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Numbers: Showing children they count



Department of
Education

Activities and fun ideas that help you help your children develop their maths skills at home. For parents/carers of children in Kindergarten to Year 2.

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TITLE: Numbers: showing children they count.
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From the Minister

As a parent you play a very important role in early years learning for your children.

Your support and encouragement of learning at home not only builds on what they are taught at school but also gives your children the best possible start in life.

Having an understanding of numbers and how maths is used in everyday situations are essential skills for your children.

You can get involved by including the ideas in this booklet in your home routines. The activities are simple, fun and a great way for you to help your children learn while spending time together.

I encourage you to keep this booklet as a handy guide to use throughout your children's early years at school as they develop confidence and skills in using numbers and maths.

Hon Peter Collier MLC
MINISTER FOR EDUCATION



Making sense of maths

Maths is more than just numbers!

We use maths many times each day. It forms part of our lives through activities such as cooking, shopping and gardening.

Involving your child in these activities such as getting them to help you count out money to pay for the shopping, and weighing food when cooking together, lets them see how we use maths each day.

Seeing you and the rest of your family using maths at home can help your child understand how useful it is. They begin to learn that maths is not just about numbers but that it also involves shapes, directions, measurements, location and placement.

What can you do?

Ask your child questions while you are doing everyday activities so they begin to think and talk about maths from an early age – questions such as:

- How many are there?
- Which way is it?
- Will this fit in here?
- Is there enough for all of us?
- How big is it?
- Is it likely to happen?

Children who talk about and use maths at home have a real advantage when learning at school.



Children learn by seeing, hearing, playing and doing.

Participating in activities at home helps children learn about maths.

Ideas to get started:

- Think out loud when you use numbers, time, position and measurement so your children see how useful maths can be. For example: *I wonder if we have enough* or *Let's count to make sure.*
- Encourage your children to talk through what they are doing. Ask questions and let your children ask questions too. This helps them make sense of things and understand what they are doing. It is an effective way of learning.
- Children need time to think and time to answer. Be patient.
- Use maths and number words when you describe things. Instead of saying *the bucket*, you might say *the 10 litre bucket*. This helps your children learn about the different words that are used to describe how to measure things.
- Follow the golden rule of 'little and often' – a few minutes each day rather than a 30 minute maths session.
- Praise your children for trying, even if they give the wrong answer. This builds their confidence in learning.

Everyday maths

Everyday life is full of opportunities to help children learn about maths. Here are some ideas to help you bring maths to life for your children when you are at home and out and about.

At home:

• Food and cooking

Ask your children to help measure ingredients and check cooking times.

Help them read the school lunch menu and the cost of different items. Count the money with help.

Help your children work out how food and drinks can be shared equally, for example cut sandwiches or fruit into halves and say *I have cut this into two equal pieces – half for you and half for me.*

Prepare meals with your children and ask questions like:

- How many people are eating?
- How many plates and cups do we need?
- Can you get enough plates without counting each plate? We need six plates, that's three and another three.
- If we need two slices of bread for each sandwich, is there enough bread to make sandwiches for everyone?

- **In the laundry**

Help your children sort clothes into piles of colours or count and match socks.

- **Talk about time**

Help your children to read both an analogue and a digital clock. Talk about time. For example what is the start time of your children's favourite television show and how long is the program on? Write sport days and times on a calendar.

- **Talk about shapes in the home**

For example rectangle tables, oval placemats and triangle sandwiches. Point out the number of sides of each shape.

- **Tidy up time**

When tidying up, talk about positions such as *in*, *on*, *under*, *in front* and *behind*. For example: *Let's put all the toys **in** the toy box* or *Let's put your teddy bear **on** the bed*.

- **Bath time**

Count how many mugs of water fill a plastic jug.

- **Using money**

Let your children handle money. Help them count out how much money they have saved. Ask them to sort and order the coins and notes according to value and then count them. When they receive money as gifts, use shopping catalogues to help them plan how they might spend their money. Talk with your children about saving up for something special.

- **In the garden**

Count and space out seedlings and measure the height of plants.

During sport games:

Sport is a topic that includes maths and is easy to talk about, for example:

- How many points would three goals be?
- How many goals is the team leading by?
- Which player has hit the most runs?
- How do you know which runner has the fastest time?
- Point out the score and the times shown on the scoreboard.

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In the car:

There are many games you can play in the car with your children to keep them occupied:

- Count the number of cars with your children. Make the game a little more challenging by counting cars of each colour. Keep a tally of the cars counted for each colour and at the end of the journey see which colour 'wins'. For older children give values to each colour. For example white cars = 1 point, black cars = 2 points, blue cars = 3 points and so on.
- Talk about directions using *right, left, north, south, east* and *west*.
- Show your children how to read the maps in a street directory or electronic navigator using the reference numbers and letters.
- At the service station ask your children questions like *How much does the petrol cost today? How do you know?*

In your neighbourhood:

When walking around your neighbourhood with your children, you can:

- point out house numbers and talk about whether they are odd or even
- count the number of houses in your street
- talk about shapes, for example the give-way sign is a triangle
- talk about directions while walking to a friend's house or the shops.

Shopping:

Keep your children occupied when shopping by asking them to help you.

- Ask your children to count the number of items in the trolley.
- Point out 3D objects and say what the object is called, for example: *This can is a cylinder.*
- Talk with your children about money, coins and notes, and credit cards.
- Work out how many of each item is needed. For example: *How many sausages do we need to feed the family?*
- When unpacking the shopping ask your children to find and group the heavy, light and tall items.

