

Numeracy at Home



MPS Families

Difference between numeracy and mathematics

Mathematics is the broad study of numbers, quantities, geometry and forms using numbers and symbols.

Numeracy is the ability to apply those mathematical skills in everyday life.

To be numerate is to know some mathematics, and be able to apply that mathematics within a real-world context.

Working mathematically



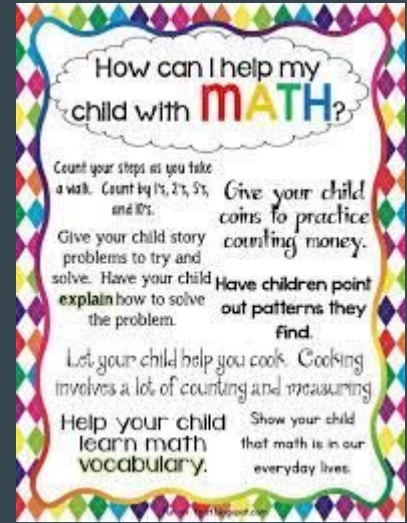
The diagram represents the relationships between the strands and substrands only. It is not intended to indicate the amount of time spent studying each strand or substrand.

The Big Ideas

| By the end of | Big Idea |
|-------------------------------|---|
| Kindergarten/ mid Year 1 | Trusting the count – developing flexible mental objects for the numbers 0 to 10, part-part-whole knowledge. |
| Year 2 | Place-value – the importance of moving beyond counting by ones, the structure of the base ten numeration system. |
| Year 4 | Multiplicative thinking (initial ideas) – the key to understanding rational number and developing efficient mental and written computation strategies, based on number of groups rather than the number in each group. |
| Year 6/ end of primary school | Partitioning (equal parts) – students extend on multiplication and division to make connections with fractions, decimals and per cent. |
| Year 8 | Proportional reasoning – extending their ideas about multiplication and division to represent and solve problems involving fractions, decimals, per cent, ratio, rate and proportion. |
| Year 10 | Generalising – recognise, describe and represent patterns, relations and functions in multiple ways and work confidently with algebraic expressions and relationships. |

Some activities to do at home

- Comparing objects and describing which is longer, shorter, heavier, or holds less.
- Games and sports
- Listening and singing together
- Identifying and playing with shapes and objects.
- Make patterns and collections with objects you find around the house or garden.
- Build on the language of numeracy
- Describe where things are positioned
- Use time-words
- Comparing and talk about the duration of everyday events and the sequence in which they occur.
- Measuring
- Number talks



An activity for every day of the week

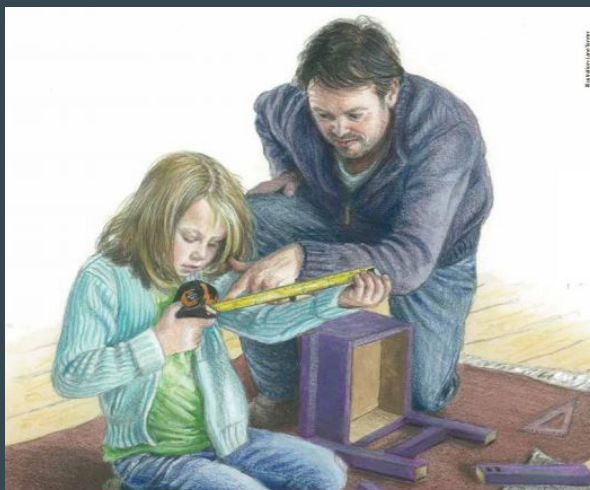


Monday

Make collections.

- Collect objects from the outdoors, like stones, leaves or twigs.
- Sort them into groups and count how many items are in each group.

How many items are there in your favourite collection?

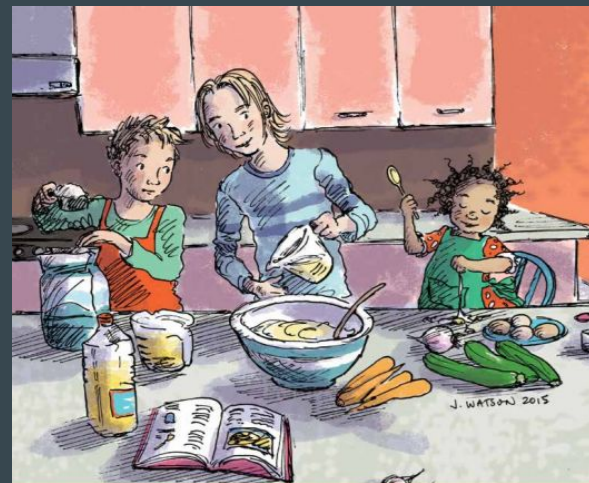


Tuesday

Try measuring objects.

- Explore ways of measuring using sticks, foot prints or hand lengths.
- Measure the height of people in your family.

Who is the tallest? Who is the shortest?



Wednesday

Work out ways to measure ingredients for a recipe.

