

Foundation

| Activity Number | Curriculum Links |
|--|---|
| <p>1) Forwards 1 to 10: Building Steps</p> | <p>Foundation Number</p> <ul style="list-style-type: none"> Name, represent and order numbers including zero to at least 20, using physical and virtual materials and numerals (AC9MFN01). Recognise and name the number of objects within a collection up to 5 using subitising (AC9MFN02). Quantify and compare collections to at least 20 using counting and explain or demonstrate reasoning (AC9MFN03). Partition and combine collections up to 10 using part-part-whole relationships and subitising to recognise and name the parts (AC9MFN04). <p>Foundation Algebra</p> <ul style="list-style-type: none"> Recognise, copy and continue repeating patterns represented in different ways (AC9MFA01). |
| <p>1) Forwards 10 to 20: Building Steps <i>(a little harder)</i></p> | |
| <p>2) Number After: Greater Number</p> | |
| <p>2) Number After: Greater Number <i>(a little harder)</i></p> | |
| <p>3) Backwards 10 to 1: Building Steps</p> | |
| <p>3) Backwards 20 to 10: Building Steps <i>(a little harder)</i></p> | |
| <p>4) Number Before: Lesser Number</p> | |
| <p>4) Number Before: Lesser Number <i>(a little harder)</i></p> | |
| <p>5) Identifying Numbers 1 to 5: Building Steps <i>(a little easier)</i></p> | |
| <p>5) Identifying Numbers 6 to 10: Building Steps</p> | |

Chapter 1) Counting



Year 1

| | Curriculum Links |
|---|---|
| 6) Bonds: Building a Wall | <p>Foundation Number</p> <ul style="list-style-type: none"> Represent practical situations involving addition, subtraction and quantification with physical and virtual materials and use counting or subitising strategies (AC9MFN05). <p>Year One Number</p> <ul style="list-style-type: none"> Partition one- and two-digit numbers in different ways using physical and virtual materials, including partitioning two-digit numbers into tens and ones (AC9MIN02). Add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies (AC9MIN04). Use mathematical modelling to solve practical problems involving additive situations, including simple money transactions; represent the situations with diagrams, physical and virtual materials, and use calculation strategies to solve the problem (AC9MIN05). <p>Year One Algebra</p> <ul style="list-style-type: none"> Recognise, continue and create repeating patterns with numbers, symbols, shapes and objects, identifying the repeating unit (AC9MIA02). |
| 7) Fluency: Filling a Wall | |
| 8) Fluency: Tic-Tac-Toe | |
| 9) Fluency: Racing Cars | |
| 10) Addition: Building a Wall | |
| 11) Subtraction: Building a Wall | |
| 12) Equation: Building (<i>a little easier</i>) | |
| 12) Equation: Building | |
| 13) Missing Number Equations: Fill a Row (<i>a little easier</i>) | |
| 13) Missing Number Equations: Three In a Row | |
| 13) Missing Number Equations: Tic-Tac-Toe (<i>a little harder</i>) | |
| 14) Representing Addition: Thinkboard | |
| 14) Representing Subtraction: Thinkboard | |
| 15) Word Problems: Whole to 5 | |

Chapter 2) Bonds of 5

Year 1

| Activity Number | | Curriculum Links |
|---------------------------------------|--|---|
| Chapter 3) Doubling and Halving to 10 | 16.1 / 16.2) Bonds: Building a Wall | <p>Year One Number</p> <ul style="list-style-type: none"> Partition one- and two-digit numbers in different ways using physical and virtual materials, including partitioning two-digit numbers into tens and ones (AC9MIN02). Add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies (AC9MIN04). Use mathematical modelling to solve practical problems involving additive situations, including simple money transactions; represent the situations with diagrams, physical and virtual materials, and use calculation strategies to solve the problem (AC9MIN05). Use mathematical modelling to solve practical problems involving equal sharing and grouping; represent the situations with diagrams, physical and virtual materials, and use calculation strategies to solve the problem (AC9MIN06). |
| | 17) Fluency Doubles: Filling a Wall | |
| | 18) Fluency Halves: Filling a Wall | |
| | 19) Near Double: Strategy Concept | |
| | 19) Near Double: Strategy Concept (<i>a little harder</i>) | |
| 20) Near Double: Strategy Fluency | | |

