

K-4th Grade Mathematics Overview

The Lower School's **Mathematics** curriculum is based on the school's adoption of the Everyday Mathematics programme (McGraw Hill) for Kindergarten through 4th Grade. Everyday Math was developed by the University of Chicago School Math Project in order to enable elementary grades to learn more mathematical content and become life-long mathematical thinkers. This is a spiralling curriculum as concepts are more fully understood after repeated exposures. The Programme goals are based on the US National Council for Teachers of Mathematics (NCTM) standards and benchmarks and are organised by the following content strands which extend across all grade levels:

- Numeration and Order
- Operations and Computation
- Patterns, Functions and Sequences
- Algebra and Uses of Variables
- Geometry and Spatial Sense
- Measures and Measurement
- Reference Frames
- Data and Chance.

The Everyday Math lessons are based on the following components: Math Message; Math games; Math Boxes for review and skills maintenance; major instructional activities; ongoing learning and practice; and differentiation options. 1st through 4th Grade teachers allocate a minimum of 60 minutes per day for Everyday Math instruction as this is required by the programme to complete all the strands and units over the period of a year. Everyday Math in Kindergarten is a major resource but not the complete Math programme.

In Everyday Math, students start by developing easy strategies and then move on to more sophisticated methods of problem solving as they progress through the grades. They develop the following process skills: mental arithmetic skills and reflexes; estimation and number sense; problem solving and mathematical modelling; algorithmic and procedural thinking. Therefore, the games component is a vital part of the programme for both classroom and home use.

Everyday Math assessment is based on a continuum of beginning, developing and secure goals, which are presented to students and parents at the beginning of each unit. Each student is evaluated on these goals through a variety of assessment strategies and an individual checklist is sent home at the end of each unit. End of unit tests help determine how well the students have mastered the secure goals and how well they are progressing on the beginning and developing ones. The Everyday Math programme is very comprehensive and builds in differentiated instruction for a wide range of skills from students who struggle with math to students who need to be challenged mathematically.

Home links (1st to 3rd Grade) and Study links (4th Grade) from Everyday Mathematics are sent home throughout each unit to reinforce and support what is being covered in class. They consist of active projects and ongoing review problems and are sent home weekly. Everyday Math interactive parent presentations are provided annually by grade level teams and at parent coffees.