

**Numeracy Targets 2019/2020**

<b>Numeracy</b>	<b>Review</b>	<p><u>Review Notes from 2018:</u></p> <ul style="list-style-type: none"> <li>• Principal and ISM team evaluated standardised test scores in depth.</li> <li>• STEN scores and standardised scores were analysed</li> <li>• Due to the very transient nature of our pupil population standardised scores analysed as a school did not give an accurate or fair reflection of good teaching and learning that is taking place in the school             <ul style="list-style-type: none"> <li>• 10% of pupils left school in 2017/18 school year</li> <li>• 24% of pupils left school in 2016/17 school year.</li> <li>• 41% of pupils were “new enrolments” in the 2017/2018 school year</li> <li>• 53% of pupils were “new enrolments” in the 2016/2017 school year</li> </ul> </li> <li>• Principal met with inspector Mary Dunne and discussed concerns re data being analysed and how it reflected on the school, It was decided for the forthcoming academic year to focus on new SSE guidelines 2016 -2020 to set targets with an emphasis on teaching and learning.</li> </ul> <hr/> <p><u>2018-2019 Review:</u></p> <ul style="list-style-type: none"> <li>• PDST Sustained Support in relation to Numeracy throughout the 2018-19 school year was very beneficial on a range of topics – Problem Solving; Team Teaching; Number Talk; Mental Maths; Maths Learning Logs &amp; Journals; Measures – Time</li> <li>• Review of Team Teaching methodologies within planning teams took place – broader range of team-teaching styles were introduced to include whole class teaching; co-teaching; station teaching; parallel teaching etc.</li> <li>• All planning included specific lists of vocabulary to be targeted in lessons this year which</li> <li>• Standardised Testing took place. 2019: Overall STen: 5 Overall percentile: 45 {2018: Overall STen: Overall Percentile: 42}</li> <li>• Analysis of standardized testing indicates that fewer children are falling below the 13<sup>th</sup> percentile</li> <li>• Analysis of both teacher-lead assessment and standardised testing indicates that lower attainment in word-based problem-solving continues to be a challenge for many of the children. This is due in part to the high level of children with E.A.L. in the school.</li> <li>• Maths themed events took place in the school – Maths Week; Maths Eyes Competition</li> <li>• Use of Maths Board was minimal – increased up-dating of display to replace the interactive questions is required.</li> <li>• Detailed audit of maths resources in each room was carried out; teachers drew up wishlists of items they would like for classes. Where possible some of these items were ordered for 2019-2020 school year. Decisions was also made that where relevant teachers are to make additional resources themselves for classes.</li> </ul>
	<b>Target(s)</b>	<ol style="list-style-type: none"> <li>1. Increase the comprehension and application of maths language, through explicit teaching of maths vocabulary.</li> <li>2. Increase attainment in word-based problem solving assessment through explicit teaching of strategies for solving word-based problems.</li> <li>3. Continue to develop range of teaching styles including whole class and team-teaching methodologies for the teaching of maths</li> <li>4. Broaden and develop the programme of maths based on life in local community for use throughout the school</li> </ol>

	<b>Action(s)</b>	<ul style="list-style-type: none"> <li>• Maths vocabulary to be specifically taught, with maths topic vocabulary on display in the classroom; use of word maps etc</li> <li>• Colour-coded vocabulary to support word problem analysis to be on display in each room e.g. addition - green, subtraction - pink, multiplication - yellow, division-red</li> <li>• Use of maths sentence starters daily and on display in the classroom</li> <li>• Each class to have a “word problem” station for maths stations</li> <li>• R.U.D.E. problem solving strategy to be specifically taught</li> <li>• Use of WALT/WILF to explicitly outline expected learning outcomes for children and teachers</li> <li>• Broaden range of teaching methodologies used – continue to expand team-teaching strategies in conjunction with whole class teaching</li> <li>• PDST Sustained Support in relation to Numeracy throughout the year</li> <li>• CPD encouraged and information shared at staff level.</li> <li>• Build on existing use of Maths Eyes and Maths Trails to increase the programme of maths based on life in local community e.g. Visit to local park for spatial awareness and shape hunt/local shop for practical use of money; Invite local people/parents in to speak about the real life application of maths e.g. Engineer; Shop keeper; Builder</li> <li>• Numeracy target to be discussed at staff meetings and during planning meetings</li> <li>• School will purchase necessary resources to support the successful implementation of maths curriculum through active learning</li> <li>• Teacher to make additional resources in house to support the successful implementation of maths curriculum through active learning</li> </ul>
	<b>Monitoring</b>	<ul style="list-style-type: none"> <li>• Teacher-led and standardised assessments of maths with specific focus on maths vocabulary and language acquisition and comprehension; and increased attainment in word-based problem solving</li> <li>• Feedback from planning team group meetings with principal as to the successes/challenges to using a broad range of teaching methodologies to teach numeracy with a focus on maths vocabulary and language as well as word-based problem solving</li> <li>• Implementation of plan to develop a programme of linking maths work with life in the local community (Linking with SSE Targets)</li> </ul>
	<b>Evaluation</b>	<ul style="list-style-type: none"> <li>• Evaluation of strategies, resources, methodologies etc in planning team group meetings with principal</li> <li>• Analysis and evaluation of pupil progress in standardised testing at the end of the school year</li> <li>• Review of specific areas of need for classes and/or individuals as identified by planning teams and application of a plan to address same</li> <li>• Feedback in Maths Team Meetings about whole school maths events, initiatives, resources etc</li> </ul>

