Maths at LHPSN

25th September 2019

What we are aiming to cover today:

1. What do we mean by ‘mastery?’
2. What maths lessons look like here at Lickey Hills.
3. Pupil voice
4. Times Table Check
5. How can you help at home?

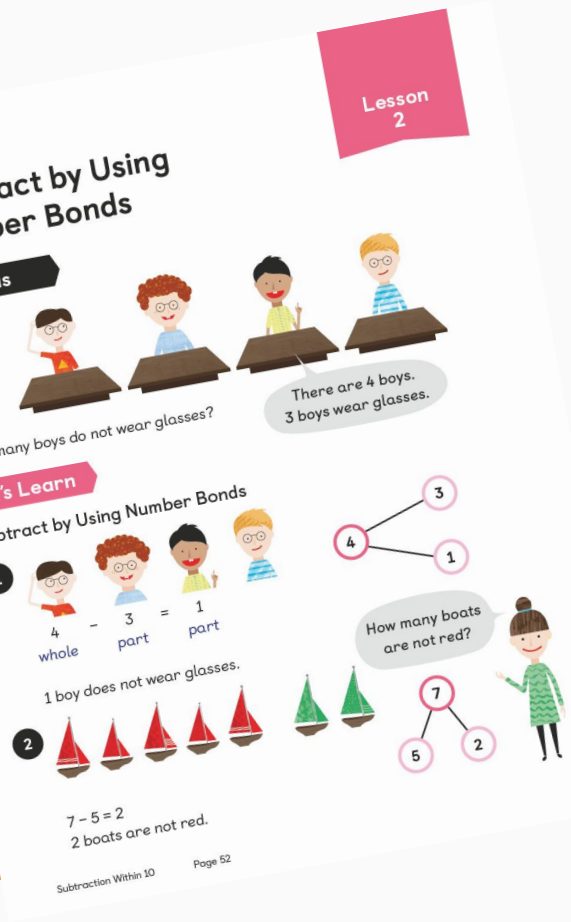
What do we mean by Mastery?

How do we teach Maths at Lickey Hills?

Our Vision:

At LHPSN we believe that mathematics is a creative and highly inter-connected discipline. Maths is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

MATHS NO PROBLEM!



Pupils master topics before moving on.

The three parts to a lesson are:

1. Anchor task — the entire class spends a long time on one question guided by the teacher
2. Guided practice — practise new ideas in groups guided by the teacher
3. Independent practice — practise on your own

MATHS NO PROBLEM!

Add three numbers

Add three numbers

In focus

Can you add to find out how many flowers there are in total?

Lesson 6

Writing and Evaluating Algebraic Expressions

In Focus

What could the rule be?

Lesson 13

Multiplying a 2-Digit Number by a 2-Digit Number

In Focus

How many seats are there in this theatre?

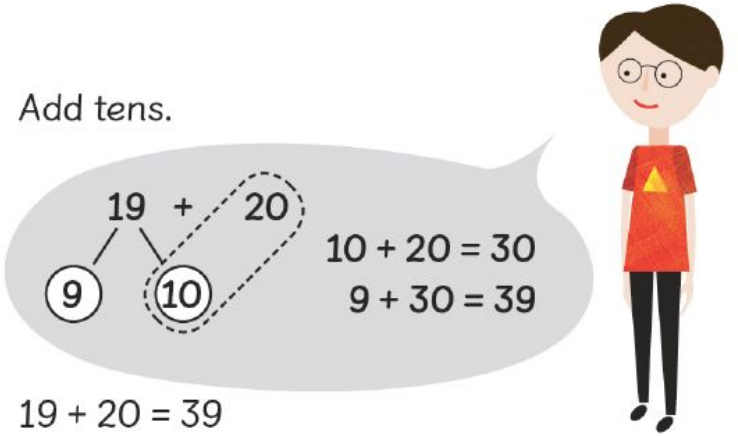
In Focus

How many grapes do they have in all?

Method 1 Count on in tens from 19.

