



Benchmarking Aspects of Literacy and Numeracy K-2

Early Action for Success Benchmarks

Identifying progress in literacy and numeracy

All aspects of the literacy and numeracy continuums are helpful in determining a detailed map of each student's current progress. However, different aspects take on greater importance at different times in a student's development. For example, counting is an important component of early numeracy but once established, is a less central aspect of later numeracy development. Similarly, aspects of literacy, such as phonemic awareness, whilst acting as an enabler of early literacy, are limited when it comes to later development.

Determining end of year performance

The syllabus helps to identify grade expectations for the end of Kindergarten and the end of Year 2. These expectations are broadly described by Early Stage 1 and Stage 1 outcomes and achievement standards. However, to identify the progress of each student in Kindergarten to Year 2 in aspects of literacy and numeracy against an expected standard relies on operationalising the continuums in responding to common tasks. The following process has been developed to assist with the baseline data collection and to determine shared expectations for the end of Kindergarten, Year 1 and Year 2 in aspects of literacy and numeracy across the schools in Early Action for Success.

Mapping progress against the continuums

Literacy

Read the descriptions of the end of year expectations for reading and writing. The descriptions reference the literacy continuum and seek to bring the aspects together within the context of a piece of work.

Identify a student in each of Kindergarten, Year 1 and Year 2 whose progress in reading and writing is typical of grade expectations. Collect a sample of the student's work in reading based on a whole text and another in writing. Judgements against the end of year expectations are 'on balance' decisions and the sample of work may contain several components. For reading, the sample of work may include a Running Record¹ or other annotation of a student's reading.

Where there is more than one class in a grade, a meeting of the class teachers will assist in developing consensus on the features that characterise the standard. Once there is a shared understanding of the grade expectations, the teacher can identify for each student if they are 'below', 'at' or 'above' the expectations.

¹ RUNNING RECORDS CAPTURE WHAT CHILDREN KNOW AND UNDERSTAND ABOUT THE READING PROCESS. THE CONVENTIONS USED IN A RUNNING RECORD PROVIDE A CONSISTENT APPROACH TO RECORDING READING BEHAVIOURS.

Numeracy

The corresponding focus in numeracy is the use of counting to develop addition and subtraction, and symbolising quantity. That is, the grade expectations in numeracy emphasise the use of counting words (the forward number word sequence) in operating with addition and subtraction (early arithmetical strategies) and operating with numerical symbols (numeral identification).

In numeracy, the grade expectations are as follows:

NUMERACY AT THE END OF KINDERGARTEN

By the end of Kindergarten, students should be able to correctly count up to 20 items and be able to complete an oral count to thirty. They should also be able to identify numerals up to 20.

As students can be at different places on each of these aspects, information is needed on the *Forward number word sequence*, *Early arithmetical strategies* and *Numeral identification*.

Sample task:

Can you get 15 pencils and count them out for me? Can you find the number card that shows how many pencils are there?

A student not achieving grade expectations may skip number words or objects in carrying out the count.

Different target numbers of objects may be used but the requested number should typically be within the range from 12 to 20.

Syllabus link: **NES1.1**

Counts to 30, and orders, reads and represents numbers in the range 0 to 20.

NUMERACY AT THE END OF YEAR 1

By the end of Year 1 a student should be able to determine the total of two quantities whose sum is between 12 and 20, without counting objects. That is, the student has moved beyond counting only items that he or she can touch, see or hear. However, this may involve the student in needing to recreate numbers by counting from one.

Sample task 1:

I have 7 marbles in this hand and 5 marbles in my other hand. How many marbles altogether?

Without being able to access the objects, the student can use the number words as summaries of completed counts or else he or she may need to reconstruct the numbers by counting from one. The total is set above 10 to limit the use of fingers as replacements for the marbles.

