



Real learning, real maths, really fun!

USER GUIDE

**Step-by-step
instructions for how
to use the teacher
dashboard and pupil
site.**



**Developed by a highly experienced team
of teachers, educational writers, animators
and web developers — the same team that
created Reading Eggs.**

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0117 370 1990



contact@mathseeds.co.uk



www.mathseeds.co.uk/schools

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How to Get Started

Welcome to Mathseeds

This teachers guide provides step-by-step instructions for how to use the teacher dashboard and pupil site.

A. Registration

If you haven't already registered for a free trial, you will need to call 0117 370 1990 for a school code. Once you have a school code, please sign up using the form at <http://mathseeds.co.uk/schools/getstarted>. Once you register for a free trial via this form, it will take you directly to the teacher dashboard.

Please note: if you have a Reading Eggs subscription or free trial, a tab will appear at the top of the screen to switch between Reading Eggs and Mathseeds.

If your school has subscribed to Mathseeds and you are having trouble accessing the programme, please contact your school's subscription coordinator or contact us at **0117 370 1990** or **contact@mathseeds.co.uk** for login information.

B. Teacher navigation menu

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

Teacher Toolkit

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

Manage Class

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

Lessons

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

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

Report

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

Quick Links

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

The screenshot shows the Mathseeds Teacher Dashboard. At the top, there's a navigation bar with 'Reading' and 'Maths' tabs, the 'Mathseeds' logo, 'My Account', and 'Logout'. Below the navigation bar is a banner with the text 'Real learning, real maths, really fun!' and an illustration of a child with a pencil. The main content area is titled 'Welcome to Mathseeds' with 'Active students: 3'. It features several sections: 'Manage class' (with a 'Manage Class' button), 'Manage assignments' (with a 'Manage Assignments' button), 'Teacher toolkit' (with a 'View Toolkit' button), 'Reports' (with a 'View Reports' button), and a sidebar with a message about the school's subscription expiring on December 22nd, 2016. At the bottom, there's a footer with social media icons, a 'Home - About - Contact - Privacy Policy' link, copyright information, and a 'back to top' link.

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Manage Class

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



A. Adding pupils to your class

There are three ways you can add your pupils:

- 1. To add new pupils,** enter their "First Name," "Last Name" and "Year." Then click "Go."

Add students to your class

Create new student

First Name Last Name Year Go

Move students into your class

Export student data

Copy students from your Reading Eggs class

Upload a CSV Download a sample file

Print
Login details
Parent letters
Mathseeds certificates

Class Options
Games ON
Playroom ON

- 2. To move pupils into your class** from a different class in your school, click "Move pupils into your class." Then check the boxes next to the pupil's name and click "Add to my class."

Remove from class Edit Password Edit Grade

Search

First Name Last Name Username Grade

Did you know you can print pupil details? Once you have added all your pupils to your class, you can print their login details via a PDF to use in the classroom or hand out individual logins to pupils.

- 3. To copy pupils** from your existing Reading Eggs class (applies to those who have Reading Eggs accounts), click "Copy pupils from your Reading Eggs class."

B. Editing individual pupils

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

Please note: to select your entire class, click here.

	First Name	Last Name	Username	Grade	Edit
<input type="checkbox"/>	tania	yelper	tania104	2	
<input type="checkbox"/>	Olivia	Atkinson	olivia4549	3	
<input type="checkbox"/>	Adam	Bronson	adam2111	2	

Simply edit all of the details below and click "Update Pupil."

Manage students

Edit student

* First Name Olivia

* Last Name Atkinson

Year 4

* Login olivia4549

* Password into18

Password Confirmation Password confirmation

External Student ID

Cancel Update Student

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Manage Class

C. Editing multiple pupils

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

1. Remove from my class

Click this button to remove these pupils 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 pupils.

3. Edit year

Click "Edit Year" to edit multiple pupils' years. This tool will make it easier to move pupils to the next year at the start of the school year.

The screenshot shows a table of pupils with columns for First Name, Last Name, Username, and Grade. Row selection checkboxes are present in the first column. Three red arrows point from the numbered sections above to the 'Remove from class' button, the 'Edit Password' button, and the 'Edit Grade' button respectively. A fourth red arrow points from the 'Edit Grade' button to the 'Edit Grade' modal window shown above the table.