19 + 20 = 39

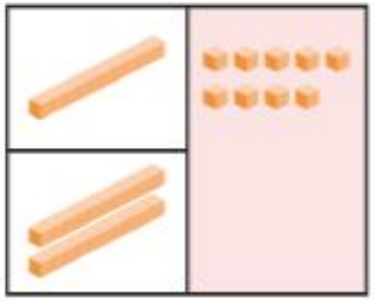
Method 2 Add tens.



19 + 20 = 39

Method 3 Use  to add.

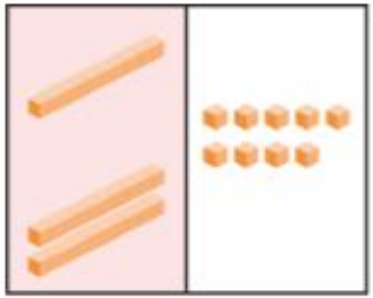
Step 1 Add the ones.



	tens	ones
	1	9
+	2	0
		9

Step 2 Add the tens.

1 ten + 2 tens = 3 tens



	tens	ones
	1	9
+	2	0
	3	9

19 + 20 = 39

Making number bonds

Guided Practice

Complete the number bonds.

(a)

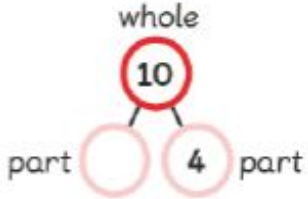
 and  make 7.

(b)

2 and 8 make  .

(c)

4 and  make 10.



Worksheet 7

Multiplying by Two-Digit Numbers

1 Multiply.

(a)
$$\begin{array}{r} 185 \\ \times\ 14 \\ \hline \end{array}$$

(b)
$$\begin{array}{r} 4386 \\ \times\ 19 \\ \hline \end{array}$$

2 Multiply.

$375 \times 10 =$ ☐
$375 \times 30 =$ ☐
$375 \times 60 =$ ☐

$375 \times 9 =$ ☐
$375 \times 39 =$ ☐
$375 \times 69 =$ ☐

3 The number of students in a high school is 25 times the number of students in a reception class. The reception class has 276 students. How many students are there in the high school?

MATHS NO PROBLEM!

Why Journal?

Why Journal?

It helps pupils …

- ✓ Practice
- ✓ Record
- ✓ Reflect
- ✓ Evaluate
- ✓ Explore
- ✓ Reason
- ✓ Problem Solve
- ✓ Make decisions/choices
- ✓ Assess

Use of Journal

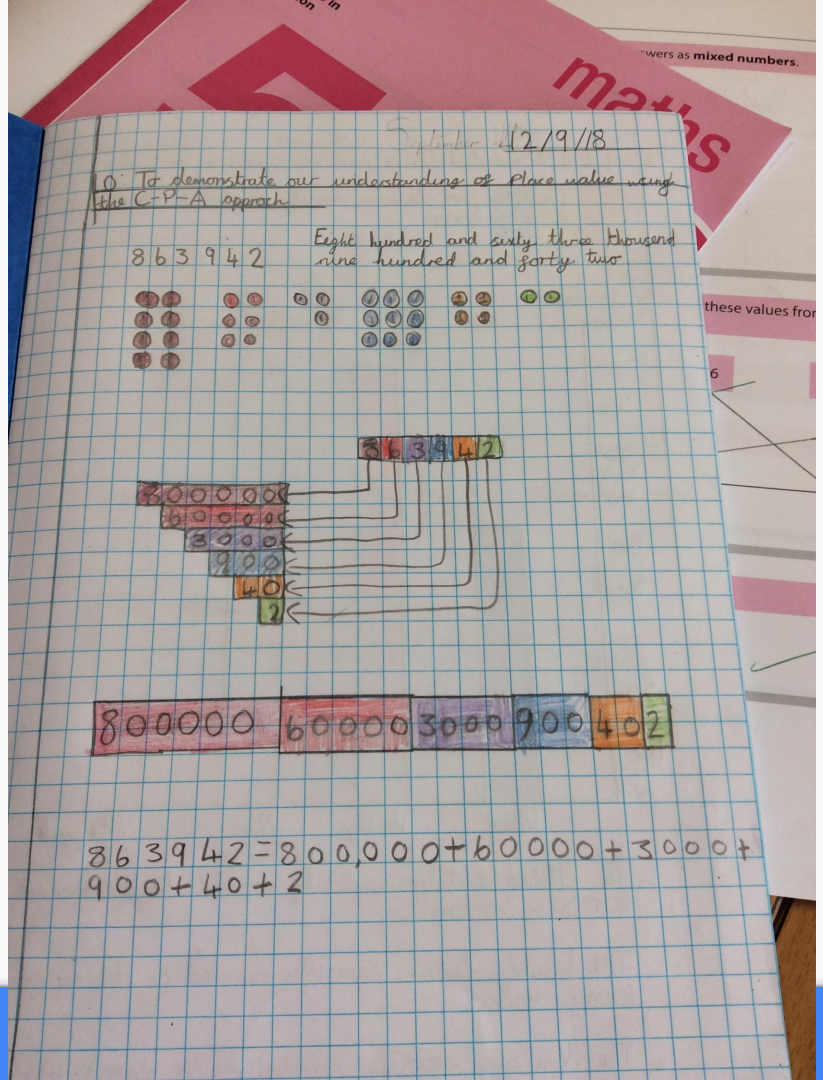
My brother passed down a calculator to me but the [8] key does not work.

