IMPACT

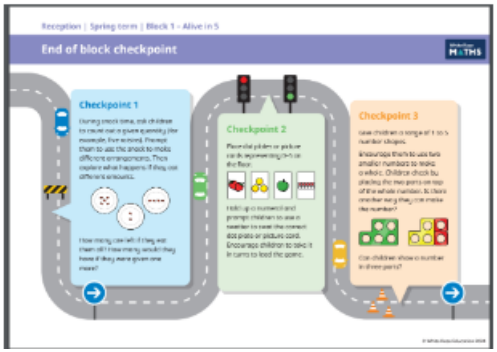
Maths

## Assessing Knowledge & Understanding

### In the EYFS

During adult guided or teacher led activities we use key questioning and possible sentence stems to support and check children's mathematical talk and reasoning skills. Adult led learning is delivered in small groups enabling adults to observe if children have cemented their mathematical knowledge. Continuous provision is always enhanced with resources and activities to consolidate from each block of work.

We use checkpoint suggestions to support observations.




Formal assessment activities are carried out at the end of each half term, revisiting the learning objectives. These are completed for each child and added to their EYFS profile. (Reception only). Children are then assessed against the birth to five document to see where they coming out in relation to the age ranges and this is then entered into scholar pack.

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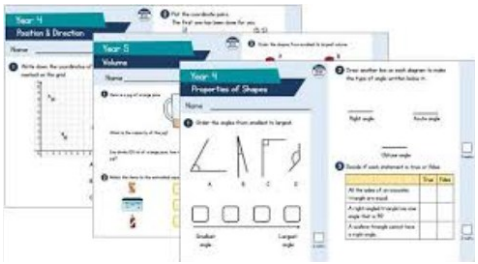
## Assessing Knowledge & Understanding

**Year 1 to Year 6**

### End of Block Assessments

Through the use of end of block assessments from White Rose Education, teachers can assess pupil knowledge at the end of each module of work in years 1 to 6. Each block is broken into small steps which teachers break down into lessons and move learning using formative assessment of learning.

The end of block assessment allows teachers to identify gaps in knowledge that can be build into other areas of learning or further intervention if needed for pupils.



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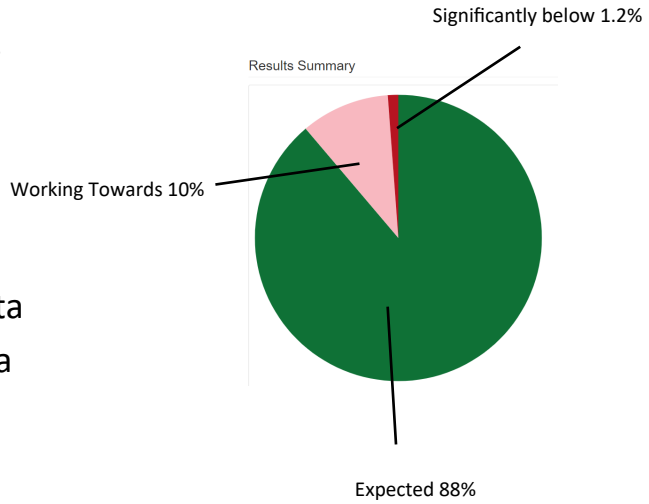
## FLiC Assessment

Using the end of block assessment and ongoing in class assessment teachers input data for each maths strand using our Flic assessment. This allows teachers to monitor pupils and inform planning for subsequent sessions. Pupils who require support are identified early and given further support through the subsequent sessions. It also allows the subject leader to identify areas of strength and areas for development across the school.




## Summative Assessment

At the end of each term teachers in year 1 to year 6 enter information onto the school Scholarpack system for maths. This data is based on work in class, end of block assessments and the use of a termly test. Year 1 use end of term White Rose assessments, year 2 and 6 use past SATS papers and years 3-5 use NFER maths assessments. This data allows teachers and subject leaders to identify strengths and areas that need to be developed for individuals and across the school.

| Objective | Number | Expected+ | Significantly Below | Working towards | Expected | Above | |
|---|---|---|---|---|---|---|---|
| Addition & Subtraction (within 10) | 26 | 61.5% | 3.8% | 34.6% | 42.3% | 19.2% | |
| Place Value (within 10) | 26 | 92.3% | 0% | 7.7% | 76.9% | 15.4% | |
| Shape | 25 | 100% | 0% | 0% | 20% | 80% | |
| Total | 77 | 84.4% | 1.3% | 14.3% | 46.8% | 37.7% | |

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# Early Years


In the Early Years we follow the White Rose Maths small steps to develop concepts. In Nursery lots of songs and rhymes are used to develop counting skills. A range of stories supplement learning and develop children's early knowledge of number, shape, space and measure.