**Numeracy Targets 2019-2020**

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Priority	Improvement Target	Required Actions	Planning Activities	Timescale	Responsibility	Carried out by	Success Criteria
No.	<i>Related to pupil achievement</i>	<i>Teaching and learning that will help achieve the target</i>	<i>Review; Research; Consultation, Action Plan, Policy/Plan; Implementation, Monitoring, Evaluation</i>	<i>When will the target be achieved?</i>	<i>Principal, Teacher, Staff, BoM, Parents, Pupils, Other</i>	<i>Individual, Committee, Cluster, Other</i>	<i>Outcome measures</i>

**School Approach**

1	<u>Planning</u> Explicit identification of specific maths vocabulary and lanaguge; as well as word-based problem solving strategies to be taught in lessons	<ul style="list-style-type: none"> <li>○ Planning teams to meet on regular basis to plan for the inclusion of specific maths language and vocabulary as well as word-based problem solving</li> </ul>	<ul style="list-style-type: none"> <li>○ Regular planning meetings to ensure focus on maths language and vocabulary as well as word-based problem solving in all maths teaching</li> <li>○ Reflective practice what has working well; what could be improved</li> </ul>	Ongoing August 2019 – June 2020	Teachers	Teachers	All plans will clearly include specific target vocabulary for each topic
2	<u>Teaching</u> Develop range of styles of teaching to allow for the specific teaching of maths language and word-based problem solving	<ul style="list-style-type: none"> <li>○ Planning teams to reflect on decide on teaching methodologies to best suit lessons that will target maths language and vocabulary as well as word-based problem solving</li> </ul>	<ul style="list-style-type: none"> <li>○ Broad range of teaching methodologies to be implemented including whole class teaching and team-teaching approaches e.g. parallel teaching, station teaching, shadow teaching etc</li> <li>○ Explicit math language vocabulary lessons and activities to be included in planning, teaching and assessment</li> <li>○ Specific word-based problem</li> </ul>	Ongoing August 2019 – June 2020	Teachers	Teachers	Successful teaching of explicit maths language and vocabulary and word-based problem solving though the a range of teaching methodologies