| Activity Number | | Curriculum Links |
|----------------------------|-------------------------------------|--|
| Chapter 4) Five Plus Bonds | 21.1 / 21.2) Bonds: Building a Wall | <p>Year One Number</p> <ul style="list-style-type: none"> Partition one- and two-digit numbers in different ways using physical and virtual materials, including partitioning two-digit numbers into tens and ones (AC9MIN02). Add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies (AC9MIN04). Use mathematical modelling to solve practical problems involving additive situations, including simple money transactions; represent the situations with diagrams, physical and virtual materials, and use calculation strategies to solve the problem (AC9MIN05). |
| | 22) Bonds: Multiple Representations | |
| | 23) Fluency: Tic-Tac-Toe | |
| | 24) Addition: Building a Wall | |
| | 25) Subtraction: Building a Wall | <p>Year One Algebra</p> <ul style="list-style-type: none"> Recognise, continue and create repeating patterns with numbers, symbols, shapes and objects, identifying the repeating unit (AC9MIA02). |



Year 1

| Chapter 5) Bonds of 10 | Activity Number | Curriculum Links |
|------------------------|--|--|
| | 26.1 / 26.2) Bonds: Building a Wall | <p>Year One Number</p> <ul style="list-style-type: none"> Partition one- and two-digit numbers in different ways using physical and virtual materials, including partitioning two-digit numbers into tens and ones (AC9MIN02). Add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies (AC9MIN04). Use mathematical modelling to solve practical problems involving additive situations, including simple money transactions; represent the situations with diagrams, physical and virtual materials, and use calculation strategies to solve the problem (AC9MIN05). <p>Year One Algebra</p> <ul style="list-style-type: none"> Recognise, continue and create repeating patterns with numbers, symbols, shapes and objects, identifying the repeating unit (AC9M1A02). |
| | 27) Fluency: Filling a Wall | |
| | 28) Fluency: Tic-Tac-Toe | |
| | 29) Addition: Building a Wall | |
| | 30) Subtraction: Building a Wall | |
| | 31) Equation: Building | |
| | 31) Equation: Building (<i>a little easier</i>) | |
| | 32) Missing Number Equations: Fill a Row | |
| | 32) Missing Number Equations: Tic-Tac-Toe (<i>a little harder</i>) | |
| | 33) Representing Addition: Thinkboard | |
| | 33) Representing Subtraction: Thinkboard | |

Year 2

| Activity Number | Curriculum Links |
|--|---|
| <p>41) Bonds: Three In a Row</p> | <p>Year One Number</p> <ul style="list-style-type: none"> Partition one- and two-digit numbers in different ways using physical and virtual materials, including partitioning two-digit numbers into tens and ones (AC9MIN02). |
| <p>42) Bonds: Multiple Representations</p> | |
| <p>43) Bonds: Place Value Partitioning</p> | <p>Year Two Number</p> <ul style="list-style-type: none"> Add and subtract one- and two-digit numbers, representing problems using number sentences and solve using part-part-whole reasoning and a variety of calculation strategies (AC9M2N04). |
| <p>44) Addition and Subtraction: Ten and One</p> | |
| <p>45) Addition: Building With Three Parts</p> | <ul style="list-style-type: none"> Use mathematical modelling to solve practical problems involving additive and multiplicative situations, including money transactions; represent situations and choose calculation strategies; interpret and communicate solutions in terms of the situation (AC9M2N06). |
| <p>46.1 / 46.2) Equation: Building</p> | |
| <p>47) Addition: Building a Wall</p> | |
| <p>48.1 / 48.2) Subtraction: Tic-Tac-Toe</p> | <p>Year Two Algebra</p> <ul style="list-style-type: none"> Recognise, describe and create additive patterns that increase or decrease by a constant amount, using numbers, shapes and objects, and identify missing elements in the pattern (AC9M2A01). |
| <p>49) Missing Number Equations: Tic-Tac-Toe</p> | |
| <p>49) Missing Number Equations: Tic-Tac-Toe (<i>a little harder</i>)</p> | <ul style="list-style-type: none"> Recall and demonstrate proficiency with addition facts to 20; extend and apply facts to develop related subtraction facts (AC9M2A02). |