How can I use this broken calculator to do this problem?

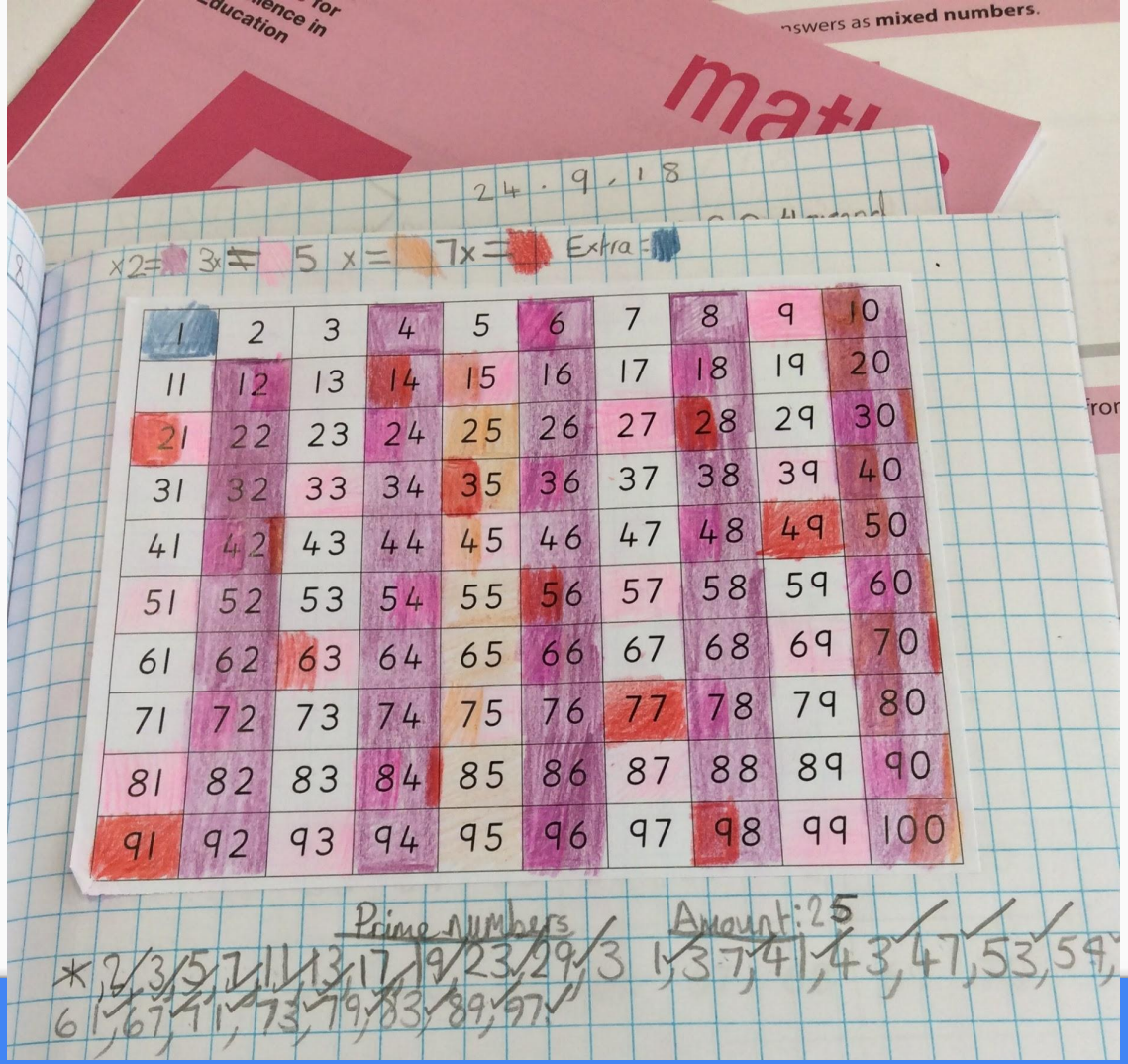
$$\begin{array}{r} 18 \\ \times\ 24 \\ \hline \end{array}$$

