Realleanino ceal math cealy USER GUIDE

## Step-by-step

 instructions for how to use the teacher dashboard and student site.Developed by a highly experienced team of teachers, educational writers, animators and web developers - the same team that created ABC Reading Eggs.

## CONTACT US TODAY!

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## How fo cef sianted

## Welcome to ABC Mathseeds

This teacher's guide provides step-by-step instructions for how to use the teacher dashboard and student site.

## A. Registration

If you haven't already registered for a free trial, you will need to call 1300850331 for a school code.
Once you have a school code, please sign up using the form at http://mathseeds.com.au/schools/getstarted.
Once you register for a free trial via this form, it will take to you directly to the teacher dashboard.
Please note: if you have a ABC Reading Eggs subscription or free trial, a tab will appear at the top of the screen to switch between ABC Reading Eggs and ABC Mathseeds.

If your school has subscribed to ABC Mathseeds and you are having trouble accessing the program, please contact your school's subscription coordinator or contact us at 1300850331 or schools@mathseeds.com.au for login information.

## B. Teacher navigation menu

Once you have logged in to your account, you will arrive at the ABC Mathseeds Teacher Dashboard. From here you can access all the teacher features of $A B C$ Mathseeds.

## Teacher Toolkit

Find big books, posters, and additional printable lesson plans and worksheets.

## Lessons each lesson. <br> Report

Manage Class
Here you can add and remove students as well as print certificates and login details. You can also restrict students' access to the games and Playroom.

Here you can preview all of the lessons in the Mathseeds program. You also have access to downloadable lesson plans and student worksheets for

You can also manage classes and assign books and lessons to students from here, and view quiz results.

Here you can access detailed reports of each student's progress as well as the overall results of your class's progress in the Mathseeds program.

## Quick Links

$\qquad$
Easy access to research reports that give a detailed review of the research that supports the program, curriculum maps, teacher guides and brochures, subscription order forms, and the "Tell a Colleague" function.

## Manage Class

Once you have registered, simply add your students. This will give each student access to their account. Go to the left-hand navigational bar and click "Manage Class" in MANAGEMENT.

## A. Adding students to your class

There are three ways you can add your students:

1. To add new students, enter their "First Name," "Last Name" and "Grade." Then click "Go."
2. To move students into your class from a different class in your school, click "Move students into your class." Then check the boxes next to the student's name and click "Add to my class."

Did you know you can print student details? Once you have added all your students to your class, you can print their login details via a PDF to use in the classroom or hand out individual logins to students.
3. To copy students from your existing ABC Reading Eggs class (applies to those who have ABC Reading Eggs accounts), click "Copy students from your ABC Reading Eggs class."

## B. Editing individual students

Click "Edit" on the far right side of the coloumn.


## Manage Class

## C. Editing multiple students

Select the students you wish to edit by checking the box next to the student's name. You can edit multiple students in three ways:

## 1. Remove from my class

 Click this button to remove these students from your class. It will only remove them from your class and not the whole school.2. Edit password

Click "Edit Password" to edit the passwords of multiple students.

## 2. Edit grade

Click "Edit Grade" to edit multiple students' grades. This tool will make it easier to move students to the next grade at the start of the school year.


## Manogo Lessons

To manage your students' lessons, go to the left-hand navigational bar and click "Lessons." From the drop down menu, select "Manage Lessons."

## A. Editing individual students

To edit an individual student's lesson, Click the "Edit" button next to their name.


## Manage progress

Edit a student's details by clicking the "Edit" box next to their name. Then select a lesson and click "Save Progress."

Edit Progress
Samual Forsythe


## Manage Lessons

## B. Editing multiple student's lessons

To edit multiple students' lessons, select the students you wish to edit by checking the box next to the student's name.

| Manage Lessons |  |  |  | comememe |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
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| 5un- | numan | ans. | momer |  |  |
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| - mmi | Run | , | - | , |  |
| - man | ovier | 3 | , | , |  |

Click "Change Progress" to change multiple students' lessons. Select the lesson and click "Update."

## Change Progress

Choose a lesson

``` Lesson \(6 \quad\).
```


## Preview Closs

1. To preview Mathseeds lessons, go to the left-hand navigational bar and click
2. Click "Resources" to and choose between student and teacher lesson plan. "Lessons." From the drop down menu select "Preview Lessons."

Click "Preview" and the lesson will begin as a student would see it.


All Mathseeds lessons are available to preview. Simply scroll through the lessons using the menu at the bottom of the screen.




## CONTACT US TODAY!

## Studenf Statistics

To see your students' results, go to the left-hand navigational bar and click "Reports." From the dropdown menu click "Students Stats." This will show each student's results, including usage, initial lesson, current lesson, number of quizzes taken and average quiz score.

Student Statistics
 ter tetions

## [3-2 Teadhing Resoures

To see our current range of teaching resources, go to the left-hand navigational bar and click "Teacher Toolkit" and then select "K-2."
2. Then click on any of the
 blue links and the PDF will download.


## Big Books

To See our current range of digital big books, go to the left-hand navigational bar, click "Teacher Toolkit" and then select "Big Books."

Click on a big book and it will load through to our e-reader software. Click on the "Next" arrow to scroll through the pages


Click through the tabs to see the books available for each grade.

Big books

## Kindergarten



## Studens Navigation

## Lessons

This is the heart of the program, the Math lessons. Students progress through lessons as their math skills increase, earning golden acorns and pets as rewards!


My Lessons Each student can visit their Treehouse and find rewards earned or items bought from the shop. Students use these items to decorate their Treehouse.


Shop
Students can buy items from the shop using their golden acorns earned by completing lessons. These items can be used to decorate their Treehouse.



## Studeni Navigation



## How ABE Mrthsesdl Lessow Work

## 1. Teaching Sequence

The Mathseeds characters explain the concept and discuss how to solve a problem.

## 2. Student Practice

Interactive screens give students the opportunity to practice new skills.

## 3. Mathseeds Songs

Many lessons include a memorable song that reinforces the new concept.

## 4. Mathseeds Activities

Every Mathseeds lesson includes a set of nine interactive activities, with more than 350 different activities within the program.

## 5. The E-book

Every lesson ends with a book that includes full audio support. These books restate the main lesson points and are designed to consolidate new concepts and skills.

## 6. Earning a Reward

Students earn golden acorns for all activities completed. As a bonus, a cute pet hatches at the end of every lesson. This pet appears on their map and they progress to the next lesson.


## Manage teachers

## Mathseeds Guide (Subscription Coordinator)

This guide will demonstrate how to:

1. add teachers to your school
2. remove a teacher from your school
3. reset a password
4. edit teacher details

To manage all aspects relating to teacher accounts at your school, ensure you have selected the "Manage Teachers" options from the "Management" drop-down menu on the left-hand navigational bar.


## A. Add a Teacher

1. Click "Manage Teachers" from the left menu panel.

| Management Add teachers to your school |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Manage Class | Add Teacher |  | Add existing teachers | Import Teachers Download a sample file |  |  |  |
| Manage School |  |  |  |  |  |  |  |
| Manage Teachers <br> Manage Rollover | $\square$ | Delete | Login Details | Send password email | Paren |  |  |
| Manage Subscription | First Name - |  |  | Last Name - |  | Login | Students - |
| (2) Lessons | $\square$ Rachel |  |  | Vella |  | teacher_us | 38 |
| Reports | - Maria |  |  | Alice |  | subco_us | 31 |
| (2) Quick Links | $\square \quad$ Rubius |  |  | Hagrid |  | hagrid@hogwa. | 15 |
| Contact Us | - Michael |  |  | Roberts |  | ms_dt_teache... | 10 |
|  | - Merryn |  |  | Twoop |  | merryntest | 4 |



## Manago leachers

## B. Delete a Teacher


2. Click "Delete" to permanently remove the teacher(s) from your school account.

## C. Reset a Password


3. In order for your teachers to receive the password reset email, they must have a valid email address registered with their teacher account.

If you need to update a teacher's email address, go to the Edit Teacher Details section on the next page.

