

School Improvement Plan: Scoil Iognaid de Ris, Kilkenny (Sept 2016-June 2019)

Strengths

- Staff are aware of pupils ability in Maths through the analysis of standardised tests, teacher designed tasks and informal observation.
- Teachers are reporting that pupils are confident and secure with regard to number facts throughout the school. Teachers allocate time on a daily basis for the teaching of and consolidation of mental maths
- Children are provided with regular opportunities to engage in problem solving activities in all classes. Teachers place equal emphasis on the process of problem solving as well as finding the answer
- Teachers, together with pupils, explore and solve problems. After a recent revision and update of our Maths Plean Scoile, it was agreed to use the R.A.V.E.C.C strategy in all classes from 2nd to 6th class.
- Staff members are encouraged to participate in courses run by the local education centre throughout the school year and during the summer.
- Staff members are enthusiastic to share ideas and committed to their work.
- Assessment for Learning and Assessment of Learning are used by teachers in the school as a method of analysis and tracking.
- Teachers participate in Maths Week Ireland every year and the classes have opportunities to participate in a range of Maths activities.
- Meaningful information regarding pupils' progress in numeracy is effectively communicated to parents at Parent/Teacher meetings and by appointment and to teachers at the end of the school year

Concerns

- The development of a consistent approach to problem solving strategies and the language of operations in all classes
- Create more opportunities for pupils to engage in collaborative problem solving
- Ensure that pupils are exposed to a variety of types of problem solving. (word problems, open-ended tasks, practical investigations, puzzles, games, projects and maths trails)
- There is a central area located on the school premises for numeracy resources. This is in the computer room. These resources are catalogued and each teacher has a copy. Each teacher also has resources in their classrooms. From September 2016 it is planned to update the Maths resources with funding from the Parents Council as the resources available for use in the classrooms are limited.
- Promote more use of ICT

Planning and Reporting

- Teacher Observation/Designed tests and Records
- Teacher Questionnaire
- Sample Sigma T results from tracker children in all classes
- Focus Group Questionnaire from all classes

Standardised Tests: Whole School Sigma T Numeracy Test results

	Sten 1	Sten 2	Sten 3	Sten 4	Sten 5	Sten 6	Sten 7	Sten 8	Sten 9	Sten 10
2013-2014	2%	5%	4%	9%	16%	15%	17%	12%	11%	9%
2014-2015	2%	2%	7%	8%	12%	15%	20%	14%	8%	12%
2015-2016	3%	3%	7%	15%	21%	19%	8%	8%	9%	7%

Sample analysis of Sigma T results for year 2014/2015 based on high, average and low results

	NUMBER	MEASURES	SHAPE AND SPACE	ALGEBRA	UNDERSTANDING CONCEPTS AND RECALLING FACTS	PERFORMING COMPUTATION AND PROCEDURES	SOLVING WORD PROBLEMS
2 nd class	60%	72%	86%	45%	72%	56%	38%
3 rd class	66%	59%	64%	68%	60%	67%	46%
4 th class	56%	51%	43%	59%	57%	50%	40%
5 th class	67%	55%	62%	73%	75%	56%	59%
6 th class	50%	42%	33%	43%	47.7%	47.5%	42.3%

Pupil Questionnaire

	Yes	No	Don't Know
Do you like Maths?	90%	7%	3%
Do you think that you are good at Maths?	80%	10%	10%
Do you find maths easy?	60%	20%	20%
What part of Maths do you like best?	Junior; Computation, Time, Money Senior: Areas, Shapes, Measures, Long x		
What part of Maths do you like least?	Junior: Subtraction, Measures. No difficulty. Senior: Angles, Long Division, Decimals, Symmetry		
Are you able to do Maths homework on your own?	70%	30%	
When might you use Maths outside of school?	Shopping, Time, Measures, Area/Sport		
How does teacher make understanding Maths easier?	Junior; 100Sq, Charts, Examples, Concrete Material Senior: Visual, Step by Step examples, Real life comparison.		
What do you find difficult about word problems?	Junior; Reading, Majority have no problem. Senior: Multiple parts, Interpreting information, Wording eg.sum/product		
Do you use estimation to help find your answers?	70%	30%	
Do you like learning tables?	90%	10%	
What helps you to remember your tables?	Junior: Repetition and practice, Tables Champion, Tests Senior: Tables Knock Out Game, Repetition, Tests		

Teacher Reflection

Based on the Numeracy Standardised Tests results, the staff decided to focus on problem solving as it is a higher order skill that is transferable across all areas of the numeracy curriculum. Due to the nature of this skill it is easily differentiated in relation to outcomes and teacher expectation. As a result of this the weaker pupils will be supported in their learning and the more able pupils will be challenged and extended.

Target: To increase the whole school average % accuracy in the area of problem solving as measured by the Sigma T Numeracy Standardised test by 5% over the next three years.

Action	Who?	When?
<ul style="list-style-type: none"> • Staff to agree on a consistent approach to problem solving RAVECCC (Read, Attend to key words, Visualise, Estimate, Choose numbers, Calculate, Check). 2nd to 6th Class • Teachers will display the chosen strategy in their classrooms. • Teachers will model/ demonstrates using the agreed strategy and model the language associated with problem solving for all pupils • Teachers will plan for the integration of problem solving across the numeracy curriculum. Cuntas <u>míosúil</u> will reflect this integration • Enlist the help of the PDST for support. • Continue to catalogue numeracy resources currently in the school and update as necessary, including ICT resources. • Introduce Team Teaching in Numeracy to the 4th/5th classes. • Teachers will engage in CPD as the opportunities arise. 	<ul style="list-style-type: none"> • Whole Staff • Whole staff • Whole staff • Whole staff • Whole staff • Whole staff • Whole staff 	<ul style="list-style-type: none"> • Term 1 2016 • Term 1 2016 • Ongoing 2016-2019 • Ongoing 2016-2019 • Term 1 2016 • 2016-2017 on trial basis and perhaps continue depending on success. • During 2016

<ul style="list-style-type: none"> • Maths week to be celebrated in the school with a range of activities organised to promote maths in the school environment. • Teachers will provide opportunities for pupils to think and talk about their learning in numeracy • Standardised tests to be introduced to 2nd class in the first school term 	<ul style="list-style-type: none"> • Individual teachers • Class teachers • 2nd class teachers 	<ul style="list-style-type: none"> • Ongoing 2016-2019 • 2016 onwards • 2016 onwards
<p><u>Monitoring/ Evaluation:</u></p> <p><u>When</u> Monthly Termly Annually Annually</p>	<p><u>Who</u> Whole staff Class teacher Teacher and Parents Class teachers</p>	<p><u>How?</u> Croke Park Hour / informal staff Reflection/Tests Parent Teacher Meeting Sigma T Standardised Test.</p>

<p><u>Success Criteria:</u></p> <ul style="list-style-type: none"> • Targets in relation to whole school will be achieved. • Teachers observation- pupils will be more confident and participating more in problem solving lessons • Pupils will make more use of concrete materials to solve problems as needed • R.A.V.E.C.C.C. will be evident in all classes and a whole consistent approach will be implemented.
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