St Pius X RC Primary

Numeracy and Mathematics Policy

Numeracy and Mathematics are important to everyday life- allowing children to make sense of their world and to manage their lives. They equip learners with the skills they need to develop essential Numeracy skills, to interpret and analyse information, simplify and solve problems and to assess risk and make informed decisions. It is important that we prepare learners with the skills they require for life, learning and work and that pupils understand the role that Numeracy and Mathematics plays in almost all aspects of life.

Aims

- To provide fun, engaging and active teaching.
- To build confidence in Numeracy and Mathematics.
- To use Numeracy and Mathematics to build relationships and conversations.
- To provide meaningful and effective interdisciplinary learning.
- To ensure opportunities for learners to achieve their full potential.
- To provide opportunities for personal achievement through choice and challenge.
- To create independent and co-operative learners who contribute actively.
- To use a range of teaching styles indoor and outdoor allowing learners to experience Numeracy and Mathematics in different contexts.

In St Pius X, it is important that we:

- Provide planned active learning opportunities to observe, explore, investigate, experiment, play, discuss and reflect.
- Model and scaffold.
- Learn collaboratively and independently.
- Provide opportunities for discussion, communication and explanation of thinking.
- Develop mental agility.
- Use relevant and real-life contexts and experiences, familiar to young people.
- Make links across the curriculum to show how mathematical concepts are applied in a wide range of contexts.
- Use technology in appropriate and effective ways.
- Build on the principles of Assessment is for Learning, ensuring that young people understand the purpose and relevance of what they are learning.
- Develop problem-solving capabilities and critical thinking skills.
- Explicitly teach new vocabulary.

Numeracy and Mathematics Lesson Structure; What a good one looks like

All lessons for Early, First and Second Level should have the following aspects included in each lesson:

Learning Intention/Success Criteria

- The Learning Intention for the lesson should be displayed for each lesson (where appropriate this can be differentiated). This should be explained to the learners at the beginning of the lesson. For Primary 1, the Learning Intention does not need to be written, it can be explained verbally.
- Success Criteria should be generated with the learners. If the Success Criteria is the same as a previous lesson, it should be displayed and discussed with learners. For Primary 1, the Success Criteria does not need to be written, it can be explained verbally or with pictures.

Mental Maths

- This should be done as a whole class and should involve all learners participating using mental strategies.
- Upper stages may focus on daily 5/ 10 to ensure retrieval of various concepts.
- It should include a range of activities, not just what you are doing in Numeracy at that time.

Number Talks

- This can be done whole class or with groups.
- This can also be combined as part of Mental Maths.
- There are a range of activities in the Number Talks folder in Staff Share.

Differentiated Learning Activities

- Teaching inputs and activities should be differentiated for groups/individuals.

Jotter Presentation

- All jotter work should have the short date, the title, textbook and page number.
- Layout: One digit or symbol in each box. Each question clearly numbered.

Extension/Challenge Activities

- There should be activities for learners to do whilst you are teaching groups/individuals and for learners who finish their work.

Plenary

- Your lesson should end with a plenary.

Groupings should be fluid, with learners moving between groups. Learning partners may be used where appropriate.

STEM (Science, Technology, Engineering and Mathematics)

STEM builds on learners' curiosity and helps develop their ideas and solutions linked across different curricular areas. Learners are encouraged to be natural investigators by using questioning and challenging and enabling them with the skills and knowledge to be successful.

Through planned STEM and outdoor learning activities, we:

- Build enthusiasm for Science, Maths, Design and Technology and create confident learners in these subjects.
- Develop key learning skills – problem solving, teamwork, resilience, creativity, intellectual curiosity.
- Expose pupils to real life challenges in their environment and professionals working in STEM related employment.
- Develop an understanding of the impact of Science, Maths and Design and Technology on the world.
- Develop capacity for pupils' critical enquiry.
- Improve outcomes in Maths, Science and Design and Technology.