## Manago leachers

## B. Edit Teacher Details

1. Find the teachers by typing their name in the search box or by browsing through your teacher list.

Manage Teachers
Add teachers to your school

| Add Teacher |  | Add existing teachers |  | Import Teachers |  | Downioad a sample file |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\square$ | Delete | Login Details | Send pas | word email | Parent | Letters |  |  |  |  |
| First Name * |  |  | Last Name - |  |  |  | Login $\uparrow$ | Students - | Trial |  |
| $\square$ | Rachel |  | Vella |  |  |  | teacher_us | 38 | N/A | - Edit |
| $\square$ | Maria |  | Alice |  |  |  | subco_us | 31 | N/A | - Edit |
| $\square$ | Rubius |  | Hagrid |  |  |  | hagrid@hogwa... | 15 | N/A | - Edit |
| $\checkmark$ | Michael |  | Roberts |  |  |  | ms_dt_teache... | 10 | N/A | Edit |
| $\square$ | Merryn |  | Twoop |  |  |  | merryntest | 4 | N/A | - Edit |
| $\square$ | Adam |  | Mikulasev |  |  |  | teacher_adam | 4 | N/A | Edit |
| $\square$ | Kelly |  | Park |  |  |  | kpark@though... | 2 | N/A | - Edit |

2. Click the "Edit" button that appears on the right.
3. Edit their details and click "Update Teacher."


## Mathseeds Kindergarten: Lesson 1-50

Students learn fundamental number skills including number recognition, number words and counting. Students learn to count forwards and backwards to twenty with confidence. They use a range of techniques including ten frames and number lines. They also learn the number words up to twenty. Students learn to add to ten and their doubles facts to double five.

Students learn the four basic 2D shapes: circle, square, triangle and rectangle. They distinguish between colours and investigate some simple concepts of size: big, small, short, tall etc. Lessons cover the concepts of more time and less time, life cycles and days of the week. Students develop their understanding of 2D shapes by sorting them according to their properties. They are also introduced to the 3D shapes: sphere, cube, cone and cylinder.

| YEAR | LESSON NUMBER | LESSON NAME | CONTENT STRANDS | LESSON CONTENT OUTCOMES |
| :---: | :---: | :---: | :---: | :---: |
| K | 1 | Number 1 | Number \& Algebra | Count to 1. Know, read and write the numeral 1. Read the word one. Represent a number of objects with a written number. |
| K | 2 | Number 2 | Number \& Algebra | Count to 2. Know, read and write the numeral 2. Read the word two. Represent a number of objects with a written number. |
| K | 3 | Number 3 | Number \& Algebra | Count to 3. Know, read and write the numeral 3. Read the word three. Represent a number of objects with a written number. |
| K | 4 | Circles | Measurement \& Geometry | Name circles in the environment. Sort shapes. Name circles in different orientations and sizes. |
| K | 5 | Number 4 | Number \& Algebra | Count to 4. Know, read and write the numeral 4. Read the word four. Represent a number of objects with a written number. Compare 4 to other numbers. Count to answer 'How many?' questions. |
| K | 6 | Squares | Measurement \& Geometry | Name squares in the environment. Sort shapes. Name squares in different orientations and sizes. |
| K | 7 | Number 5 | Number \& Algebra | Count to 5. Know, read and write the numeral 5. Read the word five. Represent a number of objects with a written number. Compare 5 to other numbers. Connect counting to cardinality. |
| K | 8 | Colours | Number \& Algebra | Copy, continue and create patterns with objects and drawings. Identify colours. Match objects to colour name. Identify colours when two primary colours are mixed. |
| K | 9 | Triangles | Measurement \& Geometry | Name triangles in the environment. Sort shapes. Name triangles in different orientations and sizes. |
| K | 10 | Numbers 1-5 <br> Revision | Number \& Algebra | Count to 5. Know, read and write the numerals 1-5. Read the words: one, two, three, four, five. Represent a number of objects with a written number. Compare numbers. Connect counting to cardinality. |
| K | 11 | Number 6 | Number \& Algebra | Count to 6 . Know, read and write the numeral 6 . Read the word six. Represent a number of objects with a written number. Compare 6 to other numbers. Connect counting to cardinality. |
| K | 12 | Number 7 | Number \& Algebra | Count to 7. Know, read and write the numeral 7. Read the word seven. Represent a number of objects with a written number. Compare 7 to other numbers. Connect counting to cardinality. Count to answer 'How many?' questions. |
| K | 13 | Big and Small | Measurement \& Geometry | Compare objects. Use measurement language to describe objects. |
| K | 14 | Number 8 | Number \& Algebra | Count to 8 . Know, read and write the numeral 8. Read the word eight. Represent a number of objects with a written number. Compare 8 to other numbers. Connect counting to cardinality. Count to answer 'How many?' questions. |
| K | 15 | Rectangles | Measurement \& Geometry | Name rectangles in the environment. Sort shapes. Name rectangles in different orientations and sizes. |
| K | 16 | Numbers 1-8 | Number \& Algebra | Count 1-8. Know, read and write the numerals 1-8. Read the words: three, five, seven, eight. Represent a number of objects with a written number. Compare numbers written as numerals. Connect counting to cardinality. |
| K | 17 | Number 9 | Number \& Algebra | Count to 9. Know, read and write the numeral 9. Read the word nine. Represent a number of objects with a written number. Compare 9 to other numbers. Connect counting to cardinality. |

## Mathseeds Kindergarten: Lesson 1-50

| YEAR | LESSON <br> NUMBER | LESSON NAME | CONTENT STRANDS | LESSON CONTENT OUTCOMES |
| :---: | :---: | :---: | :---: | :---: |
| K | 18 | Zero, Ordering Numbers | Number \& Algebra | Know, read and write the numeral 0 . Read the word zero. Compare 0 to other numbers. Connect counting to cardinality. Count to answer 'How many?' questions. Compare numbers written as numerals. Sequence numbers, counting forwards. |
| K | 19 | Number 10 | Number \& Algebra | Count to 10. Know, read and write the numeral 10. Read the word ten. Compare 10 to other numbers. Connect counting to cardinality. Count to answer 'How many?' questions. Represent a number of objects with a written number. |
| K | 20 | Numbers 1-10 <br> Revision | Number \& Algebra | Count to 10. Know, read and write the numerals 1-10. Represent a number of objects with a written number. Compare numbers written as numerals. Sequence numbers, counting forwards and backwards. |
| K | 21 | Counting Back from 10 | Number \& Algebra | Count to 10 . Know, read and write the numerals 1-10. Read the words: six, seven, ten. Compare groups of objects. Sequence numbers, counting backwards. Subitise small groups of objects in different formations. |
| K | 22 | More, Less and the Same | Number \& Algebra | Count to 10. Know, read and write the numerals 1-10. Compare groups of objects. Use comparative language: more, less, the same. Sequence numbers, counting backwards. |
| K | 23 | 2D Shapes | Measurement \& Geometry | Name triangles, squares, rectangles and circles in the environment. Match and sort shapes. Name shapes in different orientations and sizes. Identify straight, wavy and zig-zag lines. Copy, continue and create patterns. |
| K | 24 | Adding to 5 | Number \& Algebra | Connect counting to addition. Model addition with objects. Write equations for addends to 5 . Subitise small groups of objects in different formations. |
| K | 25 | Number Lines 1-10 | Number \& Algebra | Count to 10. Read number words to ten. Connect counting to cardinality. Sequence numbers, counting forwards and backwards. Find pairs of numbers that make 10. Count to answer 'How many?' questions. |
| K | 26 | Long and Short | Measurement \& Geometry | Compare and order which is longer or shorter using everyday language. Use comparative language: big, small, short, tall, tallest, longest, shortest. |
| K | 27 | Patterns |  <br> Algebra | Copy, continue and create patterns. Identify colours. Match objects to colour names. |
| K | 28 | Number Lines |  <br> Algebra | Count to 10. Read number words to ten. Connect counting to cardinality. Sequence numbers, counting forwards and backwards. Count to answer 'How many?' questions. Subitise small groups of objects in different formations. |
| K | 29 | Heary and Light | Measurement \& Geometry | Compare and order which is heavier or lighter using everyday language. Use comparative language: big, small, heavy, light, heavier, lighter. |
| K | 30 | Adding to 6 | Number \& Algebra | Connect counting to addition. Model addition with objects. Write equations for addends to 6 . Subitise small groups of objects in different formations. |
| K | 31 | Counting to 10 | Number \& Algebra | Sequence numbers, counting forwards and backwards. Estimate the quantity of items in a group. Compare groups of objects. Use comparative language: more, less, the same. Count to answer 'How many?' questions. Find pairs of numbers that make 10. |
| K | 32 | Add to 7 | Number \& Algebra | Connect counting to addition. Model addition with objects. Write equations for addends to 7. Compare groups of objects. Subitise small groups of objects in different formations. |
| K | 33 | Number Words to 10 | Number \& Algebra | Read the words: zero, one, two, three, four, five, six, seven, eight, nine, ten. |
| K | 34 | Add to 10 | Number \& Algebra | Connect counting to addition. Model addition with objects. Write equations for addends to 10 . Find pairs of numbers that make 10 . Subitise small groups of objects in different formations. |
| K | 35 | The Cube \& Sphere | Measurement \& Geometry | Name cubes and spheres in the environment. Match and sort cubes and spheres. Identify objects that can be stacked and those that roll. |
| K | 36 | Adding to 10 | Number \& Algebra | Connect counting to addition. Model addition with objects. Write equations for addends to 10. Find pairs of numbers that make 10. |
| K | 37 | Patterns 2 |  <br> Algebra | Copy, continue and create patterns. |
| K | 38 | Capacity | Measurement \& Geometry | Use comparisons to decide which holds more or less. Use comparative language: full, empty, big, small, short, tall. |
| K | 39 | Time | Measurement \& Geometry | Compare and order events using the everyday language of time. |

