

Quick Curriculum Guide (Kindergarten Year)

These Quick Curriculum Guides have been designed to take a look at the Curriculum, explain the terminology and provide a few interpretations.

Where there is ambiguity, Narelle and I have used our professional judgement to put forward what we feel is appropriate for students at this year level.

About the Pre-Foundation Year:

Unfortunately, States and Territories use different names to describe the year before Foundation at school. These include “Kindergarten” and “Preschool”. In this document we have used the name Kindergarten for school for 3 ½ to 4 ½ year old children. Please note that some states use this term for Foundation (the year before Year 1).

We have used the **Western Australian Kindergarten Curriculum**. For more information use this link and click on the drop down box titled “Engage in and extend numeracy in personally meaningful ways”.

<https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/kindergarten-curriculum-guidelines/learning-development-areas/learning>

The WA curriculum is drawn from the national Early Years Learning Framework (EYLF, Commonwealth of Australia, 2009).

https://www.acecqa.gov.au/sites/default/files/2018-02/belonging_being_and_becoming_the_early_years_learning_framework_for_australia.pdf

As always, consider the curriculum that applies to you. That said, a lot of the information in this guide will still be useful to you, no matter the curriculum you work from.

For Teachers:

- A great way of organising your term might be cutting up the cards and adding to the activities ideas.

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.

Note: Although we have put the entries of the Western Australian Kindergarten 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/
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Acknowledgement to Narelle Rice for her assistance developing these notes.



Guide Format:

- Develop knowledge of number and algebra (connects to the Mathematics Curriculum) - Boxes 1 - 13
Please note, we have ordered the number and algebra boxes based on development. For example, if you don't know #2 (saying the number names in order) then it is very hard to count with one-to-one correspondence (#3).
- Develop knowledge of measurement and geometry (connects to the Mathematics Curriculum) - Boxes 14 - 18
- Develop knowledge of statistics and probability (connects to the Mathematics Curriculum) - Boxes 19 - 21

Principles of Counting:

- The first five curriculum content descriptions in this document are called the Principles of Counting. We have ordered them based on development.

How to Count

1. Stable Order: say the number names in order.
2. One-To-One Correspondence: match the counting names to the items being counted.
3. Cardinal Value: the last name said in the count represents the total of the set.

What to Count

1. Order Irrelevance: the count can start anywhere.
2. Abstraction: children will at first count objects that are similar. Later they will count collections of different objects and later still, unseen objects.

Points of Clarification: Kindergarten & Foundation

A. Consider the following:

Kindy Curriculum: *Recite number names in order, initially to 5, then to 10 consistently.*

Foundation Curriculum: *Count ... initially to and from 20, moving to any starting point. (ACMNA001)*

The observation list for getting from Kindy level to Foundation level could be illustrated in the following way:

Kindergarten Curriculum specified

Count forward 1 to 5

Count forward 1 to 10

These are the progression steps towards satisfying the requirement in the Foundation Curriculum.

Count forward from any number to 10

Count backwards from 10 to 1

Count backwards from any number (less than 10)

Whether these are taught partly in Kindergarten depends on the context of your school and students.

Count forwards 1 to 20

Count forwards to 20 from any number

Count backwards 20 to 1

Count backwards to 1 from any number (less than 20)

Foundation Curriculum specified.

Count forwards and backwards, by one, to 20 from any number

Points of Clarification: Kindergarten & Foundation

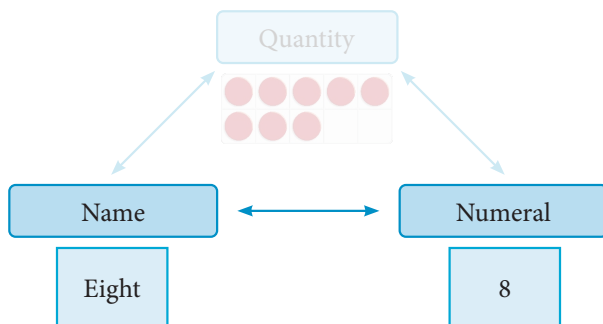
B. **Kindy Curriculum:** *Recognise numerals initially to 5 and then to 10.*

Foundation Curriculum: *Connect number names, numerals and quantities including zero, initially up to 10 and then beyond. (ACMNA002)*

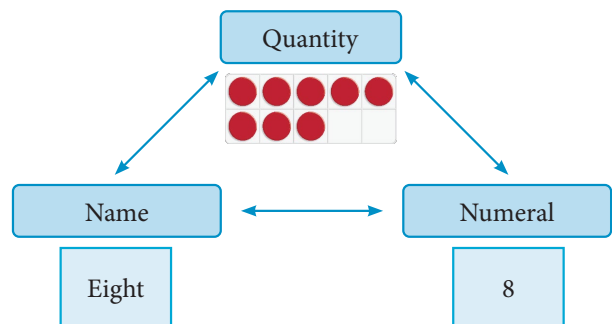
The jump from Kindergarten to Foundation is:

- connecting the quantity to the number name and numeral.
- the introduction of zero.
- the quantities increase to 20 and beyond.