	First Name	Last Name	Username	Grade	
<input checked="" type="checkbox"/>	Tania	Yelper	tania104	2	<button>Edit</button>
<input type="checkbox"/>	Olivia	Atkinson	olivia4549	3	<button>Edit</button>
<input type="checkbox"/>	Adam	Bronson	adam2111	2	<button>Edit</button>
<input type="checkbox"/>	Ella	Bullard	ella4554	3	<button>Edit</button>

Manage Lessons

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

A. Editing individual pupils

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

The screenshot shows a table of pupils with columns for First Name, Last Name, Grade, and Mathseeds. Row selection checkboxes are present in the first column. An 'Edit' button is located in the last column of each row. To the right, a modal window titled 'Editing Student Olivia Atkinson's progress' shows a login field with 'oliviat549', a dropdown for 'Choose a lesson' set to 'No Change', and a 'Save Progress' button.

	First Name	Last Name	Grade	Mathseeds	
<input type="checkbox"/>	Olivia	Atkinson	3	Placement Test	<button>Edit</button>
<input type="checkbox"/>	Adam	Bronson	2	Placement Test	<button>Edit</button>
<input type="checkbox"/>	Ella	Bullard	3	Placement Test	<button>Edit</button>

Manage progress

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

Editing Student Olivia Atkinson's progress

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Manage Lessons

B. Editing multiple pupil's lessons

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

The screenshot shows the 'Manage Lessons' page. At the top, there are filters for 'First Name', 'Last Name', 'Grade', and 'Mathseeds'. Below is a table of student data:

First Name	Last Name	Grade	Mathseeds	Action
<input checked="" type="checkbox"/> Olivia	Atkinson	3	Placement Test	
<input type="checkbox"/> Adam	Bronson	2	Placement Test	
<input checked="" type="checkbox"/> Ella	Bullard	3	Placement Test	
<input type="checkbox"/> Isabella	Cobb	3	Placement Test	
<input type="checkbox"/> Annabelle	Fleming	3	Placement Test	

A red box highlights the 'Edit' button for Ella. To the right, a 'Change Progress' dialog box is open, showing a dropdown menu set to 'No Change'. Buttons for 'Cancel' and 'Update' are at the bottom.

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

Preview Class

1. To preview Mathseeds lessons, go to the left-hand navigational bar and click "Lessons." From the drop down menu select "Preview Lessons".

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



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

The screenshot shows the 'Mathseeds Lessons' page. At the top, there are filters for 'Search by lesson, word or skill' and 'Active students: 11'. Below is a grid of lessons:

Lesson	Number	Action	Action
Lesson 1	Number 1		
Lesson 2	Number 2		
Lesson 3	Number 3		
Lesson 4	Number 4		
Lesson 5	Number 5		
Lesson 6	Number 6		

A red box highlights the 'Preview' button for Lesson 2. To the right, a detailed view of Lesson 2 is shown, including the title 'Lesson 2 - Number 2', a preview image, and resource links for 'Student PDF' and 'Teacher PDF'.

2. Click "Resources" to choose between pupil and teacher lesson plan.

Lesson 2 - The number 2

Learning objectives

- Identify the numeral 2 and its associated words.
- Count and recognize groups of 2.
- Associate the number 2 with the quantity 2.

Statutory Framework for EYFS

Early Years Outcomes

- Recognise some numbers of physical objects.
- Count as they move from one object to the next.
- Select the correct numeral for 1 and 2 objects.

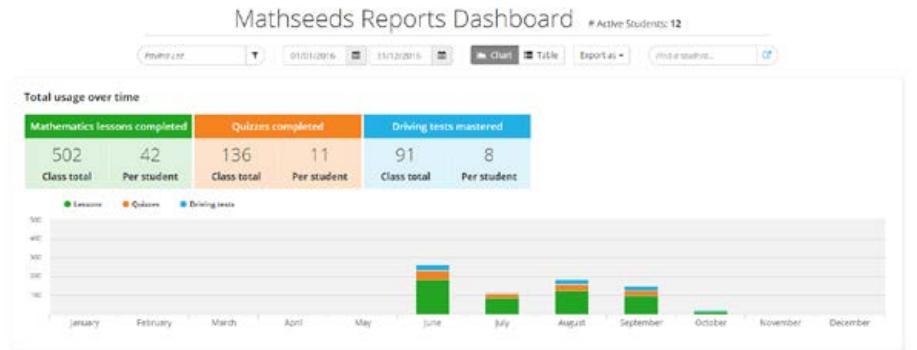
Key vocabulary

Mathematical language	Mathematical words	Real life context	Notes
Number	one, two, three, four, five, six, seven, eight, nine, ten	Counting objects	Identify the number 2 and its associated words.
Quantity	two	Counting objects	Associate the number 2 with the quantity 2.
Group	two	Counting objects	Select the correct numeral for 2 objects.

