

# EXPLORING MATHS WITH YOUR CHILD

You may feel that the maths your child is doing at school is different from how you were taught, but you will still be able to support your child in many ways.

There are lots of activities you can do at home, using everyday items to help explore maths with your child.



## SPORTS scores

159. How does your favourite sport tally the score? What maths is presented on the tally?
160. How do other sports tally the score, for example, tennis, golf, cricket, netball, football?
161. What maths do you use to find the total of the scores?
162. Are there other ways to record the score?
163. How long do your favourite sport games go for in minutes and seconds? Are they divided into halves, quarters or something else?
164. What are the shapes of different playing fields and courts? Talk about edges and angles.
165. How can you estimate the perimeter and area of a playing field?

# WEATHER maps

166. Visit the website

 <http://www.bom.gov.au/weather/vic/>  
or look at the weather maps in the newspaper.

167. What is the difference between the minimum and maximum temperature for each day?

168. Find a seven-day forecast then record the actual temperature for each day and compare. Was the forecast accurate? What were the similarities and differences?

169. Use the information on the weather website to explore differences in weather from your area to others. How much rain do you get compared to others? Are there differences in temperature?





## RECIPES

170. Collect and read recipes and discuss the use of fractions, millimetres and grams. Encourage your child to make accurate measurements using measuring cups and spoons.
171. Discuss how you would double a recipe. Encourage your child to record the new measurements for the recipe.
172. Identify the temperature and cooking time on the recipe.
173. Estimate the cost to buy all the ingredients to make the recipe.
174. Make a list of the abbreviations used in the recipe and then write them in full, for example, L for litre, mL for millilitre, tsp for teaspoon, tbs for tablespoon.

# CATALOGUES

175. How would you spend \$40 from a catalogue? How many products can you buy for \$40?
176. Select five products from the catalogue then calculate what the cost be if there was a 50% sale. Does it make a difference if you add up the items, and then deduct 50%, or if each item is reduced by 50% then totalled?
177. What is the best value sale item in the catalogue? Can you explain your reasoning?
178. What are the cheapest and most expensive items in your catalogue?
179. Compare the cost of a product across different stores using different catalogues. What did you find?





## TRAVEL timetables

180. Can you identify your starting point on the timetable?
181. What is the earliest and latest time to travel on this route? What is the difference?
182. How long does it take to travel the entire route?
183. How many stops are there on this route?
184. What is the difference in the time travelled when not making all stops?
185. What is the cost? Is it good value compared to other travel options?

## MONEY

Encouraging children to think about money, saving money and considering how they spend money are important skills for all children to develop.

186. Encourage your child to work out how much change you will get after buying something.
187. Investigate costs for family trips together. For example, a visit to a theme park may include transport costs, entry ticket costs and food costs.
188. Discuss saving money for presents or something your child may want to buy. Work out how long it will take to save this much if they get a small amount of money each week.
189. Negotiate increases in pocket money as percentages. For example, a 5% increase would be how much money per week?
190. Encourage your child to save a percentage of their pocket money or birthday money, and work out how much this would be. For example, how much money would you have if you saved 40% each week?
191. Calculate together how much a mobile phone costs per month. How much is spent on messages and how much on phone calls?

# NEWSPAPERS

192. On the front page, estimate the percentage of picture and text. Does this vary over the first four pages?
193. Research the cost per word/line to put a classified advertisement in the newspaper. Calculate how much it would cost to put an advertisement in the classified section.
194. Find numbers in the newspaper, in digits and in words. Cut the numbers out and put them in order from smallest number to largest number.
195. Visit the section that advertises entertainment. Select an event or movie. Find out how much the tickets are. How much would it cost for your family to attend?
196. Try the number puzzles such as Sudoku, in the puzzle section of the newspaper or online.



# SPOTLIGHT on fractions

Fractions are a maths topic that is very relevant to everyday life. We use our knowledge of fractions to solve problems and make decisions all the time.

Support your child by using mathematical language to talk about fractions. Here are some maths language terms that your child will be using at school:

**Fraction** – any part of a whole, a group or a number.

**Numerator** – showing the number of parts of the whole.

$$\rightarrow \frac{1}{5}$$

**Denominator** – the number of parts the whole is divided into.

$$\frac{1}{5} \leftarrow$$

**Proper fraction** – numerator is less than the denominator.

$$\frac{3}{4}$$

**Improper fraction** – numerator is greater than or equal to the denominator.

$$\frac{5}{2}$$

**Equivalent fraction** – fractions that have the same value or amount.

$$\frac{2}{3} = \frac{4}{6}$$

**Mixed numbers** – a whole number and a fraction.

$$2\frac{2}{3}$$

**As children learn about fractions, they gain new mathematical skills:**

Children begin by learning that there are many numbers between whole numbers. A number line is an effective model to start with.



In the beginning, children are able to recognise and make models of familiar fractions, for example  $\frac{1}{2}$  (half) or  $\frac{1}{4}$  (quarter). Everyday examples include sharing an apple or cutting a piece of toast.

When children begin to add, subtract and multiply fractions they use models to help.

- **Decimals** – a numeral system based on 10, for example, 0.75 or .75
- **Ratio** – compares the value of two amounts, for example,  $\frac{3}{4} = 3:4$
- **Percentage** – is a number out of 100, for example,  $\frac{3}{4} = 75\%$

Talk positively about how you use fractions in everyday life. Making models of fractions for your child will support their understanding of fractions. Try some of these ideas making use of everyday objects:

197. Can you cut up the apple to make six equal pieces?
198. What fraction of the glass is filled with water?
199. How do the hands on the clock face show the time quarter past?
200. Can you show me halves and quarters as you cut the orange?
201. If you fold a towel three times equally, what fraction does it show?