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			<p>solving strategies, practices and tasks to be included in planning, teaching and assessment</p> <ul style="list-style-type: none"> <li>○ Use of various resources to consolidate learning e.g. word/concept maps; maths journals; SALF; See-Saw</li> </ul>				
3	<p><u>Display</u> Maintain whole school and classroom Maths displays</p>	<ul style="list-style-type: none"> <li>○ Ensure relevant content on display in classroom</li> <li>○ Maintain and regularly update Maths board</li> </ul>	<ul style="list-style-type: none"> <li>○ Create and maintain classroom maths display to include but is not limited to: R.U.D.E. strategy; Word-problems colour coding (addition, subtraction, multiplication, division); Maths Sentence Starters; WALT/WILF</li> <li>○ Create and maintain Maths board to highlight maths language and vocabulary; present interactive, word-based problems for children to answer. Invite children to create problems for peers to answer</li> </ul>	<p>Ongoing August 2019 – June 2020</p>	<p>Teachers</p> <p>Maths Team</p>	<p>Teachers</p> <p>Maths Team</p>	<p>Classrooms will display relevant maths content</p> <p>Children will engage with Maths Board</p>
4	<p><u>Maths Area</u> Provide interactive maths area in classroom</p>	<ul style="list-style-type: none"> <li>○ Assign specific maths area in classroom that includes both display and interactive tasks</li> </ul>	<ul style="list-style-type: none"> <li>○ Designate a maths area within classroom to include (for example but not limited to): <ul style="list-style-type: none"> <li>- Display: Topic vocabulary, working word maps, problem-solving strategies including R.U.D.E.</li> <li>- Tasks: Problem-solving challenge Interactive; POW! (Problem of the Week); Games; interactive activities</li> </ul> </li> <li>○ Children to engage with Maths Area during Numeracy/ Early Finisher time/Reward</li> </ul>	<p>August 2019</p> <p>Ongoing August 2019 – June 2020</p>	<p>Teachers</p> <p>Teachers</p>	<p>Teachers</p> <p>Teachers</p>	<p>Clearly defined Maths Area in classrooms. Children will engage with Maths Area in classroom</p>

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5	<u>Homework:</u> Include a range of maths topics including word-based problems solving as part of daily maths homework	<ul style="list-style-type: none"> <li>Teachers will add word-based problem-solving homework every day along with the topics being covered in lessons</li> </ul>	<ul style="list-style-type: none"> <li>Assign daily word-based problem-solving homework e.g. Mental Maths book (1<sup>st</sup> – 6<sup>th</sup>)</li> <li>Teach strategies to solve word-based problems in homework and review the following day e.g. R.U.D.E. approach</li> </ul>	Ongoing August 2019 – June 2020	Teachers (1 <sup>st</sup> – 6 <sup>th</sup> )	Teachers (1 <sup>st</sup> – 6 <sup>th</sup> )	Children complete daily word-based problem-solving tasks and improve instance of correct answers
6	<u>Events</u> Celebrate Maths with both a focus on word-based problem solving and real-life application through a range of national and internal events, initiatives and competitions	<ul style="list-style-type: none"> <li>Ensure word-based problems are focal to events (e.g. Maths Week), initiatives (e.g. Maths for Fun ) and competitions (e.g. Maths Eyes)</li> </ul>	<ul style="list-style-type: none"> <li>Co-ordinate events for Maths Week e.g. Maths for Fun with parents; Games; Maths Trails; Maths Eyes; etc</li> <li>Liaise with Science/Engineers Week Co-ordinators to ensure the inclusion of maths based</li> <li>Participate in competitions e.g. Maths Eyes; Pangea Maths</li> </ul>	Maths Week October 2019  Nov 2019 & Feb 2020  As the competitions arise	Maths Team & Teachers	Maths Team & Teachers	Children to engage with word-based problem solving through positive and fun events and activities
7	<u>Experience-Based</u> Broaden and develop the perspective of maths to include the local community and real life application	<ul style="list-style-type: none"> <li>Explore the possibility of real-life application of maths for the children in the local community</li> <li>Engage and invite in the local community as a means of validating and applying maths work</li> </ul>	<ul style="list-style-type: none"> <li>Explore the possibilities of visiting locations in the local community to use them as a stimulus for maths e.g. Shop (money); Pond (capacity); Park (patterns); Forest (height)</li> <li>Invite guest speakers from local and/or parent community into school e.g. Mathematician; Shop Assistant; Builder – to speak to the children about their real life application of maths knowledge</li> </ul>	Ongoing August 2019- June 2020	Maths Team & Teachers	Maths Team & Teachers	Children engage with maths in an experiential way, engaging with the local community

