

Mathematics Foundation

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.

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Contents

This series is the **Mathematics Foundation** student workbook. It is written for the **Foundation Level** of the Victorian Curriculum 2.0 (VC2), Mathematics — the Foundation year in Victorian schools, commonly “Prep”. Every content description, every subtopic, every worked example and every assessment item in the series is Foundation, and nothing else: nothing from Level 1, nothing from the Towards Foundation continuum and nothing from the years before school.

The series is eight booklets:

- **Chapter 0 — Contents** — MathsF_Chapter00_Contents — this booklet: how to use the series, what it covers, teacher notes and safety notes (00 pp)
- **Chapter 1 — Number: how many? Naming, subitising, counting and partitioning** — MathsF_Chapter01 — subtopics 1A, 1B, 1C and 1D, and Checkpoint CP1 (57 pp)
- **Chapter 2 — Number: acting out situations — adding, taking away, sharing and grouping** — MathsF_Chapter02 — subtopics 2A and 2B, and Checkpoint CP2 (20 pp)
- **Chapter 3 — Algebra: following instructions and repeating patterns** — MathsF_Chapter03 — subtopic 3A, and Checkpoint CP3 (13 pp)
- **Chapter 4 — Measurement: comparing things, and the shape of the day** — MathsF_Chapter04 — subtopics 4A and 4B, and Checkpoint CP4 (23 pp)
- **Chapter 5 — Space: shapes, and where things are** — MathsF_Chapter05 — subtopics 5A and 5B, and Checkpoint CP5 (24 pp)
- **Chapter 6 — Statistics: asking a yes-or-no question and sorting what we find** — MathsF_Chapter06 — subtopic 6A, and Checkpoint CP6 (10 pp)
- **Chapter 7 — End-of-year review** — MathsF_Chapter07_Review — the end-of-year review drawn from all twelve content descriptions, with its marking notes (16 pp)

Series total: eight booklets ≈ 163 pages. The built booklets — MathsF_Chapter00_Contents, MathsF_Chapter01 to MathsF_Chapter06, and MathsF_Chapter07_Review — are in S:\Files\VC2Maths\TextbookF\.

How to use this book

The book is written to be read aloud. Foundation students are not reliably reading or writing, so in every student-facing part the teacher reads all the words. No task depends on the child reading anything. Children answer by looking, saying, touching, drawing and placing objects. The mathematics is carried in the picture, the materials and the teacher’s words — never in the prose. Every subtopic and every checkpoint carries a teacher script; the script is the deliverable.

Every subtopic has the same shape. One short teaching sequence written for the teacher to deliver, two worked examples modelled with physical materials, six scaffolded practice tasks that are mostly picture-led and materials-led, then about six unscaffolded tasks. Where the content description asks for reasoning — 1C, 4A and 5A — the subtopic also carries one observed reasoning prompt: *how do you know?* Chapter 1 subtopics carry the most tasks; 3A, 5B and 6A carry the most doing and the least page.

The chapters are in a teaching order. Subtopics run in VCAA code order, which is also the teaching order. Two links cross chapters: teach 1B before 1D, because 1D uses subitising as a tool; and teach 3A before 4B, because 4B asks the child to see the week as a sequence that repeats, and repeating patterns are 3A’s work. Each chapter booklet opens with its own contents table on the cover.

Everything here is Foundation. There are no level tags on anything, because everything in the series is the one level. The number ranges differ by subtopic and are not levelled: subitising runs up to 5, part–part–whole runs up to 10, and naming, counting and comparing run to 20. Zero is taught — counting starts at zero, and a book that starts at 1 would be incomplete.

Recording is with numerals, not number sentences. Children record results by showing or writing numerals. Written number sentences with +, – and = are Level 2 work and are never required here; there are no vertical algorithms anywhere in the series.

Assessment is observed and oral. There is no exam, no timed paper, no multiple-choice section, no calculator and no written response anywhere in the series. See the teacher notes below.

Every real thing is really real. The book uses real Australian coins, real everyday objects and real published picture books, and every real-world fact carries a source line with a retrieval date. Every maths word is named and explained the first time it appears.

What this book covers

The series delivers all **12 Foundation content descriptions** of the Victorian Curriculum 2.0, Mathematics — 6 Number, 1 Algebra, 2 Measurement, 2 Space and 1 Statistics. Each content description is owned by exactly one subtopic, and each subtopic owns exactly one content description. The table below is the series coverage register; the series audit checks the book against this table.

