

## By the end of the year, your child will be meeting the Year 7 mathematics standard if ...

... they are solving realistic problems using their growing understanding of number, algebra, space, measurement, probability and statistics.

They will be solving problems using multiplication and division that use decimals, fractions and percentages. They will be developing and drawing from various strategies to investigate mathematics and will be able to explain different ways to solve problems.

## To meet the standard, your child will be learning to:

- solve problems involving decimals, fractions and percentages
- investigate and justify mathematical rules to see if they are always true
- explore natural numbers and solve problems involving factorisation
- recognise and use variables to explore situations requiring algebraic thinking
- find perimeters, areas and volumes of shapes
- investigate and solve problems involving ratios
- explore space by identifying symmetry, reflecting and rotating shapes, and using angles to describe shapes
- research topics by acquiring data sets, creating data displays, identifying patterns and interpreting the information
- explore probability through chance experiments and compare actual results with expected results

## FOCUS ON NUMBER

During Year 7 at school, about half of mathematics teaching time will focus on number learning.

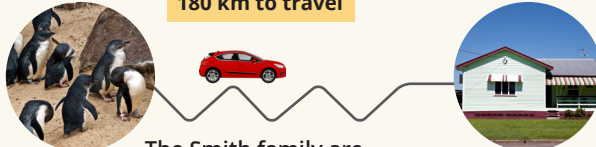
This is a small part of the skills and knowledge your child is learning in order to meet this standard. Talk to the teacher for more information about your child's learning.

## MATHEMATICS PROBLEMS AT THIS LEVEL MIGHT LOOK LIKE THIS:

The Smith family and the Hohepa family are both driving home from their holidays. Which family has travelled the greater distance?

### Smith family

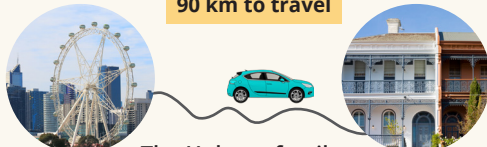
180 km to travel



The Smith family are  $\frac{1}{3}$  of the way home.

### Hohepa family

90 km to travel



The Hohepa family are  $\frac{4}{6}$  of the way home.

For the Smith family I worked out  $\frac{1}{3}$  of 180 is 180 divided by 3 = 60 km.

For the Hohepa family I worked out that  $\frac{4}{6}$  is the same as  $\frac{2}{3}$ , so  $\frac{2}{3}$  of 90 divided by 3 x 2 = 60 km.

So, both families have travelled 60 km.

Ask the teacher what your child is doing in mathematics. Talk about how you can work together to support your child's learning.



# MATHEMATICS AT HOME

## SUPPORT YOUR CHILD

Parents, family and carers like you play a big part in your child's learning every day – you can support and build on what they learn at school.

### Talk together and have fun with numbers and patterns

Help your child to:

- talk about sales – 25% off, 30% off, 10% off, half price – then look for the best value and make a game of calculating the savings on items your child is interested in
- identify and describe 2D shapes in artwork and fabric patterns and 3D objects in carvings and sculptures
- work out the perimeter of your house/property or local park, using estimation (e.g. take approximately 1-metre paces and count them as you pace)
- budget pocket money or plan ahead to open a savings account. Talk about earning interest and investigate which bank account will give them the best return for their money
- talk about current prices for items that interest your child and investigate which store offers the best price.

### Involve your child in easy, everyday activities like these

- Cooking. Explore recipes and amounts of food and costs within a budget when catering for larger numbers, e.g. school camp.
- Estimate, then measure, what foods weigh. Or estimate the number of buckets of water to fill a fish pond.
- Practise multiplication facts (times tables). For trickier facts, encourage your child to explain how they are sure of the answer. Celebrate logical explanations and understanding rather than speed.
- Investigate which outlet offers the best deal on petrol, e.g. 4 cents off a litre if you buy things in the store.

Mathematics is really important for your child's learning – even if you didn't enjoy it or do well at it yourself at school. Encourage your child to find out more about mathematics at the library or online.

Talk with your child's teacher to understand what they are learning about in mathematics and what the learning is in the homework they are doing.



**THE WAY YOUR CHILD** is learning to solve maths problems may be different to your own experience. Ask questions. Get your child to show you how they do it and support them in their learning.

## FOR SCHOOL HOLIDAYS/WEEKENDS/RAINY DAYS

Here are some suggestions for what you and your child can do together.

- Play new games. Find a new board game or card game that uses strategy (skill, a plan).
- Plan and budget for the family holiday (or a day trip). Look at the best transport method in terms of time and money, accommodation, and activities to do. If possible, use the internet for finding out information.
- Guess how many times you use your mobile phone a day/week/month and predict the cost of this. Work out the best price – pre-paid versus a plan.
- Invent new games for when you are out and about. Invent mathematical games to play when walking with friends, travelling in a car, at a park.
- Plan for a family event, such as a dinner. What is the cheapest option – cooking at home or getting takeaway?
- Make bead necklaces and friendship bracelets. Calculate the cost of the materials needed and the time needed to make them.
- Play outdoor and indoor games: frisbee, touch rugby, netball, AFL, cricket, soccer, bowls, snooker or darts. Include scoring.
- Build a secret club room. Plan, design and collect the materials and then create it.