Explain your method.

MATHS NO PROBLEM!


12/9/18
LO: To demonstrate our understanding of place value using the C-P-A approach
863942
Eight hundred and sixty three thousand nine hundred and forty two
800000 60000 3000 900 40 2
863942=800,000+60000+3000+900+40+2

Place Value



Prime Numbers

division

Self Check

I know how to...

- ☑ find multiples and common multiples.
- ☑ find factors and common factors.
- ☑ identify prime and composite numbers.
- ☑ recognise square numbers and cube numbers, and use the notation for squares (e.g. 4^2) and cubes (e.g. 2^3).
- ☑ multiply numbers up to 4 digits by a 1-digit number.
- ☑ multiply numbers up to 3 digits by a 2-digit number.
- ☑ multiply and divide mentally.
- ☑ multiply and divide numbers by 10, 100 and 1000.
- ☐ divide 3-digit and 4-digit numbers.

A common multiple is a number in more than 1 times table e.g. 12 is a common multiple of 4, 2, 3 and 6.

A factor is a number timesed by another number e.g. common factor of 14 ~~and~~ and 28 = 7

A prime number is a number which only goes into 1 and itself eg. 97 is a prime. A composite is number which goes into more than ~~2 times table~~ st 1 and itself. e.g. 99

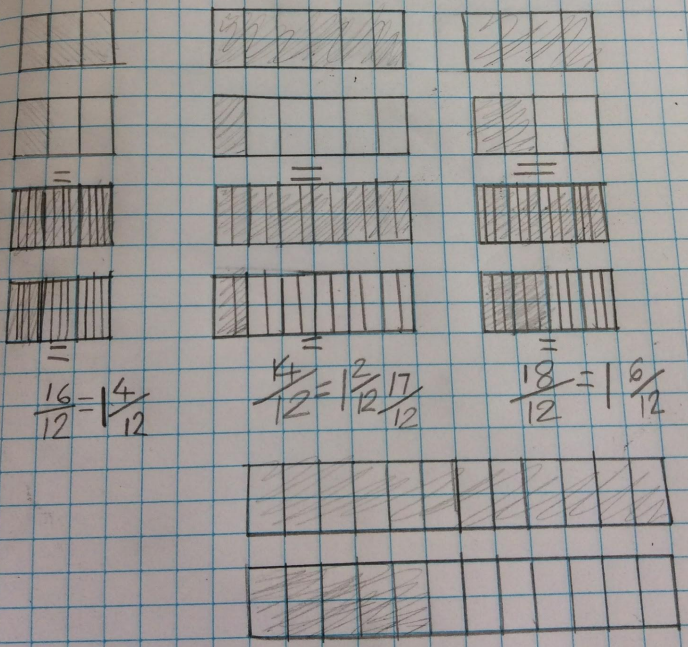
A square number is a number which is made a number timesed by itself e.g. $4^2 = 16$. A cube number is a number which has been ~~tired~~ timesed itself 3 times e.g. $3^3 = 27$

nswers as **mixed numbers**.