In Reception we continue to follow the White Rose small steps and also use the NCETM mastering number programme. The programme has great links to Numberblocks which allows children to see different representations of numbers.

Children in Reception start to see the written aspect of maths and begin to use part-part-whole models and number frames.

All children make use of the outdoors to play games that use maths skills.

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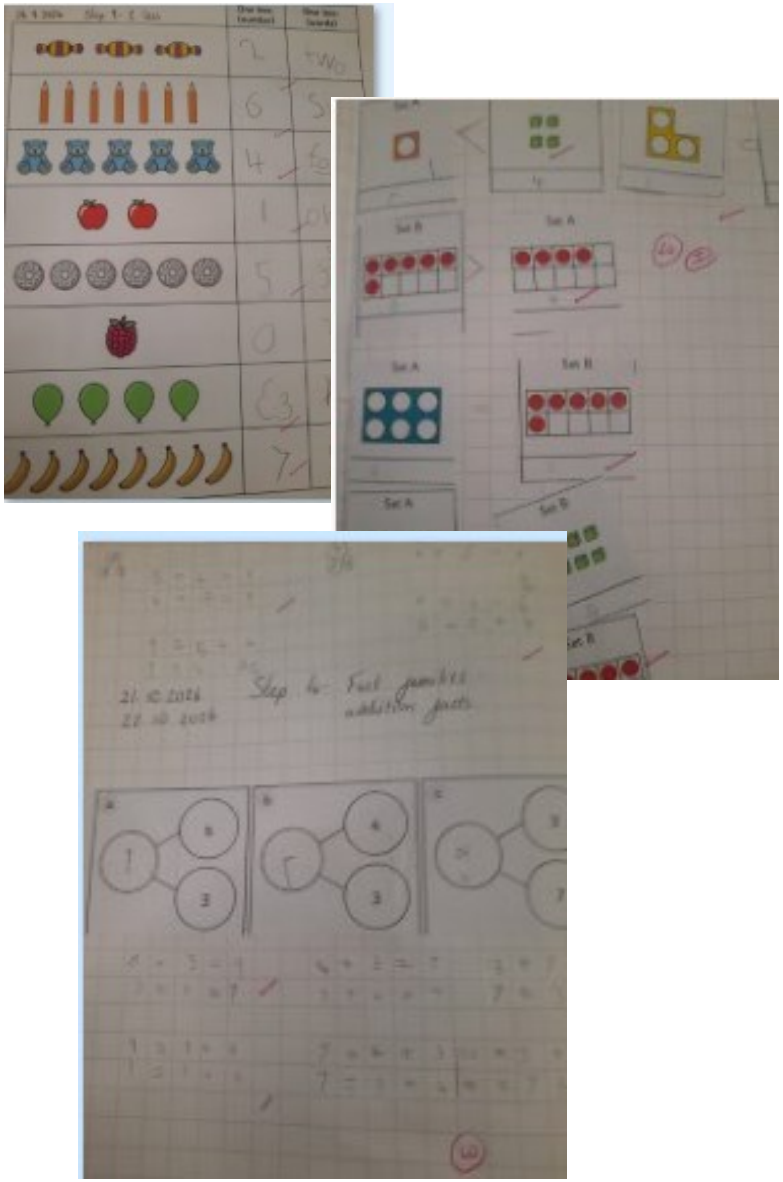
## Year 1



Year 1 build on the small steps from the EYFS and begin to introduce more formal methods of recording calculations.

A range of practical work is still used and children look at a range of representations of numbers. The numbers children work with become larger.

Children continue to follow the White Rose small steps as well as the NCETM mastering number materials which builds on the work from Reception.

Children continue to use stories and the outdoor environment to develop their mathematical skills.

