

Clifden Community School – Numeracy Policy



Introduction and Scope of this Policy:

This document sets out the policy of Clifden Community School in respect of the advice, supports and tuition of numeracy as part of the integrated education of students.

It was drawn up in consultation with staff, students, parents and the Board of Management and with reference to the **School's Mission Statement**.

Our mission statement in Clifden Community School is to continue to provide a challenging educational environment in which all members of the school community irrespective of ability level or background can realise individual and collective potential in a caring environment which values and strives for quality and creativity in all that it offers.

We are committed to preparing our students for adult life by teaching Responsibility, Respect and Personal Regard for self and others under our banner of Lux, Pax, Felicitas - Light Peace and Happiness in an atmosphere that encourages positive self-esteem.

Rationale:

Clifden Community School is committed to raising the standards of numeracy of all its students, so that they develop the ability to use numeracy skills effectively in all areas of the curriculum and the skills necessary to cope confidently with the demands of continuing education, employment and adult life. All teachers and support staff have a role to play in supporting students' progress in numeracy.

"The Acquisition of at least basic mathematical skills is vital to the life opportunities and achievements of individual citizens. Research shows that problems with basic skills have a continuing adverse effect on people's lives and that problems with numeracy lead to the greatest disadvantage for the individual in the labour market."

1. Definition of Numeracy

Numeracy is a proficiency that involves confidence and competence with numbers and measures. It is more than an ability to do basic arithmetic. It requires an understanding of the number system, a repertoire of mathematical techniques and an inclination and an ability to solve quantitative or spatial problems in a range of contexts. Numeracy, also, demands an understanding of the ways in which data are gathered by counting and measuring and by presentation in graphs, diagrams, charts and tables.

2. Objectives:

- to **promote** numeracy throughout the curriculum
- to raise standards of numeracy by **enhancing the quality of teaching and learning**
- to develop **cross curricular** use of numeracy by building opportunities for numeracy into all schemes of work
- to **raise the profile** of numeracy in the School
- to provide **staff training** when necessary

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3. The Numerate Student

The following guidelines summarise the numeracy skills that students of different abilities, should have:

All Students should

- have a sense of the size of a number and where it fits into the number system
- be able to do simple addition, subtraction, multiplication and division using either a mental or written method make estimates of measurement and be able to identify different units of measurement
- have a knowledge of the times tables either by recall or by adding on

More able students should

- be able to use mental methods to perform calculations involving addition, subtraction, multiplication and division of numbers including simple decimals
- be able to convert between metric units
- have a knowledge of simple equivalent fractions, decimals and percentages ($\frac{1}{2}$, 0.5, 50%, etc)
- be able to find a simple percentage of a quantity (10%, 25%, 50% and 100%)
- be able to perform simple fractions by cancelling common factors
- be able to read information from diagrams, charts and graphs
- make sense of number problems and be able to identify the operations required to solve the problem.

High ability students should

- calculate accurately using a variety of strategies both mental and written methods, including two and three digit numbers and decimals
- be able to identify equivalent fractions, as well as their related decimals and percentages
- be able to find the percentage of a quantity with or without a calculator and understand problems involving percentage increase and decrease
- explain their methods and reasoning for solving a problem **using mathematical language**
- judge whether their answers are reasonable and have a range of strategies for checking their answers
- explain and interpret charts, diagrams, graphs and tables

4. The Numeracy Working Group

A Numeracy Working Group will be appointed to implement and drive the plan and to liaise with the subject departments & teachers, learning support teachers, management, and the feeder primary schools. The Numeracy Working Group will be responsible for:

- Developing and implementing a Numeracy Plan for the whole school
- Establishing a schedule / calendar for numeracy development
- Putting in place structures to monitor, evaluate and review the numeracy development plan in action
- Driving and activating the school numeracy development plan, focusing particularly on first year students and on developing a whole school aspect.
- support the development and implementation of cross curricular numeracy throughout the school

The Numeracy Working Group comprises:

- Numeracy co-ordinator
- A teacher of Mathematics
- A teacher of a subject other than Mathematics
- Learning support / Resource teachers

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- Principal and Deputy Principal

5. The Role of the Staff Numeracy Across the Curriculum

Numeracy is not the sole responsibility of the mathematics department. Most other subjects can contribute to the development and enhancement of students' numeracy skills, including their ability to describe and explain their strategies and reasoning.

In order for cross-curricular numeracy strategy to be effective, subject departments should ensure that:

- Topics/areas which relate to numeracy are identified and included in subject department plans and learning outcomes
- New staff are aware of the Numeracy Policy and its inclusion in the department plan
- The promotion of numeracy is reviewed in the context of teaching and learning and departmental self-review

Teachers of all subjects should / could:

- Have regard for the whole school numeracy policy in their planning of lessons.
- Use and explain mathematical vocabulary whenever it will enhance students' knowledge, skills and understanding of the topic. The use of such vocabulary by students should be strongly encouraged.
- Give emphasis to mental calculation when it is sensible to do so.
- Encourage students to estimate when appropriate.
- Explain the steps in the solution to a problem.
- Discuss and clarify why a particular method of calculation works.
- Use and explain the meaning of appropriate mathematical terms.

6. The use of Calculators??????

Subject Departments should:

- Indicate in their subject department plans when and where students are likely to require calculators
- Be clear when it would not be appropriate for students to use a calculator for their calculations

7. Incorporation of Numeracy across the Curriculum

Identifying Numeracy Moments Across the Curriculum – emailed to all Staff January 13th 2015 and again on October 8th 2015.

8. Role of Parents/Guardians ???

The school is a supportive organisation in respect of the primary educators – parents/guardians. Our efforts to provide holistic education, in its various forms, are most meaningful and effective when parents/guardians both understand and support our aims and activities. Parents/guardians should work with the school to emphasise the importance of schoolwork, homework, study and reading. They should check the student's journal to ensure that homework is recorded and then, should look at the student's copies to ensure it is completed. Reading in quiet spaces should be encouraged at home. Parents/guardians can create the climate at home (quiet space, no distractions, fixed time each day), to ensure homework can be fully done, as required by the school.

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Review Procedures:

The Numeracy Policy will be reviewed regularly by teachers and by the Board of Management every four years. Any staff member who is unhappy with the content or the implementation of any school policy may request a review at any time and such a request will be dealt with as quickly as possible. The Parents' Council may request a formal review at any time and such a request will be dealt with as quickly as possible by the Board of Management. This policy was adopted by the Board of Management on _____ [date]

Signed: _____ Signed: _____
 Chairperson of Board of Management Principal

Date: _____ Date: _____

Review Date: March 2018

Numeracy Checklist

| | Yes | No |
|---|------------|-----------|
| Are all teachers in the subject department aware of students with learning difficulties or Special Educational Needs? | | |
| Are learning objectives outlined in Schemes of Work and Lesson Plans? <i>Knowledge, Understanding, Skills and Attitudes (KUSA)</i> | | |
| Are methodologies varied to suit different types of learners? | | |
| Is differentiated homework given for all year groups? | | |
| Has the subject department / teacher outlined targets and plans for SEN students? | | |
| Has the subject department / teacher outlined targets and plans for EAL students? | | |
| Has the subject department / teacher outlined targets and plans for exceptional students? | | |
| Is student work displayed in the classroom? | | |
| Is student work displayed outside the classroom? | | |
| Has the subject department developed and displayed a set of Key Words / Formulae for each year group? | | |
| Is ICT used to support numeracy development? | | |
| Are students given independent keywords / numeracy / calculations tasks? | | |
| Are there rewards and incentives for improvements or achievements in numeracy? | | |