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Pupil Statistics

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



R-2 Teaching Resources

To see our current range of teaching resources, go to the left-hand navigational bar and click "Teacher Toolkit" and then select "R-2".

The page features a sidebar with links for Reading, Maths, Home, Teacher Toolkit, Manage Class, Lessons, Reports, and Quick Links. The main content area is titled "K-2 Teaching Resources — Posters". It includes sections for Data, Fractions, Geometry, Measurement, Money, and Number. Each section lists various topics with blue links. On the left, there is a "Posters" section with a thumbnail image of a colorful poster featuring an elephant and other animals.

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 year.

The page shows tabs for Kindergarten, Year 1, and Year 2. The Kindergarten tab is selected. Below the tabs, there are four rows of book covers for Kindergarten. Each row contains three books. The books are titled: "11 to 20", "3D", "A dish on the table", "Add Three Groups", "Add to Ten", "Add to Five", "Adding 2+2=4", "Addition 1-10", "At the Park", and "I'm Big". A red bracket on the left points to the tabs, and another red bracket on the right points to the book titles.

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Pupil Navigation

Pupils can create their own avatar with customised features and accessories.



Welcome,
Arden H

Over 150 highly interactive maths lessons which cover essential numeracy skills and concepts for Reception–Year 3.



Pupils will earn a certificate when they complete each map. These can be printed and displayed.

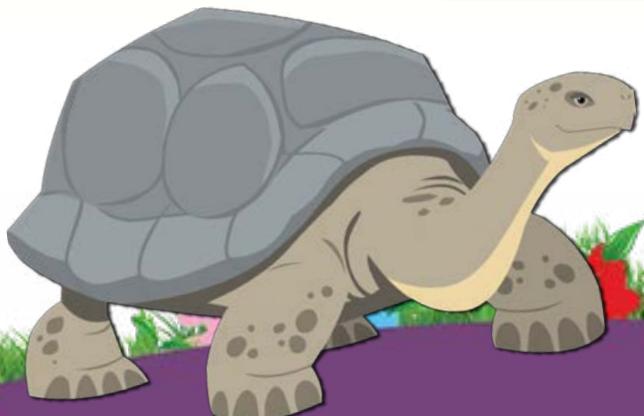
Awards



Shop

The Play area includes over 70 activities which explore numbers, shapes and patterns.

The Shop is where your pupils can purchase new avatar items and furniture using the golden acorns they earn in lessons!



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Bye

Driving Tests

Arcade

Treehouse

seeds

Pupils will earn golden acorns as they progress through the lessons. These can be used to purchase arcade games and shop items.

Hundreds of levelled assessment tests which reinforce skills covered in the lessons. After each test your pupils are awarded a fun racing car game.

Pupils will have their own Treehouse to decorate in their own style. They can also place their lesson pets here.

The Arcade features nine, fun, maths-based games which can be purchased using golden acorns.



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How Mathseeds Lessons Work

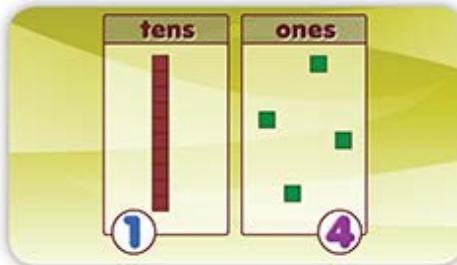
1. Teaching Sequence

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



2. Pupil Practice

Interactive screens give pupils the opportunity to practise new skills.



3. Mathseeds Songs

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



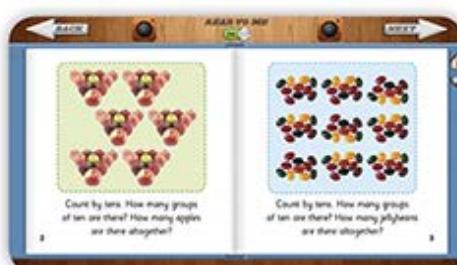
4. Mathseeds Activities

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



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

Pupils 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.