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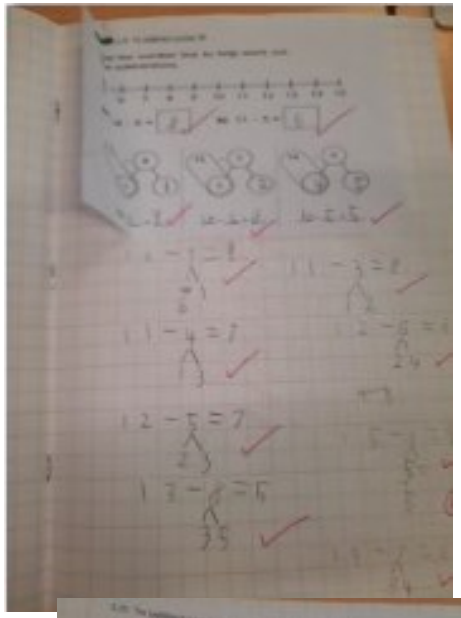
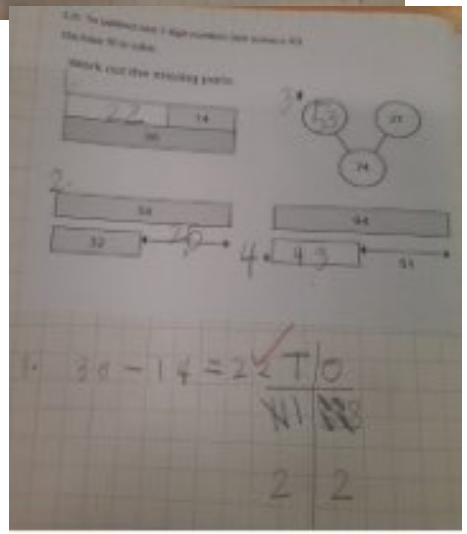
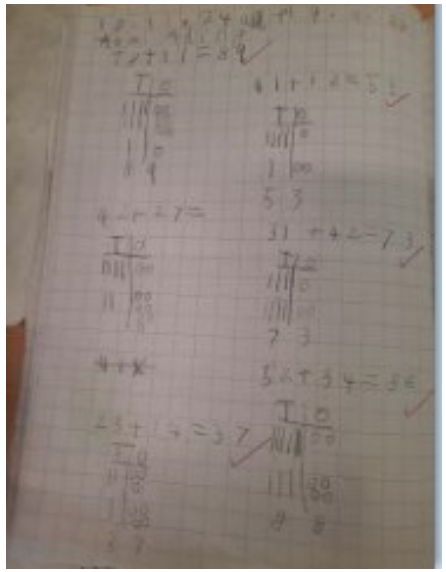
## Year 2







Year 2 begin the early steps of formal methods of recording calculations particularly in addition and subtraction.

A range of practical work is still used and children look at a range of representations of numbers. The numbers children work with are numbers within 100.

Children continue to follow the White Rose small steps as well as the NCETM mastering number materials which builds on the work from reception and year 1. Numberblocks is still used to ensure children have a clear understanding of the composition of numbers.

Children start to use formal measurements and begin their journey of learning times tables and linked division facts. Children begin to use Times Table Rockstars to develop speed and fluency with these facts.

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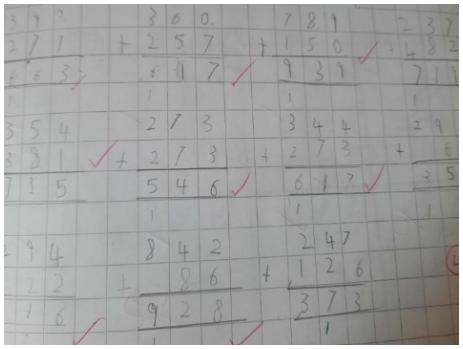
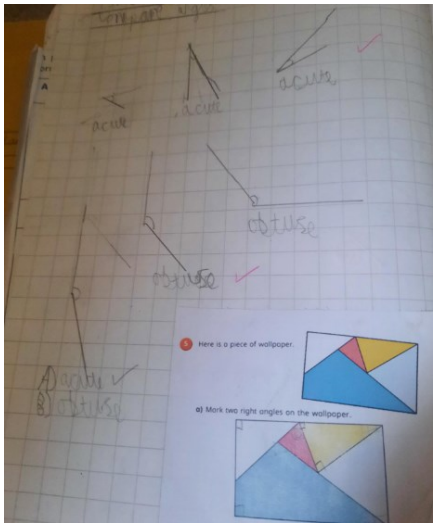
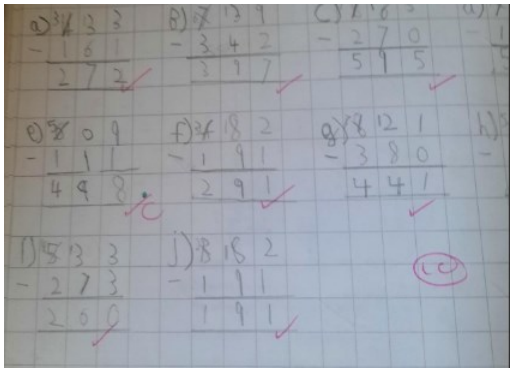
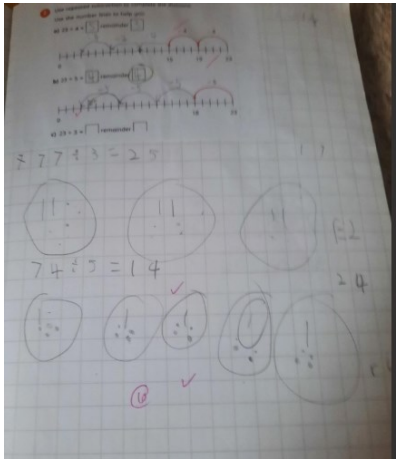
## Year 3