12/2/19

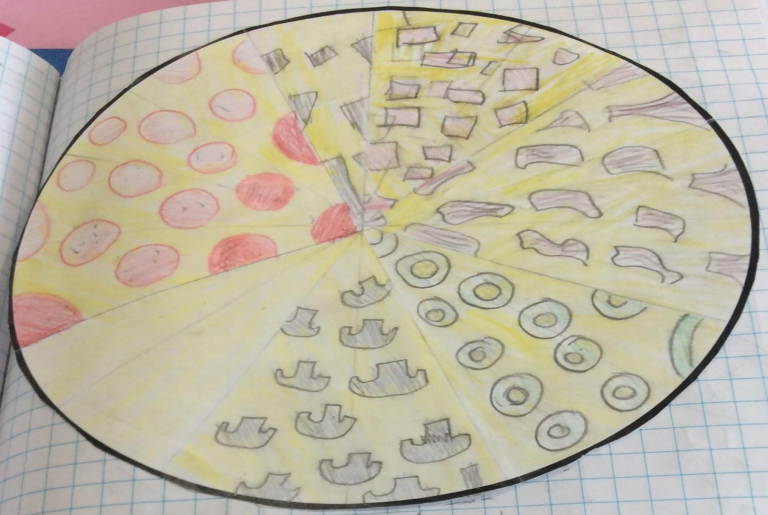
LO: To order fractions with the pictoral method.

$\frac{5}{3}$ $\frac{7}{6}$ $\frac{6}{4}$



$\frac{16}{12} = 1\frac{4}{12}$ $\frac{14}{12} = 1\frac{2}{12}$ $\frac{17}{12}$ $\frac{18}{12} = 1\frac{6}{12}$