Sample task 2:

I have 8 grapes and I get 4 more grapes. How many grapes do I have altogether? [Without materials]

A student not achieving grade expectations may attempt to create the numbers on his or her fingers but then would not be able to find the total without access to other material. Different problem contexts and target numbers of objects may be used but the first number should typically be near 10, say 7, 8 or 9, and the second number typically 4 or 5. The total needs to be larger than 10 and the student needs to be able to find the total without using objects (things he or she can perceive and count). The students may count from 1 to find the total but they do not need to rely on using objects they can perceive.

Syllabus link: **NS1.1 Unit 1**

Students learn about counting forwards or backwards by ones from a given two-digit number.

NUMERACY AT THE END OF YEAR 2

By the end of Year 2 a student should be able to **at least count-on-and-back within the range to 20**. That is, a student should be able to use a number as a 'completed count' to find the sum or difference. He or she should also have an understanding of the meaning of place value with two- or three-digit numbers.

Sample task 1:

I have 15 grapes and I eat 3 grapes. How many grapes do I have remaining? [Without materials] Can you write your answer here?

A student not achieving grade expectations may 'make' (or attempt to make) the 15 by counting up from 1 and then attempt to 'take off 3'. A key characteristic of a child who is able to count-on-and-back is that for this task, the number word 'fifteen' stands in place of a completed count. He or she does not need to make the 15 by counting. The student can coordinate a backward count to remove 3 from the total or use knowledge of number combinations to determine the answer.

Different problem contexts and target numbers of objects may be used but the first number should typically be in the range from 14 to 20, and the second number typically 3 or 4.

Sample task 2:

Place 23 counters in front of the student.

I have some counters here. Can you count how many there are?

If the student makes a mistake, ask him or her to check the answer. Place a piece of paper and a pencil in front of the student.

Can you write down how many counters you have?

If correct: *Twenty-three, yes, that's right and you wrote a two and a three. Can you show me with the counters what the 3 means when you write 3 in a number like this? You can use the counters*

because there are twenty-three counters and this is the number twenty-three.

If the student counts out 3 counters:

Put them here next to the three.

This is just 3 counters. When you wrote the number 23 you wrote a 2 and a 3. Can you show me with the counters what the 2 means?

If the student needs further prompting, say:

I am interested in how you knew to write a 2 and a 3 to mean 23. So could you tell me what the 3 means and what the 2 means, and how together they mean 23?

If the student puts out 2 counters and 3 counters:

When you counted 23 there were all these counters. So if this is 2 and this is 3, where do all of the rest fit?

Cover all of the counters with the paper.

There are 23 counters under here. How many would be there if I took away 4 counters?

A student who can coordinate a backward count to remove 4 from the total or use knowledge of number combinations to determine the answer is considered to have achieved a basic expectation of Stage 1.

Note: Counting-on-and-back is a precursor to place value knowledge, which is an expectation of NS1.1. Even if a student cannot use place value knowledge, he or she should be at least able to count-on-or-back. A student who does not link the representation of 23 to '20 counters and 3 counters' but can still deal with count-based operations with quantity by counting-on-and-back has met minimum grade expectations².

² For example, Kamii (1986) found that only half of the children in fourth grade understand the 1 in 16 to mean 10. In Canada, Bednarz and Janvier (1982) concluded that place value remains very difficult in third and fourth grade. Kamii, C. (1986). Place value: An explanation of its difficulty and educational implications for the primary grades. *Journal of Research in Childhood Education*, 1, 75-86. Bednarz, N., & Janvier, B. (1982). The Understanding of Numeration in Primary School. *Educational Studies in Mathematics*, 13, 33-57.

Syllabus link: **NS1.1**

Counts, orders, reads and represents two- and three-digit numbers.

READING AT THE END OF KINDERGARTEN

Students are reading, responding to, and thinking critically about a variety of fiction and non-fiction texts introduced and taught at RR level 9 and above.

They use a range of sources of information in the text, along with their prior knowledge, to make sense of the texts they read. They know that reading should be phrased, and they read at an appropriate pace.

