

**Lisnagry National School Improvement Plan 2013-2016- Numeracy**

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| <p><b>Baseline Data</b></p>                               | <ul style="list-style-type: none"> <li>• <b>Attainment of Curriculum Objectives:</b> Standardised Test Results analysis indicates that while pupils are performing above the national norm, pupils are performing least well in the area of problem solving – average score of 55%. Teacher observations and teacher designed tasks and tests highlighted mental maths and problem solving as areas needing attention.</li> <li>• Teachers report that no school agreed problem solving strategy in place.</li> <li>• <b>Teaching Approaches:</b> Teachers survey stated that more talk and discussion during maths lessons is needed and opportunities for pupils to explain answers as part of maths lessons is lacking. The environment also needs to be used more to relate maths to everyday life.</li> <li>• <b>Pupils Engagement in Learning:</b> Parents Questionnaire stated clearly their desire to have more knowledge of the maths curriculum to help their children engage at home.</li> </ul> |
| <p><b>Summary of main strengths in S.S.E.</b></p>         | <p>Teachers’ planning is based on the Maths curriculum and the school Maths plan. There is an agreed whole school policy on Maths Language and agreed strategies for teaching most Maths topics. There is an agreed approach to numeral formation and presentation of written work. The school has a good supply of Maths resources centrally located. Results of assessments are used to inform teacher planning Attainment of curriculum areas-pupils performing above national norm.</p>   |
| <p><b>Summary of main areas requiring improvement</b></p> | <ul style="list-style-type: none"> <li>• <b>Attainment of Curriculum Objective:</b> Development of Problem Solving and Mental Maths to be encouraged and given a specific time slot. More time to be given to the strands of Shape and Space, Data and Measurement.</li> <li>• <b>Teaching Approaches:</b> New Teaching Methodology allowing talk &amp; discussion about maths and opportunities for pupils to explain answers for part of Maths lessons. Strategies to support pupils problem solving need to be agreed at whole school level. Increase the use of Maths in the school environment. Creation of Maths trails within and outside the school building. Increased use of Maths games.</li> <li>• <b>Pupils Engagement in Learning:</b> Supporting parents with regard to the content, methodologies and language of Maths – especially topics of subtraction, long division and fractions so pupils can engage better with maths work at home.</li> </ul>                                     |

| Improvement Targets   | Required Actions  | Success Criteria/<br>Measurable Outcomes  | Persons Responsible   | Timeframe for Actions   |
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| <ul style="list-style-type: none"> <li>To increase the average score of problem solving within the total school cohort as identified in the SIGMA T analysis by 5% to 60% over the next 3 years.</li> </ul> | <ul style="list-style-type: none"> <li>Problem solving strategy RUDE to be implemented throughout the school and to be taught at each class level.</li> <li>Posters on mathematical language and problem solving strategies to be displayed in each classroom.</li> <li>Problem solving folder to be developed for each class level.</li> <li>Word Problems and open ended tasks to be used in all classes as well as a 'Problem of the Week' task.</li> <li>Problem Solving Boxes 1-4 (Macmillan) to be introduced from 3<sup>rd</sup>-6<sup>th</sup> classes</li> </ul> | <ul style="list-style-type: none"> <li>Standardised testing at the end of each year- data will be analysed over three years to track performance of pupils problem solving.</li> <li>Review of children's work samples</li> <li>'Problem of the week' will be checked by Principal and modelled to children.</li> <li>Teacher Observation regarding the use of the Problem Solving Box to be noted and collated.</li> </ul> | <ul style="list-style-type: none"> <li>Principal to arrange all teachers to engage.</li> <li>Principal to conduct the 'Problem of the Week'</li> <li>Mrs. Kennedy (Maths Post Holder) will assist all teachers with P.S folders.</li> <li>All Class Teachers</li> </ul> <p>A focus group will be set up to discuss yearly improvements.</p> <p>Focus Group:<br/>Ms. Kennedy, Mr. Feeney, Ms. Cahill, Ms. Barry, Ms. Delaney</p> | <p>Year 1 -Term 1: Focus on mathematical language and problem solving strategy i.e. RUDE approach and posters to be displayed.<br/>Principal to begin the 'Problem of the Week ' Task</p> <p>Term 2: Problem solving folders to be compiled and used by all teachers.</p> <p>Term 3: Continue to develop the bank of problem solving resources. Set up focus group to discuss the year's improvements and plan for next year.</p> <p>Year 2: Evaluate the different types of word problems with each class level and monitor the progress of the Problem Solving Box.</p> <p>Year 3: Continuation of all strategies put in place.</p> |

