

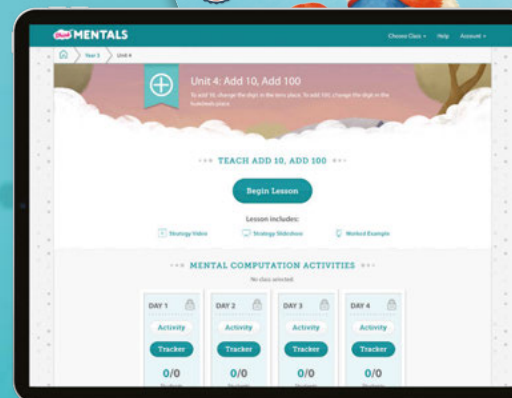
Think MENTALS™

Second Edition

Scope and Sequence Years 1–6



Mental computation strategies align with the Australian Curriculum v9 and NSW Syllabus.



Contents

Use this document to get a snapshot of when strategies are introduced and revised within each year level and how the strategies align across year levels.

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The Think Mentals Approach

Think Mentals teaches students how to break maths problems into friendly, manageable chunks. Once they can do this, students will develop the skills and confidence to perform mental computations efficiently.

The first part of the year focuses on explicitly teaching friendly mental computation strategies paired with targeted practice of each strategy. The second part of the year is all about revision so students have ample opportunity to practise and apply their mental computation strategy recall.

Each year level* contains 32 weeks of work divided into carefully structured units that follow a 5-day sequence of learning, practice, revision and assessment.

In Unit 1, students are introduced to the basics of using mental computation strategies.

In Units 2–19 students learn, practise and are assessed on the strategies. Each of these units follows the same weekly structure:

Day 1: Strategy

Each week begins with a new strategy. A friendly explanation is followed by worked examples and practice questions.

Days 2–4: Practice

The focus strategy is consolidated with more practice questions. Previous strategies are reinforced with revision questions. Students then tackle a variety of general fluency questions drawn from the previous year's curriculum content.

Day 5: Assessment

The weekly test combines focus strategy, revision and general fluency questions.

From Unit 20 onwards, the focus shifts from explicit teaching of the strategies to revision and consolidation.

The easy-to-follow weekly structure includes revision of previously learnt strategies and scaffolded general fluency questions to help students achieve fluency in maths.

Within each revision unit, you will also find a Think Box activity. These problem-solving activities provide regular opportunities for students to apply their mental computation strategies and solve engaging problems.

**Features differ in Year 1.*

There are 11 pre-strategies and 8 strategies in Think Mentals 1*. The pre-strategies help build a solid foundation for learning and applying the strategies.

The following table shows which pre-strategies and strategies are introduced or revised in each unit.

*Think Mentals 1 is only available as a workbook.

Unit	Pre-Strategies	
1	Make Mental Pictures	
2	Count Forwards and Backwards	
3	Picture 10, Count By 10	
4	Split Numbers Up	
5	Count On 1	
6	Count On 2	
7	Turnarounds	
8	Friends of 10	
9	Doubles	
10	Add 10	
11	Count Back 1 or 2	
Unit	Strategies	
	Addition	Subtraction
13	Build to 10	
14	Near Doubles	
15	Near 10s	
16	Friendly Jumps	
17	Friendly Pairs	
18	Split and Add	
19		Subtract, Think Addition
20		Count On to Subtract
21	Friends of 10	
22	Doubles	
23	Add 10	
24	Count On 1, Count on 2, Split and Add	Count Back 1 or 2
25	Build to 10	
26	Near Doubles	
27	Near 10s	
28	Friendly Jumps	
29	Friendly Pairs	
30	Split and Add	
31		Subtract, Think Addition
32		Count On to Subtract

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There are 18 Strategies in Think Mentals 2. This table shows which strategies are introduced or revised in each unit. Each strategy is revised several times a year to ensure that students consolidate their learning.

Unit	Addition Strategies	Subtraction Strategies	Multiplication Strategies	Division Strategies
2	Friendly Jumps			
3	Add 10			
4	Friendly and Fix			
5	Multiples of 10			
6	Extended Facts			
7	Friendly Pairs			
8	Place Value			
9	Friendly Jumps	Friendly Jumps		
10		Subtract 10		
11		Friendly and Fix		
12		Multiples of 10		
13		Extended Facts		
14		Zeros		
15		Place Value		
16			Doubles	
17			The Fives	
18				Halving
19				Halving, Halving
20	Friendly Jumps	Friendly Jumps	Doubles	Halving
21	Add 10	Subtract 10	Doubles	Halving
22	Friendly and Fix	Friendly and Fix	Doubles	Halving
23	Multiples of 10	Multiples of 10	The Fives	Halving, Halving
24	Extended Facts	Extended Facts	Doubles	Halving, Halving
25	Friendly Pairs	Zeros	The Fives	Halving, Halving
26	Place Value	Place Value	Doubles	Halving, Halving
27	Friendly Jumps	Friendly Jumps	The Fives	Halving
28	Friendly and Fix	Friendly and Fix	Doubles	Halving
29	Multiples of 10	Multiples of 10	The Fives	Halving, Halving
30	Extended Facts	Extended Facts	Doubles	Halving
31	Friendly Pairs	Zeros	The Fives	Halving, Halving
32	Place Value	Place Value	Doubles	Halving