With some teacher guidance, students use strategies such as asking questions and making inferences to help them think more deeply about the ideas in the text.

When students at this level read, respond to, and think critically about texts, they:

- Understand that we read to get meaning
- confidently approach challenges in their reading and persevere when they are having difficulties, because they know how to problem-solve
- monitor their own reading and self-correct where necessary, using strategies such as rereading text or checking further sources of information
- use a variety of comprehension strategies to interpret and respond to a range of texts.

They draw on knowledge and skills that include:

- having all concepts about print under control
- using appropriate language about books, (for example, the terms *title*, *author*, and *illustration*)
- using their developing phonemic awareness to aurally identify and distinguish individual phonemes within words, for example, to blend phonemes (for example, by saying *m/a/n/ is man*) and to segment phonemes (for example, by saying *seat is s/ea/t*)

- identifying all letters by name and being able to produce an associated sound for each letter
- automatically recognising many of the high-frequency words in their instructional texts
- decoding unfamiliar words by using their developing knowledge of grapheme–phoneme relationships, which enables them to: identify common graphemes (for example, *sh, ch, ar, th, oy*) and produce an associated sound for each one; apply strategies such as: sounding out words, using knowledge of graphemes (for example, *sh, or, t, ch, ee; p*) and using analogy to read words that contain familiar chunks (for example, *ent, ad, ump*)
- decoding unfamiliar words by using some knowledge of morphology (for example, the word endings *-s, -ing, and -ed*)
- applying their knowledge of vocabulary in order to understand words as they decode them and to make meaning at the sentence and whole-text level
- understanding the meaning of basic punctuation features (for example, full stops, speech marks, and exclamation marks).

READING AT THE END OF YEAR 1

Students are engaging with a wide variety of texts for a number of purposes, although the texts that they read, largely by themselves, are still mostly those that have been selected for guided reading.

Students are reading, responding to, and thinking critically about a variety of fiction and non-fiction texts at RR level 18 and above.

They read longer texts with increasing independence and with appropriate intonation, expression, and phrasing. They flexibly use the sources of information in text, in combination with their prior knowledge, to make meaning and consider new ideas. (Their prior knowledge includes ideas and information from their culture, from their language, and from other texts they have read.)

With teacher guidance, students draw on a wider range of comprehension

strategies to help them think more deeply about what they read.

When students at this level read, respond to, and think critically about texts, they:

- understand that texts have purposes and are written for audiences
- take appropriate action when they lose meaning, both at the sentence level and across larger sections of the text, without affecting the pace of their reading
- use comprehension strategies to: locate and interpret ideas and information that are directly stated or explicit in the text or illustrations; respond to ideas, plots, and characters; think critically about aspects such as the theme or ideas
- make appropriate choices of texts for independent reading.

They draw on knowledge and skills that include:

- automatically recognising high-frequency words in their instructional texts
- decoding unfamiliar words by: using their knowledge of grapheme–phoneme relationships to identify both consonant sounds (for example, *s, t, p, sh, th, ch, ng*) and vowel sounds (for example, *e, a, o, ai, ow, igh, ou, ee*); recognising common chunks of words and making analogies to words that look similar; using their developing knowledge of morphology (such as knowledge of prefixes and suffixes)
- finding the meanings of unknown words by using strategies such as: rereading text to gather more information; looking for definitions in the text; using prior and subsequent information in the sentences; inferring from the illustrations
- understanding the meaning of punctuation features such as parentheses and of print features such as bold print and italics.

READING AT THE END OF YEAR 2

Students are beginning to use texts to meet the demands of learning across the curriculum as well as for instructional reading purposes.

They are reading, responding to, and thinking critically about a variety of texts at RR level 22. They are preparing for the transition to the easy chapter books as their main source of instructional reading material.

They confidently use a range of processing and comprehension strategies to make meaning from and think critically about longer and more complex texts.