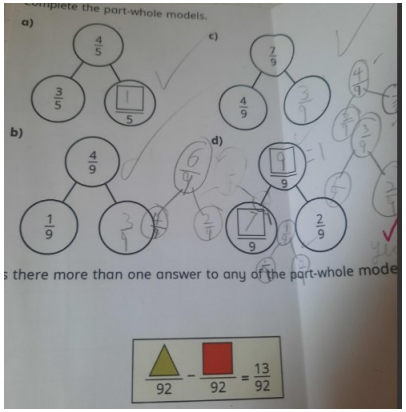
In year 3 children begin to use written methods for calculation building on the work from Key Stage One, using larger numbers. Formal layout using squared pages helps children to work out column addition and subtraction calculations. Pictorial representations are still used to develop understanding in all areas. A range of representations are used in all blocks of work. Children use Mastering Number in year 3 to develop their number sense, building on the Mastering Number from Key Stage One. As year 3 progresses Mastering Number moves onto fluency with multiplication ready for year 4.









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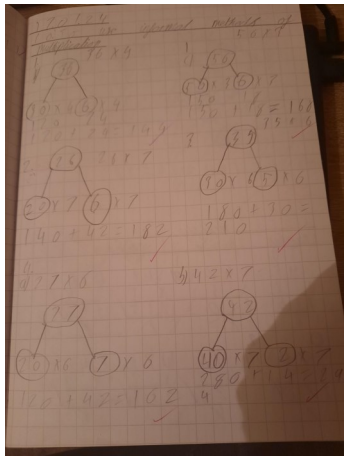
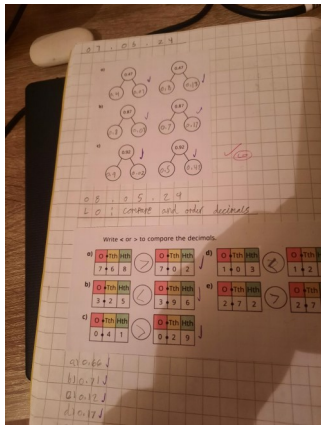
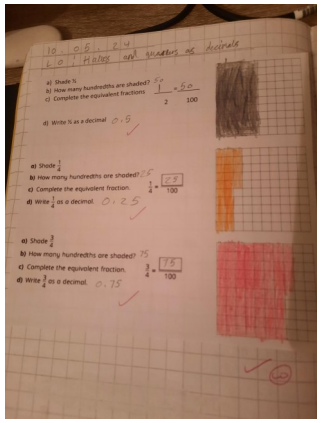
## Year 4

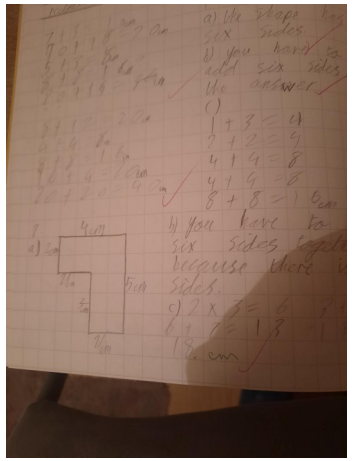
In year 4 children begin to prepare themselves for the Multiplication Tables Check. We use Mastering Number at Key Stage Two to develop fluency with all the times tables up to 12 x 12. This is  used daily outside of the daily maths lessons. Times Table Rockstars is used to see children's speed and fluency with each times table.

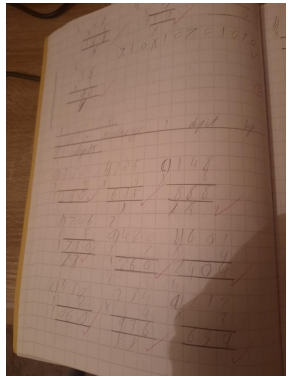
The daily maths lesson continues to follow the White Rose Maths small steps. A range of representations are built upon including the use of part-part– whole models but now numbers include decimal numbers. Children are moving closer to formal methods of all 4 operations for calculating but continue to use a range of practical resources such as place value counters to support them with this.











