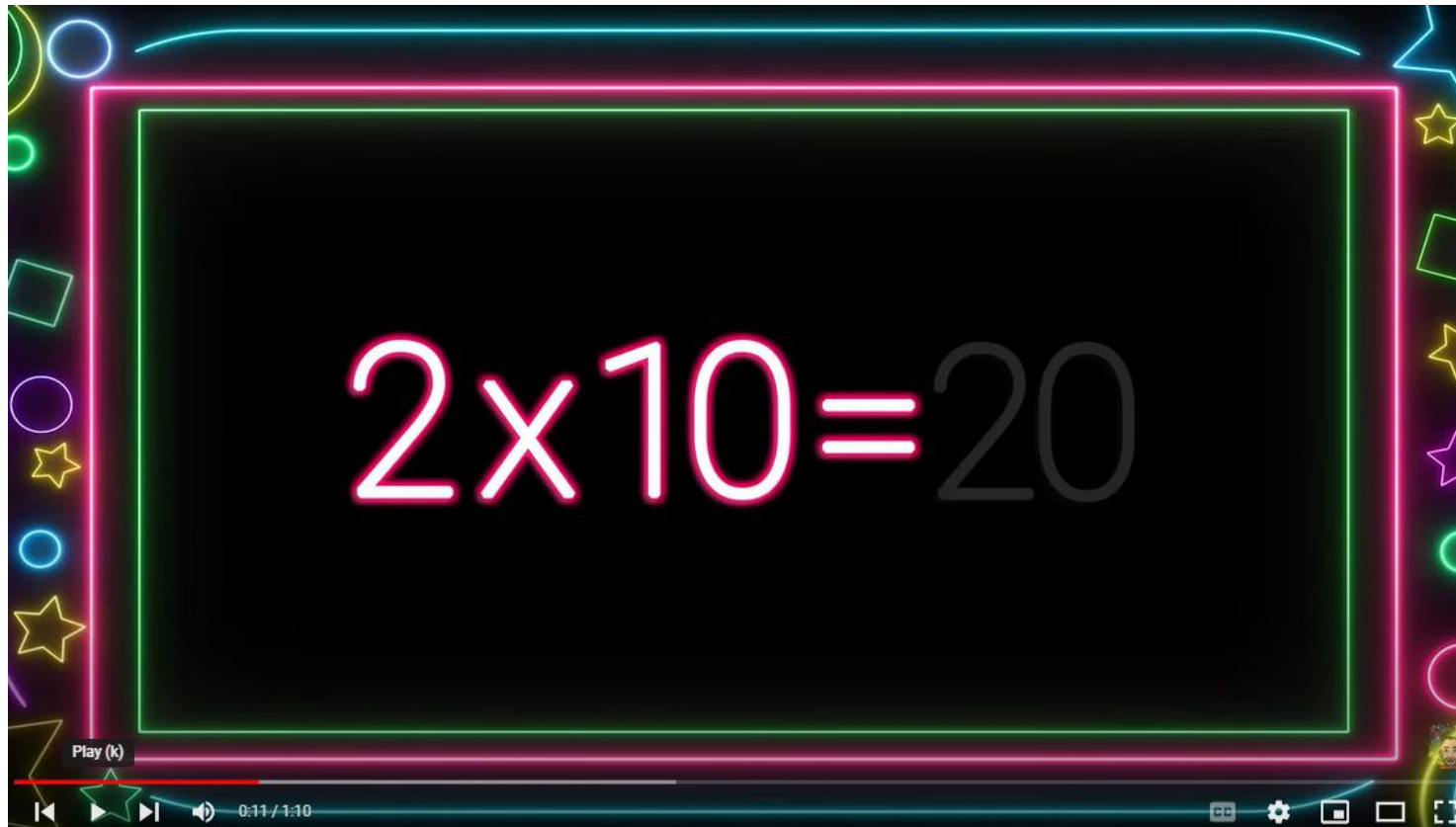
How do we use it?

Your child can choose any topic they want to try. They then answer a unique series of questions (so it's a different set of questions every time). If they're struggling with a question, a 'Hint' button will give a helpful clue by showing the question in a different but familiar way.