When students at this level read, respond to, and think critically about texts, they:

- monitor their reading, drawing on a variety of strategies (at the sentence, paragraph, and whole-text level) when their comprehension breaks down;
- integrate and use a variety of comprehension strategies, including: making connections between ideas in the text and their prior knowledge in order to make simple inferences; identifying and keeping track of ideas and information across longer sections of text and looking for connections between ideas and information; evaluating information and ideas within a text in terms of their purpose for reading; identifying a writer's purpose for writing and explaining how they identified it, using evidence from the text.

They draw on knowledge and skills that include:

- automatically reading all high-frequency words;
- articulating and using a variety of decoding strategies appropriately when they encounter unfamiliar words (e.g., by recognising syllables within words or by applying their knowledge of
- regular and irregular spelling patterns);
- knowing the meanings of some common prefixes (e.g., *un-*, *re-*, *in-*, *dis-*) and suffixes (e.g., *-s*, *-es*, *-ed*, *-ing*, *-ly*, *-er*, *-less*, *-ful*) and understanding how they affect the meanings of words;
- knowing the synonyms for, and multiple meanings of, many common words (e.g., *left*, *might*, *right*, *fine*);

- applying their knowledge of word families, collocations, and sentence or phrase structures to find the meanings of unknown words;
- looking for information in visual language features (such as text boxes in non-fiction texts);
- understanding the purpose of basic punctuation.

WRITING AT THE END OF KINDERGARTEN

Students create texts in a range of contexts across the curriculum. The texts that students write largely by themselves usually meet specific instructional writing purposes. They write about their experiences and ideas as well as writing to record information on different topics.

After one year at school, students begin to use specific processes to create texts, and these processes may vary depending on the particular purpose for writing.

The students are able to read and talk about their completed texts.

When creating texts, they:

- plan for writing, using talk, text, or drawing
- convey simple ideas, responses, opinions, or questions
- reread what they have written, as they write, to maintain meaning
- respond to feedback by making changes such as adding or deleting details or changing punctuation or spelling.

They draw on knowledge and skills that include:

- using vocabulary drawn from their own oral language or encountered in their reading or other classroom activities
- using their developing phonemic awareness to aurally segment words into syllables (e.g., *win-dow*, *ham-bur-ger*) and one-syllable words into individual phonemes (for example, *b/a/n/d*; *sh/i/p*)
- using their developing visual memory to accurately write some key

personal words and some high-frequency words

- encoding (spelling) unfamiliar words by using their developing knowledge of phoneme–grapheme relationships, which enables them to recognise and write most sounds of English in at least one appropriate way (for example, *s*, *t*, *ch*, *ow*, *k*, *f*, *oy*); recognise that there can be different ways of representing the same sound (for example, *keep/cat*, *phone/forest*); apply sound–letter relationships in order to write words they want to use (for example, *catapilla*)
- encoding (spelling) unfamiliar words by using their developing knowledge of morphology to write word endings correctly (for example, *jump/jumped*; *boy/boys*)
- using classroom resources such as wall charts and picture dictionaries
- forming all upper-case and lower-case letters and numerals correctly
- composing simple sentences and composing some compound sentences using conjunctions such as *and* or *but*;
- using capital letters and full stops to begin and end sentences.

WRITING AT THE END OF YEAR 1

Students create texts for instructional writing purposes as well as to support their other learning across the curriculum. They write in order to think about, record, and communicate experiences, ideas, and information that relate to a curriculum topic.

Students understand their purpose for writing and use an appropriate simple process to help them achieve their purpose. They generate their ideas in many ways, including brainstorming with peers, with the teacher, and independently.

When students at this level create texts, they:

- use simple planning strategies to organise their ideas and then apply their planning as they turn ideas into connected sentences
- develop content that is related to the curriculum topic, with some (mostly relevant) detail

- revise their text (often in response to feedback) and edit it for clarity and accuracy of meaning
- proofread their text to check punctuation and spelling, (for example, by using their previous writing and other sources to find or verify correct spellings).