Kindergarten (1 to 10)



Foundation (0 to 20+)



C. Consider the following:

Kindy Curriculum: *Recall what's missing in a number line 1 to 10 ... and begin to order them.*

Foundation Curriculum: *(There is no specified curriculum descriptor)*

Year 1 Curriculum: *Recognise, model, read, write and order numbers to at least 100. Locate these numbers on a number line. (ACMNA013)*

To help students reach the related Year 1 content descriptor we suggest that in Foundation students:

- Recall what's missing in a number line from 10 to 20.
- Order numbers from 10 to 20.
- Identify the number before and after, for numbers 1 to 10, then 10 to 20.

#1 Kindergarten Year



The WA Curriculum Says:

Recite number names in order, initially to 5, then to 10 consistently.

What this means

- Count aloud from 1 to 5.
- Count aloud from 1 to 10.

Activity Idea

- Sing and act out nursery rhymes: eg “One, two, three, four, five once I caught a fish alive...”

Extension

- Count forward to 10 starting at a different number: 6, 7, 8, 9, 10
- Count backwards from 10 to 1.



#2 Kindergarten Year



The WA Curriculum Says:

Know that numbers always happen in a conventional order (stable order).

What this means

- Apply counting from 1 to 5 using objects.
- Apply counting from 1 to 10 using objects.

Activity Idea

- Count aloud as you walk up steps.

Tip: Integrate other counting principles. E.g. say one number with each step, at the top relate this to the total, “We walked up 8 steps.”



#3 Kindergarten Year



The WA Curriculum Says:

Count objects by using one to one correspondence.

What this means

- Match the counting names to the items being counted. Only count each object once.

Activity Idea

- Line up a family of toys, between 4 and 10. Say to the child, “I wonder how many plates we would need if we gave one plate to each toy. [Pause]. I know, let’s given them each one plate and count as we go.”



#4 Kindergarten Year



The WA Curriculum Says:

Name the last number in the count that represents how many in the set (cardinal value).

What this means

- When counting a set of objects the last number name said tells you **how many** objects there are in total. E.g. 1, 2, 3, 4, 5, “There are five objects”.

Activity Idea

- After counting a set of objects ask “So **how many** are there altogether?” If the child goes to recount stop them and say, “Last time what was the last number you said? Now guess how many you think there will be.” This will reinforce the link.



#5 Kindergarten Year



The WA Curriculum Says:

Begin to understand that the starting point and order in which you count them does not affect how many (order irrelevance).

What this means

- You can start counting at any point in the collection, such as in the middle, and you will still end up with the same total.

Activity Idea

- Ask children to check their counting by counting a different way. E.g. “Check there are 7 teddy bears, but this time start with the red one in the middle?” Model counting from different directions and starting points.



#6 Kindergarten Year



The WA Curriculum Says:

Begin to understand that the arrangement, size or differences of the objects doesn't affect how many (abstraction).

What this means

- Children will at first count objects that are similar. Later they will count collections of different objects.
- Later still, they will count unseen objects.

Activity Ideas

- Count a set of objects that differ (e.g. in size).
- Count things that cannot be seen such as claps or stomps.



#7 Kindergarten Year



The WA Curriculum Says:

Recognise numerals initially to 5 and then to 10.

What this means

- Children can identify a written number by pointing.
- Children can say the word that matches a written number.

Activity Idea

- "Point to the number four"



#8 Kindergarten Year



The WA Curriculum Says:

Begin to order numbers to 5, then 10.

What this means

- Move written numbers into counting order from 1 to 5, then 1 to 10.
- Start with a couple of numbers out of order. Gradually increase the difficulty.

Activity Idea

- 1-5 cards on a number line (signs, pegs etc.).



#9 Kindergarten Year



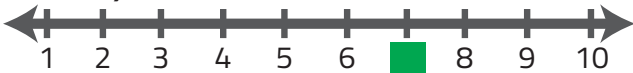
The WA Curriculum Says:

Recall what number is missing in a number line 1 to 10.

What this means

- Identify one missing number from a number line that is numbered from 1 to 10.

Activity Idea



- What number has been hidden?

Extension

- Identify missing numbers from 1 to 5, from a sequence of 3 consecutive numbers, where the middle number is missing. E.g. 3, _, 5



#10 Kindergarten Year



The WA Curriculum Says:

Partition small numbers (part, part, whole).

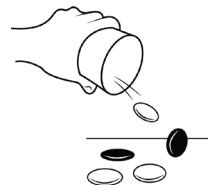
What this means

- Split a quantity of up to 6 objects into two parts.

Activity Idea

Shake four two-coloured counters (counters that are red on one side and blue on the other) in a cup.

Spill them into a photocopy box lid. Say how many red, then how many blue, and how many in total.



#11 Kindergarten Year



The WA Curriculum Says:

Subitise small quantities of objects or standard patterns on a die.