Chapter 7) Ten Plus Bonds



Year 2

| Activity Number | Curriculum Links |
|---|--|
| 34) Bonds of 6 or 7 - Bonds: Building a Wall | <p>Year Two Number</p> <ul style="list-style-type: none"> Add and subtract one- and two-digit numbers, representing problems using number sentences and solve using part-part-whole reasoning and a variety of calculation strategies (AC9M2N04). Use mathematical modelling to solve practical problems involving additive and multiplicative situations, including money transactions; represent situations and choose calculation strategies; interpret and communicate solutions in terms of the situation (AC9M2N06). <p>Year Two Algebra</p> <ul style="list-style-type: none"> Recognise, describe and create additive patterns that increase or decrease by a constant amount, using numbers, shapes and objects, and identify missing elements in the pattern (AC9M2A01). Recall and demonstrate proficiency with addition facts to 20; extend and apply facts to develop related subtraction facts (AC9M2A02). |
| 34) Bonds of 8 or 9 - Bonds: Building a Wall | |
| 35.1 / 35.2) Subtraction: Building a Wall | |
| 36) Fluency: Shake and Spill | |
| 37) Fluency: Racing Monster Trucks | |
| 38) Bonds of 6 or 7 - Equation: Building | |
| 38) Bonds of 8 or 9 - Equation: Building | |
| 39) Bonds of 6 - Missing Number Equations: Tic-Tac-Toe | |
| 39) Bonds of 7 - Missing Number Equations: Tic-Tac-Toe | |
| 39) Bonds of 8 - Missing Number Equations: Tic-Tac-Toe | |
| 39) Bonds of 9 - Missing Number Equations: Tic-Tac-Toe | |
| 40) Word Problems: Wholes to 10 | |

Chapter 6) Bonds of 6, 7, 8, 9

Year 2

| Activity Number | Curriculum Links |
|---|--|
| 57.1 / 57.2) Bonds: Building a Wall | <p>Year Two Number</p> <ul style="list-style-type: none"> Add and subtract one- and two-digit numbers, representing problems using number sentences and solve using part-part-whole reasoning and a variety of calculation strategies (AC9M2N04). Use mathematical modelling to solve practical problems involving additive and multiplicative situations, including money transactions; represent situations and choose calculation strategies; interpret and communicate solutions in terms of the situation (AC9M2N06). Recognise and describe one-half as one of 2 equal parts of a whole and connect halves, quarters and eighths through repeated halving (AC9M2N03). <p>Year Two Algebra</p> <ul style="list-style-type: none"> Recall and demonstrate proficiency with addition facts to 20; extend and apply facts to develop related subtraction facts (AC9M2A02). |
| 58) Fluency Doubles: Filling a Wall | |
| 59) Fluency Halves: Filling a Wall | |
| 60) Fluency Doubles: Racing Kayaks | |
| 61) Fluency Halves: Racing Snowboards | |
| 62) Near Double: Strategy Concept | |
| 62) Near Double: Strategy Concept (<i>a little harder</i>) | |
| 63) Near Double: Strategy Fluency | |