#	CD code	Strand	Owner	Subtopic title	Elaboration ids	Elabs	MCQs
1	VC2MFN01	Number	1A	Numbers zero to 20: naming, representing and ordering	VC2MFN01 .E01 –.E05	5	96
2	VC2MFN02	Number	1B	Subitising: seeing how many, up to 5, without counting	VC2MFN02 .E01 –.E02	2	96
3	VC2MFN03	Number	1C	Counting and comparing collections to 20	VC2MFN03 .E01 –.E05	5	96
4	VC2MFN04	Number	1D	Part–part–whole: partitioning and combining collections to 10	VC2MFN04 .E01 –.E04	4	96
5	VC2MFN05	Number	2A	Adding to and taking away from collections, including simple money situations	VC2MFN05 .E01 –.E04	4	96
6	VC2MFN06	Number	2B	Equal sharing and equal	VC2MFN06 .E01 –.E03	3	96

#	CD code	Strand	Owner	Subtopic title	Elaboration ids	Elabs	MCQs
7	VC2MFA01	Algebra	3A	grouping Following a sequence of instructions; copying, continuing and creating repeating patterns	VC2MFA01 .E01 –.E05	5	96
8	VC2MFM01	Measurement	4A	Length, capacity, mass and duration: naming the attribute and comparing directly	VC2MFM01 .E01 –.E04	4	96
9	VC2MFM02	Measurement	4B	Days of the week and times of the day	VC2MFM02 .E01 –.E05	5	96
10	VC2MFSP01	Space	5A	Sorting, naming and creating familiar shapes; finding shapes in the objects around us	VC2MFSP0 1.E01 –.E05	5	96
11	VC2MFSP02	Space	5B	Position and location: where things are in a familiar space	VC2MFSP0 2.E01 –.E03	3	96
12	VC2MFST01	Statistics	6A	Collecting, sorting and comparing data with objects and images	VC2MFST0 1.E01 –.E06	6	96
				Totals		51	1 152

Notes on this table:

- **Every code appears exactly once as an owner.** There are no unowned codes, no code is owned twice, and no code is deferred to another book. The register is complete: Foundation Number ends at VC2MFN06, Algebra at VC2MFA01, Measurement at VC2MFM02, Space at VC2MFSP02 and Statistics at VC2MFST01 — there are no further Foundation codes.

- **The Elaboration ids column is the join key** to the question bank and to coverage. Elaborations are VCAA's illustrations of what a content description might look like — they are not the content description itself, and a subtopic's coverage is judged against the content description text and its achievement standard extract, never against a tally of elaborations used.
- **Ten of the 51 elaborations name Aboriginal and Torres Strait Islander content** and are not taught in this series, under the decision recorded on the first page of every booklet; every content description keeps at least two elaborations that are used. The elaboration ids still serve as the join keys to the question bank.
- **The 1 152 banked multiple-choice items** (96 per content description) belong to the digital question layer. **They are not the assessment in this series** — no printed Foundation assessment item is multiple choice.

What this book does not cover. These absences are decisions of the series plan, not gaps:

- **Probability** — VC2 has no Probability content description before Level 3, so there is no Foundation code to own. Nothing in the series gestures at chance, likelihood or fairness.
- **Towards Foundation Levels A–D** — a separate continuum for students with disability working below Foundation Level. Its codes live in a separate authority file; none of them appears in this series.
- **Birth-to-Foundation** — the years before school sit under the VEYLDF, a separate framework with no VC2 content descriptions. Nothing in this series implies they are covered.
- **Levels 1–10** — owned by their own books. Nothing from Level 1 onward is taught, mapped or assessed here. The series hands forward to Level 1: numbers to 20 become numbers to at least 120, part–part–whole to 10 becomes partitioning into tens and ones, direct comparison becomes comparison with informal units, and sorting two-outcome data becomes categorical data with one-to-one displays.

Teacher notes

Assessment in this series is what a Victorian Foundation teacher actually does: short observed tasks with materials on the desk, run one-to-one or in a small group over a normal week, and scored against a rubric written in the language of the content description's own achievement standard extract. **There is no exam, no timed paper, no multiple-choice section and no calculator anywhere in the series.** Nothing is assessed in writing and nothing is timed; where a guidance duration is given, it is for the teacher planning the week, not a limit on the child.

