# MATHS PROGRAM IN YEAR 6

# Level 6 at a glance

Here is a very brief snapshot of the level 6 curriculum

(Students in year 6 can work at many different levels. If this applies to your child and you would like more detail about their Maths learning please see their classroom teacher)

#### **NUMBER and ALGEBRA**

**Estimation and rounding** – use these strategies when solving problems.

Patterns and Algebra – Describe the rules for patterns involving whole numbers, fractions and decimals.

Explore brackets and order of operations to write number sentences.

Design algorithms to solve mathematical problems eg. Create a flowchart to show how to add fractions.

Number and Place value – Prime, composite, square and triangular numbers.

Integers (positive and negative numbers). Locate integers on number lines.

**Addition/Subtraction** – Add and subtract fractions (with related denominators), decimals.

**Multiplication** – Multiply decimals.

**Division** – Divide decimals by powers of 10.

**4 Operations (Addition, subtraction, multiplication, division)** – Use efficient mental and written strategies to solve problems involving all 4 operations with whole numbers.

**Fractions** – Add and subtract fractions with related denominators, find equivalent fractions, decimals and percentages, find fractions of amounts, place fractions on number lines.

**Decimals** – Add, subtract, multiply and divide decimals.

Money – Calculate 10%, 25% and 50% discounts on sale items.



# MEASUREMENT AND GEOMETRY

Metric System - Connect decimal representations of measurement to the metric system.

Converting measurements - Convert between common metric units of length, mass and capacity.

Length and Area - Solve problems involving the comparison of lengths and areas.

Volume and Capacity - Connect volume and capacity and their units of measurement.

**Time -** Interpret and use timetables and measure, calculate and compare elapsed time.

**Geometry** – Construct prisms and pyramids, investigate combinations of transformations on shapes and create tessellations. **Angles** – Investigate and measure angles and use this information to find unknown angles.

**Location** – Use all four quadrants of the Cartesian Co-ordinate system.

#### STATISTICS AND PROBABILITY

**Data** – Pose and refine questions and construct, interpret and compare data displays.

**Chance and Probability** – Describe probability using fractions, decimals and percentages, conduct chance experiments and compare observed frequencies.

# ASSISTING WITH MATHS AT HOME

Confidence is essential in any learning, especially mathematics. Children need to experience success frequently to give them confidence to extend their understandings and enjoy exploring maths. Your attitude to maths will have a great influence on this and also on their attitude towards maths learning.

Much of the daily experience of children in the home and during leisure activities involves them in using and developing numeracy skills. Parents and other adults can assist children by sharing the maths they are using and encouraging children to talk about what they are doing and making maths a part of their daily lives, for example:

- Telling the time; estimating how long a journey/game/task will take
- Keep up the emphasis on practising the multiplication/division facts up to 10x10.
- Using calendars or diaries and creating timetables eg. Home learning or weekly.
- Setting alarms.
- Planning family activities, estimating distances and working out journeys using maps, train timetables etc.
- Measuring and recording height and mass at regular intervals.
- Scoring and strategies in sports.
- Measuring ingredients for cooking.
- Shopping, working to a budget, calculating cost and change, best buys, discounts.
- Describing containers in terms of their capacity.
- Building using construction kits, models, household materials.

#### Games are a wonderful way of developing number and strategy skills, as well a providing the opportunity for family fun:

- Board games (Monopoly, snakes and ladders, draughts, ...).
- Card games (traditional or snap, concentration, Numero, UNO ...), Dominoes.
- Strategy games (noughts and crosses, Connect 4, Backgammon, Chess, Battleships, Mastermind, ...).
- Jigsaws (commercial or homemade including cut-up squares, triangles etc. ...).

# RESOURCES TO ASSIST

#### **Mathletics**

Did you know Mathletics gives you access to a Maths Dictionary and a Concept search with how to videos? Check them out... http://www.mathletics.com.au/

Here is a link to the **Department Website** that describes what your child will learn in Year 6 in Mathematics, with links to websites, apps, activities etc.

http://www.education.vic.gov.au/school/parents/learning/schoolmate/year6/Pages/maths.aspx

**SchoolMate** The SchoolMate app, produced by the Department, provides the information from this section in a simple and easy to use way. It allows you to tailor your view so you see what is relevant to your child and their interests. For more information and to download the app, see: SchoolMate

**201 Literacy and Maths Tips to help your child.** This is a fantastic booklet full of great advice and ideas to help with both Literacy and Numeracy. It is divided into two sections that you can download. The first section is Before school to year 2 and the second is year 3 to year 6. This resource is also translated into 22 different languages

http://www.education.vic.gov.au/school/parents/involve/Pages/literacynum.aspx

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