

Mathematics Level 1

Contents

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Aboriginal and Torres Strait Islander content has been excluded as accuracy cannot be guaranteed, and it is better to be respectful than cover the entire curriculum inaccurately.

Significant effort has been made to ensure this content is legal. Please send any areas of concern to admin@vwx.au with appropriate document/legal references so errors can be verified and changes be made.

Contents

This book is the **Mathematics 1** student workbook. It is written for **Level 1** (Year 1 in Victorian schools) of the Victorian Curriculum F–10 Version 2.0 (VC2), Mathematics. **The book is one level, not a band.** Every content description in it is tagged Level 1 — there is no Foundation content and no Level 2 content in the book. Foundation is assumed prior knowledge, and Level 2 is what this book sets up; neither is taught, assessed or referenced as content here.

It is one book in a per-level series (Foundation, then Levels 1 to 10), built one classroom year at a time from VCAA's per-level authority files. For a Year 1 classroom it is the whole of the year's mathematics: all 15 Level 1 content descriptions are owned here, in full and at full depth.

The series is eight books:

- **Chapter 0 — Contents** — Maths1_Chapter00_Contents — this booklet: how to use the book, what it covers, teacher notes, safety notes and the word list (0 pp)
- **Chapter 1 — Number: numbers to 120, place value and quantifying** — Maths1_Chapter01 — subtopics 1A, 1B and 1C, and checkpoint T1 (37 pp)
- **Chapter 2 — Number: adding, subtracting and modelling problems** — Maths1_Chapter02 — subtopics 2A, 2B and 2C, and checkpoint T2 (34 pp)
- **Chapter 3 — Algebra: repeating and skip counting patterns** — Maths1_Chapter03 — subtopics 3A and 3B, and checkpoint T3 (24 pp)
- **Chapter 4 — Measurement: comparing, measuring length, and time** — Maths1_Chapter04 — subtopics 4A, 4B and 4C, and checkpoint T4 (39 pp)
- **Chapter 5 — Space: shapes, and giving and following directions** — Maths1_Chapter05 — subtopics 5A and 5B, and checkpoint T5 (31 pp)
- **Chapter 6 — Statistics: collecting and displaying categorical data** — Maths1_Chapter06 — subtopics 6A and 6B, and checkpoint T6 (25 pp)
- **Chapter 7 — End-of-book review** — Maths1_Chapter07_Review — the end-of-book review drawn from all 15 content descriptions, run in two short sessions (15 pp)

Series total: eight books ≈ 205 pages. The built books — Maths1_Chapter00_Contents, Maths1_Chapter01 to Maths1_Chapter06, and Maths1_Chapter07_Review — are in S:\Files\VC2Maths\Textbook1\.

How to use this book

Chapter order is not teaching order. The chapters run in VCAA's strand order — Number, Number, Algebra, Measurement, Space, Statistics — so the coverage map below reads down the strand list. The recommended classroom sequence is different, because skip counting (3B) is a prerequisite for quantifying by skip counting (1C) and for reading tallies by fives (6B):

1A → 1B → 3A → 3B → 1C → 2A → 2B → 2C → 4A → 4B → 4C → 5A → 5B → 6A → 6B

Chapter order and teaching order are allowed to differ. Do not “fix” one to match the other.

The book is read aloud. Year 1 students are early readers. Every task and every assessed item is read aloud by the teacher. Instruction sentences are short, concrete and single-clause, and the mathematics is carried by the picture and the materials, not by the prose. A student's response is a numeral, a mark on a line, a drawing, a tally or a short number sentence.

Materials are on every desk. Every teaching sequence and every assessed practical item lists the physical or virtual materials it needs — ten-frames, MAB or base-ten blocks, counters, unifix or centi-cubes, balance scales, containers, string, a hundreds chart, play money. A subtopic taught without its materials has not delivered its content description.

A subtopic is not one lesson. Each of the 15 subtopics owns exactly one content description, and one content description at Level 1 is already about a fortnight of teaching. That is about 30 weeks of new content in a four-term school year, with room left to go back over things.