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Manage Teachers

Mathseeds Guide (Subscription Coordinator)

This guide will demonstrate how to:

- A. add teachers to your school
- B. remove a teacher from your school
- C. reset a password
- D. 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.

The screenshot shows the 'Manage Teachers' page with a title bar 'Manage Teachers' and a sub-header 'Add teachers to your school'. On the left is a navigation sidebar with 'Management' selected. The main area displays a table of teacher information with columns: First Name, Last Name, Login, Students, and Trial End Date. Each row has a 'Edit' button. The table data is as follows:

First Name	Last Name	Login	Students	Trial End Date
Rachel	Vella	teacher_us	33	N/A
Maria	Alice	subco_us	31	N/A
Rubius	Hagrid	hagrid@hogwa...	15	N/A
Michael	Roberts	ms_dt_teach...	10	N/A
Merryn	Twoop	merryntest	4	N/A
Adam	Mikulasev	teacher_adam	4	N/A
Kelly	Park	kpark@rough...	2	N/A

A. Add a Teacher

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

The screenshot shows the 'Add Teacher' form with fields for First name, Last name, Email, and Email confirmation. The account type is set to 'Trial'. A red arrow points from the 'Management' section of the sidebar to the 'Add Teacher' form.

2. Enter the teacher's information

You will need to include their first and last name, email address, and account type. Their email address will become their username and they will receive an email that contains their login details.

First name	Last name	Email	Email confirmation	Account type
Rachel	Vella	teacher_us		Trial
Maria	Alice	subco_us		
Rubius	Hagrid	hagrid@hogwa...		
Michael	Roberts	ms_dt_teach...		
Merryn	Twoop	merryntest		

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Manage Teachers

B. Delete a Teacher

1. From the Manage Teachers page, select the teachers you would like to delete.

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

First Name	Last Name	Login	Students	Trial End Date	Action
Rachel	Vela	teacher_us	38	N/A	
Maria	Alice	subco_us	31	N/A	
Rubius	Hagrid	hagrid@hogwa...	15	N/A	
<input checked="" type="checkbox"/> Michael	Roberts	ms_dt_teach...	10	N/A	
Merryn	Twoop	merryntest	4	N/A	

C. Reset a Password

1. Select the teacher(s) who need their password(s) to be reset.

2. Click “Send password email.” The teacher will receive an email with details for how to reset their password.

First Name	Last Name	Login	Students	Trial End Date	Action
Rachel	Vela	teacher_us	38	N/A	
Maria	Alice	subco_us	31	N/A	
Rubius	Hagrid	hagrid@hogwa...	15	N/A	
<input checked="" type="checkbox"/> Michael	Roberts	ms_dt_teach...	10	N/A	
Merryn	Twoop	merryntest	4	N/A	

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.

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Manage Teachers

D. Edit Teacher Details

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

Manage Teachers

Active students: 103

Add teachers to your school

Add Teacher Add existing teachers Import Teachers Download a sample file

	First Name	Last Name	Login	Students	Trial End Date	Edit
<input type="checkbox"/>	Rachel	Vella	teacher_us	38	N/A	
<input type="checkbox"/>	Maria	Alice	subco_us	31	N/A	
<input type="checkbox"/>	Rubius	Hagrid	hagrid@hogwa...	15	N/A	
<input checked="" type="checkbox"/>	Michael	Roberts	ms_dt_teache...	10	N/A	
<input type="checkbox"/>	Merryn	Twoop	merryntest	4	N/A	
<input type="checkbox"/>	Adam	Mikulasev	teacher_adam	4	N/A	
<input type="checkbox"/>	Kelly	Park	kpark@though...	2	N/A	

2. Click the "Edit" button that appears on the right.

3. Edit their details and click "Update Teacher".

Edit Teacher

* Login	ms_dt_teacher@mailinator.com
* First name	Michael
* Last name	Roberts
* Email	ms_dt_teacher@mailinator.com
Password	Password
Password confirmation	Password confirmation
Accent	American accent
Receive emails	<input checked="" type="checkbox"/>
<input type="button" value="Cancel"/> <input type="button" value="Update Teacher"/>	

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Content Overview

Mathseeds Reception: Lesson 1–50

Pupils learn fundamental number skills including number recognition, number words and counting. Pupils 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. Pupils learn to add to ten and their doubles facts to double five.