What this means

- Knowing how many there are, for quantities of 1, 2, or 3 objects, that are randomly arranged without counting.
- Identifying the number of dots on each face of a die without counting.



Activity Idea

Play games with dice.



#12 Kindergarten Year



The WA Curriculum Says:

Compare collections of objects and describe whether there is more, less, the same or not the same.

What this means

- Given two collections of objects, each collection having 10 or less objects, determine if they have the "same" number of objects or different. If different, identify which collection has "less", and which has "more". Strategies include counting and matching.

Tip

- Initially, children can be confused by similar size piles (e.g. 5 & 7). Have one be more than double.



#13 Kindergarten Year



The WA Curriculum Says:

Copy and create simple two part patterns.

What this means

- Given a pattern, children replicate this identically. The repeated section (unit) is made of two parts.



Activity Idea

- Thread or lace materials.
- Act out patterns e.g. jump, jump, clap, jump, jump, clap

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#14 Kindergarten Year



The WA Curriculum Says:

Use the appropriate language of measurement to describe, compare and order: length, size, mass, height.

What this means

- Use the appropriate language of measurement to describe, compare and order: length, size, mass, height
- Length: long, longer, longest, short, shorter, shortest.
- Size: big, bigger, biggest, small, smaller, smallest.
- Mass: heavy, heavier, heaviest, light, lighter, lightest.
- Height: tall, taller, tallest, short, shorter, shortest.

Activity Idea

- Order three pencils from shortest to longest.

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#15 Kindergarten Year



The WA Curriculum Says:

Describe the sequence of familiar events and routines and use the everyday language of time such as morning, afternoon, daytime.

What this means

- Familiar routines could include things like breakfast in the morning, lunch in the middle of the day and dinner in the evening

Activity Idea

An association game where 'breakfast' is linked to morning, 'bedtime' to evening, etc.

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#16 Kindergarten Year

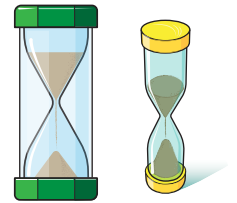


The WA Curriculum Says:

Use language words to describe duration and relative duration, such as quick, slow, fast, it takes a long time.

Activity Idea

Look at different sand timers. Classify as taking a 'short' or 'long' time to run out and compare two sand timers together - which is quicker an



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#17 Kindergarten Year



The WA Curriculum Says:

Use positional language, such as on, under, behind, between.

What this means

- Ability to describe the placement an object in relation to another object.

Activity Idea

- Place an object and ask the child where they think it is in relation to another object or objects (in the case of 'between').
- Give verbal instructions about where to place an object e.g. "Put the teddy under the desk".

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#18 Kindergarten Year



The WA Curriculum Says:

Recognise names, sort and match basic two-dimensional shapes such as square, triangle and circle.

What this means

- Sorting: given a set of shapes children can take out all of one type.
- Match: physically place two or more of the same shape together.

Activity Idea

- Place images of squares, triangles and circles on the floor and ask specific children to stand on a specific shape or colour & shape (e.g. red triangle).

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#19 Kindergarten Year



The WA Curriculum Says:

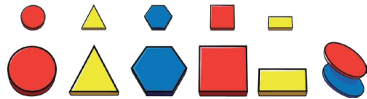
Sort, classify and match objects according to attributes, for example colours, sizes and shapes.

What this means

- Moving from a single attribute (colour, shape, size) to multiple attributes e.g. red triangle, large circle etc.

Activity Idea

- Simple sorting with Attribute Blocks



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#20 Kindergarten Year



The WA Curriculum Says:

Order objects according to one attribute.

What this means

- Select one attribute such as colours, shape, size, length

Activity Ideas

- Ask the child to place items in order from smallest to biggest (for example with Rainbow Pebbles).

Tip

- Don't worry too much about this - ordering doesn't appear again until Year 2!



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#21 Kindergarten Year

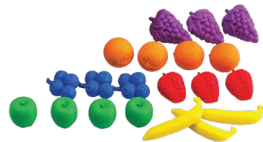


The WA Curriculum Says:

Answer simple questions to collect information, such as using yes/no and group items in response to questions such as favourite pets.

Activity Idea

- A quick fruit survey conducted by the teacher: "Do you like __" (yes/no). Teacher informally makes groups of fruit counters according to the responses.

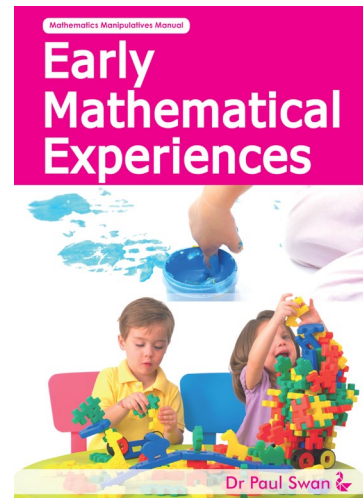


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Math Their Way Summary Newsletter

www.center.edu/NEWSLETTER/newsletter.shtml

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