

Number Check for teachers administration guide

Introduction

This guide contains information for teachers and school leaders about the Year 1 Number Check.

The Number Check is a voluntary check that teachers can use to indicate if Year 1 students are developing the number and counting knowledge they need to be successful in their learning. As a first step, teachers can respond to students' performance in the Number Check by reviewing their existing mathematics program. They then design appropriate differentiated learning and intervention processes for counting, subitising, adding and subtracting.

An understanding of number and counting is essential to the development of mathematics knowledge and skills and critical to developing numerate learners.

In the Australian Curriculum Mathematics Number and Algebra strand, number, counting and basic operations knowledge begins in Foundation and continues throughout all levels of schooling. The Foundation level includes the identification of numerals, number names and quantities, which leads to counting and number sequences. Students may also begin to use strategies such as partitioning, rearranging and subitising. As students complete basic operations of simple addition and subtraction, they may use a range of different strategies including counting on, counting back and counting all.

The next section outlines the number content for both the Australian Curriculum and the National Numeracy Progressions at the Year 1 level.

Australian Curriculum connections for Year 1

Relevant proficiency strands at Year 1

- Understanding: includes connecting names, numerals and quantities, and partitioning numbers in various ways
- Fluency: includes readily counting number in sequences forwards and backwards, locating numbers on a line and naming the days of the week

Relevant Year 1 Content descriptions

- 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 (ACMNA012)
- Recognise, model, read, write and order numbers to at least 100. Locate these numbers on a number line (ACMNA013)
- Count collections to 100 by partitioning numbers using place value (ACMNA014)
- Represent and solve simple addition and subtraction problems using a range of strategies including counting on, partitioning and rearranging parts (ACMNA015)

The relevant proficiencies and content descriptions can be found at the [Australian Curriculum, Mathematics](#).

National Numeracy Learning Progression

The National Numeracy Learning Progression outlines a series of observable indicators that can be used to help gauge students' key understandings and skills.

Number sense and algebra strand

Level 1b

Typically, by the end of Foundation, students:

- understand and use numbers in context: connect and order number names, numerals and groups of objects using numbers up to two digits.

Level 2

Typically, by the end of Year 2, students:

- understand and use numbers in context: model, represent, order and use numbers up to four digits.

More details can be found at the [Australian Curriculum Numeracy Learning Progressions](#) or the [Australian Curriculum Learning Continuum of Numeracy](#).

Participating students

The Number Check is administered to Year 1 students by the classroom teacher.

Any Year 1 student can be included in the Number Check unless the teacher feels a student has learning and number skills well beyond those in the Number Check. Students who do not formally participate in the Number Check could be provided with a similar experience (for example, a modified 'practice sheet' to include counting small numbers of objects and number recognition questions so that students can demonstrate their skills).

Preparing for the Number Check

Accessing the Number Check materials (online and offline)

Familiarise yourself with the Number Check materials before you are ready to administer the Number Check. Find the following resources on the Year 1 [Number Check for teachers](#) page.

- Number Check for teachers
- Number Check student materials (including the printed number cards, dot card and counters as outlined below)
- Number Check scoring guide
- Number Check practice sheet (if you wish to practise the check with students).

Additional materials

Equipment required for the check:

- at least 15 counters
- number cards (provided, see *Number check – paper based* document, for offline use)
- dot card (provided, see *Number check – paper based* document, for offline use)

Adapting Number Check materials

It is expected most students will use standard versions of the Number Check, but you may adapt Number Check materials to meet students' specific needs. You can download student materials from the Maths Hub to amend as necessary. Examples of modifications may include:

- changing the font
- changing the font size
- swapping counters for appropriate equipment
- changing the colour of the counters (providing it doesn't change the intent of the question)
- using a coloured overlay (if this is normal classroom practice).

The teacher's role

Administer the Number Check to Year 1 students on a one-to-one basis.

Be familiar with the Number Check materials to help make the process run smoothly.

Set up your room so that there is a quiet, comfortable and well-lit space.

Feel confident about:

- administering the Number Check
- planning differentiated learning for your students by amending the Number Check for students with specific needs (such as amending font size or background colour)
- dealing with administration issues (such as rest breaks) during the Number Check
- scoring (marking) the Number Check.

Students with specific needs

For students with special needs, make adjustments based on normal classroom practice. Changes should not unfairly benefit individual students.

It may be helpful to use the practice sheet with students before administering the Number Check as this will help you identify if modifications need to be made (for example, changing font or font size or allowing time for a rest break).

Sample scripts have been created to help teachers administer the check consistently with each student. Teachers can modify the sample script however care should be taken to ensure that these changes do not provide students with leading questions, or the correct answers, whilst they undertake the Number Check.

Time allocation for the Number Check

There is no time limit for completing the Number Check.