Reading books:

When reading books together, talk about the story and ask your children questions related to the story and pictures. For example ask questions about:

- **positions** such as *in, out, on* and *under* and *who* and *where?*
- **numbers** like *how many* (with and without counting)
- **shapes** like *What shape is the table?*
- **measurements** like *Who is the tallest?*

Fun games and activities that use maths

These activities are popular, easy and lots of fun for you and your children.

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 items such as *Look under...*; *It is in...*; *Look behind...*

Board games

When you play board games using dice, help your children recognise how many without counting each dot. For example: *I know that's four because I can see two and two.*

Electronic games

Include adventure games, tablet applications, web-based competitions and sporting games. Play computer adventure games with your children and ask questions such as *How many more stars will you need to open that door to the next level?*

Scavenger hunt

Write a list of things for your children to find around the house and garden. For example *3 gum nuts; 4 brown leaves; 1 red leaf; 5 clothes pegs; 2 red blocks; 1 shell.*

Treasure hunt

This helps children practise their reading and learn about directions and positions. Write directions for your children to find a clue which tells them 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 television; look **in** the wash basket.*

Dice games

Use two dice to help your children add numbers together. Encourage them to recognise the number of dots without counting.



Numberplate search

Look for a numberplate that has a 1 in it. 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 the numbers on the plate together; or take the smallest number away from the biggest number.

For a more advanced version of the game, look at the plate's digits and ask *What number do they make?*
What is the biggest number you can make with those digits?
What is the smallest number those digits can make?
Add all the digits together.

Jigsaw puzzles

Use electronic jigsaw games where your child can move shapes to fit together.

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.*

For a more advanced version of the game, you can include addition, subtraction and multiplication clues to find the mystery number.

Reading a book together

Count the pages as they are turned.



Show your child that the overall quantity of a group of objects does not change even if you rearrange them. Put some objects in a line and ask how many? Put the same objects in a group and ask how many? The answer is the same.

Building the confidence of your child

It is important to encourage and praise children when they are learning something new. Even if they make a mistake, they are having a go and that is good.


- If your child doesn't know the answer, allow them 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.

Give your child lots of opportunities to play and try things out for themselves. Talk with them about what they find out. 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 less water than a short fat container.

Patterns in the bathroom floor tiles repeat over and over again to cover the whole floor. The tiles fit neatly together without any gaps. Talk about the pattern with your child.



A photograph of two children playing shop in a kitchen. The child on the left, a young boy with dark hair, is wearing a light green t-shirt and is holding several paper play banknotes. The child on the right, a young girl with brown hair in a ponytail, is wearing a green long-sleeved shirt with a colorful pattern. They are standing in front of a colorful play kitchen with various items like a microwave, plates, and a shopping basket. The background shows a doorway and a wooden chair.

Children's play often includes mathematical ideas and skills. Games like playing shop help children learn that maths is useful in everyday life.

Building your child's skills

Young children learn at their own pace and in different ways such as watching, listening, speaking and doing.

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; and 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
- matching the quantity to the spoken number, for example hold five blocks in your hand and ask your child how many by just looking at them
- talking about the numbers you see when you are out and about, for example house numbers and bus numbers.

As your child progresses:

- Get them to help with counting by asking whether you have enough of what you need, for example say to your child *I need four potatoes for dinner. Can you check the cupboard to see if we have enough?*
- Play games where your child has to tell you how many there are both with and without counting.

Some numbers have a value while others don't. For example, numbers on football jumpers identify the player but have no value. Talk together about other numbers that have no value.



At school

As a parent/carer, your partnership with the school is really important. Talk with your child's teacher regularly about how your child is progressing.

You can help your child by talking about maths positively at home. *What did you learn in maths today?* and *Can you show me what you did?* It's a simple way to show your child you are interested in their school work.

Remember to praise every effort and achievement.

Go to parent meetings and volunteer your time if you can.

What if my child speaks another language or dialect?

If your child is learning English as an additional language or dialect, support them in their first language as well as in English.

Talk about maths with your child in your first language so they become familiar with the maths ideas involved.

If your child is learning to speak English, taking part in activities will help them understand what you are talking about by seeing and doing rather than just listening.



Teaching can be challenging at times and it's great to be appreciated. If you think your child's teacher is doing a good job, why not acknowledge them.



From the early years of learning at home right through to their last day of school – the Schools and you website is written **by** parents **for** parents and tells you everything you need to know about your child's education journey. You can also find out about helping your child become a confident learner.

W: det.wa.edu.au/schoolsandyou

Read all about it – books to share

Books are an easy, fun way to bring maths into your home.

As you read, add to the fun by asking questions:

- Who was the second person to arrive?
- How many people have brown hair?
- Who is the tallest person in the picture?
- What was the first thing the caterpillar ate?
- What page are we on?

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

Here are some great books that not only help your child with their maths skills but also with their reading skills. You may be able to borrow them from the school library or you can get them from your local community library.

1. ***One is a Snail, Ten is a Crab*** by A P Sayre and J Sayre
2. ***Edward the Emu*** by K Sheena and R Clement
3. ***Rosie’s Walk*** by P Hutchins
4. ***Fifteen Pigs on a Pirate Ship*** by P Edwards and G Parkin
5. ***The Very Hungry Caterpillar*** by E Carle
6. ***The Australian 1, 2, 3 of Animals*** by B Bancroft
7. ***The Doorbell Rang*** by P Hutchins
8. ***Ten Apples Up On Top!*** by Dr Seuss
9. ***Counting on Frank*** by R Clement
10. ***Mr Archimedes’ Bath*** by P Allen
11. ***One Duck Stuck*** by P Root
12. ***How Many Dogs in The House?*** by B Boorer
13. ***Cuthbert’s Babies*** by P Allen
14. ***The Boy who Built the Boat*** by R Mueller
15. ***Ten in the Bed*** by P Dale
16. ***Fred Makes a Table*** by P Edwards and M Selway



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