## Mathseeds Kindergarten: Lesson 1-50

| YEAR | LESSON NUMBER | LESSON <br> NAME | CONTENT <br> STRANDS | LESSON CONTENT OUTCOMES |
| :---: | :---: | :---: | :---: | :---: |
| K | 40 | Add to 10 on a Number Line | Number \& Algebra | Connect counting to addition. Add on a number line. Model addition with objects. Write equations for addends to 10 . Find pairs of numbers that make 10 . |
| K | 41 | $\text { Numbers } 11$ $\& 12$ | Number \& Algebra | Count to 12. Know, read and write the numerals 11 \& 12. Read number words to twelve. Represent a number of objects with a written number. Compare numbers. Connect counting to cardinality. Subitise small groups of objects in different formations. |
| K | 42 | Days of the Week | Measurement \& Geometry | Connect days of the week to familiar events and actions. |
| K | 43 | Numbers 13, 14 \& 15 | Number \& Algebra | Count to 15 . Know, read and write the numerals $13,14,15$. Read number words to fifteen. Represent a number of objects with a written number. Compare numbers. Connect counting to cardinality. |
| K | 44 | The Cone \& Cylinder | Measurement \& Geometry | Name cones and cylinders in the environment. Match and sort cones and cylinders. Name cones and cylinders in different sizes. |
| K | 45 | Numbers 16 \& 17 | Number \& Algebra | Count to 17. Know, read and write the numerals 16 \& 17. Read number words to seventeen. Represent a number of objects with a written number. Compose and decompose the numbers 11, 12, 13, 15 into tens and ones. Compare groups of objects. Use comparative language: more, less, the same. |
| K | 46 | Numbers 18, 19 $\& 20$ | Number \& Algebra | Count to 20. Know, read and write numbers to 20. Read number words to twenty. Represent a number of objects with a written number. Compose and decompose the numbers 12, 14, 16, 19 into tens and ones. Compare groups of objects. Use comparative language: more, less, the same. |
| K | 47 | Number Lines to 20 | Number \& Algebra | Count to 20. Read number words to twenty. Sequence numbers, counting forwards and backwards. Count to answer 'How many?' questions. Connect counting to addition. Model addition for addends to 10 . |
| K | 48 | Number Words $11-20$ | Number \& Algebra | Count to 20. Read number words to twenty. |
| K | 49 | Doubles to Double 5 | Number \& Algebra | Connect counting to addition. Model addition. Write equations for addends to 10 . Find pairs of numbers that make 10 . Subitise small groups of objects in different formations. |
| K | 50 | Revision 0-20 | Number \& Algebra | Count to 20 . Know, read and write numbers to 20 . Read number words to twenty. Compose and decompose teen numbers into tens and ones. Use comparative language: smaller, larger. Sequence numbers, count forwards and backwards. |

## Mathseeds Year 1: Lesson 51-100

Students learn to count to 100, order numbers and identify ordinal numbers to 10th. They develop an understanding of place value including regrouping. Students practice their subtraction skills. They add and subtract to 10 , and then within 100. Strategies include counting on, counting back, near doubles and using number fact families. Students learn how to skip count by $2 \mathrm{~s}, 5 \mathrm{~s}$ and 10 s , as well as the early multiplication and division skills of grouping and sharing.

Students identify notes and coins, and use addition to find amounts of money. They explore fractions, focusing on wholes, halves and quarters. Students continue to investigate the features of 2D shapes and 3D objects. They follow simple directions to a particular location and learn to read clocks to the halfhour. They work with early chance concepts, tally charts and simple picture graphs.

| YEAR | LESSON NUMBER | LESSON NAME | CONTENT STRANDS | LESSON CONTENT OUTCOMES |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 51 | Addition to 10 with Two and Three groups | Number \& Algebra | Solve addition of three whole numbers. Use the count on strategy. Represent numerals with objects to solve addition problems. Understand the equals sign and work out if addition equations are true or false. |
| 1 | 52 | Sorting and Grouping 2D Shapes | Measurement \& Geometry | Recognise and classity familiar two-dimensional shapes. Compose two-dimensional shapes. Match two-dimensional shapes to their names. Identify shapes as two-dimensional or threedimensional. |
| 1 | 53 | Subtraction 1 |  <br> Algebra | Solve subtraction problems using objects and equations. Represent objects with a written numeral to solve subtraction problems. Represent a written numeral with objects to solve subtraction problems. |
| 1 | 54 | O'clock | Measurement \& Geometry | Tell and write time in hours and half-hours. Use analogue and digital clocks. Use comparative language: longer time, shorter time. |
| 1 | 55 | Near and Far | Measurement \& Geometry | Compare and select which is longer or shorter. Sort objects according to height. Describe position and movement using the everyday language of location and direction. Use comparative language: near, far, behind, in front, on, next to, big, small, short, tall, longest, shortest. |
| 1 | 56 | Subtraction 2 | Number \& Algebra | Represent objects with a written numeral to solve subtraction problems. Represent a written numeral with objects to solve subtraction problems. Work out the unknown number in a subtraction equation. Find pairs of numbers that make 10 . |
| 1 | 57 | Position 1 | Measurement \& Geometry | Follow directions to familiar locations. Understand position words when giving and following directions: right, left, above, below, next to, between, forward, under. |
| 1 | 58 | Subtraction on a Number Line | Number \& Algebra | Solve subtraction problems using a number line. Represent objects with a written numeral to solve subtraction problems. Represent a written numeral with objects to solve subtraction problems. Work out the unknown number in a subtraction equation. |
| 1 | 59 | Area | Measurement \& Geometry | Understand that area measures how much a surface covers. Sort objects according to height. Sort objects according to area. Compare to identify and order area. Count to measure area. Use comparative language: big, small, short, tall, largest, smallest. |
| 1 | 60 | Counting 20-30 | Number \& Algebra | Count to 30 starting at any number. Read and write numerals. Represent a number of objects with a written numeral. Compose two-digit numbers using tens and ones. Compare groups of objects. Use comparative language: larger, smaller. |
| 1 | 61 | Wholes and Halves | Number \& Algebra | Partition objects into halves. Identify and colour one half of different 2 D shapes. Recognise to share equalsly between two, each share is one half. Read fraction notation. |
| 1 | 62 | Sorting and Grouping 3D Objects | Measurement \& Geometry | Identify shapes that stack. Identify shapes that roll. Identify shapes that slide. Name 3D objects. Identify the number of sides and corners on a 3D object. |
| 1 | 63 | Ordinal Numbers | Number \& Algebra | Read and represent position using ordinal numbers in a sequence. |
| 1 | 64 | Money | Number \& Algebra | Count and order money. Solve addition problems using coins. Solve addition problems involving money. |