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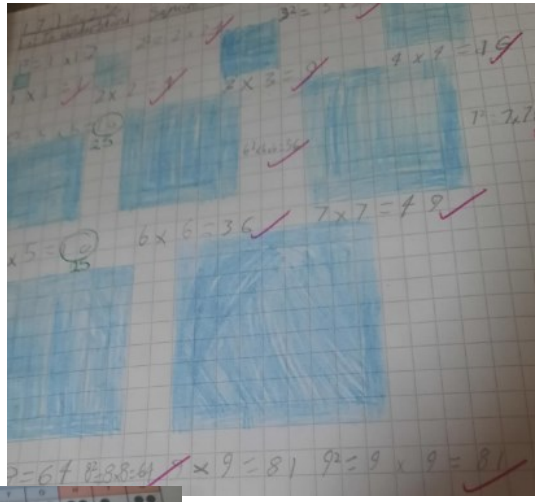
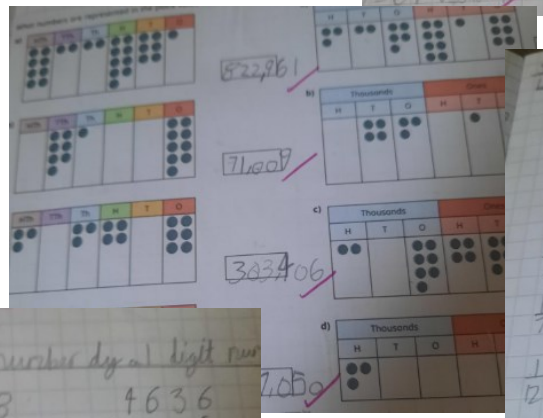
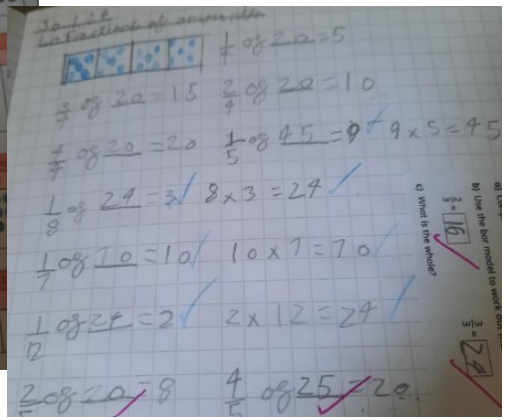
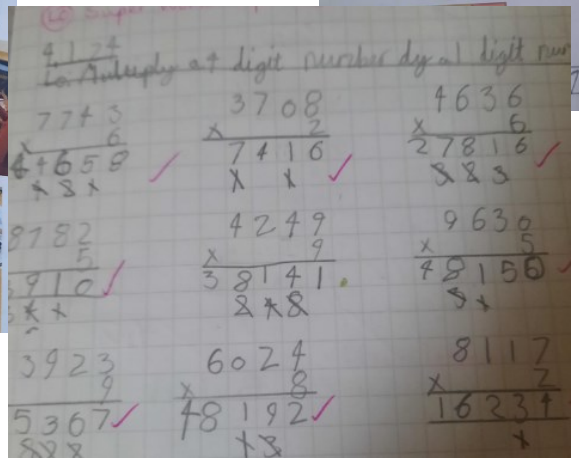
## Year 5

Children in year 5 continue to develop more formal methods for all four calculations. Practical and pictorial representations are still used to build understanding of new concepts. Children use the knowledge gained in year 4 of times tables and continue the Mastering Number programme. This programme is adapted to the needs of the cohort of children. In year 5, children have the most small steps in the White Rose programme to complete in order to equip them for the demands of year 6.







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## Year 6

Maths in year 6 marks the end of Key Stage 2 maths. Children are introduced to new concepts such as algebra and ratio and proportion but a lot of the small steps in year 6 help to consolidate and extend concepts taught in previous year groups. Our aim in year 6 is to prepare children for the next step in their mathematical journey when they reach secondary school. Lots of work is done to ensure fluency in arithmetic and questioning to develop problem solving and reasoning skills. Children are expected to explain their thinking and share their ideas with peers. By this point children are encouraged to work with greater independence and consider efficiency of methods available to them. Mastering Number at Key Stage Two is still part of each day, using the year 5 materials to help develop fluency with multiplication and division.