Chapter 8) Doubling and Halving to 20

Year 2 and 3

| Chapter 7 Ten Plus Bonds | Activity Number | Curriculum Links |
|--|--|---|
| | 50) Bridging Ten Addition: Strategy 9+ | <p>Year Two Number</p> <ul style="list-style-type: none"> Add and subtract one- and two-digit numbers, representing problems using number sentences and solve using part-part-whole reasoning and a variety of calculation strategies (AC9M2N04). Use mathematical modelling to solve practical problems involving additive and multiplicative situations, including money transactions; represent situations and choose calculation strategies; interpret and communicate solutions in terms of the situation (AC9M2N06). <p>Year Two Algebra</p> <ul style="list-style-type: none"> Recognise, describe and create additive patterns that increase or decrease by a constant amount, using numbers, shapes and objects, and identify missing elements in the pattern (AC9M2A01). Recall and demonstrate proficiency with addition facts to 20; extend and apply facts to develop related subtraction facts (AC9M2A02). <p>Year Three Number</p> <ul style="list-style-type: none"> Add and subtract two- and three-digit numbers using place value to partition, rearrange and regroup numbers to assist in calculations without a calculator (AC9M3N03). Use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate problems using number sentences and choose calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation (AC9M3N06). <p>Year Three Algebra</p> <ul style="list-style-type: none"> Recognise and explain the connection between addition and subtraction as inverse operations, apply to partition numbers and find unknown values in number sentences (AC9M3A01). Extend and apply knowledge of addition and subtraction facts to 20 to develop efficient mental strategies for computation with larger numbers without a calculator (AC9M3A02). |
| | 50) Bridging Ten Addition: Strategy 19+ <i>(a little harder)</i> | |
| | 51) Bridging Ten Addition: Strategy 8+ | |
| | 51) Bridging Ten Addition: Strategy 18+ <i>(a little harder)</i> | |
| | 52) Bridging Ten Addition: Strategy 7, 8, 9+ | |
| | 52) Bridging Ten Addition: Strategy Teen+ <i>(a little harder)</i> | |
| | 53) Bridging Ten Subtraction: Strategy Taking Away | |
| | 53) Bridging Ten Subtraction: Strategy Taking Away <i>(a little harder)</i> | |
| | 54) Bridging Ten Subtraction: Strategy Adding On | |
| | 54) Bridging Ten Subtraction: Strategy Adding On <i>(a little harder)</i> | |
| | 55) Partitioning Addition: Strategy Five Plus Bonds | |
| 55) Partitioning Addition: Strategy Five Plus Bonds <i>(a little harder)</i> | | |
| 56) Partitioning Subtraction: Strategy Five Plus Bonds | | |
| 56) Partitioning Subtraction: Strategy Five Plus Bonds <i>(a little harder)</i> | | |

Year 3

| Activity Number | Curriculum Links |
|---|---|
| 64) Addition: Lulu | <p>Year Two Number</p> <ul style="list-style-type: none"> Add and subtract one- and two-digit numbers, representing problems using number sentences and solve using part-part-whole reasoning and a variety of calculation strategies (AC9M2N04). Use mathematical modelling to solve practical problems involving additive and multiplicative situations, including money transactions; represent situations and choose calculation strategies; interpret and communicate solutions in terms of the situation (AC9M2N06). <p>Year Two Algebra</p> <ul style="list-style-type: none"> Recognise, describe and create additive patterns that increase or decrease by a constant amount, using numbers, shapes and objects, and identify missing elements in the pattern (AC9M2A01). Recall and demonstrate proficiency with addition facts to 20; extend and apply facts to develop related subtraction facts (AC9M2A02). <p>Year Three Number</p> <ul style="list-style-type: none"> Add and subtract two- and three-digit numbers using place value to partition, rearrange and regroup numbers to assist in calculations without a calculator (AC9M3N03). Use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate problems using number sentences and choose calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation (AC9M3N06). <p>Year Three Algebra</p> <ul style="list-style-type: none"> Recognise and explain the connection between addition and subtraction as inverse operations, apply to partition numbers and find unknown values in number sentences (AC9M3A01). Extend and apply knowledge of addition and subtraction facts to 20 to develop efficient mental strategies for computation with larger numbers without a calculator (AC9M3A02). |
| 65) Subtraction: Difference | |
| 66) Equation: Building | |
| 67) Missing Number Equations: Racing Motorcycles | |
| 68) Word Problems: Wholes to 20 | |
| 69) Near Ten: Strategy +9 | |
| 69) Near Ten: Strategy +9 (<i>a little harder</i>) | |
| 70) Near Ten: Strategy -11 | |
| 70) Near Ten: Strategy -11 (<i>a little harder</i>) | |
| 71) Near Ten: Strategy -9 | |
| 71) Near Ten: Strategy -9 (<i>a little harder</i>) | |

Chapter 9) Bonds of 11 to 20

Bond Blocks Addition and Subtraction to 20 covers the highlighted sections of the Australian Curriculum.
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Foundation Year Content Descriptions Number and Algebra

Number

- Name, represent and order numbers including zero to at least 20, using physical and virtual materials and numerals **(AC9MFN01)**.
- Recognise and name the number of objects within a collection up to 5 using subitising **(AC9MFN02)**.
- Quantify and compare collections to at least 20 using counting and explain or demonstrate reasoning **(AC9MFN03)**.
- Partition and combine collections up to 10 using part-part-whole relationships and subitising to recognise and name the parts **(AC9MFN04)**.
- Represent practical situations involving addition, subtraction and quantification with physical and virtual materials and use counting or subitising strategies **(AC9MFN05)**.
- Represent practical situations involving equal sharing and grouping with physical and virtual materials and use counting or subitising strategies **(AC9MFN06)**.