## Realloarning real maths, really fund

## Mathseeds Year 1: Lesson 51-100

| YEAR | LESSON NUMBER | LESSON NAME | CONTENT <br> STRANDS | LESSON CONTENT OUTCOMES |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 65 | Addition to 20 |  <br> Algebra | Solve addition of three whole numbers. Use the count on strategy. Solve addition problems using a number line. Solve addition problems by counting by twos. Compose numbers from 11 to 19 into tens and ones. Make number bonds for numbers to 20. |
| 1 | 66 | Halves and Quarters | Number \& Algebra | Partition objects into halves and quarters. Identify and colour one half and one quarter of different 2 D shapes. Recognise to share equalsly between two, three and four. Read fraction notation. |
| 1 | 67 | Counting 30-40 | Number \& Algebra | Count to 40 starting at any number. Read and write numerals. Represent a number of objects with a written numeral. Compose two-digit numbers using tens and ones. Make number bonds to 30 with three addends. |
| 1 | 68 | Find the Difference 1 | Number \& Algebra | Solve subtraction problems using find the difference. Represent objects with a written numeral to solve subtraction problems. Represent a written numeral with objects to solve subtraction problems. Work out the unknown number in a subtraction equation. |
| 1 | 69 | Putting Shapes Together | Measurement \& Geometry | Compose two-dimensional shapes to create a composite shape. Compose three-dimensional objects to create a composite object. |
| 1 | 70 | O'clock \& Half-Past | Measurement \& Geometry | Tell and write time in hours and half-hours. Use analogue and digital clocks. Use comparative language: longer time, shorter time. |
| 1 | 71 | Sharing 1 |  <br> Algebra | Share a collection of objects into two, three, four or six equals groups. |
| 1 | 72 | Doubles to Double 10 | Number \& Algebra | Solve addition problems using doubles as a strategy. Compare groups of objects. Use comparative language: larger, smaller. Find pairs of numbers that make 10. Solve addition of three whole numbers. Make number bonds for numbers to 20 . |
| 1 | 73 | Mass | Measurement \& Geometry | Compare and order which is heavier or lighter. Use comparative language: heavy, heavier, heaviest, light, lighter, lightest, balance. |
| 1 | 74 | Grouping | Number \& Algebra | Sort and describe a collection of objects as a group. Represent multiplication as groups through equals sharing. Identify collections with the same number of objects. Count out groups to answer 'How many?' questions. Skip count to find the total. |
| 1 | 75 | Counting 40-50 |  <br> Algebra | Count to 50 starting at any number. Read and write numerals. Compose two-digit numbers using tens and ones. Make number bonds for numbers to 20. Make number bonds to 30 with three addends. |
| 1 | 76 | The Equals Sign |  <br> Algebra | Understand the equals sign. Work out if an equation using an equals sign is true or false. Make number bonds for numbers to 20 . |
| 1 | 77 | Skip Counting by $2 \mathrm{~s} \& 5 \mathrm{~s}$ | Number \& Algebra | Solve problems counting by twos and fives. Solve problems on the number line counting by twos and fives. Find groups of two. Count out groups to answer 'How many?' questions. |
| 1 | 78 | Position 2 | Measurement \& Geometry | Follow directions to familiar locations. Understand position words when giving and following directions: right, left, above, below, next to, between, forward, under. |
| 1 | 79 | Counting by 10s | Number \& Algebra | Sort objects into groups of ten. Recognise ten as a bundle of ten ones. Skip count by tens. Compose two-digit numbers using tens and ones. Count and create collections by partitioning numbers using place value. |
| 1 | 80 | Data 1 | Statistics \& Probability | Represent data with objects and drawings. Sort data and represent using tally marks. Understand one-to-one correspondence. Answer questions about data. |
| 1 | 81 | Counting 50-70 | Number \& Algebra | Count to 70 starting at any number. Read and write numerals. Order numbers on a number line. Order numbers on a number chart. Compare groups of objects. Use comparative language: larger, smaller. Count and create collections by partitioning numbers using place value. |
| 1 | 82 | Chance 1 | Statistics \& Probability | Identify outcomes of familiar events. Use everyday chance language: will happen, won't happen, might happen, possible, impossible. Use comparative language: more likely, less likely. |
| 1 | 83 | Money 2 | Number \& Algebra | Solve addition problems involving money. Identify coins and notes. Match money to symbols: $\$$, c. Compare the cost of items. Use different denominations of notes and coins to make amounts. Solve subtraction problems requiring change. |
| 1 | 84 | Measuring Length | Measurement \& Geometry | Compare and select which is longer or shorter. Measure and compare the lengths of pairs of objects using uniform informal units. Sort objects according to length. Use comparative language: longer, longest, shorter, shortest. |

## Mathseeds Year 1: Lesson 51-100

| YEAR | LESSON NUMBER | LESSON <br> NAME | CONTENT STRANDS | LESSON CONTENT OUTCOMES |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 85 | Find the Difference 2 | Number \& Algebra | Solve subtraction problems using find the difference. Represent objects with a written numeral to solve subtraction problems. Solve subtraction problems using a number line. Represent a written numeral with objects to solve subtraction problems. Work out the unknown number in a subtraction equation. |
| 1 | 86 | $\begin{aligned} & \text { Counting } \\ & 70-100 \end{aligned}$ | Number \& Algebra | Count to 100 starting at any number. Read and write numerals. Order numbers on a number line. Order numbers on a number chart. Compare groups of objects. Use comparative language: larger, smaller. Understand the meaning of the equals sign to determine true or false. |
| 1 | 87 | Half-Past and Digital Time | Measurement <br> \& Geometry | Tell and write time in hours and half-hours. Use analogue and digital clocks. |
| 1 | 88 | Trading Tens | Number \& Algebra | Sort objects into groups of ten. Recognise ten as a bundle of ten ones. Compose two-digit numbers using tens and ones. Count and create collections by partitioning numbers using place value. Order numbers on a number chart. |
| 1 | 89 | Capacity 2 | Measurement \& Geometry | Use comparisons to decide which holds more or less. Use comparative language: empty, full, least, most. Compare capacities using a range of containers. Measure the capacity of a container using informal units. |
| 1 | 90 | Skip Counting | Number \& Algebra | Skip count by twos and fives. Make number bonds for numbers to 20 . Solve problems for the addition of three whole numbers. Use repeated addition to model and answer multiplication questions. |
| 1 | 91 | Near Doubles to 20 | Number \& Algebra | Solve addition problems using the near doubles strategy. Use add to ten first as an addition strategy. Skip count by fives. Find different sums that add to make the same number. Solve addition of three whole numbers. Make number bonds for numbers to 20 . Count and create numbers by partitioning numbers using place value. |
| 1 | 92 | Change from \$20 | Number \& Algebra | Solve addition problems involving money. Identify coins and notes. Match money using symbols: \$, c. Compare the cost of items. Use different denominations of notes and coins to make amounts. Solve subtraction problems requiring change. |
| 1 | 93 | Number Fact Families | Number \& Algebra | Solve problems using the commutative property of addition. Fluently add to 10 . Recognise different number combinations that make number fact families. Understand the equals sign. Work out if addition equations are true or false. Subitise small groups of objects in different formations. |
| 1 | 94 | Position 3 | Measurement \& Geometry | Follow directions to familiar locations. Understand position words when giving and following directions: right, left, above, below, beneath, underneath, on top of, next to, between, beside, forward, under, clockwise, anticlockwise. |
| 1 | 95 | Add Within 100 | Number \& Algebra | Add a two-digit number and a one-digit number. Use strategies based on place value. Add two-digit numbers requiring sometimes to compose a ten. Add on a number line. Order numbers on a number chart. Solve addition problems using counting on as a strategy. Solve word problems using addition. Add multiples of ten to a two-digit number. Recognise different number combinations that make number fact families. |
| 1 | 96 | Bridging to Ten | Number \& Algebra | Solve addition problems using the bridge to ten strategy. Solve addition problems using a number line. Write equations to solve addition problems. Understand the equals sign. Work out if addition equations are true or false. Use comparative language: larger, smaller. Solve addition problems using the jump strategy. Add multiples of ten to a two-digit number. |
| 1 | 97 | Data 2 | Statistics \& Probability | Represent data with objects and drawings. Sort data and represent using tally marks. Understand one-to-one correspondence. Answer questions about data. |
| 1 | 98 | Add and Subtract Tens | Number \& Algebra | Add and subtract multiples of ten to a two-digit number. Add and subtract on a number line. Add and subtract using a numbers chart. Understand the equals sign. Work out if addition equations are true or false. Solve addition problems by using the count on strategy. Subitise small groups of objects in different formations. |
| 1 | 99 | 3D Objects | Measurement \& Geometry | Recognise and sort two-dimensional shapes that are the faces of three-dimensional objects. Identify prisms. Identify faces of prisms. Recognise features of prisms. Identify objects shaped as prisms. |
| 1 | 100 | Subtracting Unknown Numbers | Number \& Algebra | Find the unknown number in a subtraction equation. Solve problems using the commutative property of addition. Fluently add to 10 . Recognise different number combinations that make number fact families. Solve subtraction problems by using the count on strategy. Solve subtraction problems requiring change. |