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There are 18 Strategies in Think Mentals 3. This table shows which strategies are introduced or revised in each unit. Each strategy is revised several times a year to ensure that students consolidate their learning.

Unit	Addition Strategies	Subtraction Strategies	Multiplication Strategies	Division Strategies
2	Friendly Jumps			
3	Friendly Pairs			
4	Add 10, Add 100			
5	Friendly and Fix			
6	Place Value			
7	Friendly Jumps	Friendly Jumps		
8	Friendly Pairs	Subtract 10, Subtract 100		
9	Add 10, Add 100	Friendly and Fix		
10	Friendly and Fix	Place Value		
11	Place Value		Doubles	
12		Friendly Jumps	Double, Doubles	
13		Subtract 10, Subtract 100	The Fives	
14		Friendly and Fix	The Tens	
15		Place Value		Halving
16			Doubles	Halving, Halving
17			Double, Doubles	The Fives
18			The Fives	The Tens
19			The Tens	Fractions as Division
20	Friendly and Fix	Friendly and Fix	Doubles	Halving
21	Place Value	Place Value	Double, Doubles	Halving, Halving
22	Friendly Jumps	Friendly Jumps	The Fives	The Fives
23	Friendly Pairs	Mixed subtraction strategies	The Tens	The Tens
24	Add 10, Add 100	Subtract 10, Subtract 100	Mixed multiplication strategies	Fractions as Division
25	Friendly and Fix	Friendly and Fix	Doubles	Halving
26	Place Value	Place Value	Double, Doubles	Halving, Halving
27	Friendly Jumps	Friendly Jumps	The Fives	The Fives
28	Friendly Pairs	Mixed subtraction strategies	The Tens	The Tens
29	Add 10, Add 100	Subtract 10, Subtract 100	Mixed multiplication strategies	Fractions as Division
30	Friendly and Fix	Friendly and Fix	Doubles	Halving
31	Place Value	Place Value	Double, Doubles	Halving, Halving
32	Friendly Jumps	Friendly Jumps	The Fives	The Fives

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There are 18 Strategies in Think Mentals 4. This table shows which strategies are introduced or revised in each unit. Each strategy is revised several times a year to ensure that students consolidate their learning.

Unit	Addition Strategies	Subtraction Strategies	Multiplication Strategies	Division Strategies
2	Friendly Jumps			
3	Friendly Balance			
4	Friendly and Fix			
5	Friendly Pairs			
6	Place Value			
7	Friendly Jumps	Friendly Jumps		
8	Friendly Balance	Friendly Balance		
9	Friendly and Fix	Friendly and Fix		
10	Friendly and Fix	Place Value		
11	Place Value	Friendly Jumps	Doubles	
12	Friendly Balance	Friendly and Fix	Double, Doubles	
13	Friendly Balance	Friendly Balance	Ten and Halve	
14	Place Value	Place Value	Friendly and Fix	
15	Friendly Pairs	Friendly Jumps; Friendly Balance	Place Value	
16	Friendly Jumps	Friendly Jumps	Double, Doubles	Halving
17	Friendly Balance	Friendly Balance	Ten and Halve	Halving, Halving
18	Friendly and Fix	Friendly and Fix	Friendly and Fix	Split and Divide
19	Place Value	Place Value	Place Value	Place Value
20	Friendly Jumps	Friendly Jumps; Friendly and Fix	Doubles	Halving
21	Friendly Jumps	Friendly Balance	Double, Doubles	Halving, Halving
22	Friendly and Fix	Friendly and Fix	Friendly and Fix	Split and Divide
23	Place Value	Place Value	Place Value	Place Value
24	Friendly Pairs	Mixed subtraction strategies	Ten and Halve	Mixed division strategies
25	Friendly Jumps	Friendly Jumps	Doubles	Halving
26	Friendly Balance	Friendly Balance	Double, Doubles	Halving, Halving
27	Friendly and Fix	Friendly and Fix	Friendly and Fix	Split and Divide
28	Place Value	Place Value	Place Value	Place Value
29	Friendly Pairs	Mixed subtraction strategies	Ten and Halve	Mixed division strategies
30	Friendly Jumps	Friendly Jumps	Doubles	Halving
31	Mixed addition strategies	Mixed subtraction strategies	Double, Doubles	Mixed division strategies
32	Friendly and Fix	Friendly and Fix	Friendly and Fix	Split and Divide

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There are 18 Strategies in Think Mentals 5. This table shows which strategies are introduced or revised in each unit. Each strategy is revised several times a year to ensure that students consolidate their learning.