Pupils 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. Pupils 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	DOMAIN	LESSON CONTENT
R	1	Number 1	Number & Place Value	Count to 1. Know, read and write the numeral 1. Read the word one. Represent a number of objects with a written number.
R	2	Number 2	Number & Place Value	Count to 2. Know, read and write the numeral 2. Read the word two. Represent a number of objects with a written number.
R	3	Number 3	Number & Place Value	Count to 3. Know, read and write the numeral 3. Read the word three. Represent a number of objects with a written number.
R	4	Circles	Properties of Shapes	Name circles in the environment. Sort shapes. Name circles in different orientations and sizes.
R	5	Number 4	Number & Place Value	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.
R	6	Squares	Properties of Shapes	Name squares in the environment. Sort shapes. Name squares in different orientations and sizes.
R	7	Number 5	Number & Place Value	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.
R	8	Colours		Copy, continue and create patterns with objects and drawings. Identify colours. Match objects to colour name. Identify colours when two primary colours are mixed.
R	9	Triangles	Properties of Shapes	Name triangles in the environment. Sort shapes. Name triangles in different orientations and sizes.
R	10	Numbers 1-5 Revision	Number & Place Value	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.
R	11	Number 6	Number & Place Value	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.
R	12	Number 7	Number & Place Value	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.
R	13	Big and Small	Measurement	Compare objects. Use measurement language to describe objects.
R	14	Number 8	Number & Place Value	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.
R	15	Rectangles	Properties of Shapes	Name rectangles in the environment. Sort shapes. Name rectangles in different orientations and sizes.



Content Overview

Mathseeds Reception: Lesson 1–50

YEAR	LESSON NUMBER	LESSON NAME	DOMAIN	LESSON CONTENT
R	16	Numbers 1-8	Numbers	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.
R	17	Number 9	Numbers	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.
R	18	Zero, Ordering Numbers	Numbers	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.
R	19	Number 10	Numbers	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.
R	20	Numbers 1-10 Revision	Numbers	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.
R	21	Counting Back from 10	Numbers	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.
R	22	More, Less and the Same	Numbers	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.
R	23	2D Shapes	Shapes, Space and Measures	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.
R	24	Adding to 5	Numbers	Connect counting to addition. Model addition with objects. Write equations for addends to 5. Subitise small groups of objects in different formations.
R	25	Number Lines 1-10	Numbers	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.
R	26	Long and Short	Shapes, Space and Measures	Compare and order which is longer or shorter using everyday language. Use comparative language: big, small, short, tall, tallest, longest, shortest.
R	27	Patterns	Shapes, Space and Measures	Copy, continue and create patterns. Identify colours. Match objects to colour names.
R	28	Number Lines	Numbers	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.
R	29	Heavy and Light	Shapes, Space and Measures	Compare and order which is heavier or lighter using everyday language. Use comparative language: big, small, heavy, light, heavier, lighter.
R	30	Adding to 6	Numbers	Connect counting to addition. Model addition with objects. Write equations for addends to 6. Subitise small groups of objects in different formations.
R	31	Counting to 10	Numbers	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.
R	32	Add to 7	Numbers	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.
R	33	Number Words to 10	Numbers	Read the words: zero, one, two, three, four, five, six, seven, eight, nine, ten.



Content Overview

Mathseeds Reception: Lesson 1–50

YEAR	LESSON NUMBER	LESSON NAME	DOMAIN	LESSON CONTENT
R	34	Add to 10	Numbers	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.
R	35	The Cube & Sphere	Shapes, Space and Measures	Name cubes and spheres in the environment. Match and sort cubes and spheres. Identify objects that can be stacked and those that roll.
R	36	Adding to 10	Numbers	Connect counting to addition. Model addition with objects. Write equations for addends to 10. Find pairs of numbers that make 10.
R	37	Patterns 2	Shapes, Space and Measures	Copy, continue and create patterns.
R	38	Capacity	Shapes, Space and Measures	Use comparisons to decide which holds more or less. Use comparative language: full, empty, big, small, short, tall.
R	39	Time	Shapes, Space and Measures	Compare and order events using the everyday language of time.
R	40	Add to 10 on a Number Line	Numbers	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.
R	41	Numbers 11 & 12	Numbers	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.
R	42	Days of the Week	Shapes, Space and Measures	Connect days of the week to familiar events and actions.
R	43	Numbers 13, 14 & 15	Numbers	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.
R	44	The Cone & Cylinder	Shapes, Space and Measures	Name cones and cylinders in the environment. Match and sort cones and cylinders. Name cones and cylinders in different sizes.
R	45	Numbers 16 & 17	Numbers	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.
R	46	Numbers 18, 19 & 20	Numbers	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.
R	47	Number Lines to 20	Numbers	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.
R	48	Number Words 11-20	Numbers	Count to 20. Read number words to twenty.
R	49	Doubles to Double 5	Numbers	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.
R	50	Revision 0-20	Numbers	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.