The ranges are hard caps. Counting, representing, ordering and quantifying go to at least 120. Addition and subtraction stay within 20. Money work uses whole dollar amounts. +, – and = are introduced and used, and they are the only operation symbols in the book: there are no vertical algorithms, and there is no $\times$ and no $\div$. Measurement uses informal units only — no centimetres, metres, grams, kilograms, millilitres or litres. And there is no Probability chapter: VC2 has no Probability content description before Level 3, so this book has five strands, not six, and nothing is missing.

Assumed and set up, not taught. A teaching sequence may rehearse a Foundation skill in its first minutes; it does not teach it as new content and does not assess it as a Level 1 outcome. Level 2 destinations are named in the teacher notes so you can see where the work leads; they are not taught here either.

Every new word is named and explained the first time it appears, and the words are gathered in the word list at the back of this booklet.

Everything real is really real. Every real datum in the book carries a source line with a retrieval date. Currency is Australian, seasons run southern hemisphere, dates are DD/MM/YYYY, and every place, plant, animal and calendar fact is Victorian and checkable.

Checks and the review are untimed. There is no time to beat anywhere in this book, no exam and no timed paper. See the teacher notes below.

What this book covers

The table below is the coverage register for this book: every one of the **15** content descriptions of Level 1, against the subtopic that owns it, with the elaboration ids fully expanded and the current question-bank count. **Each code appears exactly once as an owner. There are no unowned codes and no code is owned twice.** This table is the map of what the book covers, and the series checks itself against this map, both directions: authority $\rightarrow$ book (each code has exactly one owning subtopic, and that subtopic delivers the whole content description) and book $\rightarrow$ authority (no subtopic claims a code it does not own, and no subtopic teaches content whose only home is Foundation, Level 2 or a later band).

#	CD code	Strand	Owner	Elaboration ids	MCQs in bank
1	VC2M1N01	Number	1A	VC2M1N01.E0 1, VC2M1N01.E0 2, VC2M1N01.E0 3, VC2M1N01.E0 4	384
2	VC2M1N02	Number	1B	VC2M1N02.E0 1, VC2M1N02.E0 2, VC2M1N02.E0 3	240
3	VC2M1N03	Number	1C	VC2M1N03.E0 1, VC2M1N03.E0 2, VC2M1N03.E0	192

#	CD code	Strand	Owner	Elaboration ids	MCQs in bank
4	VC2M1N04	Number	2A	3 VC2M1N04.E0 1, VC2M1N04.E0 2, VC2M1N04.E0 3, VC2M1N04.E0 4, VC2M1N04.E0 5	336
5	VC2M1N05	Number	2B	VC2M1N05.E0 1, VC2M1N05.E0 2, VC2M1N05.E0 3	192
6	VC2M1N06	Number	2C	VC2M1N06.E0 1, VC2M1N06.E0 2, VC2M1N06.E0 3	144
7	VC2M1A01	Algebra	3B	VC2M1A01.E0 1, VC2M1A01.E0 2, VC2M1A01.E0 3, VC2M1A01.E0 4, VC2M1A01.E0 5	288
8	VC2M1A02	Algebra	3A	VC2M1A02.E0 1, VC2M1A02.E0 2, VC2M1A02.E0 3, VC2M1A02.E0 4, VC2M1A02.E0 5	288
9	VC2M1M01	Measurement	4A	VC2M1M01.E0 1, VC2M1M01.E0 2, VC2M1M01.E0 3, VC2M1M01.E0 4, VC2M1M01.E0	240

