

Counting on you

Helping your child with maths



This booklet is for parents/carers of children from Kindergarten to Year 3 to help their children as they discover and learn about maths.

It includes tips and things to do together as you go about your everyday routines.

Index

Making maths easy..... p4

Everyday maths..... p5

Games..... p7

Building confidence and skills..... p10

WIN an iPod..... p16

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Understanding maths and how it is used in everyday situations is essential for all children.

As a parent, you are able to help your child develop strong maths skills by incorporating some fun and easy activities into your child's day to day life, both in and outside of your home.

Children learn by seeing, hearing, playing and doing. This booklet will help you build on what your child already knows, while introducing some exciting new ways to further extend maths knowledge and skills.

I encourage you to read this booklet and keep it within easy reach to help you develop your child's confidence in themselves and their understanding of maths for a great start to school.

Sharyn O'Neill
Director General

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Helping your child with maths really adds up

Everyday life is full of opportunities to help your child learn about maths. The good news is you don't have to be a maths whiz. It really can be easy and fun.

We use maths many times each day, often without knowing it. This booklet shows how to make your daily routines – like cooking, fixing and gardening – a chance for your child to learn maths.

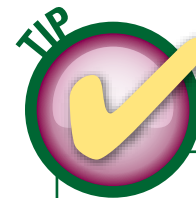
The more your child joins in, the more maths will make sense. Children will learn that it is not just about numbers. Maths also involves shapes, direction, position and measuring things.

Support from parents can often make the difference between enjoying and being scared of maths at school. You can be an important help for your child so why not give everyday maths a go.



We're sharing our toast evenly.

Children who talk about numbers at home have a real advantage in maths at school because they already know what numbers are for and can confidently take part in activities.



Ask children questions to get them talking about maths from an early age.

How many are there?

Which way is it?

Will this fit in here?

Is there enough for all of us?

How big is it?

Making maths easy

We use maths in lots of things we do each day so you can start right now helping your child to learn.

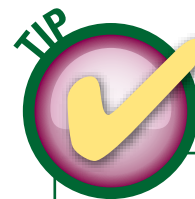


Get your child involved. Learning about maths is easier if your child actually does things. For example, ask them to find out if cereal will fit in a container, get them to measure the wood for a DIY project or count enough bread rolls for everyone.

As you begin, keep in mind some basic tips. Then try the practical ideas and games listed on the next pages.

- Think out loud as you do things so your child knows why you are doing it. For example say, *I wonder if we have enough. Let's count to make sure.*
- Try to make it fun. For example, as you drive around ask the children to spot numberplates with the number 8.
- Remember that you don't have to do all the activities all the time. A golden rule is 'little and often'. Even a few minutes will do each day.
- Praise your child for trying, even if they give the wrong answer. You will help build their confidence.

We're finding out if the cereal will fit in the container.



As soon as your child notices numbers with two digits like 15, use the word 'digit'. For example, *The number fifteen has two digits – one and five.*

Everyday maths

In the home

- cooking (count potatoes for everyone; measure ingredients)
- laundry (sort clothes; match socks)
- tidy up (talk about positions such as *in, on, under, in front, behind*)
- sharing food (cut sandwich/fruit into halves and say *I have cut this into two equal pieces – half for you and half for me*)
- bath time (find out how many mugs of water fill a plastic jug)
- point out shapes in the home (this placemat is oval, the ball is a sphere)
- talk about time (start time of favourite TV show for young child or work out how long a program runs for with older child); write sport days/times on calendar

In the garden

- count and space out seedlings
- talk about the height of plants
- talk about how much mulch we need to cover the garden



When unpacking the shopping ask your child to find and group the heavy, light or tall items.

Here are some ideas to help you bring maths to life for your child when you are at home or out and about.

Time for play before our favourite program starts.



Everyday maths



We are turning *right*.



In some Indigenous Australian communities children learn *north, south, east and west* at an early age and find the idea of *left and right* confusing at first. On the other hand non-Indigenous children who have learned directions like *Turn right* or *Move left* may find directions like *Turn east* more difficult.

In your neighbourhood

- point out house numbers – talk about whether they are odd or even
- count homes in your street
- talk about shapes such as signs (give-way sign is a triangle)
- give directions to a friend's house or the shops

In the car

- count cars; for example say *Let's count all the red cars*
- give and follow directions using *right, left, north, south, east* and *west*
- show your child how to read the maps in a street directory using the reference numbers and letters

Shopping

- count items into the trolley
- point to 3D shapes and say what the shape is called (for example, *This can is a cylinder*)
- talk about money, coins and notes
- talk about saving up for something special
- work out how many we need (5 people each want 3 sausages)

Making maths fun

Another golden rule for learning and enjoying maths is to make it fun.

