Quick Curriculum Guide for Parents and Teachers (Year One)

These Quick Curriculum Guides have been designed to take a look at the Australian Mathematics Curriculum, explain the terminology and provide a few interpretations. This tool has been designed as a document to assist both parents and teachers. The activity ideas only use a minimum of materials, most of which can be found at home and can easily be adapted to the classroom. In places where there is ambiguity, Linda and I have used our professional judgement to put forward what we feel is **appropriate for students at this year level.**

About Year One:

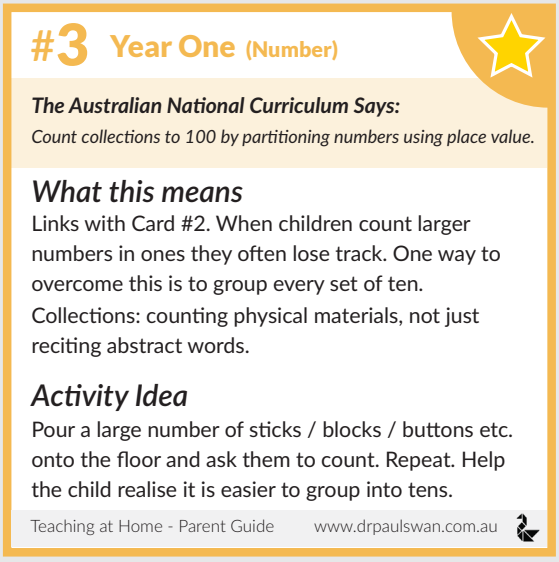
- Year one builds on the foundation laid in the early years and as such some gaps might start to appear. Sometimes children might have missed a key idea. For example, when learning to add 2 + 6 children often count all of the numbers 1, 2, 3, 4, 5, 6, 7, 8. The more efficient method of counting starts from the larger number, 6, and counts on: 7, 8. This method involves less counting and therefore is less error prone but relies on children understanding that 2 + 6 and 6 + 2 are equivalent.

For Teachers:

- You are welcome to send home these cards and activities to parents. A great way of organising your term might be cutting up the cards and adding to the activities ideas.
- Please note, some states and territories do not 100% match the national Curriculum in their state curriculums.

For Parents:

- Keep in mind this is what children learn over the **whole year,** not just in one term.
- All children are different, so expectations will vary even between children within the same year level.
- For the listed activities, we think these are all worth trying / could be managed in a home setting even for those inexperienced with teaching at home. We have tried to avoid specialty equipment.
- Even if you're not too sure about teaching, just introducing the idea and some related vocabulary can be a great help.
- Regular routines are beneficial for children. Many of these activities can be repeated, which will help the children retain what they learn. You can do the activity the same way or make slight changes to keep it interesting. ***It is better to pick one or two activities and repeat them than it is to try them all once!***



A sample card

Note the features of these cards:

- The text from the Australian Curriculum
- The star in the top right
  - Filled in: this means this is a topic that in our opinion is vital, perhaps as a building block to concepts in later years.
  - Not filled in: while still important, we consider this secondary.
- A simplified explanation of what the curriculum is describing
- A single activity or game idea. Some will reference free games and downloadables that you can find on www.drpaulswan.com.au. The vast majority of these activity ideas can be done at home.

Note: Although we have put the entries of the Australian Curriculum in one box each, they are not equal in terms of their importance or the amount of time needed to provide an understanding. Some entries will only need one of two learning sessions. Others will benefit from more, and need re-visiting a number of times throughout the year. Some entries, after an initial learning session, can be given incidental mention as the occasion arises. Teachers will use their professional judgements when deciding how long to allow for each of the entries; often combining some of them within one or more learning sessions.

The full Australian Curriculum: Mathematics can be found at www.australiancurriculum.edu.au/f-10-curriculum/mathematics/

Acknowledgement to Linda Marshall for her assistance developing these notes.

#1 Year One (Number)

The Australian National Curriculum Says:

Develop confidence with number sequences to and from 100 by ones from any starting point. Skip count by twos, fives and tens starting from zero.

What this means

- Count to 100: 0, 1, 2, ...
- Start at a different number: 32, 33, 34, ...
- Count back from any number: 85, 84, 83, ...
- Skip counting e.g. 0, 2, 4, 6, ... or 0, 5, 10, 15, ...

Activity Idea

Calculator Count: Press +1, =, =, = to start it counting in ones. Press 10 + 2 =, =, = to count in 2's.

#2 Year One (Number)

The Australian National Curriculum Says:

Recognise, model, read, write and order numbers to at least 100. Locate these numbers on a number line.

What this means

Model: use materials (sticks, blocks, etc.), grouping them in tens and ones. Able to answer questions like:

- What numbers come before and after 29?
- Which is bigger, 36 or 63?

Does *NOT* mean adding or subtracting to 100.

Activity Idea

Write 5 two-digit numbers on post-it notes and stick in order.

#3 Year One (Number)

The Australian National Curriculum Says:

Count collections to 100 by partitioning numbers using place value.

What this means

Links with Card #2. When children count larger numbers in ones they often lose track. One way to overcome this is to group every set of ten.

Collections: counting physical materials, not just reciting abstract words.

Activity Idea

Pour a large number of sticks / blocks / buttons etc. onto the floor and ask them to count. Repeat. Help the child realise it is easier to group into tens.

#4 Year One (Number)

The Australian National Curriculum Says:

Represent and solve simple addition and subtraction problems using a range of strategies including counting on, partitioning and rearranging parts.