#	CD code	Strand	Owner	Elaboration ids	MCQs in bank
10	VC2M1M02	Measurement	4B	5 VC2M1M02.E0 1, VC2M1M02.E0 2, VC2M1M02.E0 3, VC2M1M02.E0 4	192
11	VC2M1M03	Measurement	4C	VC2M1M03.E0 1, VC2M1M03.E0 2, VC2M1M03.E0 3, VC2M1M03.E0 4, VC2M1M03.E0 5	288
12	VC2M1SP01	Space	5A	VC2M1SP01.E 01, VC2M1SP01.E 02, VC2M1SP01.E 03, VC2M1SP01.E 04	240
13	VC2M1SP02	Space	5B	VC2M1SP02.E 01, VC2M1SP02.E 02, VC2M1SP02.E 03, VC2M1SP02.E 04	192
14	VC2M1ST01	Statistics	6A	VC2M1ST01.E 01, VC2M1ST01.E 02, VC2M1ST01.E 03, VC2M1ST01.E 04, VC2M1ST01.E 05	288
15	VC2M1ST02	Statistics	6B	VC2M1ST02.E 01, VC2M1ST02.E 02, VC2M1ST02.E 03, VC2M1ST02.E	288

#	CD code	Strand	Owner	Elaboration ids	MCQs in bank
				04, VC2M1ST02.E 05	
	15 CDs		15 subtopics	63 elaborations	3,792

Source: codes, strands, elaboration ids and question-bank counts quoted from `maths_1.json`, the Level 1 authority file (VCAA export retrieved 2026-07-29). The table is sorted by strand then code — not by file order, and file order is not teaching order.

Notes on this table:

- Every code in this table is **Level 1**. The table carries no level column because one would repeat “Level 1” fifteen times; each subtopic still states its level in its own front matter.
- The **Elaboration ids** column is the full set VCAA gives for each code — this is what joins the book to the question bank. Elaborations are illustrations of what a content description might look like, not the content description itself: the content description is the expectation, and a subtopic that delivers its code through other contexts has still taught the curriculum.
- **Nine elaborations are held back and are not taught in this book.** They are the nine that carry Aboriginal and Torres Strait Islander content: VC2M1N04.E05, VC2M1A02.E04, VC2M1A02.E05, VC2M1M01.E05, VC2M1M03.E05, VC2M1SP01.E04, VC2M1SP02.E04, VC2M1ST01.E05 and VC2M1ST02.E05. They are held back because accuracy cannot be guaranteed, and it is better to be respectful than cover the entire curriculum inaccurately. The notice on the first page of every booklet in this series says this, and each affected subtopic records the exclusion in its own teacher note so the coverage audit reports it as accepted, never silently dropped. **No content description loses its teaching context** — every code is still delivered through at least three elaborations and everyday class contexts.
- **The counts close.** 15 codes, 15 owners — every code is owned exactly once, with no unowned code and no code owned twice. 63 elaboration ids, each appearing exactly once. 3,792 banked questions keyed to these codes. No code is deferred to another book.

What this book does not cover. Foundation content belongs to the Foundation book and Level 2 content belongs to the Level 2 book: this book rehearses Foundation skills and sets up Level 2 destinations, and teaches and assesses neither. There is no Probability content at Level 1 — VC2’s first Probability content descriptions are Level 3 — so this book has five strands, not six, and nothing is missing. Metric measurement is Level 3 content; this book measures with informal units only. Towards Foundation (Mathematics Levels A–D) is a separate product for students with disability working below Foundation level, and none of its outcomes is referenced, mapped or assessed here. VCE content is not in this book. The same 15 content descriptions also appear in the F–2 band book; that overlap is deliberate — two products covering one year level — and neither book defers anything to the other.

Teacher notes

Read the level. There is no exam, no timed paper, no multiple-choice section and no calculator anywhere in this book. Assessment here is what a Victorian Year 1 teacher actually does: short tasks against the level’s achievement standard, read aloud, with materials on the desk and short written or drawn recording. Several content descriptions demand reasoning explicitly — “communicating reasoning” (VC2M1M01), “explaining the connections” (VC2M1N05.E01), “discuss the findings” (VC2M1ST02) — so items score the strategy and the explanation, not only the answer. A rubric that scores only the answer fails the content description.

