



*every child, every chance, every day*

St. Joseph's N.S.

Arden View, Tullamore, Co. Offaly.

18797W

# School Improvement Plan

**Numeracy:Problem Solving**

September 2014-June 2017

**St. Joseph's N.S School Improvement Plan-Numeracy  
September 2014-June 2017**

**OUR SCHOOL IMPROVEMENT PLAN**

Summary of main strengths as identified in SSE in May 2014 :

**Theme: Learner Outcomes**

**Sub-theme: Attainment of curriculum objectives**

1. At First Class level a very large number of above average children scoring above the national norms and a smaller number of below average children are also scoring higher than the national norms at the lower end of the scale
2. At Second Class level children are scoring as well and better than the national norms at all percentile bands up to the 84<sup>th</sup> percentile band
3. Maths Recovery Screening tests carried out at the end of Senior Infants prove a useful indicator of who may need intervention in 1<sup>st</sup> Class
4. A baseline level of basic numeracy skills was undertaken on all Junior Infants in September 2013 and this will be used to assess progress in Junior Infants as there is a wide range of abilities evident even before children start formal education. We intend to undertake this assessment yearly on all new Junior Infants

**Theme :Learner Experiences**

**Sub –Theme: Student Engagement in Learning**

5. 69.5% of children in 2<sup>nd</sup> Class report that they like Maths
6. Computer games are very popular in the classroom with 90% of children stating they enjoyed them

**Theme :Teacher Practice**

**Sub-Theme: Teaching Approaches**

7. Teachers are familiar with and planning is based on the curriculum
8. Equal emphasis is placed on all strands

	<p>9. A wide variety of methodologies are used across the class levels</p>
<p>Summary of main areas requiring improvement as identified in SSE:</p>	<p><b>Problem Solving</b></p> <ol style="list-style-type: none"> <li>1. Strategies to support pupils problem solving need to be agreed at whole school level</li> <li>2. To use concrete materials if required during problem solving</li> <li>3. To target the literacy skills required in problem solving so this is not a barrier in solving the problem</li> <li>4. Inservice by PDST has been provided in April 2014 in the area of problem solving and we need to follow up on suggestions given</li> </ol> <p><b>Testing</b></p> <ol style="list-style-type: none"> <li>5. Teachers are unaware of our pupil's performance in standardised tests in relation to the national normal distribution. These results need to be shared at whole school level.</li> <li>6. The recording system used to hold all the standardised tests for analysis eg SCORZ needs to be kept up to date in order to ensure quick analysis of results and comparisons can be made from year to year</li> <li>7. To improve our results in standardised tests in the area of problem solving</li> </ol> <p><b>Resources</b></p> <ol style="list-style-type: none"> <li>8. An audit of maths equipment and resources including online resources</li> <li>9. Purchase and central storage of maths equipment</li> <li>10. The use of concrete materials when problem solving</li> </ol> <p><b>Parental involvement</b></p> <ol style="list-style-type: none"> <li>11. Examine how we can support parents more effectively with regard to the content, methodologies and language in maths ( including our approaches to problem solving)</li> </ol>

## Targets

### Theme: Learner Outcomes

- To increase scores in the skills area of problem solving area in First Class and Second class by 5% over 3 years

### Theme :Learner Experiences

- To increase the number of children using concrete materials to solve problems from 13% to 18% over 3 years in all classes
- To expose children to a wide variety of maths problems such as word problems,practical tasks,open ended investigations,puzzles,games and trails

### Theme:Teacher Practice

- To adopt an agreed common strategy to support children's problem solving at 1<sup>st</sup> and 2<sup>nd</sup> class level eg.RUDE,ROSE,RAVECC
- To increase communication between parents and teachers in relation to the teaching and learning of maths especially in the area of problem solving