The structure is **six chapter checkpoints and one end-of-year review** — **seven assessment artefacts**. Marks follow a fixed rule: **4 marks per owned content description, with a floor of 6 marks per chapter**, so a single-CD chapter still carries enough separately scored observations to be readable. Each checkpoint sits at the back of its chapter booklet, with its marking guide after it.

Checkpoint	Chapter	CDs assessed	Format	Marks
CP1	1 — Number: how many?	VC2MFN01, VC2MFN02, VC2MFN03, VC2MFN04	Observed, one-to-one, with counters, ten-frames, dot cards and number cards	16
CP2	2 — Number: acting out situations	VC2MFN05, VC2MFN06	Observed role-play with materials and \$1 coins; result recorded with a numeral	8
CP3	3 — Algebra	VC2MFA01	Observed: one instruction-following task and one pattern task, scored separately	6
CP4	4 — Measurement	VC2MFM01, VC2MFM02	Observed practical comparison of real objects and events;	8

Checkpoint	Chapter	CDs assessed	Format	Marks
CP5	5 — Space	VC2MFSP01, VC2MFSP02	oral sequencing of the day and week Observed sort-and-name with shapes; oral positional description in the real classroom	8
CP6	6 — Statistics	VC2MFST01	Observed: the child conducts a two-outcome collection, sorts it and answers a question from it	6
Checkpoint total				52

End-of-year review — 24 marks (2 per content description × 12). The review is not an exam. It is a set of short observed tasks covering all 12 content descriptions, run across several sessions in the last weeks of the year. It is cumulative and carries no new content: no content description is assessed here that was not already assessed in its chapter checkpoint. It exists so a Foundation teacher can report against the achievement standard, and so the Level 1 teacher receiving the class can see where the gaps are.

Total assessed marks across the series: 52 + 24 = 76.

Rules that bind every instrument:

- **The teacher reads all the words.** Reading is not what is being looked at. The child does not need to read, and the child does not write. Responses are oral and made with materials; where a child's words need to be kept, the teacher writes them down as the child says them.
- **Every one of the 12 content descriptions is assessed at least once in a checkpoint and once in the review.** Every owned content description contributes at least one separately scored observation, so coverage can be read straight off the mark scheme.
- **Where a content description carries two distinct ideas, they are scored separately.** CP3 scores instruction-following and repeating patterns as separate items; CP4 scores all four attributes named in VC2MFM01, with duration scored on its own because it is the one children lose; CP6 scores collecting, sorting and comparing as three observations.
- **Reasoning is scored, not just the answer.** VC2MFN03 says “explain or demonstrate reasoning”, VC2MFM01 says “communicating reasoning” and VC2MFSP01 says “giving reasons”. A rubric for 1C, 4A or 5A that scores only the answer fails to assess its content description.
- **Rubrics are quoted verbatim** from the achievement standard extract carried in the authority file for each content description, so a teacher's judgement maps to VCAA wording without translation.

The question bank. The bank holds 1 152 items keyed to the 12 content descriptions above — 96 per content description. They serve the digital and teacher-facing question layer, not this book: under this series' rules no Foundation student reads an item alone, and a printed pick-one item cannot show the doing the achievement standard is written in. The join keys are the content description and elaboration ids in the coverage table above.

Safety notes

Safety in this series is stated **at the point of use**: every task that uses small parts, coins or classroom tools carries its safety note on the same page as the task. The house rules require real objects, real Australian coins and real published books in the work, so these standing rules apply across the whole series:

1. **Small parts stay on the desk and are watched.** Counters, beads and coins are small objects. Children do not put counters, beads or coins in their mouths or their noses, and the teacher watches every task that uses them.

2. **Coins stay in view.** The money work in Chapter 2 and its checkpoint uses \$1 coins, real or play. Real coins are Australian circulating coinage, and children wash their hands after handling money.
3. **Scissors are used with the teacher.** Where cutting appears, the book uses safety scissors, and the page says so.
4. **Moving tasks stay calm.** The position work in Chapter 5 has children moving and hiding in the real classroom. The floor space is cleared first, and children walk to their new place — they do not run.
5. **Where food stands in for counters, the school's food rules apply.** Some tasks offer food, such as grapes, in place of counters. Check allergies first, and wash hands before and after.
6. **No heat, no flame and no chemicals.** Nothing in this series uses them.