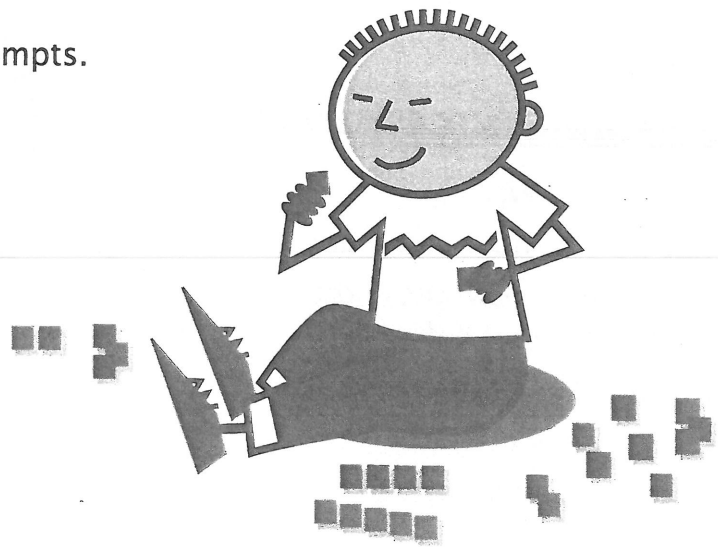
Helping your child with mathematics

- Provide a quiet time and place for you and your child.
- Give your child your full attention.
- Ask your child to explain the task and how they will do it.
- Ask them to 'have a go'.
- Wait to see what they do.

PAUSE

- If they need help, offer prompts.

PROMPT



- Praise all efforts.

PRAISE

- If they struggle, show them how to do the task and later discuss this with the classroom teacher.

Prompting

Prompts are questions, hints or suggestions that help the child solve the problem independently. Prompts often require more than a one-word response.

Drawing on what's known

- What do you know about...?
- When have you used something like this before?
- Does this remind you of any other problems?
- What could you use to help?

Making sense by talking and showing

- Tell me about...
- Show me...
- Tell me what you're doing now.

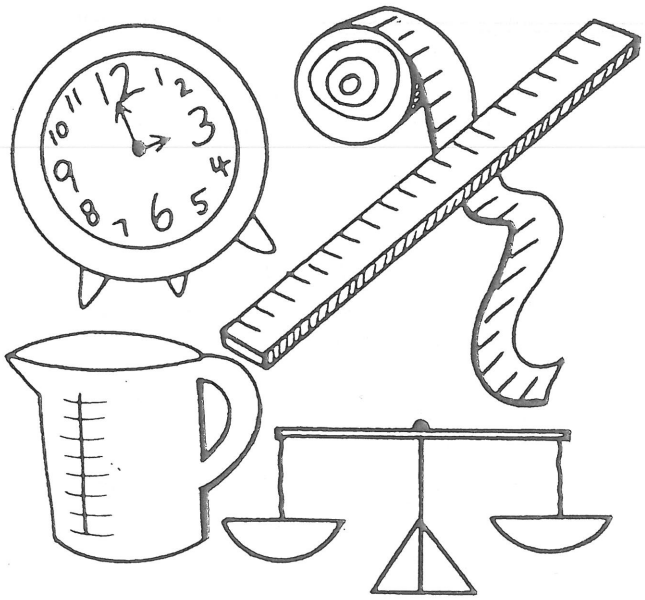
Connecting ideas

- What do you now know about...?
- What do you now know that you didn't know before?
- How are these (ideas) the same?
- How are they different?
- When could you use...?

HO 3.3

Maths materials in the home

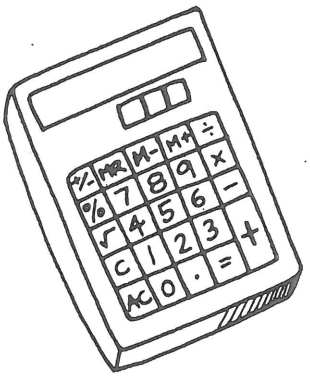
- clocks and watches (digital and analogue)
- timers (stoves, microwaves, watering systems, dryers, videos)
- calendars
- farm set
- money
- water and water trays
- patterned wrapping paper
- tiles
- rulers and tape measures
- measuring cups and jugs
- corks, containers, counters, bottle tops
- kitchen and bathroom scales
- straws, streamers and string
- thermometers
- sand and sand trays
- maps and street directories
- bolts, beads, marbles
- calculators
- speedometers
- dice
- spirit levels
- computers
- playing cards
- construction materials (clay, play dough, blocks)



HO 3.4

Using calculators with your child

For very young children



- Find numbers on the calculator keys. Type each number separately and look at the calculator display. Read the numbers.
- Make patterns using two numbers, such as 31313131. Read your pattern: 'Three, one, three, one...'.
- Use the calculator to type important personal numbers, such as the house number, your telephone number, or family birthday dates ('My birthday is on the 22nd: that's 22.')

