



Waikite Valley School

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Essential Learning Areas CURRICULUM PLAN

MATHS

General Statement

Mathematic is an essential learning area that requires specific and skilled teaching. Prior to any teaching taking place the learning needs of the children must be identified and catered for, so that the children may reach the expected level of mathematical skill for the cohort. The programme needs to be structured to allow for individual learning styles. The learning needs to allow for maintenance of already learnt concepts, quick recall of essential basic facts and tables, a focused learning session and the opportunity to practise new skills in a supportive environment. The opportunity to apply these skills to problem solving situations also needs to be focused.

Educational Objectives

- develop flexibility and creativity in applying mathematical ideas and techniques unfamiliar problems arising in everyday life to develop the ability to reflect critically on the methods they have chosen
- become effective participants in problem solving teams, learning to express ideas, and listen to and respond to the ideas of others
- develop the skills of presentation and critical appraisal of a mathematical argument or calculation, use mathematics to explore and conjecture, and learn from mistakes as well as successes.
- develop the characteristics of logical and systematic thinking and apply these in mathematical and other contexts, including other subjects of the curriculum
- become confident and competent users of information technology in mathematical contexts
- develop the knowledge and skills to interpret written presentations of mathematics

Learning Outcomes

- the children will develop mathematical knowledge, skills and understanding which they can apply to new situations
- the children will develop the ability to see mathematical patterns and relationships and make generalizations from these
- the children will develop knowledge and skills in each of the strands of number, algebra, measurement, geometry and statistics
- the children will become confident in their recall of basic facts and times tables
- the children will be encouraged to develop checking strategies to identify careless errors especially using talk moves.
- children with above their age ability in Mathematics will be encouraged to extend themselves and apply their learning in new situations

The numeracy project (NUMPA) is being used with rigorous testing taking place over the course of the year (including JAM, IKAN, GLoSS, PAT or AsTTle testing). Knowledge and strategies and strategies for the different areas will be taught over the year, with each area being adapted to the needs of the students.

Maintenance can be written on the board for the children to begin immediately. Other ways to support class learning in a 'maintenance' fashion is a class or group game, tackling a problem solving challenge or reviewing work previously completed. The purpose of this is to rehearse basic mental math practise and /or strand learning.

Five minutes is spent on **brain gym**, revising and practising basic facts, including tables when appropriate.

WALT's (we are learning to....) and success criteria for the lesson are written on the task board or in the modelling book for each group.

Activity - practise activities are listed relating to the objective of the day, the non teacher groups proceed through relevant and meaningful activities. Any child having difficulty with the process or reading instructions will receive teacher or teacher aide support to ensure they can access and practise the maths content. The work is checked at teaching sessions for any errors, areas of difficulty are noted and these form the 'next step learning' (NSL) for the following lesson. Where extra practise is needed, work maybe sent home. Common or recurrent errors are built into the maintenance programme.