Structure: 6 topic checkpoints + 1 end-of-book review = 7 assessment instruments, 120 marks. Each chapter carries one checkpoint at the back of the chapter booklet, worth 6 marks per content description the chapter owns, so checkpoint size tracks chapter size and every content description is separately scored. The end-of-book review is its own booklet (`Maths1_Chapter07_Review`).

Checkpoint	Chapter	CDs scored	Format	Marks
T1	1 — Number: numbers to 120	VC2M1N01, VC2M1N02, VC2M1N03	Teacher-read; hundreds chart, number line, base- ten materials supplied; numerals and short drawings recorded	18
T2	2 — Number: adding, subtracting, modelling	VC2M1N04, VC2M1N05, VC2M1N06	Teacher-read; counters, ten-frames and play money supplied; number sentences using +, −, = recorded	18
T3	3 — Algebra: patterns	VC2M1A02, VC2M1A01	Teacher-read; pattern blocks, beads and coins supplied; continue, create and state the unit of repeat	12
T4	4 — Measurement: comparing, length, time	VC2M1M01, VC2M1M02, VC2M1M03	Part practical and teacher-observed (comparison and measuring), part teacher-read (calendar and duration)	18
T5	5 — Space: shapes and directions	VC2M1SP01, VC2M1SP02	Part practical (shape sort, follow a direction sequence), part teacher-read	12
T6	6 — Statistics: data	VC2M1ST01, VC2M1ST02	One short data collection run in class, then teacher- read questions on a supplied one-to-one display	12
Checkpoint total				90

The end-of-book review is not an exam.

Review	Format	Coverage	Marks
Level 1 Review	Teacher-read, materials permitted, run across two short sessions (about 20 minutes each); part practical, part written or drawn	All 15 CDs , 2 marks each — the Level 1 achievement standard end to end	30

Total marks: 120 (90 checkpoint + 30 review). This matches the Level 1 mark total in the F–2 band book exactly, so a school running both products compares like with like.

Administration. These rules apply to every instrument in the book:

- **Completion is untimed.** There is no time to beat; a student may take as long as they need.
- **Every item is read aloud by the teacher.** Reading is not what is being looked at. Year 1 students are early readers, and the teacher reads any item to any student — which at this level means every item to every class. The teacher does not help with the answer.
- **Materials are on the desk.** Every instrument states its materials, and they are supplied before the items start.
- **Recording is short.** A response is a numeral, a drawing, a tally or a short number sentence. The practical parts of T4 and T5 are observed by the teacher as the student works.
- **Marking rubrics are written in VCAA’s language.** Every checkpoint and the review ship with a rubric written in the language of the achievement-standard extract carried in the authority file for each content description, so a teacher’s judgement maps to VCAA wording without translation. Ten distinct achievement-standard extracts cover the 15 codes; the rubric quotes the relevant one verbatim beside each scored item.
- **A mark is a record that evidence was seen.** The records are for reporting against the Level 1 achievement standard. They are not used to rank students.

The question bank. The bank holds 3,792 multiple-choice items keyed to the 15 codes in the coverage table above. They are a linked digital asset: they are counted in the coverage table so the join can be seen to be live, but they are not reprinted in this book, and there is no multiple-choice section in any instrument here. Six-year-olds are not assessed by multiple choice on paper.

What is not assessed. No Foundation outcome, no Level 2 outcome, no probability, no metric measurement, no clock-face reading and no fractions. An item testing any of these would be a defect, however well it is written.

Safety notes

Everything in this book is safe for a Year 1 classroom. There are no flames, no heating, no chemicals and no sharp tools anywhere in the book. Safety is stated **at the point of use**: every activity lists its materials on the same page as the activity, and every assessed practical item lists the materials it needs. Standing rules, in every part of the book:

1. **Materials are not tasted.** Nothing in this book is eaten or drunk. Play money is for counting, not for buying.
2. **Small parts stay out of mouths.** Counters, cubes, beads, pattern blocks, coins and play-money coins are small parts: the teacher watches, and the materials go back in their tubs at the end of the lesson.
3. **Moving activities keep to a clear space.** The direction work in subtopic 5B and the shape hunts in subtopic 5A have students moving themselves and objects around the room: the space is clear, students walk, and the teacher watches.
4. **Lifting stays light.** The hefting and balance-scale work in subtopic 4A compares objects a student can hold, one in each hand.
5. **Hands are washed** after the class has handled shared materials — cubes, counters, beads and play money — and always before eating.