They draw on knowledge and skills that include:

- using their personal content vocabulary of written words as well as words and phrases that are part of their expanding oral vocabulary
- using their developing phonemic awareness to form new words aurally by changing or taking out some of the sounds in a word or by adding new sounds to words
- using their visual memory to spell personal vocabulary as well as high-frequency words,
- encoding (spelling) unfamiliar words by: using their knowledge of diverse phoneme–grapheme relationships to write some of the sounds of English in different ways (for example, *photo*, *laugh*, *Friday*); applying strategies such as sounding out words, making analogies to words that sound or look the same, and using known chunks and rimes; using their increasing knowledge of morphology to correctly spell word endings and other morphemes (for example, *greatest*, *florist*); applying their knowledge of simple spelling rules (for example, using -es for plural nouns ending in s, such as *buses*)
- attempting some variety and precision in the use of adjectives, nouns, and verbs
- forming all lower-case and upper-case letters correctly with increasing speed and automaticity
- using appropriate text structures for text types such as simple recounts, descriptions, and reports
- composing mainly simple and compound sentences, with some variation in their beginnings
- using simple conjunctions correctly, with subject–verb agreement and noun–pronoun agreement
- using full stops, question marks, or exclamation marks to end sentences

and using capital letters correctly to begin sentences (and for familiar proper nouns).

WRITING AT THE END OF YEAR 2

Students create texts for instructional writing purposes as well as to meet other learning purposes across the curriculum. They write in order to think about, record, and communicate experiences, ideas, and information.

Students independently create texts using a process that will help them achieve their specific purpose for writing. Where appropriate, their texts are clearly directed to a particular audience through appropriate choice of content, language, and text form. However, they may often assume that their audience is familiar with the context.

When students at this level create texts, they:

- use planning strategies to organise ideas for writing (e.g., by using lists and mind maps that distinguish main ideas from details) and to generate language for writing;
- create content, mostly relevant, that conveys several experiences, items of information, and/ or ideas relating to the topic or task and that sometimes includes details and/or comment;
- revise and edit their writing for sense and impact and give their peers feedback on their writing;
- proofread their writing to check the spelling, grammar, and punctuation, drawing on their own developing knowledge about words and sentence construction and using classroom resources such as junior dictionaries;
- publish, where appropriate, in a variety of media, depending on their purpose and audience.

They draw on knowledge and skills that include:

- using increasingly specific words and phrases (e.g., adjectives and more precise nouns and verbs) that are appropriate to the content of the text;

▪ using their visual memory to spell personal vocabulary and high-frequency words

▪ encoding (spelling) unfamiliar words by: using their knowledge of phoneme–grapheme relationships, along with their developing awareness of spelling conventions, to select correct spelling patterns for sounds in words (e.g., spelling the k sound correctly in both *catch* and *kitchen*); applying their growing knowledge of useful spelling rules (e.g., the rules relating to adding simple plural suffixes such as those in *baby/babies* and *half/halves*) and their growing knowledge of morphology (e.g., adding a *d* to *hear* to make *heard*); applying their expanding knowledge of graphemes (e.g., of graphemes such as *or*, *awe*, *oar*, and *oor*, which record similar sounds) to write words correctly;

- using simple written language features (such as alliteration) and visual language features (such as labelled diagrams) to support meaning;
- writing all upper-case and lower-case letters correctly, legibly, and fluently;
- using a basic text structure to organise their text effectively for its purpose (e.g., a story with a beginning, a middle, and an end);
- using both simple and compound sentences that vary in their beginnings and lengths (and in the simple conjunctions used) and that are usually grammatically correct;
- attempting to write complex sentences;
- constructing sentences in which the tenses are mostly consistent;
- using capital letters, full stops, question marks, and exclamation marks correctly.

Further information

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