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School Improvement Plan Numeracy

Evaluation period:
October 2019 – February 2020

Report issue date:
School Improvement Plan

Numeracy School Improvement Plan 2020-2023

Baseline data

- **Standardised test results in May 2019 show that:**
 - 17% of pupils scored a Sten of 1-3
 - 14% scored a Sten of 4
 - 25% scored a Sten of 5-6
 - 14% scored a Sten of 7
 - 30% scored a Sten of 8-10
 - Our scores show a higher proportion of pupils scoring a Sten on 8-10 than the national norm (30% - 16%). This is at the expense of those scoring Stens of 5-6 which is 9% below the national average. The remaining sten scores are broadly in line with the national average.
- Whole school comparison with national norms in 2018 show similar results with those scoring a sten of 8-10 10% above the national average.
- Analysis between 2018 and 2019 show that computation is particularly strong in the school (62% average) whereas word problems is measured at 38-39%.
- Based on teachers thoughts, problem solving was still considered to be an area that requires constant attention.
- Teachers also believed that the interest level in maths needed to be examined and that strategies are required to raise this level. The use of ICT was proposed as a means to increased engagement.

- **Pupils from 3rd to 6th were questioned about Maths and the following observations were found:**
 - 67% of pupils like maths, while 59% believe they are good at maths.
 - 65% of pupils would like to spend more time at maths.
 - Tables are still viewed as important with 97% stating this.
 - 90% of pupils feel their teacher gives good explanations, with 72% saying they engaged in groupwork.
 - 79% of pupils said they would like to play more maths games on a device.
 - Over a quarter of pupils (27%) said maths problems were difficult with a further 29% unsure.
 - Shape and space (42%) and data (41%) were viewed as the easiest strand with algebra considered the most difficult (10%) where graded from the hardest to easiest.

- **Parents were questioned about the child's attitude to maths:**
 - Over 90% of parents are aware of their child's strengths in maths while 80% are aware of their child's weaknesses in maths.
 - 41% of parents said that their child finds maths problems difficult.
 - Over 85% of parents said that their child enjoys playing maths games while over 70% enjoy playing maths games on a device.

Summary of main areas requiring improvement

- There needs to be more emphasis on the use of concrete materials from third to sixth class.
- Problem solving was highlighted through teacher reflection and SIGMA analysis as the area in greatest need of attention.
- An emphasis needs to be placed on pupils enjoyment of maths and trying to increase the number of pupils who like maths.
- Focus needs to be placed on oral maths and a development of maths language as pupils progress.
- To embed the importance of having a good knowledge of maths tables.
- To increase pupils engagement of maths through ICT at a gradual rate.

Targets

- That children will experience a sense of achievement in maths.
- That the school staff becomes aware of the equipment available to them within the school through constant auditing and the provision of adequate storage space.
- That the number of pupils who find maths problems difficult is reduced by 5% over a three year period.
- To ensure the number of pupils scoring a Sten of 8-10 remains above or in line with the national norm over a three year period.
- To increase the percentage of pupils who like maths by 5% over a three year period.
- To encourage greater parental involvement to ensure pupils have support in place at home.
- Introduce/trial team teaching and analyse benefits based on standardised scores.

Improvement Targets	Required Actions	Monitoring/Review	Persons Responsible	Timeframe for Actions
Year 1	• Emphasis placed on problem solving techniques at each class level (RUDE – Jnr - 2nd), (RAVECCC - 3rd - 6th). New scheme for problem solving to be implemented/trialed. • Daily slot of 10 minutes allocated to problem solving and mental maths • Inventory of maths equipment to be compiled. Investment in maths equipment for senior classes. • Maths games to be initiated in all classes each Friday. • Maths trials to be created and used in May and June. • Engagement in maths week with a series of fun activities for pupils. • List of helpful maths websites to assist parents to be devised and placed on website. • Trial Mathletic for one class. • Dedicated maths area in each class & maths board in corridor created.	• Teacher observation will be a key tool which will be used in monitoring the progress of this numeracy strategy. Key observations will be noted and discussed at whole staff level. • Dedicated Croke Park meeting re: Feedback and identification of new strategies and approaches. • Pupil feedback will be sought at regular intervals both formally and informally. Google form questionnaire will be used yearly to track opinions and views. • Parental feedback will be sought at parent/teacher meetings. • Sigma results will be analysed according to strand and compared with the national norm annually. • Tracking of individual pupil performances by class teacher through Aladdin.	Whole school – Principal and teachers	September 2020 – June 2021

Improvement Targets	Actions Required	Persons Responsible	Timeframe for actions
Year 2	• Daily 10 minute problem solving and mental maths continued. • Re-check inventory of resources in June/September. • Investment in maths equipment for middle classes. • Maths games to be initiated in all classes each Friday. IWB games trialed (Maths for Fun). • Maths trials in May and June. Maths trials devised by older pupils for younger pupils. • Engagement in maths week. • Creation of booklet for parents to help with homework (back of Maths Challenge). • Decision made to roll out Mathletic to upper school 3rd – 6th. • Team teaching in one class trialed and effectiveness gauged based on analysis of standardised tests (if timetabling allows). • The introduction of guest speakers, who use maths in their working lives, especially for 5th and 6th classes. • Maths board in school corridor with age appropriate problems. Problems discussed at assembly. • Maths quiz (3rd – 6th).	Whole school – Principal and teachers	September 2021 – June 2022

Improvement Targets	Actions Required	Persons Responsible	Timeframe for actions
Year 3	• Daily 10 minute problem solving and mental maths continued. • Re-check inventory of resources in June/September. Investment in maths equipment for Junior classes. • Maths games each Friday. IWB games and iPads trialed. • Maths trials in May and June. • Engagement in maths week. • Parents booklet reviewed and parents questioned as to its effectiveness. • Decision made to roll out mathletic to whole school. • Team teaching increased to support extra classes (if timetabling allows). • The introduction of guest speakers, who use maths in their working lives, especially for 5th and 6th classes. • Update school plan.	Whole school – Principal and teachers	September 2022 – June 2023