- Explore ways of measuring using a cup, a jug, a teaspoon and a tablespoon.
- If you have kitchen scales weigh different foods such as a box of flour, a bag of rice or some vegetables.

Put the things you have weighed in order from lightest to heaviest.

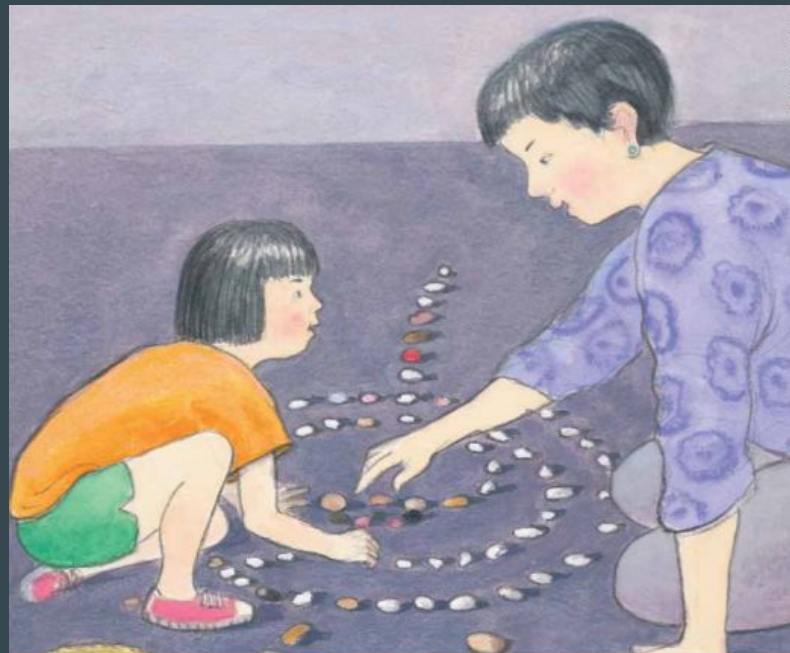


Thursday

Think of ways of moving with maths outdoors.

- Find ways to balance your weight with a friend on the seesaw
- How many jumps does it take to get from the park bench to the see-saw?

What other maths games can you play in the playground?

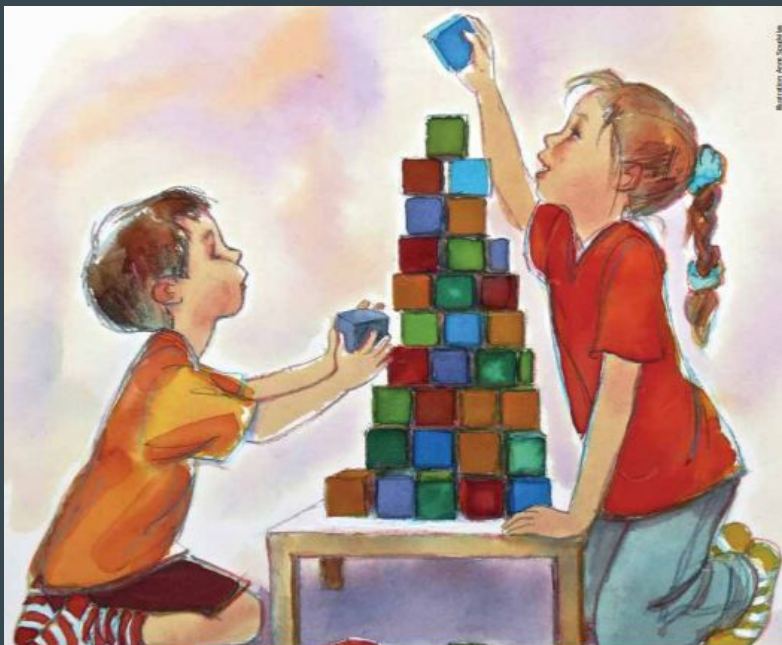


Friday

Find patterns.

- Try following a pattern someone else has started and continue the pattern on your own.
- Make a pattern using pebbles, pegs or pieces of coloured paper.

What patterns can you see around you?



Saturday

Stack building blocks.

- Build a tower as high as you can.
- Can you build a tower that is taller than you are?

What other structures can you make with building blocks?



Sunday

Seek out shapes.

- Start and finish a jigsaw puzzle.
- When you wipe down the table after a meal, talk about which side of the table is longer, shorter, what's its shape?

Can you draw some of the shapes you can see inside your house?

Next week....

NUMBER

TALKS

Some sites with ideas and activities

<http://numeracyguidedet.global2.vic.edu.au/numeracy-at-home/>

https://www.education.vic.gov.au/Documents/about/events/vmc/MathsChallenge_WallFrieze.pdf

Bibliography

<http://numeracyguidedet.global2.vic.edu.au/numeracy-at-home/>

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https://www.education.vic.gov.au/Documents/about/events/vmc/MathsChallenge_WallFrieze.pdf

<https://education.nsw.gov.au/parents-and-carers/learning/maths/maths-a-to-z>