Cultural safety. Aboriginal and Torres Strait Islander content is handled as stated in the coverage map above: the nine elaborations that carry it are held back, and the notice on the first page of every booklet in this series states the decision. Where VCAA names no People, place or language group, this book names none either, and nothing is invented to stand in.

Word list

Every new mathematics word in this book is named and explained the first time it appears — in the New words list of its subtopic, or in the text itself where a subtopic defines its words as it goes. This list gathers those words, chapter by chapter, the way the book teaches them. A word that is taught again in a later subtopic is listed again where the book teaches it again.

Chapter 1 words

1A — Numbers to 120

- **numeral** — how we write a number: 7, 16 and 120 are numerals
- **number line** — numbers in order on a line
- **number track** — numbers in order, with some blanks to fill
- **hundreds chart** — a big table of numbers from 0 to 99
- **peg** — to peg a card is to put it on the string
- **before / after** — 15 is before 16, and 17 is after 16
- **between** — 16 is between 15 and 17

1B — Partitioning tens and ones

- To **partition** (say: par-tish-un) means to break a number into parts.
- A **digit** is one of 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9. 35 has 2 digits: 3 and 5.
- A **ten** is a group of 10 ones.
- A **ten-stick** is a stick of 10 cubes. 1 ten-stick is 1 ten.
- The **ones** are the cubes not in a stick. Each one is 1.
- A **ten-frame** is a card with 10 spots. It helps us see numbers to 10.

1C — Equal groups and skip counting

- To **partition** (say: par-tish-un) is to put things into groups.
- The **digits** of 47 are 4 and 7. Digits are the numbers we use to write a number.

Chapter 2 words

2A — Adding and subtracting within 20

- **count on** — start at one number and count up. To add $9 + 4$, start at 9 and count on: 10, 11, 12, 13.
- **count back** — start at one number and count down. To do $13 - 4$, start at 13 and count back: 12, 11, 10, 9.
- **make ten** — use pairs of numbers that make 10, like 8 and 2. $8 + 5$ is $8 + 2 + 3$. 8 and 2 make 10. 10 and 3 make 13.
- A **ten-frame** is 2 rows of 5 boxes. We put one cube in each box. One ten-frame is full at 10.
- A **sign** tells us what to do. + means add. – means take away. = means the two sides are the same.
- A **number sentence** writes a story with +, – and =. Here is one: $8 + 5 = 13$.
- **subitise** (say: sub-i-tise) — to see how many without counting. We can subitise 10 on a full ten-frame.
- A **Think Board** has 4 parts: the story, the cubes, the drawing and the number sentence.

2B — Modelling additive problems

- A **problem** is a story with a number we do not know. We read the story. We find the number.
- To **solve** a problem means to find that number.
- A **diagram** is a picture that shows the maths.
- A **Think Board** puts the parts together: the story, the cubes, the drawing and the number sentence.
- The **price** of a thing is how much it costs.
- To **keep track** means to watch the count as it changes.

2C — Modelling equal sharing and grouping

- **equal** (say: ee-kwul) means the same. Equal sharing is the same on each plate.
- **sharing** means giving things out so each one gets the same.
- **each** means every one, one at a time. Each plate has 4. That means plate 1 has 4, plate 2 has 4 and plate 3 has 4.
- A **group** is things put together. A group of 5 has 5 things in it.

Chapter 3 words

3A — Repeating patterns

- **Symbols** (say: sim-buls) are marks or letters that stand for something. R can stand for red. B can stand for blue. Then red, blue, red, blue is R B R B. The unit of repeat is R B.
- **Digits** (say: dij-its) are 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9. We use digits to write numbers.
- The **unit of repeat** is the part of the pattern that comes again and again.