## Mathseeds Year 1: Lesson 51-100

$\left.\left.\begin{array}{lllll}\text { YEAR } & \text { LESSON } & \text { LESSON } & \text { CONTENT } & \text { LESSON CONTENT OUTCOMES } \\ \text { STRANDS }\end{array}\right] \begin{array}{l}\text { Statistics \& }\end{array} \quad \begin{array}{l}\text { Represent data with objects and drawings. Sort data and represent using tally marks. } \\ \text { Understand one-to-one correspondence. Answer questions about data. }\end{array}\right]$

## Mathseeds Year 2: Lesson 101-150

Students learn to count to 1000, identify odd and even numbers and round to the nearest 10 and 100 . They build their place value skills, composing and decomposing numbers to 999 . Students develop addition and subtraction strategies including the 'jump' and 'split' methods, as well as vertical addition and subtraction. Students practice grouping and sharing, and use the multiplication and division signs. They learn how to find a fraction of a collection of items.

Students investigate length and learn how to measure in metres and centimetres. They work with 2D shapes, make patterns that move and reflect,
 and study the features of 3D objects. Students tell time to the nearest 5 minutes and use a calendar to identify particular dates. They construct tally charts and picture graphs, and interpret data in a variety of ways.

| YEAR | LESSON NUMBER | LESSON NAME | CONTENT STRANDS | LESSON CONTENT OUTCOMES |
| :---: | :---: | :---: | :---: | :---: |
| 2 | 101 | Counting 100-500 | Number \& Algebra | Read and write numbers to 500 . Count to 500 using base-ten numerals, number names, and expanded form. Know three-digit numbers represent amounts of hundreds, tens, and ones. Add 1, 10 or 100 to a given number 100-900. Subtract 1, 10 or 100 from a given number 100-900. |
| 2 | 102 | Moving Shapes | Measurement \& Geometry | Understand the effect of one-step slides, flips and turns. Know that moved objects do not alter size or features. Identify a quarter and half turn. Tessellate shapes. |
| 2 | 103 | Adding 9 | Number \& Algebra | Use the jump strategy to add 9 to numbers. Understand the equals sign. Work out if addition equations are true or false. Subitise small groups of objects in different formations. |
| 2 | 104 | Measuring | Measurement \& Geometry | Estimate lengths using metres. Measure lengths using metres. Compare lengths. Use comparative language: more than 1 m ; 1 m ; less than 1 m . |
| 2 | 105 | Partitioning <br> Numbers to 1000 | Number \& Algebra | Read and write numbers to 500 . Count to 500 using base-ten numerals, number names, and expanded form. Know three-digit numbers represent amounts of hundreds, tens, and ones. Compose and decompose two- and three-digit numbers using tens and ones. |
| 2 | 106 | Counting $500-1000$ | Number \& Algebra | Count within 1000. Skip-count by 100s. Add 1, 10 or 100 to a given number 100-900. Subtract 1, 10 or 100 from a given number 100-900. Use a number square to help skip count by 5 s . |
| 2 | 107 | Chance 2 |  <br> Probability | Identify outcomes of familiar events involving chance. Use everyday chance language: will happen, won't happen, might happen, possible, impossible. Use comparative language: more likely, less likely. |
| 2 | 108 | Odd and Even Numbers | Number \& Algebra | Determine if a number is odd or even. Use rules to add odd and even numbers. |
| 2 | 109 | The Calendar | Measurement \& Geometry | Use a calendar to identify the date. Determine the number of days in each month. Sequence months of the year. Countdown to dates using a calendar. Sequence days of the week. |
| 2 | 110 | Take Away by Partitioning | Number \& Algebra | Solve subtraction problems using the jump strategy. Fluently subtract within 30. Use place value to partition numbers to solve subtraction problems. Solve subtraction word problems. Subtract multiples of ten from a two-digit number. |
| 2 | 111 | Sharing 2 | Number \& Algebra | Share a collection of objects into two, three, four or six equals groups. Arrange groups into arrays. Use addition to find the total number of objects in arrays. Count groups of objects. |
| 2 | 112 | Area 2 | Measurement \& Geometry | Understand that area measures how much a surface covers. Sort objects according to height. Sort objects according to area. Use informal measurement to count area. Compare to identify and order which is larger or smaller. |
| 2 | 113 | Grouping 2 | Number \& Algebra | Count groups of objects. Recognise grouping as repeated addition. Use a number line to skip count. Write an equation to show the total as a sum of equals addends. Solve word problems by grouping and counting. |
| 2 | 114 | Quarter to and Quarter after | Measurement \& Geometry | Tell time to the quarter-hour. Use language of time: quarter past, quarter to. Recognise the position of clock hands when showing quarter to or quarter past. Sequence months of the year. Countdown to dates using a calendar. Sequence days of the week. |
| 2 | 115 | Multiplying Groups | Number \& Algebra | Recognise multiplication as repeated addition, groups and arrays. Write an equation using signs: $x$, $=$. Use language of multiplication: groups of, multiply. Multiply groups by 1, 2, 3, 4, 5. | 5.