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| <ul style="list-style-type: none"> <li>• That 75% of each class would achieve or exceed the target norms as set out in the Westwood and Ballard timed computation test.</li> </ul>  | <ul style="list-style-type: none"> <li>•Target boards and number fans to be introduced from senior infants to sixth class.</li> <li>• Oral/Mental maths to be given a specific time slot every day: 5 mins at infant level and 10 mins at all other class levels.</li> <li>•Oral Computation/ tables to be practised both at whole class level and through the use of ICT.</li> </ul> | <ul style="list-style-type: none"> <li>•Mental/ Oral Maths Tests: Data will be analysed over three years.</li> <li>•Weekly tables test from senior infants to sixth class.</li> <li>•Teacher Observation regarding mental arithmetic focusing on speed and accuracy to be noted and collated.</li> </ul>   | <ul style="list-style-type: none"> <li>•Mrs. Kennedy to administer mental maths tests.</li> <li>•All class teachers to monitor , correct and encourage the use of oral/mental maths.</li> </ul>  | <p>Year 1 -Term 1<br/>Target boards and class suitable questions to be used in senior infants-6<sup>th</sup> class.<br/>Oral/mental maths to begin at all class level as outlined Westwood and Ballard test to be administered and results to be collated by all teachers.<br/>Term 2: Continue as above. Greater focus this term on computation through the use of ICT.<br/>Term 3: Results from testing to be analysed for planning for next year.<br/>Year 2 and 3: Continue as above. Focus group will monitor yearly progress.</p> |
| <ul style="list-style-type: none"> <li>•To increase opportunities for pupils to engage with Maths in the school environment. The Creation of Maths trails within and outside the school building so children will relate maths to everyday life and increasing the use of Maths games in all classes</li> </ul> | <ul style="list-style-type: none"> <li>• To devise a maths trail for each class level using the school building and outside environment.</li> <li>• The creation of maths game resources for each class level both board games and ICT games which can be used at individual, small group or whole class level using the interactive whiteboard.</li> </ul>                           | <ul style="list-style-type: none"> <li>•Increased enthusiasm and enjoyment can be noted through teacher observation.</li> <li>•Teacher can track children’s maths progress on the ICT games to ensure they are progressing to the next level. These observations can be noted and collated. Games can be selected to focus on the particular strands being taught at that time.</li> </ul> | <ul style="list-style-type: none"> <li>• Each class teacher to devise their own class maths trail.</li> <li>• Maths game resources to be sourced and filed. Mrs. Kennedy to assist in selecting appropriate material.</li> <li>•A list of maths websites to be compiled and distributed to each teacher –Mrs. Kennedy responsible for this.</li> </ul> | <p>Year2:<br/>Maths Games to be sourced and catalogued for each class level to use.<br/><br/>Maths Trails to be compiled and used by each class at least twice a year.<br/><br/>Year 3: Greater focus this year on the use of ICT software and websites with interactive online games.</p>  |

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| <ul style="list-style-type: none"> <li>•To increase the amount of time dedicated to the strands of Shape and Space. Data and Measurement.</li> </ul>  | <ul style="list-style-type: none"> <li>•Each class teacher to dedicate more teaching time to the strands of shape and space, data and measurement – one to be taught each term rather than left to the final term.</li> </ul>  | <ul style="list-style-type: none"> <li>•Standardised testing at the end of each year- data will be analysed over three years to track performance of pupils in these three areas with the hope of seeing an increase in test scores.</li> </ul> | <ul style="list-style-type: none"> <li>•Class Teacher.</li> </ul>   | <p>Year 1: Greater focus on Shape and Space with more time spent on it and resources to be used more frequently.</p> <p>Year 2 : Same as above but with focus on Data</p> <p>Year 3: Concentration this year will be on Measures.</p> |
| <ul style="list-style-type: none"> <li>• To support parents with regard to the content, methodologies and language of Maths, therefore helping their children to engage with classroom learning at home.</li> </ul> | <ul style="list-style-type: none"> <li>•To compile a booklet for parents with ways in which they can help their children with maths at home. This booklet will also help parents understand the teaching methodologies and language used at school so as to ensure uniformity for the child both at school and at home.</li> </ul> | <ul style="list-style-type: none"> <li>• Parent feedback to be encouraged at PTMs which are held yearly.</li> <li>• Booklet to be published on school website and all parents to be notified of it.</li> </ul>                                  | <ul style="list-style-type: none"> <li>•Principal and Mrs. Kennedy to compile booklet</li> <li>•Principal to publish it on school website.</li> </ul> | <p>Year1 : Devise booklet and publish on website</p> <p>Year 2 and 3: Update material in booklet –keep parents informed of any changes.</p>   |
| <b>Monitor and Review</b>   | <p><b>Review Year 1 : May 2014</b></p> <p><b>Review Year 2: May 2015</b></p> <p><b>Review Year 3: May 2016</b></p>   |   |   |   |