**Staff Support**

1.	<u>Information:</u> Ensure teacher awareness, understanding and	<ul style="list-style-type: none"> <li>Introduce annual numeracy targets</li> <li>Maintain Maths page on school intranet</li> </ul>	<ul style="list-style-type: none"> <li>Upload annual targets to P.E.T.N.S. intranet school plan</li> <li>Circulate copies of annual numeracy targets to teachers</li> </ul>	August 2019	Principal	Principal	Teacher engagement with annual numeracy targets reflected
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	knowledge of annual numeracy targets	<ul style="list-style-type: none"> <li>Present arising information at staff meetings</li> </ul>	<ul style="list-style-type: none"> <li>Remind teachers of annual numeracy targets and any relevant information at staff meetings</li> </ul>	Ongoing August 2019 - June 2020	Maths Co-Ordinator	Maths Co-Ordinator	in planning, teaching and assessment
2.	<u>Resources:</u> Maintain and expand school maths resources	<ul style="list-style-type: none"> <li>Inform all staff of resources available</li> <li>Distribute new resources purchased in August</li> <li>Create new audit list of resources in each class to include new items</li> <li>Maintain school resources - concrete, paper &amp; digital format</li> <li>Expand resource bank</li> </ul>	<ul style="list-style-type: none"> <li>Ensure teachers are aware of maths resources available in the school; class and whole school concrete materials; digital resources; teacher manuals -</li> <li>Distribute maths resources to new classes</li> <li>Maintain problem-solving boxes in classes and ensure usage</li> <li>Maintain digital maths resources on P.E.T.N.S. drive/intranet</li> <li>Research and gather resources to add to resource bank</li> <li>Inform staff about new resources</li> <li>Make new resources for classes</li> </ul>	August each year  Ongoing August 2019 - June 2020	Math Co-Ordinator  Teachers	Math Co-Ordinator & Maths Committee  Teachers	Teacher meaningful use and maintenance of resources
3.	<u>Teaching:</u> Planning teams to meet with principal regularly for support in implementing annual numeracy targets	<ul style="list-style-type: none"> <li>Conduct termly meetings between principal and planning teams to implement and support co-teaching system for planning, preparation and teaching of maths</li> </ul>	<ul style="list-style-type: none"> <li>Attend planning meetings with principal allowing for feedback re success criteria, planning, resource preparation and assessment</li> <li>Implement decisions made at meeting</li> </ul>	Ongoing August 2019 - June 2020	Principal	Principal & Teachers in planning teams	Successful implementation of various teaching methodologies
4.	<u>Teaching:</u> (NQTs) Newly Qualified Teachers will receive support to implement annual numeracy targets as part of the Droichead programme	Ensure inclusion of annual numeracy targets within Droichead programme support systems	Mentors: Attend Droichead meetings Meet regularly with mentee Arrange mentee observations of colleagues teaching maths Mentees: Attend Droichead meetings Meet regularly with mentor	Ongoing August 2019 - June 2020	Mentor teachers in Droichead programme	Mentor and mentee teachers taking part in Droichead	Successful planning, teaching and assessment in relation to annual numeracy targets by NQTs

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			Observe colleagues teaching maths lessons Attend NIPT Maths workshop				
5.	<u>Assessment:</u> Teachers will carry out assessment for and of learning in relation to annual numeracy targets	<ul style="list-style-type: none"> <li>• Ensure teachers have materials required for assessment</li> <li>• Direct teachers in the assessment of annual numeracy targets</li> </ul>	<ul style="list-style-type: none"> <li>• Outline assessment criteria for the year ahead in staff meetings</li> <li>• Provide teacher manuals and assessment guidelines</li> <li>• Carry out assessment at the beginning of the year through hands-on tasks to establish understanding of number, maths concepts and vocabulary</li> <li>• Maintain Assessment Folders for whole class checklists and individual observations in line with annual numeracy targets</li> </ul>	August each year  September 2019  Ongoing August 2019 - June 2020	Maths Co-Ordinator, Assessment Co-Ordinator  Teachers  Teachers	Maths Co-Ordinator, Assessment Co-Ordinator  Teachers  Teachers	Successful implementation of assessment of annual numeracy targets
6.	<u>C.P.D.:</u> Teachers will participate in C.P.D. in relation to annual numeracy targets	<ul style="list-style-type: none"> <li>• Arrange sessions through PDST sustained support</li> <li>• Gather information about various C.P.D. courses which will support annual numeracy targets</li> <li>• Disseminate information to staff about available C.P.D.</li> </ul>	<ul style="list-style-type: none"> <li>• Organise numeracy sessions with PDST sustained support</li> <li>• Maintain communication with organisations such as D.W.E.C. about C.P.D. courses</li> <li>• Explore all possibilities for the provision of C.P.D. workshops and courses within the school</li> <li>• Inform staff about upcoming C.P.D. both during academic year and summer</li> </ul>	Ongoing Sept 2019 - June 2020	Maths Co-Ordinator	Teachers	Teachers attend C.P.D. workshops and courses and therefore increase knowledge, skillset and resources about annual numeracy targets