Algebra

- Recognise, copy and continue repeating patterns represented in different ways **(AC9MFA01)**.

Year 1 Content Descriptions Number and Algebra

Number

- Recognise, represent and order numbers to at least 120 using physical and virtual materials, numerals, number lines and charts **(AC9MIN01)**.
- Partition one- and two-digit numbers in different ways using physical and virtual materials, including partitioning two-digit numbers into tens and ones **(AC9MIN02)**.
- Quantify sets of objects, to at least 120, by partitioning collections into equal groups using number knowledge and skip counting **(AC9MIN03)**.
- Add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies **(AC9MIN04)**.
- Use mathematical modelling to solve practical problems involving additive situations, including simple money transactions; represent the situations with diagrams, physical and virtual materials, and use calculation strategies to solve the problem **(AC9MIN05)**.
- Use mathematical modelling to solve practical problems involving equal sharing and grouping; represent the situations with diagrams, physical and virtual materials, and use calculation strategies to solve the problem **(AC9MIN06)**.

Algebra

- Recognise, continue and create pattern sequences, with numbers, symbols, shapes and objects, formed by skip counting, initially by twos, fives and tens **(AC9MIA01)**.
- Recognise, continue and create repeating patterns with numbers, symbols, shapes and objects, identifying the repeating unit **(AC9MIA02)**.

Year 2 Content Descriptions Number and Algebra

Number

- Recognise, represent and order numbers to at least 1000 using physical and virtual materials, numerals and number lines (AC9M2N01).
- Partition, rearrange, regroup and rename two- and three-digit numbers using standard and non-standard groupings; recognise the role of a zero digit in place value notation (AC9M2N02).
- Recognise and describe one-half as one of 2 equal parts of a whole and connect halves, quarters and eighths through repeated halving (AC9M2N03).
- Add and subtract one- and two-digit numbers, representing problems using number sentences and solve using part-part-whole reasoning and a variety of calculation strategies (AC9M2N04).
- Multiply and divide by one-digit numbers using repeated addition, equal grouping, arrays, and partitioning to support a variety of calculation strategies (AC9M2N05).
- Use mathematical modelling to solve practical problems involving additive and multiplicative situations, including money transactions; represent situations and choose calculation strategies; interpret and communicate solutions in terms of the situation (AC9M2N06).

Algebra

- Recognise, describe and create additive patterns that increase or decrease by a constant amount, using numbers, shapes and objects, and identify missing elements in the pattern (AC9M2A01).
- Recall and demonstrate proficiency with addition facts to 20; extend and apply facts to develop related subtraction facts (AC9M2A02).
- Recall and demonstrate proficiency with multiplication facts for twos; extend and apply facts to develop the related division facts using doubling and halving (AC9M2A03).

Year 3 Content Descriptions Number and Algebra

Number

- Recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10 000 (AC9M3N01).
- Recognise and represent unit fractions including $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{10}$ and their multiples in different ways; combine fractions with the same denominator to complete the whole (AC9M3N02).
- Add and subtract two- and three-digit numbers using place value to partition, rearrange and regroup numbers to assist in calculations without a calculator (AC9M3N03).
- Multiply and divide one- and two-digit numbers, representing problems using number sentences, diagrams and arrays, and using a variety of calculation strategies (AC9M3N04).
- Estimate the quantity of objects in collections and make estimates when solving problems to determine the reasonableness of calculations (AC9M3N05).
- Use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate problems using number sentences and choose calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation (AC9M3N06).
- Follow and create algorithms involving a sequence of steps and decisions to investigate numbers; describe any emerging patterns (AC9M3N07).

Algebra

- Recognise and explain the connection between addition and subtraction as inverse operations, apply to partition numbers and find unknown values in number sentences (AC9M3A01).
- Extend and apply knowledge of addition and subtraction facts to 20 to develop efficient mental strategies for computation with larger numbers without a calculator (AC9M3A02).
- Recall and demonstrate proficiency with multiplication facts for 3, 4, 5 and 10; extend and apply facts to develop the related division facts (AC9M3A03).