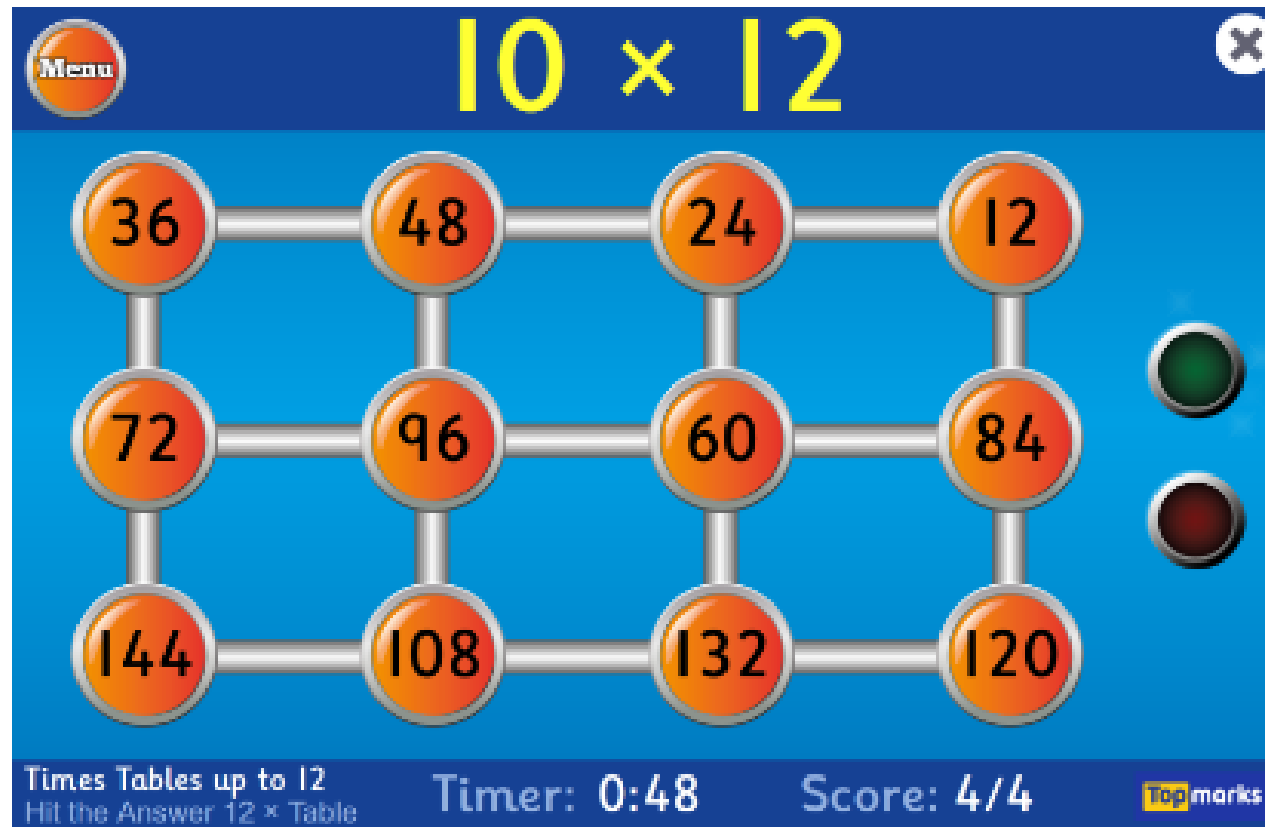When the one minute's up, they'll see a feedback screen telling them how they've done.
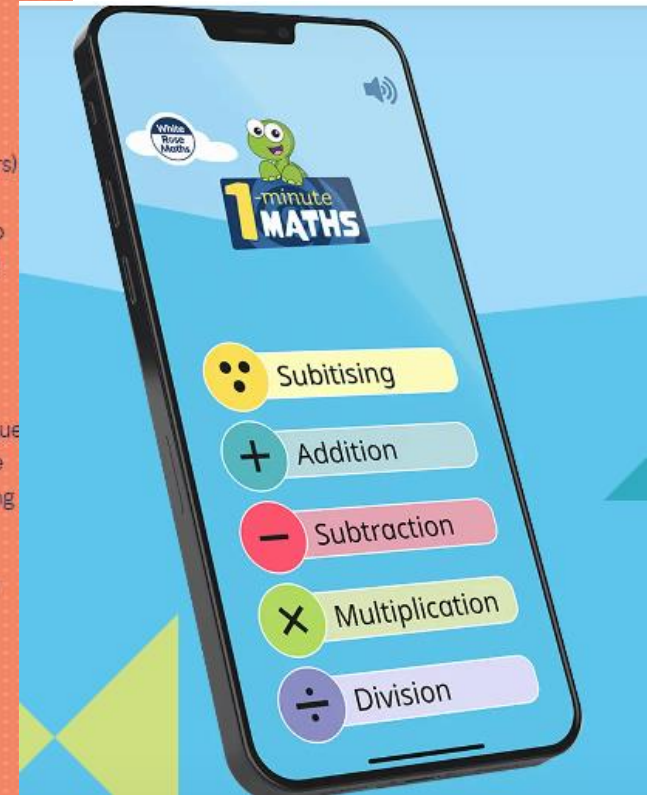
Times Table Songs

https://www.youtube.com/watch?v=S5mJyBnJNas&list=PLU00esrkogUlR9VQzGPf_RT4CUTCP9OO9

Hit the Button

https://www.topmarks.co.uk/maths-games/hit-the-button

Any Questions?