Games are a good way to do this. These activities are popular and easy.

Hopscotch: Great for learning numbers and getting exercise!

Balloon tap: Count how many times you can tap a balloon to each other without it touching the floor. When it hits the floor, start again.

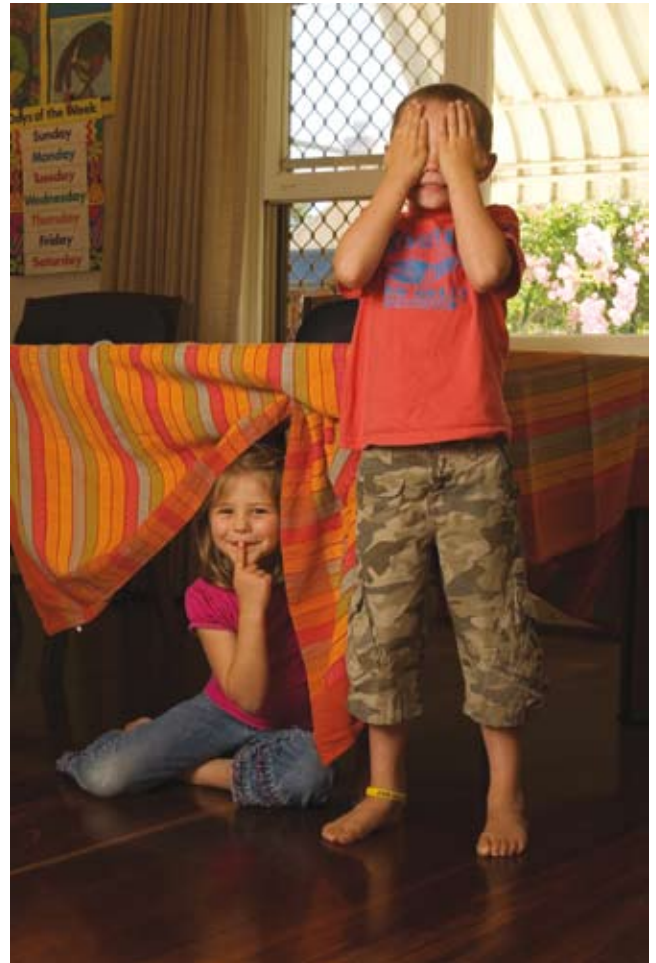
Dominoes: Count and match the dots.

Search and find: Give directions or positions as clues to finding an item such as *Look under ...; It is in ...; Look behind ...*

Board games: Help your child to count and keep the score.

Scavenger hunt: Write a list of things for your child to find around the house or yard. For example 3 gum nuts; 4 brown leaves; 1 red leaf; 5 clothes pegs; 2 red blocks; 1 shell.

Treasure hunt: This helps children learn about directions and position. Write directions for your child to find a clue which tells where to look for the next clue, continuing until the 'treasure' is found. For example, *Look **under** your pillow; look **behind** the kitchen door; look **on** top of the TV; look **in** the washing machine.*



Sh! I'm *under* the table.

Making maths fun



Dice games: Use two dice to help your child add together small numbers quickly.

Numberplate search: Look for a numberplate that has a 1 in it somewhere. Then find a plate with a 2 in it; then 3 and so on. Make it more fun for older children by asking them to add two numbers on the plate together to get numbers greater than 9; or add all the numbers together; or take the smallest one away from the biggest one.

Mystery number: Think of a number. Ask your child to guess what it is as you give clues. Perhaps say *My number is more than 10 but less than 19. It is an even number. Sometimes it's called a dozen.*



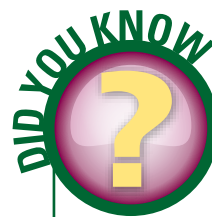
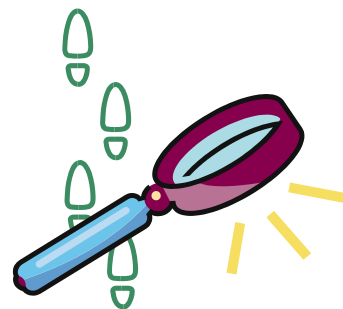
Children's play often includes maths. Games like playing shop help children learn that maths is part of everyday life.