Unit	Addition Strategies	Subtraction Strategies	Multiplication Strategies	Division Strategies
2	Friendly Jumps			
3	Friendly Balance			
4	Friendly and Fix			
5	Friendly Pairs			
6	Place Value			
7	Friendly Jumps; mixed	Friendly Jumps		
8	Friendly Balance; Friendly Jumps	Friendly Balance		
9	Friendly and Fix; Friendly Balance	Friendly and Fix		
10	Place Value; Friendly and Fix	Place Value		
11	Friendly Pairs	Friendly Jumps	Doubles and Halves	
12	Place Value	Friendly Balance	Split and Multiply	
13	Mixed addition strategies	Friendly and Fix	Fives and Fifties	
14	Mixed addition strategies	Place Value	Friendly and Fix	
15	Friendly Balance	Mixed subtraction strategies	Place Value	
16	Friendly and Fix	Friendly Jumps	Doubles and Halves	Fractions as Division
17	Friendly Pairs	Friendly Balance	Split and Multiply	Split and Divide
18	Place Value	Friendly and Fix	Fives and Fifties	Friendly and Fix
19	Mixed addition strategies	Place Value	Friendly and Fix	Place Value
20	Friendly Jumps	Friendly Jumps	Doubles and Halves	Fractions as Division
21	Friendly Balance	Friendly Balance	Split and Multiply	Split and Divide
22	Friendly and Fix	Friendly and Fix	Fives and Fifties	Friendly and Fix
23	Friendly Pairs	Place Value	Friendly and Fix	Place Value
24	Place Value	Mixed subtraction strategies	Place Value	Mixed division strategies
25	Mixed addition strategies	Friendly Jumps	Mixed multiplication strategies	Fractions as Division
26	Friendly Jumps	Friendly Balance	Doubles and Halves	Split and Divide
27	Friendly Balance	Friendly and Fix	Split and Multiply	Friendly and Fix
28	Friendly and Fix	Place Value	Fives and Fifties	Place Value
29	Friendly Pairs	Mixed subtraction strategies	Friendly and Fix	Mixed division strategies
30	Place Value	Friendly Jumps	Place Value	Fractions as Division
31	Mixed addition strategies	Friendly and Fix	Mixed multiplication strategies	Split and Divide
32	Mixed addition strategies	Place Value	Mixed multiplication strategies	Friendly and Fix

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There are 18 Strategies in Think Mentals 6. This table shows which strategies are introduced or revised in each unit. Each strategy is revised several times a year to ensure that students consolidate their learning.

Unit	Addition Strategies	Subtraction Strategies	Multiplication Strategies	Division Strategies
2	Friendly Jumps			
3	Friendly Balance			
4	Friendly and Fix			
5	Friendly Pairs			
6	Place Value			
7	Friendly Jumps; mixed	Friendly Jumps		
8	Friendly Balance; Friendly Jumps	Friendly Balance		
9	Friendly and Fix; Friendly Balance	Friendly and Fix		
10	Place Value; Friendly and Fix	Place Value		
11	Friendly Pairs	Friendly Jumps	Doubles and Halves	
12	Place Value	Friendly Balance	Split and Multiply	
13	Mixed addition strategies	Friendly and Fix	The Twenty-fives	
14	Friendly Jumps	Place Value	Friendly and Fix	
15	Place Value; Mixed	Mixed subtraction strategies	Place Value	
16	Friendly and Fix	Friendly Jumps	Doubles and Halves	Division as Percent
17	Friendly Pairs	Friendly Balance	Split and Multiply	Split and Divide
18	Place Value	Friendly and Fix	The Twenty-fives	Friendly and Fix
19	Mixed addition strategies	Place Value	Friendly and Fix	Place Value
20	Friendly Jumps	Friendly Jumps	Doubles and Halves	Division as Percent
21	Friendly Balance	Friendly Balance	Split and Multiply	Split and Divide
22	Friendly and Fix	Friendly and Fix	The Twenty-fives	Friendly and Fix
23	Friendly Pairs	Place Value	Friendly and Fix	Place Value
24	Place Value	Mixed subtraction strategies	Place Value, Doubles and Halves	Mixed division strategies
25	Mixed addition strategies	Friendly Jumps	Mixed multiplication strategies	Division as Percent
26	Friendly Jumps	Friendly Balance	Doubles and Halves	Split and Divide
27	Friendly Balance	Friendly and Fix	Split and Multiply	Friendly and Fix
28	Friendly and Fix	Place Value	The Twenty-fives	Place Value
29	Friendly Pairs	Mixed subtraction strategies	Friendly and Fix	Mixed division strategies
30	Place Value	Friendly Jumps	Place Value	Division as Percent
31	Mixed addition strategies	Friendly Balance	Mixed multiplication strategies	Split and Divide
32	Mixed addition strategies	Friendly and Fix	Mixed multiplication strategies	Friendly and Fix

