

**Development Priority 6:** To develop and embed a mastery approach to improve the progress and attainment of all children in Maths from their starting points.

### The achievement of pupils in Foundation Stage

| Objective  | Activities /Actions   | Lead person(s) | Start date | Resources | Monitoring   | Success criteria   |
|--|---|----------------|------------|-----------|--|--|
| <b>Class teachers to ensure regular opportunities for reasoning are planned for, to allow the children time to 'talk maths'.</b>                   | Class teacher will use key questions to promote and encourage reasoning.<br>CT teacher to model the use of full sentences; children are expected to use full sentences to explain their answer.<br>A bank of sentence starters will be provided to support the children's language development in explaining. | CT<br>TS       | Aut 2      |           | Learning walk to monitor the use of language and reasoning.<br>Maths Lead will monitor at the end of Aut 2 and then every half term, | Children can confidently verbalise their answer.<br>All children, by the end of the year, can use key phrases to verbalise their thoughts. |
| <b>Class teachers to ensure that the environment provides a variety of opportunities for children to explore their learning in different ways.</b> | A variety of equipment and activities are provided and displayed in the environment to allow children to learn and explore mathematically.<br>Both inside and outdoor activities are provided.<br>Maths vocabulary is displayed and referred to in the unit.  | CT<br>TS       | Sept 2018  |           | Learning walks to monitor the activities provided and vocabulary displays.<br>This will be monitored on a half termly basis.         | Children make good progress in Maths.<br>Vocabulary is used by the children. displayed   |
| <b>Mathematics is given sufficient direct teaching time every day, with frequent opportunities for children to practise</b>                        | Class teacher will plan for Maths every day.<br>Class teacher will provide QFT to enable the children to make good progress.  | CT<br>TS       | Sept 2018  |           | Planning review<br>Observation<br>This will be monitored on a half termly basis.   | Children's progress in Maths will be evident through termly data entry and end of year data in reception.                                  |

|   |  |          |              |  |   |   |
|---|--|----------|--------------|--|---|---|
| and consolidate their growing knowledge.  |  |          |              |  |   |   |
| <b>The CT will frequently use practical equipment to support children's grasp of numbers and develop their understanding of linking concrete experience with visual and symbolic representations.</b> | A range of practical equipment is used to support children's learning of new concepts. The environment will be rich in resources to support and develop the children's mathematical understanding. | CT<br>TS | Sept<br>2018 |  | Learning walk<br>This will be monitored on a half termly basis.<br><br>Pupil Voice<br>Aut 2 | End of year data will show a secure knowledge of number, shape, space and measure. The percentage of children leaving FU on 2 for Maths will be above national average. |
| <b>Class teachers will provide opportunities, through direct teaching and through activities provided, for children to deepen their understanding.</b>  | Class teacher will ask key questions to stretch children's thoughts and promote deeper thinking.   | CT<br>TS | Sept<br>2018 |  | Lesson observations<br>Aut 2  | There will be some children that leave FU with a 3 in Maths.  |

## The achievement of pupils in Key Stage 1

|   |   |          |              |           |             |  |
|---|---|----------|--------------|-----------|-------------|--|
| <b>Class teachers will use 10 in 10 to provide plenty of opportunities to allow children to secure their knowledge of completing calculations involving missing numbers</b> | Class teacher will ensure 10 in 10 includes missing number calculations.<br>Class teacher will ensure 10 in 10 includes calculations with the equals sign in different positions. | CT<br>TS | Sept<br>2018 | Sept 2018 | Book review | Books will show an improvement in calculations involving key aspects.<br><br>Arithmetic scores will show an improvement. |
|---|---|----------|--------------|-----------|-------------|--|

|  |   |          |  |  |  |   |
|--|---|----------|--|--|--|---|
| and calculations with the equals sign in different places.<br><b>**Weakness found from KS1 Maths Paper Analysis**</b>  |   |          |  |  |  |   |
| <b>Class teacher to plan opportunities for teaching measurement, including money and time outside the Maths lesson.</b><br><b>**Weakness found from KS1 Maths Paper Analysis**</b> | Measurement vocabulary displayed in class.<br>Real life opportunities are provided to explore money and time.<br>Class teacher will be smart with their use of time and allow opportunities to explore time and measures outside of the maths lesson. | CT<br>TS | Sept<br>2018<br>Yr2 Aut2<br>Spr2<br>Sum<br><br>Yr1 Spr2<br>Sum 2 |  | Pupil voice<br>Analysis of end of term<br>Maths papers.              | Maths tests papers will no longer show measurement as a weakness for KS1.                                   |
| <b>Class teachers will ensure that CPA (Concrete, pictorial or abstract) methods are used within lessons to secure their understanding.</b>  | Class teachers to ensure that children are provided with practical resources and visual models to support their learning.   | CT<br>TS |  |  | Book review<br>Pupil Voice<br>Learning walks                         | The percentage of children leaving KS1 at expected or above for Maths will be at or above national average. |
| <b>The achievement of pupils in Key Stage 2</b>  |   |          |  |  |  |   |
| <b>Class teachers to ensure the children are securing and further developing their recall of time tables.</b>  | Class teachers will provide opportunities for children to practise/use times tables x3 per week.<br>Maths lead to provide times table lunch club for yr3/4 yr5/6.   | CT<br>TS | Sept<br>2018   |  | Half termly check of number of children achieving times table awards | Percentage of children achieving each times table award will increase.                                      |