Numberplates (advanced): Look at the plate's digits, perhaps 5, 3, 7 and ask *What number do they make?* (five hundred and thirty seven); *What is the biggest number you can make with those digits?* (seven hundred and fifty three); *What is the smallest?* (three hundred and fifty seven); *Can you add the digits together?*

Number detective: Write some numbers on a piece of paper like 12, 15, 10, 14, 26, 11, 17, 21, 5 and say: *The guilty number is more than 12* (cross off numbers 12 and below – 12, 10, 11, 5); *the guilty number is odd* (cross off any remaining numbers that are even – 14, 26); *the guilty number is a multiple of 5* (cross off 17, 21). *What is the guilty number?* (Answer 15)

You may know of a different game or even make up a new one!



Children learn to read simple numbers (0 to 9) before they can read words because each number stands for a whole word.



Counting is useful to keep score in games.

Building confidence

It is important to praise your child while they are learning maths. Even if they make a mistake they are having a go and that is good.

My little bucket is full of stones so it's *heavier* than the big bucket.



Children may lose confidence if they struggle with maths. Remind them that other things like skipping, bike riding and playing games also need to be practised a lot. Once we are good at something, we enjoy it much more.

- If your child doesn't know the answer allow a little time to work it out. Give hints and clues. Encourage attempts.
- Praise every effort. Allow time for your child to correct an answer. If you give them the answer, talk about how you worked it out.
- Spread the good news with other family members and friends about what your child has learned or done. Grandparents, older sisters and brothers and friends can all encourage and be proud of your child.
- Take photos of your child helping you. Look at these and talk about the maths they learned such as sorting things into groups or weighing.



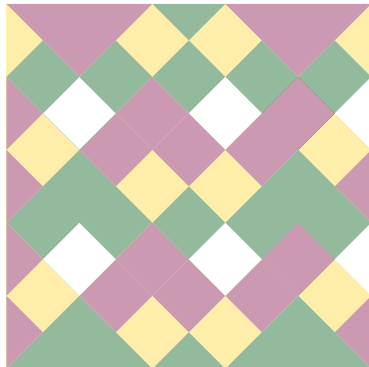
We are sharing what we've learned.

An important part of learning almost anything is to understand it.

Talking with your child about unexpected things helps that understanding grow. For example:

- sometimes small things can be heavier than big things depending on what they are made of or contain
- a tall thin container may hold much less water than a short fat container
- sometimes children write *one hundred and one* (101) as 1001 because they write 100 and then add the 1 at the end.

Using a calculator can also help. Talk about the keys including the signs. A calculator will 'count' if you press the keys **1 + 1 =, =, =, =**, which is very useful when a child is unsure of what number comes next. You can start at **9 7 + 1 =, =, =** and discover what comes after 99 and what it looks like.



“ We found patterns in the floor tiles that repeat over and over again to cover the whole floor. The tiles fit neatly together without any gaps...that's maths in the bathroom. – Wayne, father ”

Building skills



Setting the table for three.

You can help your child build their skills as they learn. Young children learn maths at their own pace and by different methods such as seeing, hearing, saying, doing and playing.

Help your child by:

- singing rhymes together with the numbers in order, for example *One, two, three, four, five – once I caught a fish alive; One, two, buckle my shoe; Five little ducks; Ten green bottles*
- asking for help to count things, for example *Please get me four plates* and *Let's count how many apples we have*
- playing games where they have to imagine what's missing from a small collection, for example put out five bananas, cover one and then ask how many are missing.



Point out numbers in magazines, signs, prices, footy jumpers. Talk together about how these numbers tell us things like how much, how many and which one.



As your child progresses:

- get them to help with counting by asking whether you have enough of what you need; your child should decide to use counting to find the answer
- play games where your child has to tell you how many there are without counting, for example quickly hold up some fingers on both hands and ask *How many on each hand?* or *How many fingers all together?*

Later:

- look through catalogues together and ask your child to help you work out if you have enough money to buy a small number of items
- play board games where children handle large amounts of play money
- point out times when multiplication might be helpful, for example if each family member will eat three sausages for dinner, how many do we need to buy?
- try computer aided programs.

How many fingers?



Working out what we can buy.

If you would like to do more ...