## Mathseeds Year 2: Lesson 101-150

| YEAR | LESSON NUMBER | LESSON NAME | CONTENT STRANDS | LESSON CONTENT OUTCOMES |
| :---: | :---: | :---: | :---: | :---: |
| 2 | 116 | Volume | Measurement \& Geometry | Recognise volume as how much space. Use comparative language: less, more, big, bigger, biggest, small, smaller, smallest. Informally measure volume. Record informal measurements for volume. |
| 2 | 117 | Skip Counting Patterns | Number \& Algebra | Skip count forwards and backwards by threes, fives, tens, hundreds. |
| 2 | 118 | Word Problems: + and - | Number \& Algebra | Solve addition word problems. Solve subtraction word problems. |
| 2 | 119 | The Rhombus | Measurement \& Geometry | Name rhombuses in the environment. Sort shapes. Name rhombuses in different orientations and sizes. Identify parallel lines. Compose two-dimensional shapes to create a composite shape. Identify properties of 2D and 3D shapes. |
| 2 | 120 | Addition 1 | Number \& Algebra | Solve addition problems using the jump strategy and skip counting. Fluently subtract within 30. Use place value to partition numbers to solve addition problems. Solve addition word problems. Add multiples of ten to a two-digit number. |
| 2 | 121 | Different Views of 3D Objects | Measurement \& Geometry | Recognise the top, front, side and base of 3D objects. Identify and count the numbers of vertices. |
| 2 | 122 | Comparing Numbers | Number \& Algebra | Use $<=>$ symbols. Compare pairs of numbers starting with a single-digit and building to 2-digit and 3 -digit numbers. |
| 2 | 123 | 5 Minute Intervals | Measurement \& Geometry | Understand that there are 60 minutes in an hour, and that there are 5 minute intervals between numbers. Match the time on an analogue clock to a digital time shown in 5 minute intervals. |
| 2 | 124 | Subtraction Algorithm | Number \& Algebra | Use vertical subtraction. Subtract two single-digit numbers with no regrouping and subtract a single-digit number from a double digit number with no regrouping. |
| 2 | 125 | Equivalent <br> Amounts of Money | Number \& Algebra | Match amounts with equivalent coins. Use 2 coins, 3 coins and 4 coins. |
| 2 | 126 | Measuring Centimetres | Measurement \& Geometry | Use the centimetre as a formal unit of measure. Measure an object twice using informal units and centimetres, and measure to determine how much longer one item is than another. |
| 2 | 127 | Elapsed Time | Measurement \& Geometry | Calculate how much time has elapsed between 2 specific times to the hour and half hour. |
| 2 | 128 | Addition 2 | Number \& Algebra | Use vertical addition. Add two 2-digit numbers with no regrouping and add 2 three-digit numbers with no regrouping. |
| 2 | 129 | Rounding Numbers | Number \& Algebra | Use a number line. Identify the 'midpoint' and round numbers within 100 up or down to the nearest ten. |
| 2 | 130 | Word Problems: Multiplication | Number \& Algebra | Introduce multiplication word problems that use the strategy of 'creating a picture'. |
| 2 | 131 | Word problems: <br> Working <br> Backwards | Number \& Algebra | Work backwards to solve a word problem. Use addition and subtraction number sentences. |
| 2 | 132 | Fractions | Number \& Algebra | Revise halves and quarters, and introduce the term 'eighths'. Identify items that have been cut into equals halves, quarters and eighths. |
| 2 | 133 | Number Patterns 1 | Number \& Algebra | Identify a pattern in order to complete a number pattern: +2 pattern, - 10 pattern, +100 pattern. Presented as word problems. |
| 2 | 134 | Subtract 3-digit Numbers | Number \& Algebra | Practice vertical subtraction. Subtract two 2-digit numbers with no regrouping. Subtract two 3 -digit numbers with no regrouping. |
| 2 | 135 | Comparing Mass | Measurement \& Geometry | Use non-standard units to measure the mass of different items. Count the units using tally marks. Present the information as a picture graph and interpret the graph. |
| 2 | 136 | The Division Sign | Number \& Algebra | Use the division sign. Share items between groups and divide using a number line. |
| 2 | 137 | Word Problems: Make a Table | Number \& Algebra | Solve a word problem by organising information in a table. |
| 2 | 138 | Finding Fractions of a Collection | Number \& Algebra | Investigate a half, third, quarter and eighth of a share. Understand that the denominator tells you how many groups to make. |
| 2 | 139 | 2-Step Problem Solving | Number \& Algebra | Break a word problem into 2 separate sums. Focus on just addition, addition and subtraction sums, and just subtraction. |

## Mathseeds Year 2: Lesson 101-150

| YEAR | LESSON NUMBER |  | CONTENT STRANDS | LESSON CONTENT OUTCOMES |
| :---: | :---: | :---: | :---: | :---: |
| 2 | 140 | Revision | Number \& Algebra | Revise vertical addition and subtraction, grouping and fractions. Identify the properties of 2D shapes and 3D objects. Measure length in cm , match analogue and digital times and compare area in square units. Interpret picture graphs. |
| 2 | 141 | Word Problems: Length | Measurement \& Geometry | Solve multi-step word problems involving length using a range of addition and subtraction strategies. These include creating a picture to find the difference, using a number line, mentally counting on by tens and exploring related number facts. |
| 2 | 142 | Fluent Facts within 20 | Number \& Algebra | Use number bonds to 10 and then to 20 to fluently complete addition equations. Apply knowledge of related addition and subtraction number facts to solve subtraction equations within 20. |
| 2 | 143 | Comparing Lengths using Data |  <br> Probability | Measure different lengths in metres and construct a bar graph to show the results. Interpret the bar graph to answer questions. |
| 2 | 144 | Adding within 1000 | Number \& Algebra | Explore 3 different strategies to add two 3-digit numbers: use base 10 equipment to decompose and compose numbers; use vertical addition; use a number line. |
| 2 | 145 | Quadrilaterals | Measurement \& Geometry | Understand that shapes with 4 sides are called quadrilaterals. Identify quadrilaterals from a range of shapes. Identify how many sets of parallel lines a shape has and determine if it is a quadrilateral. |
| 2 | 146 | Subtracting within 1000 | Number \& Algebra | Explore 3 different strategies to subtract two 3 -digit numbers: use base 10 equipment to decompose and compose numbers; use vertical subtraction; use a number line. |
| 2 | 147 | Word Problems: Money | Number \& Algebra | Solve multi-step word problems that involve adding the cost of three items to find the total; determining how much more money is needed to buy an item; adding the cost of three items and giving change from $\$ 5$. |
| 2 | 148 | Mentally Adding and Subtracting | Number \& Algebra | Use strategies to mentally add and subtract 10 or 100 to or from a given number 100-900. |
| 2 | 149 | Area of Rectangles | Measurement \& Geometry | Revision of area. Partition rectangles into square units; count square units to measure area; compare the areas of 2 shapes; create shapes based on a given area. |
| 2 | 150 | Adding and Subtracting 4-digit Numbers | Number \& Algebra | Add and subtract up to four 2-digit numbers using a variety of strategies including vertical algorithms, number lines and related number facts. |

## Mathseeds Year 3: Lesson 151-200

Students learn to count to 10000 , using place value to order numbers. They explore number patterns created by adding and subtracting, including the Fibonacci Sequence. Students begin to learn the times tables, aiming to know all products of two single-digit numbers by the end of year 3. They also learn about the parts of a fraction and explore how fractions relate to each other.

Students investigate symmetry and area in 2D shapes and in real world contexts. They measure liquids in litres and millilitres, time in minutes, and mass in grams and kilograms. They recognise notes and coins, and find equivalent amounts of money and correct change.