|  |  |          |                                     |                    |  |  |
|--|--|----------|-------------------------------------|--------------------|--|--|
|  |  |          |                                     |                    | Analysis of termly tests papers for multiplication answers and application of times tables to formal methods is improving.   | Arithmetic test scores will show an improvement.   |
| <b>10 in 10 will be used daily to practise and develop arithmetic skills.</b>  | 10 in 10 will be delivered before the main part of the maths lesson.<br><br>Class teachers will ensure that misconceptions are addressed, to ensure 10 in 10 has an impact.  | CT<br>TS | Sept<br>2018                        |                    | Book sampling of targeted ARE who are performing below to ensure there is tangible progress.   | Arithmetic tests will show a rise in scores.   |
| <b>Class teachers to ask key questions to ensure depth of understanding</b>  | APE is used to allow children to show a clear understanding.<br>Deeper understanding extensions used.  | CT<br>TS | Aut 2                               |                    | Book review<br>Learning walk   | An improvement in children's mathematical explanations in books will be evident.   |
| <b>Class teachers will ensure <u>Fractions, decimals percentages</u> is taught using the small steps process and thoroughly to ensure children 'master' it.</b><br><br><b>**Weakness found from KS2 Maths Paper Analysis**</b> | Maths lead to deliver staff meeting to model Tom's method of teaching fractions.<br>Class teachers will display equivalent fractions, decimals and percentages with visuals.<br>Class teachers will ensure CPA is used to teacher F,D,P. | CT<br>TS | Yr6<br>Aut2<br><br>Yr3-5<br>Spr-Sum | Staff meeting time | Environment check during F,D,P teaching<br>Lesson observations for FDP<br>Book sampling to identify if shown models are being used<br>White Rose end of unit assessment analysis | White rose assessments will show the majority of children have answered questions correctly.<br>End of term tests will show an improvement in FDP questions answered.<br>End of KS2 question analysis will no longer show a weakness in FDP. |
| <b>Class teachers will ensure measurement, for their year group objectives, is taught fully and given</b>  | Class teachers will ensure vocabulary linked to measurement is displayed in the classroom.<br>Measurement conversions will be displayed.   | CT<br>TS | Spr<br>Sum                          |                    | Environment check during measurement teaching  | White rose assessments will show the majority of children have answered questions correctly.   |

|  |   |                     |                 |  |  |   |
|--|---|---------------------|-----------------|--|--|---|
| <p><b>ample time for children to master the objectives.</b></p> <p><b>**Weakness found from KS2 Maths Paper Analysis**</b></p> | <p>Class teachers will ensure opportunities for exploring measurement through theme is taken.</p> <p>Class teachers will ensure real life exploration is taking place.</p>  |                     |                 |  | <p>Evidence of practical real life learning, outdoor learning within books.</p> <p>White Rose end of unit assessment analysis</p>  | <p>End of term tests will show an improvement in measurement questions answered.</p> <p>End of KS2 question analysis will no longer show a weakness in measurement.</p>   |
| <p><b>Upper key stage 2 class teachers will ensure ratio and proportion is explored fully with children.</b></p>               | <p>Bar models to be used during ratio and proportion lessons.</p> <p>Small steps are used to ensure a secure understanding.</p> <p>Practical resources are used for visual and real life understanding.</p> <p>A wide variety of problems are explored with the children.</p> | <p>CT</p> <p>TS</p> | <p>Yr6 Spr2</p> |  | <p>Planning check for small steps.</p> <p>Book review for evidence of models.</p> <p>Evidence of practical methods in books.</p> <p>White Rose end of unit assessment.</p> | <p>White rose assessments will show the majority of children have answered questions correctly.</p> <p>End of term tests will show an improvement in ratio and proportion. questions answered.</p> <p>End of KS2 question analysis will no longer show a weakness in ration and proportion.</p> |

