

**Teaching for Mastery** is designed to support a mastery approach to teaching and learning and have been designed to support the aims and objectives of the new National Curriculum.

The overviews:

- Have number at their heart. A large proportion of time is spent reinforcing number to build competency.
- Ensure teachers stay in the required key stages and support the ideal of depth before breadth.
- Ensure students have the opportunity to stay together as they work through the schemes as a whole group.
- Provide plenty of time to build reasoning and problem solving elements into the curriculum.

#### **Concrete - Pictorial - Abstract**

As a school we believe that all students, when introduced to a key new concept, should have the opportunity to build competency in this topic by taking this approach.

**Concrete** - students should have the opportunity to use concrete objects and manipulatives to help them understand what they are doing.

**Pictorial** - students should then build on this concrete approach by using pictorial representations. These representations can then be used to reason and solve problems.

**Abstract** - with the foundations firmly laid, students should be able to move to an abstract approach using numbers and key concepts with confidence.

If you would like more information on the Mastery Approach to maths or about any of the KIRFS, please do not hesitate to email the school at [office@webheath.worcs.sch.uk](mailto:office@webheath.worcs.sch.uk), or speak to your child's class teacher.

**By the end of each half term, children should know the following facts. The aim is for them to recall these facts instantly.**



Maths

Key Instant Recall Facts  
(KIRFS)

	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Aut 1	Recite the number names to 5. Touch count to 3.	Recognise numerals 0 - 10.	Add 0 or 1 to a number.	Recite the number names in order to 100. Know number bonds to 10.	Know number bonds to 20. Count in 50s and 100s.	Know number bonds to 100. Count in 25s and 1000s.	Find factor pairs of a number.	Know the multiplication and division facts for all times tables up to $12 \times 12$ .
Aut 2	Recite the number names in order to 5. Touch count to 5.	Recite the number names in order to 10.	Know number bonds to 10.	Know number bonds to 20. Know doubles to 10. Know doubles and halves to 20.	Know multiplication and division facts for 3 times table. Count in 3s.	Know multiplication and division facts for 6 times table. Count in 6s.	Know the multiplication and division facts for all times tables up to $12 \times 12$ .	Identify common factors of a pair of numbers.
Spr 1	Use the language before, after, next.	Begin to know the days of the week.	Know the days of the week and months in order.	Know multiplication and division facts for 2 times table. Count in 3s to 36.	Recall facts about duration of time. (seconds in a minute, minutes in an hour, hours in a day)	Know multiplication and division facts for 9 and 11 times table. Count in 9s and 11s.	Recall square numbers up to 144 and their square roots.	Convert between decimals, fractions and percentages.
Spr 2	Sort objects and say which group is more/less. Name simple shapes.	Be able to partition numbers to 5 into two groups.	Recite the number names in order to 50 and beyond.	Know multiplication and division facts for 10 and 5 times tables.	Know multiplication and division facts for 4 times table. Count in 4s.	Know multiplication and division facts for 7 and 12 times table. Count in 7s and 12s.	Identify prime numbers up to 20.	Identify prime numbers up to 50.
Sum 1	Recite number names to 10.	To say 1 more than a given number up to 10.	Add 10 to a number. Count in 2s, 5s and 10s.	Begin to use regrouping and exchanging.	Tell the time in analogue and digital. Count up and down in tenths.	Recognise the decimal equivalents of the fractions $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{3}{4}$ , tenths and hundredths.	Know decimal number bonds to 1 and 10.	Know the decimal and percentage equivalents of the fractions $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{3}{4}$ , $\frac{1}{3}$ , $\frac{2}{3}$ , tenths and fifths.

Sum 2	Recite number names in order to 10.	Recite the number names in order to 20.	Know doubles and halves of numbers to 10. Tell the time to o'clock and half past.	Tell the time to o'clock and half past, quarter past and quarter to.	Know multiplication and division facts for 8 times table. Count in 8s.	Multiply and divide 1 and 2 digit numbers by 10 and 100.	Recall metric conversions (e.g. metres to cm, mm to cm, kg to g)	Know the square roots of square numbers to 15 x 15.
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