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Use these tables as a mapping document to see how the strategies align across Years 1 to 6.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition Strategies	Build to 10 (Unit 13)	Add 10 (Unit 3)	Add 10, Add 100 (Unit 4)			
				Friendly Balance (Unit 3)	Friendly Balance (Unit 3)	Friendly Balance (Unit 3)
	Near Doubles (Unit 14)					
	Near 10s (Unit 15)					
	Friendly Jumps (Unit 16)	Friendly Jumps (Unit 2)	Friendly Jumps (Unit 2)	Friendly Jumps (Unit 2)	Friendly Jumps (Unit 2)	Friendly Jumps (Unit 2)
	Friendly Pairs (Unit 17)	Friendly Pairs (Unit 7)	Friendly Pairs (Unit 3)	Friendly Pairs (Unit 5)	Friendly Pairs (Unit 5)	Friendly Pairs (Unit 5)
	Split and Add (Unit 18)					
		Friendly and Fix (Unit 4)	Friendly and Fix (Unit 5)	Friendly and Fix (Unit 4)	Friendly and Fix (Unit 4)	Friendly and Fix (Unit 4)
		Multiples of 10 (Unit 5)				
		Extended Facts (Unit 6)				
Subtraction Strategies		Place Value (Unit 8)	Place Value (Unit 6)	Place Value (Unit 6)	Place Value (Unit 6)	Place Value (Unit 6)
	Subtract, Think Addition (Unit 19)					
	Count On to Subtract (Unit 20)					
		Friendly Jumps (Unit 9)	Friendly Jumps (Unit 7)	Friendly Jumps (Unit 7)	Friendly Jumps (Unit 7)	Friendly Jumps (Unit 7)
		Subtract 10 (Unit 10)	Subtract 10, Subtract 100 (Unit 8)			
				Friendly Balance (Unit 8)	Friendly Balance (Unit 8)	Friendly Balance (Unit 8)
		Friendly and Fix (Unit 11)	Friendly and Fix (Unit 9)	Friendly and Fix (Unit 9)	Friendly and Fix (Unit 9)	Friendly and Fix (Unit 9)
		Multiples of 10 (Unit 12)				
		Extended Facts (Unit 13)				
		Zeros (Unit 14)				
		Place Value (Unit 15)	Place Value (Unit 10)	Place Value (Unit 10)	Place Value (Unit 10)	Place Value (Unit 10)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication Strategies		Doubles (Unit 16)	Doubles (Unit 11)	Doubles (Unit 11)	Doubles and Halves (Unit 11)	Doubles and Halves (Unit 11)
					Split and Multiply (Unit 12)	Split and Multiply (Unit 12)
			Double, Doubles (Unit 12)	Double, Doubles (Unit 12)		
		The Fives (Unit 17)	The Fives (Unit 13)		Fives and Fifties (Unit 13)	The Twenty-fives (Unit 13)
			The Tens (Unit 14)	Ten and Halve (Unit 13)		
				Friendly and Fix (Unit 14)	Friendly and Fix (Unit 14)	Friendly and Fix (Unit 14)
				Place Value (Unit 15)	Place Value (Unit 15)	Place Value (Unit 15)
		Halving (Unit 18)	Halving (Unit 15)	Halving (Unit 16)		
		Halving, Halving (Unit 19)	Halving, Halving (Unit 16)	Halving, Halving (Unit 17)		
			The Fives (Unit 17)			
Division Strategies			The Tens (Unit 18)			
			Fractions as Division (Unit 19)		Fractions as Division (Unit 16)	
						Division as Percent (Unit 16)
				Split and Divide (Unit 18)	Split and Divide (Unit 17)	Split and Divide (Unit 17)
					Friendly and Fix (Unit 18)	Friendly and Fix (Unit 18)
				Place Value (Unit 19)	Place Value (Unit 19)	Place Value (Unit 19)



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