# Mathematics

www.mathematicshub.edu.au

# YEAR 6 MATHEMATICS AT SCHOOL: WHAT TO EXPECT

#### By the end of the year, your child will be meeting the Year 6 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 involving several steps and which require them to choose the most appropriate method for the problem. They will be learning a range of approaches to solve problems and will be able to make general statements about numbers and patterns.

#### FOCUS ON NUMBER

During Year 6 at school, more than half of mathematics teaching time will focus on number learning.

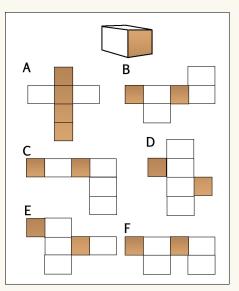
#### To meet the standard, your child will be learning to:

- solve problems (using +, -,  $\times$ ,  $\div$ ) that require them to choose a logical and efficient method
- solve problems involving the addition and subtraction of fractions
- find the value of a given number in a pattern, and describe the pattern
- measure time and find the area and volume of objects
- convert between common units of measurement such as centimetres and metres
- explain results of investigations by identifying patterns
- experiment to work out the likelihood of an event happening
- find, read and explain data and graphs found in the

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:

Without actually cutting or folding the paper, which of these nets (templates) will fold up to make the box?



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



shaped faces and two square faces. But C and F have faces that overlap when folded. So, B, D and E fold to make the box. There is more than one answer!

### MATHEMATICS AT HOME

# Talk together and have fun with numbers and patterns

Help your child to:

- count forwards and backwards, starting with numbers like these fractions:  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1,  $1\frac{1}{2}$ ,  $1\frac{1}{4}$
- talk about large numbers around you (e.g. game scores, distances, populations, money amounts, numbers on a calculator)
- talk about the phases of the moon and link these to the best times for fishing or planting
- talk about the patterns in the night sky and the environment – summer and winter, asking, 'What changes? Why?'
- talk about graphs and tables that are in your local newspapers.

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

- Making dinner at home, at camp or for a BBQ. Look at how much of each food item is needed for the people eating. Talk about fractions (one-half, one-quarter, onethird) to calculate how much to cook and cooking times.
- Helping at the supermarket. Look for the best buy between different makes and sizes of the same item (e.g. tissues, packets of flour, cartons of milk).
- Looking at the ingredients in foods fat, sugar, additives.
  Decide on the healthiest choice.
- Practising multiplication facts (times tables). Check with your child or their teacher which need practice. For trickier facts, encourage your child to explain how they are sure of the answer. Celebrate logical explanations and precise answers, rather than speed.
- Telling time to the minute, exploring time in 24-hour format and measuring durations of time.

Mathematics is an important part of everyday life and there are lots of ways you can make it fun for your child.

Being positive about mathematics is really important for your child's learning – even if you didn't enjoy it or do well at it yourself at school.

Talk a lot to your child while you are doing things together. Use the language that works best for you and your child.



### FOR SCHOOL HOLIDAYS/WEEKENDS/RAINY DAYS

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

- Play games using guessing and checking, e.g. pencil and paper games, card games and board games. Source games and other play materials at a local toy library or second-hand store.
- Cook. Make a pizza, working out who likes what toppings, cooking it, and making sure the pizza is shared fairly. Make a paper or cardboard container to hold a piece of pizza to take for lunch.
- Explore and compare measurements of liquid (e.g. water) using different measuring cups and containers. Explore drink recipes that are made up of different liquid parts (e.g. cordial).
- Make kites using a variety of shapes and materials.
   How high can each kite go? How long can it fly for?
- Make a family tree showing the number of cousins, aunts and uncles, grandparents and their relationships to you.

- Plan out the holidays. Look at each day's fun time, rest time, digital time, helping time, family time and bedtime.
- Plan to make bead necklaces and friendship bracelets. First look for things at home that you could use. If you need to buy anything, work out how much you need (e.g. the length of stringing material and number of beads) and its cost.
- Play outdoor games or sports such as frisbee, netball, touch rugby, AFL, cricket, soccer, bowls. Include scoring.
- Work on challenging puzzles, e.g. Sudoku puzzles, crossword puzzles, jigsaw puzzles.
- Go on scavenger hunts. Make maps with clues and see who can get to the prizes first.



#### 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.