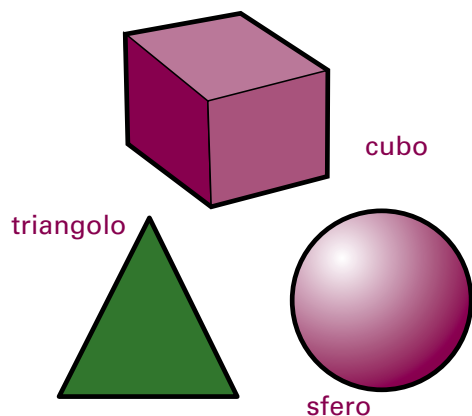
Discuss your child's progress in maths with the teacher regularly and remember to praise every effort and achievement.

Download maths posters to put on the fridge, toilet door or bedroom wall. Visit det.wa.edu.au/education/curriculum and follow the links to Literacy & Numeracy and Parents' Resources for:

- Younger children
House of ten helps add up to ten
- Older children
Times tables help revise basic maths.

What if my child speaks another language or dialect?

If your child is learning English as a second language or dialect, support them in both their first language or dialect as well as in English. Talk about maths with your child in your first language so misunderstanding is less likely. If your child is learning to speak English, active learning is useful. This way they can understand what you are talking about by seeing and doing rather than just listening.



“ We found that some words are very similar in both English and Italian, such as *triangle* and *triangolo*, *sphere* and *sfero*, *number* and *numero*. – Marisa, mother ”

Read all about it – books to share

- 1 **One is a Snail, Ten is a Crab** by April Pulley Sayre and Jeff Sayre
- 2 **Edward the Emu** by Knowles Sheena and Rod Clement
- 3 **Rosie’s Walk** by Pat Hutchins
- 4 **Fifteen Pigs on a Pirate Ship** by P Edwards and G Parkin
- 5 **The Very Hungry Caterpillar** by Eric Carle
- 6 **The Australian 1, 2, 3 of Animals** by Bronwyn Bancroft
- 7 **The Doorbell Rang** by Pat Hutchins
- 8 **Ten Apples Up On Top!** by Dr Seuss
- 9 **Counting on Frank** by Rod Clement
- 10 **Mr Archimedes’ Bath** by Pamela Allen

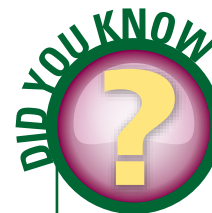
Bring maths into your home with books and as you read aloud ask questions.

Who was the second person to arrive?

How many people have brown hair?

Talk about the position of things such as *in, out, on* and *under*.

What is in the bath?



Sometimes young children think zero means “blast off!” Explain that it also means none or nothing.

Handy checklist

We use maths in lots of things we do so you don't have to wait another minute. You can start right now!

- We explain to my child how we worked something out.
- We encourage my child to count items when we go shopping.
- We share cooking activities with my child.
- We ask my child to help sort things.
- We encourage or help my child to share things evenly between us.
- We encourage my child to score when we play games.
- We help my child learn about money.
- We play number games when we're in the car/bus/train.

Reader Survey **WIN** an iPod nano* courtesy of ROCK Australia.

Return completed form between 19 May and 20 June 2008 to be in the draw.

1. As a parent/carer I found this booklet helpful. (Please circle the number that you agree with most)

1	2	3	4	5
(strongly disagree)				(strongly agree)
2. This booklet was easy to understand.

1	2	3	4	5
(strongly disagree)				(strongly agree)
3. After reading this booklet I know we use maths in everyday life.

1	2	3	4	5
(strongly disagree)				(strongly agree)
4. In future I will use at least one of the ideas in this booklet.

1	2	3	4	5
(strongly disagree)				(strongly agree)
5. After reading this booklet I feel able to bring maths into at least one activity with my child.

1	2	3	4	5
(strongly disagree)				(strongly agree)
6. I have used at least one of the ideas in this booklet.

Yes No

Other comments

Name: _____

Telephone: _____

Postcode: _____

Send your completed form to:

A: Reader Survey
Corporate Communications and Marketing
Department of Education and Training
Level 2, 151 Royal Street, East Perth WA 6004

F: 9264 4896

* 1. By entering the competition parents/carers agree to abide by these terms and conditions. 2. The competition is open from 19 May to 20 June 2008 inclusive. Entries must be received by 20 June 2008 at the Department of Education and Training, Corporate Communications and Marketing, Level 2, 151 Royal Street, East Perth WA 6004. 3. The reader survey must be completed. 4. There can only be one completed form per family. 5. One prize of an iPod will be drawn. 6. The winner will be notified by telephone. The draw is final and cannot be contested. No correspondence will be entered into. 7. The prize is not redeemable for cash and is non-transferable.