Year 1 Actions Sept 14-June 15	Persons Responsible	Time	Success Criteria
PDST support in the area of problem solving	Principal	Term 1	Teacher's begin it to implement strategies suggested
Inventory of maths equipment to ensure there are adequate resources to use concrete material when problem solving.Purchase more if necessary	All teachers Maths co-ordinator Principal	Term 1	Children begin to use equipment to help solve maths problems.Results of this to be seen when survey re-administered in year 3
Standardised test results to be inputted to Aladdin and analysed across strads and skills areas.Results to be reported to all staff and compared to national norms	Class teachers Principal Maths co-ordinator	Term 3	Teachers aware of results at class level and aware of these results in relation to national norms
Target 2 <sup>ND</sup> classes to implement a problem solving strategy to see its effectiveness in conjunction with PDST (RUDE)	Class teachers of target classes PDST Maths cuiditheoir	Term 2	How the children in the target classes performed in their standardised tests in the area of problem solving compared to the

			classes who did not have this input
To increase awareness of SIP in the area of Numeracy a noticeboard with information on targets etc will be installed in the staff room	Principal Maths co-ordinator	Term 3	All staff will be aware of the targets and actions set out in the SIP

<b>Year 2 Actions Sept 15-June 16</b>	<b>Persons Responsible</b>	<b>Time</b>	<b>Success Criteria</b>
Agree a whole school strategy to use for problem solving eg- RUDE,RAVECC, ROSE	All staff	Term 1	Children apply this strategy when solving problems.Evidence can be found in childrens copies ,workbooks,rough work spaces and assessments. Evidence in teachers planning and Cuntas Míósúil
Problem solving tips to be displayed in all classrooms	Maths co-ordinator Class teachers LS	Term 1	Children refer to these displays when solving maths problems
Pupils to be given a bookmark with the strategy chosen on it to encourage use of same	Numeracy group	Term 1	Children refer to the bookmark when carrying out problem solving work
Specifically teach the language of problem solving and link to the written word	Class teachers LS	ongoing	Children become familiar with this terminology and use it themselves. Evidence in teachers planning and Cuntas Míósúil.
Standardised test results to be inputted to Aladdin and analysed across strads and skills areas.Results to be reported to all staff	Class teachers Principal Maths co-ordinator	Term 3	Teachers aware of results at class level and aware of these results in relation to national norms

and compared to national norms			
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<b>Year 3 Actions Sept 16-June 17</b>	<b>Persons Responsible</b>	<b>Time</b>	<b>Success Criteria</b>
Provide parents with information on how to help in the area of mathematics by providing information at parent teacher meetings, links from school website to NCCA websites and other appropriate maths websites	Principal HSCL Teacher All staff Numeracy group Maths co-ordinator IT co-ordinator	Term 1 & ongoing thereafter	Parents to feel more confident in helping their children in the area of maths and to use a common language to that used in school
All classes to introduce and solve “Problem of the week”. Build up a bank of problems that can be used at each class level .	Teachers work in groups at class levels Numeracy group Maths co-ordinator principal	Term 2	Pupils become more confident at discussing how they solved the problem. Pupils are exposed to a wide variety of problems and their assessments reflect this exposure
Any actions from above that have not been completed ,actions that need further work, issues that have arisen as a result of reviews	All staff	Term 3	Teachers ,pupils,parents are confident in the area of problem solving and scores are rising accordingly. Evidence in teachers planning and Cuntas Míósúil.
Re-administer surveys and school based tests and compare with findings when initial SSE was written in 2014	All staff Maths co-ordinator Principala	Term 2/3	Improvements in all areas relating to problem solving as set out in the SIP
Standardised test results to be inputted to Aladdin	Class teachers Principal Maths co-ordinator	Term 3	Teachers aware of results at class level and aware of these

and analysed across strads and skills areas.Results to be reported to all staff and compared to national norms			results in relation to national norms
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<b>Review Dates</b>
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Regular mention at staff meetings from September 2014- June 2017
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May 2015

May 2016

May 2017