For young children

- Type some two-digit numbers, reading them aloud each time.
- Use the constant function to count with the calculator. Type 1 + 1 =. The calculator shows 2. If you now press the = key repeatedly, the calculator will 'count' by ones. Before you press =, predict the next number and then check whether you were right.
- Try typing 2 + 2 = and press the = key repeatedly. What is the calculator counting by now? Predict the next number, and then check by pressing =. Explore this function to make the calculator count by 5s. Then try counting by 10s. Remember to predict numbers before checking.
- When counting by 2s, close your eyes. Press = repeatedly and stop when you think you have reached 20. Continue from 20 and stop when you think you've reached 34.

For older children

- Start at 50. Type − 1 = and then press = repeatedly. The calculator now counts backwards by 1s. Predict the next number, then check.
- How could we make the calculator count backwards by 2s? By 5s? By 10s? Once you have programmed the calculator to count, predict the next number each time.
- Type in three digits. What number have you made? Try some other three-digit numbers. Now try some four-digit numbers.
- Play 'Back to the starting number'. This needs to be demonstrated. Parent types in 20 and shows the child. Parent adds a (secret) single-digit number to this (for example, 7) and shows the child the result (27). Parent gives the child the calculator and asks how the child can make it return to the starting number (subtract 7).
- Play 'Wipeout'. Parent types a number (say 345) then says: 'Without changing the other numbers, how could we change the 4 digit to a 0 digit? (subtract 40). The parent then talks with the child about the value of the 4 in this number (it is 4 tens, or 40).

Maths Games You Can Play At Home

1. Count everything and anything around the house.
2. Look in the telephone book. Can you find your phone number?
3. Look in the Melways. Where do we live?
4. Watch the speedometer in the car. How many kilometres did we travel?
5. How fast were mum / dad travelling? Look for speed signs on the road.
6. Birthday parties are great. How many party hats will I need? If I buy two sausages for each person how many will I need? Involve your children in the planning.
7. Reading the bus / train / gym timetable

Playing Cards

Sequence to 10

- Use playing cards from A-10, shuffle and place them in the centre. In turns turn a card over and place them in order.
  The winner is the first to have cards in ascending order from 1 – 10.

Largest to smallest number

- Turn over three cards. Arrange the cards to make the largest number. Read the number.
- If playing with a partner, who can make the biggest number?

Add them up

- Turn over three cards. Add the card values together.

Snap

- Two cards the same
- Two cards add up to ten
- Two cards have a difference of three

Tens Frames (remove picture cards – King, Queen, Joker)

- Turn over one card and make that number on the tens frame using objects.
- Turn over two cards. Make them on the tens frames using objects. *How many objects altogether? How could you make the total (of the two cards) another way?*

Dominoes

- Find all the dominoes that have a five on them.
- Find all the dominoes that have five dots only on them.
- Find all the doubles dominoes i.e. 6/6; 3/3
- Find all the near double dominoes i.e. 2/3; 4/5
- Children make domino trains that make ten – how many different ways can you make ten? Least /most number of carriages.
- Make a domino train that has 20 people (dots) in it.

Dice

- Roll a die. Make the number rolled on a tens frame using objects (buttons, pasta shells).
- Roll two dice and model the total on tens frames.
- Roll a die. Children collect that number of objects (buttons, pasta shells, cars). After five rolls how many counters do you have altogether?
- Snakes & Ladders (vary the game by playing using two dice; start at the finish point and play backwards).
- Roll two dice. Which is the bigger number? Count on from one number to the next.
- Roll two dice. Add the two numbers together.
- Roll two dice. Subtract the smaller number from the bigger number.
- Roll two dice. Dice one = number of groups. Dice two = number in each group (multiplication)

Links to iPad and computer resources

Wuzzit Trouble
https://itunes.apple.com/au/app/wuzzit-trouble/id600190128?mt=8

Motion Math
https://itunes.apple.com/au/app/motion-math-wings/id508228412?mt=8

DragonBox Algebra 5+
https://itunes.apple.com/au/app/dragonbox-algebra-5+/id522069155?mt=8

2048
https://itunes.apple.com/au/app/2048/id840919914?mt=8

Mathletics
www.mathletics.com.au

Khan Academy
https://www.khanacademy.org

Mathbreakers computer game (not iPad app)

https://mathbreakers.com