## The achievement of pupils across all Key Stages

|  |  |           |                          |  |                        |  |
|--|--|-----------|--------------------------|--|------------------------|--|
| <p><b>All staff using White Rose Mastery w</b></p> | <ul style="list-style-type: none"> <li>Teacher will plan using the small steps from the White Rose planning document.</li> </ul> | <p>TS</p> | <p>Sept 17 - July 18</p> |  | <p>Planning review</p> |  |
|--|--|-----------|--------------------------|--|------------------------|--|

|   |   |                         |                          |                            |   |   |
|---|---|-------------------------|--------------------------|----------------------------|---|---|
| <p><b>Teachers will start every Maths lesson with a problem. W s</b></p>  | <ul style="list-style-type: none"> <li>Teachers to plan for and begin everyday with a challenging problem for whole class.</li> <li>Teachers to provide problems where children have to think and persevere.</li> <li>Teachers will promote growth mindset and encourage perseverance.</li> </ul>                               | <p>TS</p>               | <p>Sept 17 - July 18</p> |                            | <p>Learning walk<br/>Aut 2<br/>Pupil voice - confidence</p>   | <p>Assessments will show each problem has been tackled.<br/>Progress in reasoning papers.</p>                                       |
| <p><b>Teachers to ensure subject knowledge is embedded before moving on to the next step of learning.</b><br/>**Where, with a small minority, it is not embedded, boosters and interventions will happen and are documented, to ensure gaps are not created** RRR</p> | <ul style="list-style-type: none"> <li>Teachers to use a range of strategies to teach an objective.</li> <li>Staff to 'mini' assess in Maths after every unit and to ensure skills are applied in writing.</li> <li>Short bursts of summative assessment are used at the end of a unit before moving on to the next.</li> </ul> | <p>TS<br/>RC<br/>MW</p> | <p>Sept 17 - July 18</p> | <p>Leadership Time</p>     | <p>Subject leaders will closely monitor progress within classrooms and will be reflective and highlight areas of concern (as well as success to Class Teachers and Teaching Assistants.</p> | <p>Regular, short burst assessments show learning has been embedded.<br/>End of term assessments show mastery through outcomes.</p> |
| <p><b>Teachers use formative assessment throughout lessons to check understanding and gauge knowledge. IW</b></p>   | <ul style="list-style-type: none"> <li>Weekly phase briefings with a formative assessment focus.</li> <li>Regular use of formative assessment within lessons, using a variety of strategies, to check understanding.</li> </ul>   | <p>TS<br/>RC<br/>MW</p> | <p>Sept 17 - July 18</p> | <p>Staff Briefing time</p> | <p>Feedback - within briefings - from formative assessment strategy.<br/>Learning Walks<br/>Book Review<br/>Assessment Data</p>   | <p>Headteacher and SLT are held accountable for the work they do in school, the money they spend and the outcomes they achieve.</p> |
| <p><b>Teachers to ensure any children 'falling' behind are given targeted support. TA/</b></p>  | <ul style="list-style-type: none"> <li>Teachers to use booster/intervention form for any children needing support to 'keep up'.</li> </ul>  | <p>TS</p>               | <p>Sept 17 - July 18</p> |                            | <p>Monitoring of Booster/Intervention forms</p>   | <p>Impact on booster/intervention sheets will be shown<br/>Data will show progress for all children</p>                             |

|  |  |                         |                              |                            |   |   |
|--|--|-------------------------|------------------------------|----------------------------|---|---|
|  | <ul style="list-style-type: none"> <li>• Teachers to measure and record impact regularly.</li> <li>• Teachers to inform Maths Lead if actions are not working.</li> </ul>  |                         |                              |                            |   |   |
| <p><b>Teachers use extension/aspire activities to deepen children's knowledge and enrich their learning within a given objective</b><br/> <b>Planning/</b></p> | <ul style="list-style-type: none"> <li>• Class teachers provide a variety of activities for one objective.</li> <li>• Opportunities are given for application.</li> <li>• Aspire objectives are given for <u>all</u> lessons and are open to <u>all</u> children.</li> </ul> | <p>TS<br/>RC<br/>MW</p> | <p>Sept 17 -<br/>July 18</p> | <p>Leadership<br/>Time</p> | <p>Book 'scrutiny'<br/>Learning walks</p> | <p>Books show a strong understanding of learning.<br/>Data shows knowledge and understanding is embedded.</p> |