| YEAR | LESSON NUMBER | LESSON NAME | CONTENT STRANDS | LESSON CONTENT OUTCOMES |
| :---: | :---: | :---: | :---: | :---: |
| 3 | 151 | $\begin{aligned} & \text { Counting } \\ & 1000-5000 \end{aligned}$ | Number \& Algebra | Order numbers on a number line, counting forwards and backwards in thousands, hundreds and tens. Order numbers from smallest to largest. |
| 3 | 152 | Symmetry | Measurement \& Geometry | Explore vertical and horizontal lines of symmetry. Identify images in the environment that are symmetrical. |
| 3 | 153 | Number Patterns 2 |  <br> Algebra | Identify addition and subtraction number patterns. Explore the Fibonacci Sequence and follow a rule to create a number pattern. Identify the rule to create a number pattern. |
| 3 | 154 | Litres \& Millilitres | Measurement \& Geometry | Introduce the litre and millilitre as units of measure. Understand that $1 \mathrm{~L}=1$ litre and $1 \mathrm{ml}=1$ millilitre, and that $1 \mathrm{~L}=1000 \mathrm{ml}$. Determine if a vessel holds more than, less than or is equal to 1 L . Read increments on measuring jugs in litres and millilitres to determine the amount of liquid there is. |
| 3 | 155 | Multiplication Revision | Number \& Algebra | Revise multiplication strategies including repeated addition, grouping items together and using the multiplication sign in a number sentence. Solve multiplication word problems using the 'create a picture' strategy to help visualise the problem. |
| 3 | 156 | $\begin{aligned} & \text { Counting } \\ & 5000-10000 \end{aligned}$ | Number \& Algebra | Model a number using base 10 equipment and match the number to its name. Place numbers on a number line and count forwards and backwards in thousands, hundreds and tens. Add $+1,+10,+100$ to a number. |
| 3 | 157 | Area 3 | Measurement \& Geometry | Count squares to measure area. Multiply the number of squares (length) by the number of squares (width). Multiply length $x$ width to find the area in $\mathrm{m}^{2}$. |
| 3 | 158 | Times Tables: $\times 2, \times 4$ | Number \& Algebra | Explore the $\times 2, \times 4$ tables. Identify patterns in a hundred chart and understand that $2 \times 2$ means two groups of two. |
| 3 | 159 | Money: Equivalent Amounts 2 | Number \& Algebra | Count collections of coins and notes to determine the value. Understand that the same amount can be presented in different combinations of currency. Match different currency combinations to a given amount. Find the correct change combinations from a given amount up to $\$ 50$. |
| 3 | 160 | Comparing \& Ordering Fractions | Number \& Algebra | Understand the role of the top and bottom numbers in a fraction, and use the term 'denominator'. Compare the sizes of fractions, including mixed numbers up to 2 . Order simple fractions and mixed numbers on a number line. Fractions used: $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}, \frac{1}{6}, \frac{1}{8}$. |
| 3 | 161 | Partitioning <br> Numbers |  <br> Algebra | Use place value to partition and rearrange numbers up to 9999. Recognise the value of each digit in 4 -digit numbers. Increase the value of numbers by addition, and compare values using mathematical symbols. |
| 3 | 162 | Time to the Minute | Measurement \& Geometry | Recognise that there are 60 minutes in an hour, and tell time to the nearest minute. |
| 3 | 163 | Equivalent Number Sentences | Number \& Algebra | Explore the connection between addition and subtraction using wholes and parts, related number facts and equivalent number sentences. |
| 3 | 164 | Maps | Measurement \& Geometry | Identify features and places on a simple map using basic coordinates and compass directions. |
| 3 | 165 | Division | Number \& Algebra | Revision of grouping and sharing using the division sign and related number facts. |
| 3 | 166 | Odd \& Even Numbers 2 | Number \& Algebra | Identify odd and even numbers using skip counting by twos on number lines and charts. Explore odd and even number patterns. |
| 3 | 167 | Chance 3 | Statistics \& Probability | Investigate different chance experiments. Identify outcomes and possibilities and record results. |

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## Mathseeds Year 3: Lesson 151-200

| YEAR | LESSON <br> NUMBER | LESSON NAME | CONTENT <br> STRANDS | LESSON CONTENT OUTCOMES |
| :---: | :---: | :---: | :---: | :---: |
| 3 | 168 | Multiplication <br> Word <br> Problems 2 | Number \& Algebra | Use multiplication facts and related number facts to solve a variety of word problems. Explore the use of different strategies to solve problems. |
| 3 | 169 | Prisms and Pyramids | Measurement \& Geometry | Identify prisms and pyramids and describe their key features. |
| 3 | 170 | Addition 3 |  <br> Algebra | Use vertical addition. Add two 3-digit numbers and introduce regrouping. |
| 3 | 171 | Times Tables 2: $\times 8$ |  <br> Algebra | Explore the 4 x and 8 x tables. Identify number patterns and investigate the associative property of multiplication. |
| 3 | 172 | Kilograms \& Grams | Measurement \& Geometry | Measure and compare the mass of objects using grams and kilograms. Use a range of operations to solve one-step word problems involving mass. |
| 3 | 173 | Mental + . Strategies | Number \& Algebra | Use the compensation strategy to add and subtract numbers mentally. |
| 3 | 174 | Data 3 | Statistics \& Probability | Collect data and draw a scaled picture graph. Solve one-step and two-step questions by interpreting the information presented in the graph. |
| 3 | 175 | Comparing Fractions of a Collection | Number \& Algebra | Investigate a half, a quarter, a third, a fifth and a tenth of a share. Understand that the denominator tells you how many groups to make. Compare quantities by comparing unit fractions with different denominators. |
| 3 | 176 | Times Tables 3: <br> Mental Facts |  <br> Algebra | Explore times tables, including the $3 x$ and $6 x$ tables. Identify number patterns and investigate the distributive property of multiplication. |
| 3 | 177 | Angles | Measurement \& Geometry | Understand that angles are properties of 2D shapes and measures of turn. Identify angles in the environment and compare their sizes. |
| 3 | 178 | Subtraction with Regrouping | Number \& Algebra | Apply place value to subtract two 3 -digit numbers. Use a variety of strategies to demonstrate regrouping when subtracting. |
| 3 | 179 | Comparing Times | Measurement \& Geometry | Compare the duration of an event, recognising that time can be recorded in minutes, seconds and hours. Understand the difference between am and pm time. |
| 3 | 180 | Equivalent Fractions |  <br> Algebra | Recognise equivalent fractions that are the same size or at the same point on a number line. Compare equivalent fractions. |
| 3 | 181 | Number Fact Families 2 |  <br> Algebra | Solve problems using the commutative property of multiplication. Recognise different number combinations that make number fact families when multiplying and dividing. |
| 3 | 182 | Metres, Centimetres \& Millimetres | Measurement \& Geometry | Measure and compare objects using metres, centimetres and millimetres. Recognise which unit of measure is the most appropriate for the situation. |
| 3 | 183 | Solving Word Problems | Number \& Algebra | Solve a variety of addition and subtraction word problems using different strategies. |
| 3 | 184 | Properties of 2D <br> Shapes | Measurement \& Geometry | Revise the different categories of 2 D shapes and group shapes according to their attributes. |
| 3 | 185 | Adding Fractions | Number \& Algebra | Add simple fractions that share the same denominator. Solve simple word problems. |
| 3 | 186 | Multiplication | Number \& Algebra | Use vertical multiplication. Multiply 1 digit by 1 digit, and 2 digits by 1 digit. |
| 3 | 187 | Creating Graphs | Statistics \& Probability | Collect data and draw a scaled bar graph. Solve one-step and two-step questions by interpreting the information presented in the graph. |
| 3 | 188 | Problem Solving | Number \& Algebra | Solve word problems that involve the four operations. Interpret the question and determine the appropriate operation to solve the problem. |
| 3 | 189 | Time Word Problems | Measurement \& Geometry | Solve word problems that focus on time. Use addition and subtraction to calculate time intervals in minutes. |
| 3 | 190 | Division 2 | Number \& Algebra | Recall division facts, and solve problems where there is an unknown quotient. |
| 3 | 191 | Fraction Word Problems | Number \& Algebra | Solve word problems that include finding the fraction of a collection of objects, equivalent fractions and adding fractions. |
| 3 | 192 | Perimeter | Measurement \& Geometry | Find the perimeter of a variety of shapes. Calculate perimeters of shapes where all sides are given, or where there is an unknown length. Investigate shapes that have different areas but the same perimeters. |

## Mathseeds Year 3: Lesson 151-200

| YEAR | LESSON | LESSON | CONTENT | LFSSON CONTENT OUTCOMES |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{3}$ | 193 | Multiplication 2 |  <br> Algebra | Use a variety of strategies to multiply one-digit numbers by multiples of 10. |











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## Driving Tests Mapped to the Australian Curriculum Kindergarten