$\frac{16}{12} = \frac{8}{6} = \frac{4}{3} = 1\frac{1}{3} = 1\frac{2}{6}$



$\frac{4}{16}$ pepperoni

$\frac{4}{32}$ cheese

$\frac{1}{16}$ Steak

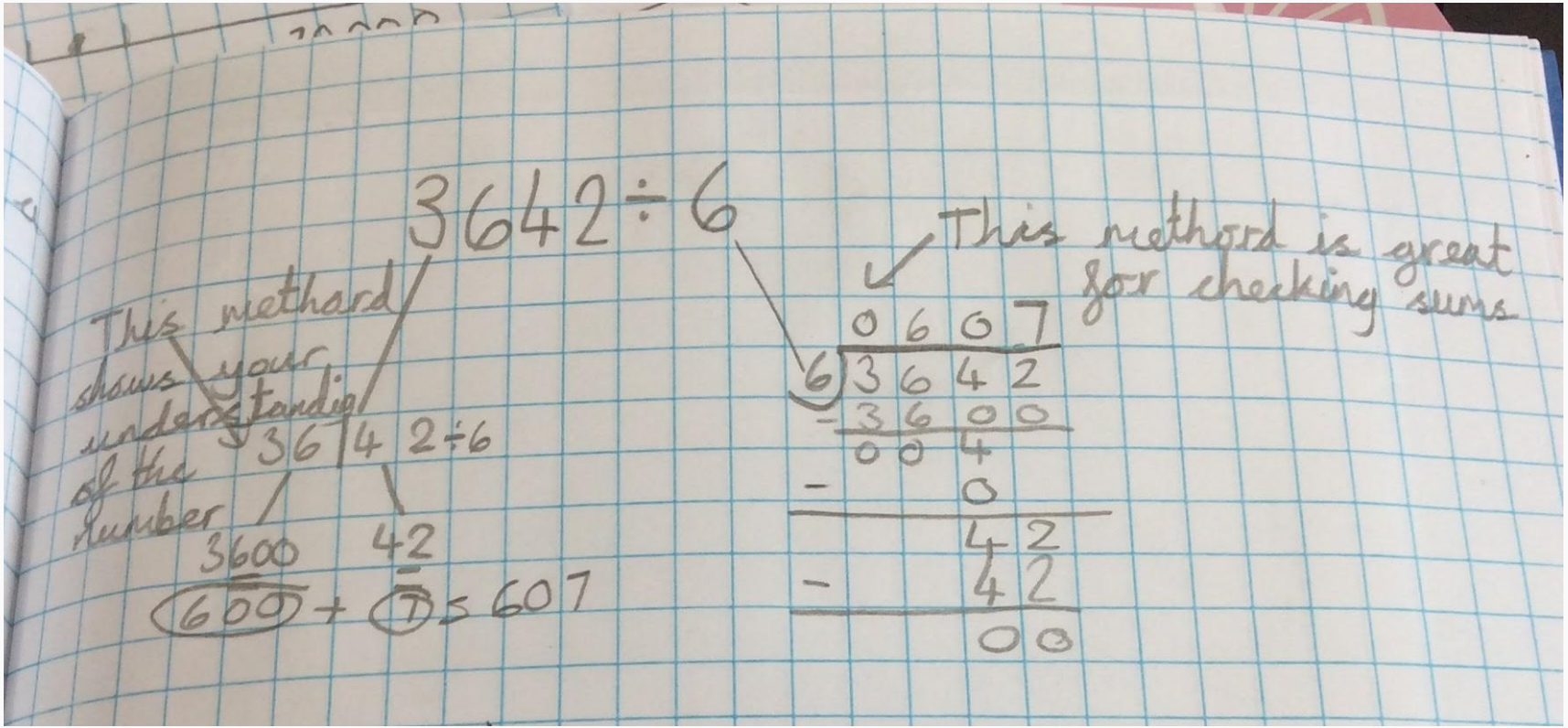
$\frac{1}{8}$ ham

$\frac{12}{64}$ bacon

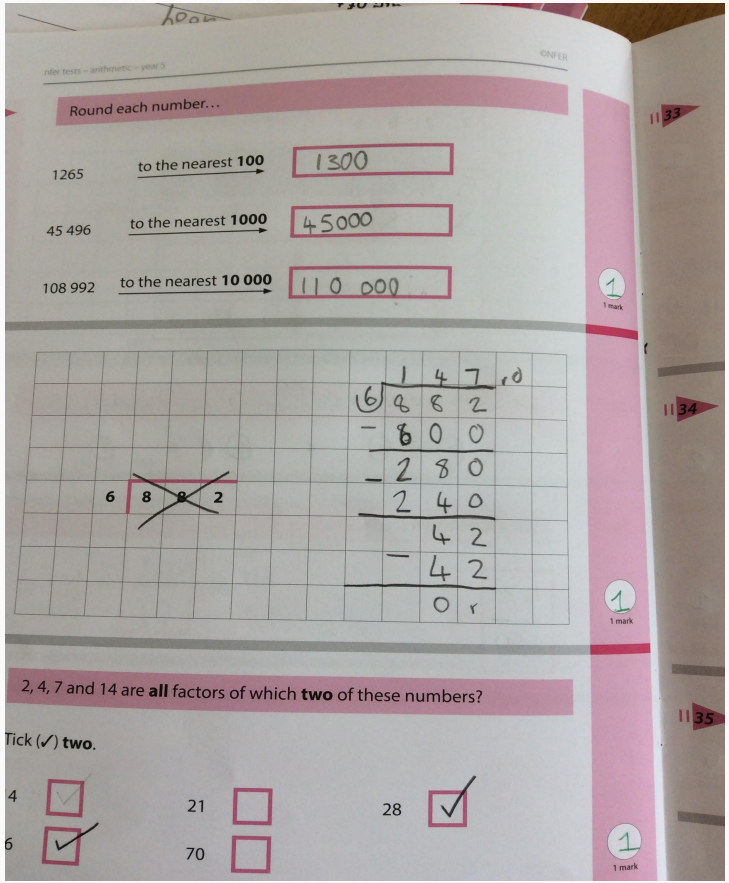
$\frac{2}{16}$ green olives

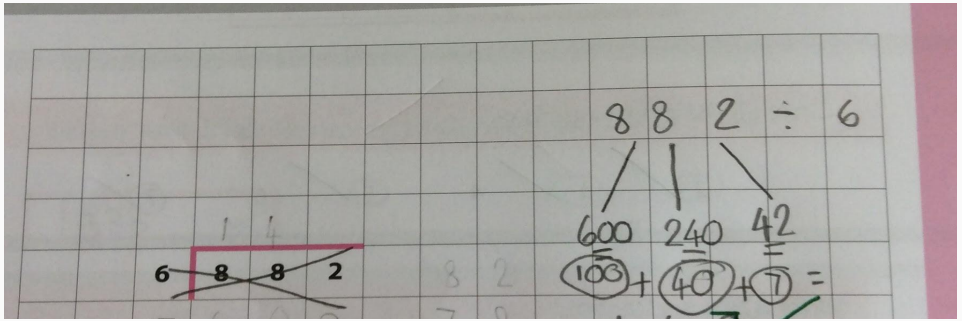
$\frac{1}{8}$ mushrooms

Mixing new and old methods

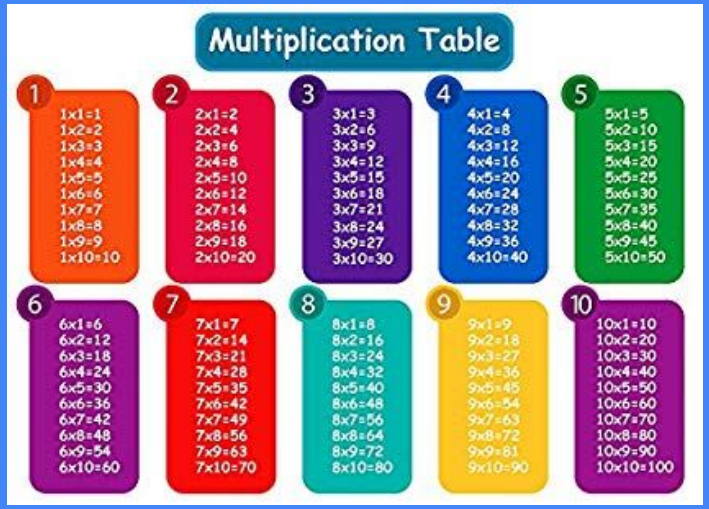


It is working!





Times Tables



What do we need to be able to do?

- In the table below are the National Curriculum times tables expectations for each year group. The children will be tested on their times tables regularly in school.

Expectations for times tables for each year group	
Year 1	Count in multiples of 2, 5 and 10. Recall and use all doubles to 10 and corresponding halves.
Year 2	Recall and use multiplication and division facts for the 2, 5 and 10 times tables including recognising odd and even numbers.
Year 3	Recall and use multiplication and division facts for the 3, 4 and 8 times tables.
Year 4	Recall and use multiplication and division facts for tables up to 12 x 12
Year 5	Revision of all times tables and division facts up to 12 x 12
Year 6	Revision of all times tables and division facts up to 12 x 12

The Multiplication Times Table Check

Which children will sit the multiplication check?

The times tables test will be introduced in English schools only. It will be taken by children in Year 4, in the summer term (in June). In June 2020 it will become compulsory for all English schools.

How will children be tested? Children will be tested using an on-screen check, where they will have to answer multiplication questions against the clock. The test will last no longer than 5 minutes and their answers will be marked instantly.

Times tables at home.

We will be changing our maths home learning by putting times table as a weekly focus for the children to practice their times tables.

Tasks will be sent home on a particular set times table and then collected the week after and looked at by class teachers.

This will be supplement to daily times table teaching in school. Home learning is to **practice and in school is for learning their tables.**

KS1 will start on number bonds and then progress.

Useful tips at home - all in your booklet

Stick to one table at a time to minimise confusion.

Start with chanting and writing them out slowly in order.

Then move on to completing the answers quickly in order – on paper or verbally with your child. Finally, move on to completing the answers in any order.

Keep reminding your child that 3 x 4 is the same as 4 x 3 – this is effectively halves the number of tables facts.

Each table has a square number 3 x 3, 7 x 7 etc. These are special numbers that can act as a memory hook – emphasise them!

Talk about the numbers as you are encountering them “ 5 x 7 = 35 that’s our house number” – this makes more memory hooks.

Thank you!

We are staying for a little while if you have any questions!