3B — Skip counting patterns

- **Skip counting** is counting by the same jump every time.
- A **number sequence** (say: see-kwens) is a list of numbers in order. 2, 4, 6, 8, 10 is a number sequence.
- **The jump** is how much each number goes up. In 2, 4, 6, 8, 10 the jump is 2.
- A **number chart** is a big chart of numbers in rows. We use it to see patterns.

Chapter 4 words

4A — Comparing and ordering

- **Hefting** — hold one thing in each hand. Feel which one is heavier.
- **Balance scales** — a thing with two sides. Put one object on each side. The heavy side goes down.
- A **sand timer** has sand that runs from the top to the bottom. When all the sand is at the bottom, the timer is done.

4B — Measuring length with informal units

- **measure** — to find out how long something is
- **length** — how long something is
- **unit** — one thing we use to measure with
- **uniform** — all the same
- **end to end** — each unit touches the last one
- **gap** — an empty space between two units
- **overlap** — when one unit goes on top of the next unit

4C — Duration and sequence of events

- **duration** — how long something takes. A clap takes a short time. A tree takes a long time to grow.
- **sequence** — the order that things happen in. First this. Then that.
- **calendar** — something that shows all the days of the year, in months and weeks.

Chapter 5 words

5A — Shapes and objects

Flat shapes:

- A **circle** is round. It has no sides and no corners. A coin, a clock and a wheel look like circles.
- An **oval** is round, like an egg.
- A **triangle** has 3 sides and 3 corners.
- A **square** has 4 sides and 4 corners. All 4 sides are the same.
- A **rectangle** has 4 sides and 4 corners. A door and a window look like rectangles.
- A **quadrilateral** (say: kwod-ruh-lat-er-ul) is a shape with 4 sides. Squares and rectangles are quadrilaterals.

Objects we can hold:

- A **cube** is like a box. All its sides are the same. A dice is a cube.

- A **cone** has a round part and one point. A party hat is a cone.
- A **ball** is round. It can roll.
- A **can** is like a tube. It can roll. It can stack too.

5B — Giving and following directions

- **Forwards** means the way you are facing. If you walk forwards, you go the way you are looking.
- **Backwards** is the other way from forwards. You do not turn around. You go the way your back faces.
- **Straight ahead** means you keep going forwards. You do not turn.
- **Turn** means to face a new way. You can turn left or turn right.
- **Stop** means do not move.
- **Left** and **right**: we use a sticker to help us. The sticker goes on your right hand. Your other hand is your left hand. In this book, left and right mean YOUR left and YOUR right.
- A **step** is one move of your feet. We can count steps: 1 step, 2 steps, 3 steps.
- **Instructions** tell someone what to do. “Move forwards 2 steps” tells someone what to do.
- An **algorithm** (say: al-guh-ri-zum) is a list of steps in order. We do the steps one by one, from first to last. The steps must be in the right order.
- Your **position** is your place in a line. Position words are: first, second, third and fourth.
- A **robot** only moves when someone tells it to. It only does what it is told. We can play at being robots!
- An **object** is a thing. A book, a ball and a toy car are objects.

Chapter 6 words

6A — Acquiring and recording data

- **data** (say: day-tuh) — what we find out.
- **categories** (say: kat-uh-gor-eez) — the groups we put data into. We choose the categories before we start. Then every answer has a group to go into.
- To **record** data means to put it down so we do not forget it. There are many ways to record data:
- with **objects** — one cube for each answer
- with **drawings** and **pictures**
- with a **list** and ticks — one tick ✓ for each answer
- with **tally marks** — one mark | for each answer
- with **symbols** — one small mark that stands for one thing
- with **digital tools** — our teacher can type our answers for us

6B — One-to-one displays

- A **pictograph** (say: pik-toh-graf) is a display made of pictures or marks. Each picture or mark stands for one.
- **Tally marks**: one mark for each thing. A group of 5 is 4 down marks and 1 across mark: | | | | /
- A **tally chart** is a list of tally marks. It has one row for each group.