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## Driving Tests Mapped to the Australian Curriculum Year 1

| Patterns and Fractions |  |  | Australian Curriculum |
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| 1 | Pattems | Select the next object for a pattern． | ACMN |
| 2 | Missing terms | Identify the missing term in a pattern． | ACMN |
| 3 | Halves | Find shapes cut into equal halves． | ACMNA016 |
| 4 | Idandify pattems | Select objects arranged in a pattern． | ACMNAO1B |
| 5 | Fractions of shapes | Select shapes cut into equal parts． | ACM |
| 6 | Fractions of <br> groups | Select groups equally divided． | ACMNAO16 |
| 1 | Count by 2 s | Identify the missing term in a $2 s$ pattern． | ACMNAO12 |
| 8 | Count by 58 | Identify the missing term in a 5s pattern． | ACMNA |
| 9 | Count by 10 s | Identify the missing term in a 10s pattern． | ACMN |
| 10 | Counting patterns | Identify the skip－counting pattern． | ACMNA018 |
| 11 | Fraction notation | Ifentify notation of $\frac{1}{2}$ and $\frac{1}{2}$ ． | ACMNAOIC |
| 12 | Place value patterns | Find the next term in a is or 10 s pattern． | ACMNAOO ${ }^{\text {a }}$ |
| 13 | Idendily frations | Match image with fraction notation． | ACM |
| 14 | Calaulate | Find frations of agroup． | ACMNAO16 |
| Data |  |  | Australian Curriculum |
| 1 | Table categories | Count tems ina table． | ACMSP263 |
| 2 | Tota table | Add to find the total in a table． | ACMSP263 |
| 3 | Intepretat atalia | Identify popularily by counting． | ACMSP2 |
| 4 | Surver question | Identify a question that might produce a table． | ACMSP |
| 5 | Will or won＇t | Determine the chance of events． | ACMSP024 |
| 6 | Most \＆least | Identify most and least by counting． | ACMSP263 |
| 1 | Mht | Determine the chance of events． | ACMSP024 |
| 8 | Certain or impossible | Deternine the possibility of events． | ACMSP024 |
| 9 | Compare categories | Count on to find the difference between categories． | ACMSP263 |
| 10 | Addallitems | Add to find the total in a graph | ACMS |
| 11 | Chance | 1 dentify chance of dice tolls． | ACMSP224 |
| 12 | Orider categories | Identify most and least by counting． | ACMSP263 |
| 13 | More or less | Count on to find the difference between categories． | ACMSP263 |
| 14 | Graph categores | Count categotes in a graph | ACMSP263 |
| 15 | Intepret a graph | Identify popularity by counting． | ACMSP20 |
| 16 | Graph question | Identify a question that might produce a graph． | ACMSP2 |



















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 ． 3 | Number lines | $\begin{array}{l}\text { Identify the missing } \\ \text { number in the sequence．}\end{array}$ |
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## Early Numeracy Development

Studies have shown that many young children have an intrinsic number sense and natural interest in mathematics. Cultivating this interest into a strong skill set is key for long-term mathematical success and is a primary goal for stakeholders. Research indicates that equipping learners with the necessary skills, strategies and tools requires substantial investment in systematic, explicit early-learning mathematics programs. Within these programs, content must address number sense and computation as these foundational building blocks underpin more complex skill sets in the future. Alongside number sense, a rigorous learning program should address other important competencies including algebra, geometry, measurement, data analysis and probability in a developmentally appropriate order. To help nurture the natural learning sequence, progress needs to be carefully monitored with timely, constructive feedback given to students and parents.

## The Key Elements of Mathseeds

Mathseeds is an interactive Web-based mathematics teaching and learning program for children Kindergarten through Grade 3. It has been carefully structured to support individual learning by combining the most effective pedagogical research on number sense; child development; learning styles; motivation; technology and key curriculum initiatives. In response to current best practice research, Mathseeds utilizes the following instructional design elements to benefit students:

- systematic and explicit teaching of mathematical content, skills and strategies
- an early and continued focus on number sense and mental computation to lay a strong foundation for more complex mathematical ideas
- a variety of instructional formats designed to suit individual learning styles
- short, focused activities set in meaningful contexts
- practice activities that build automaticity and fluency in number facts and operations
- repetition and revisiting of core ideas that build in complexity over time
- a wide range of motivational elements and fun rewards to engage young learners
- accessible from a wide range of computer devices, bridging the school and home environments


## Informing Research for Mathseeds

The Mathseeds White Paper includes a structured, in-depth review of contemporary pedagogical research on mathematics learning in today's classrooms. Research has shown that several principles and critical factors underpin the most effective mathematical pedagogy and instruction. Below is a summary of this research:

- Strong number sense is a precursor of future mathematical success. It is to mathematics what phonemic awareness is to reading. To nurture children's growing number sense, teachers need to provide safe learning environments where students can fully engage in activities.
- Several factors underpin the most effective instruction including motivation and engagement, building on students' thinking, making connections, structured lessons, tools and representations, feedback and assessment for learning.
- Students learn best when they are provided with short sessions, quick instructional pace and time to process new information.
- Not all children learn in the same way and programs should provide a variety of approaches to cater for these different styles.
- Motivation plays a key role in successful educational programs. Rewards positively reinforce achievement and encourage new learning to occur.
- Effective programs provide students with many opportunities for success and also challenge them to move forwards and extend their knowledge and achievements. Effectively assessing and personalizing instruction needs to be an integral part of the program's design.
- Technology needs to provide rich reporting data sets to inform teachers and other key stakeholders. This ensures that technology works alongside the best in-class learning programs.
Mathseeds has been built on best practice research alongside core curriculum initiatives, creating a program that is both educationally rigorous and highly motivating. Its lessons provide an engaging environment for young children. The instructional elements and interactive activities are set in contexts that are fun, meaningful and relevant for young children. Mathseeds has been carefully designed to maximize student learning and to equip students with the strongest foundation possible to achieve lifelong mathematical success.


## Teshnical Requirementis

## ABC Mathseeds Minimum System Requirements

## Desktop

- Windows Vista+
- Mac OS X $10.6+$
- Browsers: (for best performance, it's best to have the most recent version) - Safari
- Firefox (requires Flash for sound)
- Google Chrome
- Internet Explorer 9 and above


## Tablet

- iOS:
o iPad 2+
- iOS 6+
- Android:
- Supported on Samsung Galaxy Tab 2, Galaxy Tab 3, Nexus 7 and 10 running Jelly Bea OS 4.1 or above. - Must use Google Chrome browser.
- Not supported on Dell Venue 8, Kindle Fire, PendoPad or Thomson Tablet


## Troubleshooting Tips

Most problems with ABC Reading Eggs can be fixed by following the troubleshooting steps below. Try these steps in order. If one doesn't fix the problem, move onto the next one. If you need any help, please contact our friendly customer service team.

- Refresh your page.
- Ensure you have fixed line high speed broadband access.
- Ensure that you access the ABC Reading EGgs via the internet address bar and not through "shortcuts" or "favourites".
- Get the latest edition of Flash player click here.
- Delete your browsing history (temporary internet files/cache/cookies) as your computer may be continually memorising the same error. If you are not sure how to do this please click here for appropriate instructions.
- Upgrade your Internet browser to Google Chrome.
- Investigate whether you have a parental lock or antivirus software that is blocking the site. Ensure the following URL's have been added to your safe list.
* readingeggs.com
readingeggs.com.au
readingeggspress.com.au
student.readingeggspress.com.au
student.mathseeds.com.au


## Resulis

## We asked teachers what they felt about ABC Mathseeds and here's what they said:



Over 90\% of teachers shared that ABC Mathseeds complements their classroom maths lessons.


70\% of teachers shared that ABC Mathseeds met the needs of their students.


## To start a free trial or to order, contact 3P Learning today!



$\square$1300850331
schools@mathseeds.com.au
www.mathseeds.com.au/schools

## Students enjoy using ABC Mathseeds, and the program works well as an in-class reward activity.

"When first starting my students on ABC Mathseeds, I immediately saw engagement and enthusiasm due to the high level of motivating tools that are on ABC Mathseeds. This program is by far one of the best that we have tried in our classroom, and the level of excitement and willingness to learn and work that comes out of my students really shows how well put together this program really is!"

## Lyndsey C

"I love it and my students ask me to do ABC Mathseeds every day. They say it is 'cool' and 'the best maths games ever."'

## Kimberly H

> Your students will love the highly interactive and rewarding lessons!

Your local Mathseeds consultant is:
$\square$