What this means

Do addition and subtraction with small numbers (less than 10) and using materials to help, e.g. putting a group of 3 counters and 4 counters together, or taking 2 counters from a group of 5.

See Dr Paul Swan's Addition/Subtraction Milestones for more information on the specific strategies.

Activity Idea

Watch the Dr Paul video Shake and Spill & play it.

#5 Year One (Number)

The Australian National Curriculum Says:

Recognise and describe one-half as one of two equal parts of a whole.

What this means

The child can recognise an item such as a sandwich cut into two equal sections has two halves.

Activity Idea

Ask the child to draw a shape, cut it out and fold it in half. Each part is exactly the same.

#6 Year One (Number)

The Australian National Curriculum Says:

Recognise, describe and order Australian coins according to their value.

What this means

Children can identify which coin is 5c, 10c, etc.

Children can describe the features of money e.g. by size, shape, colour, the images on the coins.

Children understand which coins are worth more.

Activity Idea

Sort a pile of coins into the different denominations.

See also ***Money Match 1*** from drpaulswan.com.au

#7 Year One (Number)

The Australian National Curriculum Says:

Investigate and describe number patterns formed by skip-counting and patterns with objects

What this means

- Links with Card 1. There are two distinct types of patterns, number patterns and patterns with objects.

Activity Idea

Number patterns: show the 0, 5, 10, 15... and 0, 2, 4, 6, 8... number patterns on a number grid.

Patterns with objects: Use pegs / buttons / etc. Lay out a blue button, red button, blue, red, ... ask the child to describe.

#8 Year One (Measurement)

The Australian National Curriculum Says:

Measure and compare the lengths and capacities of pairs of objects using uniform units

What this means

- Length: the blue pencil is 5 macaroni pieces long, the red one is 8 pieces long, which is longer?
- Capacity: this jar holds 5 eggcups of water, that one holds 3 eggcups of water, which holds more?

Activity Ideas

Length: Lay out long and short tracks for toy cars.

Capacity: Cooking.

#9 Year One (Measurement)

The Australian National Curriculum Says:

Tell time to the half-hour

What this means

- Tell time to the hour first, then half hour on both analogue and digital clocks
- The child should get exposure to the words o'clock and "half past" (analogue) and "thirty" (digital).
- You will need to point out the positions of the hour and minute hands on analogue clocks.

Activity Idea

Time Match (to the hour) and Time Match (to the Half Hour) from drpaulswan.com.au

#10 Year One (Measurement)

The Australian National Curriculum Says:

Describe duration using months, weeks, days and hours

What this means

Talk about events and their durations.

Explain the differences between hours, days, etc.

Activity Idea

Ask "which is longer" questions, e.g. Which is longer, 2 weeks or 1 month?

#11 Year One (Geometry)

The Australian National Curriculum Says:

Recognise and classify familiar two-dimensional shapes and three-dimensional objects using obvious features

What this means

Examples:

- A triangle has 3 sides
- A cube is made up of 6 squares (known as faces)

Activity Idea

Read or watch *The Greedy Triangle* by Marilyn Burns

Read or watch *Captain Invincible and the Space Shapes* by Stuart Murphy

#12 Year One (Geometry)

The Australian National Curriculum Says:

Give and follow directions to familiar locations

What this means

Children are asked to provide/follow instructions. Sample simple directions (prepositions) include "above, below, next to, behind, beneath" etc.

Activity Idea

- Play "Simon Says" with directions.
- Play "Robot" where one person describes what the 'robot' has to do to get to another spot e.g. "take 3 steps forward, turn right..."

#13 Year One (Stats & Probability)

The Australian National Curriculum Says:

Identify outcomes of familiar events involving chance and describe them using everyday language such as 'will happen', 'won't happen' or 'might happen'

What this means

The child can make reasonable statements like:

- It ***might*** rain tomorrow
- It is ***impossible*** for my dog to fly
- The sun ***will definitely*** rise tomorrow

Activity Idea

- Ask some questions like "What do you think the chances are that ..."

#14 Year One (Stats & Probability)

The Australian National Curriculum Says:

Choose simple questions and gather responses and make simple inferences

What this means

Inference: based on the data gathered making a reasonable conclusion.

Activity Idea

The child asks friends and family what pets they have and records this. From this they can state what type of pet is the most common among that group.

#15 Year One (Stats & Probability)

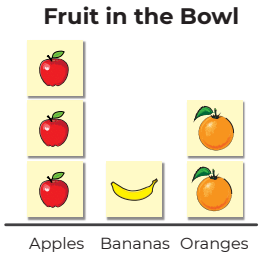
The Australian National Curriculum Says:

Represent data with objects and drawings where one object or drawing represents one data value. Describe the displays

What this means

Can be in the form of a simple display / drawing.

Descriptions: Which has more / less / most / least and counting the number of items displayed.



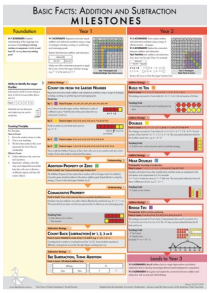
Activity Idea

- Make a simple graph on lollies in the pack etc.

Free Support

A suggested order for teaching basic addition and subtraction facts can be found at www.drpaulswan.com.au/planning

Milestones: Basic Facts Addition & Subtraction (Free Download)



Further Support

Designed for early childhood right through to Year 2 this book includes a variety of practical ideas and games suited for young children.

Clear links between the strategies and the Australian Curriculum are made.

Further Support

Some further activities and assitance can be found in :