Most students will take 5 to 7 minutes to complete the Number Check.

Give students enough time to respond to each question (10 seconds is usually enough).

If needed, give individual students short rest breaks but ensure they finish the Number Check on the same day.

Administering the Number Check

Process

Introduce the Number Check to each student as consistently as possible, providing enough information to those students who do not initially understand the task. For an example of how to introduce the Number Check, see the sample script below.

You can use the printed practice sheet to familiarise students with the task. It has one number recognition question and two counting questions.

Provide guidance about using the practice sheet, if needed, to ensure students understand the task. Remind students that they can count out loud, use their fingers and touch the objects as they count if they wish. Demonstrate what you mean using one of the practice questions. However, to better understand where the student is at in their learning, this instruction must not be given during the actual Number Check.

You may prompt the student to move to the next question but be careful not to do so while they are in the process of silently counting or thinking through a response.

Offer encouragement and support during the Number Check but do not indicate whether the student has responded to the question correctly or not.

You know your students best, and you will recognise when it is appropriate to take a rest break or stop administering the Number Check.

Completing the answer sheet using the paper-based version of the Number Check

If you are using a paper version of the Number Check, use the answer sheets to record each student's responses.

If you are using the online Number Check, follow the prompts to record each student's responses.

Add your own comments to help you plan future mathematics teaching (for example: The student found subtraction difficult and could not count back from 7.) It is important to record both the errors and the nature of the errors.

Scoring (marking) the Number Check

Refer to the Scoring guide sheet on the [Number Check page](#) for guidance on when the student gets a response correct and when they aren't quite there yet.

You can record whether the student responded correctly or not, by using the answer sheet. Students score one point for each correct response, for a total score out of 12.

Results and reporting

The most valuable use of the Number Check results will be at the classroom level. You can find useful information to help you analyse the data you collect from each student's results in the Analysis and response.

The expected achievement level of 9 out of 12 questions provides teachers with a sense of what is reasonable to expect for Year 1 students, given the requirements of the Australian Curriculum. Please note that this is not a pass/fail mark. Rather, it is an indication of the score a student might achieve if their numeracy learning is progressing as expected.

After recording the results consider the following:

- Did your students do as well as you expected?
- Were there any surprises? (Which students achieved/struggled with particular content? Is it clear why they struggled?)
- How close to mastery of counting, subitising, addition and subtraction are your students? What do they need to learn next?

Sample script

Introducing the Number Check: Example

This sample script could be used by teachers to introduce the Number Check.

Teacher says the following:

In this activity, I am going to ask you about some numbers. I will also ask you to count for me, and help me work out how many counters there are.

You should try to answer each question but don't worry if you can't. If it helps, you may count aloud, use your fingers, or touch or move the items as you count.

[Optional] This practice sheet shows you what the questions will look like.

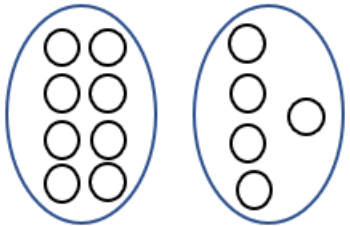
[Optional] Have a go at each of the practice questions with me.

OK, now we are going to look at some numbers and counting problems and I'm going to write down what you say.

Annotating student errors: Example

Recording student responses in a meaningful way will give teachers a clearer means of analysing the data collected from the Number Check. Below is an example of how you could record student actions when responding to a question.

Question number	Question	Got it	Not yet	Comment
1	What is this number? (6)	Y		
2	What is this number? (12)		1 Y, 2 Y	Correctly identified the digits but not the number as a whole
3	How many dots are there? (5)	Y		Used finger to point and count each dot
4	What is the next number after 13?		Y	Identified the displayed number, rather than the number after
5	What number comes just before 20?	Y		Counted from 1 through to 20 then said '19'
6	What number comes just before 47?		48	Identified the number after, rather than the number before
7	Start counting from 62. I'll tell you when to stop. (73)		62, 63, 64, 65, 66, 67, 68, 69, 60, <u>61, 62, 63</u>	Counted correctly to 69, then repeated 60s sequence

Question number	Question	Got it	Not yet	Comment
8	Count backwards from 23. I'll tell you when to stop. (16)		23 Y, 22 Y, 21 Y, 20 Y, 19 N, 18 N, 17 N, 16 N	Counted correctly to 20, and then became confused
9	Get me 8 counters.	Y		Collected a handful, then counted to 8, discarded the remaining counters
10	How many counters are there altogether? (7)		4 and 3	Identified the number of counters in each group but not the total
11	How many counters are there altogether? (13)	Y		Recalled the number of counters for each group, then calculated the total $8 + 5 = 13$ using a diagram 
12	How many are left? (9)		$12 + 3 = 15$	Found the total number of counters rather than the remaining