Content Overview

Mathseeds Year 1: Lesson 51–100

Pupils learn to count to 100, order numbers and identify ordinal numbers to 10th. They develop an understanding of place value including regrouping. Pupils 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. Pupils learn how to skip count by 2s, 5s and 10s, as well as the early multiplication and division skills of grouping and sharing.

Pupils identify notes and coins, and use addition to find amounts of money. They explore fractions, focusing on wholes, halves and quarters. Pupils 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 half-hour. They work with early chance concepts, tally charts and simple pictograms.



YEAR	LESSON NUMBER	LESSON NAME	DOMAIN	LESSON CONTENT
1	51	Addition to 10 with Two and Three groups	Addition & Subtraction	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	Properties of Shapes	Recognise and classify familiar two-dimensional shapes. Compose two-dimensional shapes. Match two-dimensional shapes to their names. Identify shapes as two-dimensional or three-dimensional.
1	53	Subtraction 1	Addition & Subtraction	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	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	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	Addition & Subtraction	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	Position & Direction	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	Addition & Subtraction	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	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 & Place Value	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	Fractions	Partition objects into halves. Identify and colour one half of different 2D shapes. Recognise to share equally between two, each share is one half. Read fraction notation.
1	62	Sorting and Grouping 3D Objects	Properties of Shapes	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.

Content Overview

Mathseeds Year 1: Lesson 51–100

YEAR	LESSON NUMBER	LESSON NAME	DOMAIN	LESSON CONTENT
1	63	Ordinal Numbers	Number & Place Value	Read and represent position using ordinal numbers in a sequence.
1	64	Money	Measurement	Count and order money. Solve addition problems using coins. Solve addition problems involving money.
1	65	Addition to 20	Addition & Subtraction	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	Fractions	Partition objects into halves and quarters. Identify and colour one half and one quarter of different 2D shapes. Recognise to share equally between two, three and four. Read fraction notation.
1	67	Counting 30-40	Number & Place Value	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	Addition & Subtraction	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	Properties of Shapes	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	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	Multiplication & Division	Share a collection of objects into two, three, four or six equals groups.
1	72	Doubles to Double 10	Addition & Subtraction	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	Compare and order which is heavier or lighter. Use comparative language: heavy, heavier, heaviest, light, lighter, lightest, balance.
1	74	Grouping	Multiplication & Division	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	Number & Place Value	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	Addition & Subtraction	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 2s & 5s	Number & Place Value	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	Position & Direction	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 & Place Value	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	Represent data with objects and drawings. Sort data and represent using tally marks. Understand one-to-one correspondence. Answer questions about data.



Content Overview

Mathseeds Year 1: Lesson 51–100

YEAR	LESSON NUMBER	LESSON NAME	DOMAIN	LESSON CONTENT
1	81	Counting 50-70	Number & Place Value	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	Measurement	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	Measurement	Solve addition problems involving money. Identify coins and notes. Match money to symbols: £, p. 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	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.
1	85	Find the Difference 2	Addition & Subtraction	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	Counting 70-100	Number & Place Value	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	Tell and write time in hours and half-hours. Use analogue and digital clocks.
1	88	Compare Tens	Addition & Subtraction	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	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	Addition & Subtraction	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	Addition & Subtraction	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	Addition & Subtraction	Solve addition problems involving money. Identify coins and notes. Match money using symbols: £, p. 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	Addition & Subtraction	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	Position & Direction	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	Addition & Subtraction	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.



Content Overview

Mathseeds Year 1: Lesson 51–100

YEAR	LESSON NUMBER	LESSON NAME	DOMAIN	LESSON CONTENT
1	96	Bridging to Ten	Addition & Subtraction	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	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	Addition & Subtraction	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	Properties of Shapes	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	Addition & Subtraction	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.



Content Overview

Mathseeds Year 2: Lesson 101–150

Pupils 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. Pupils develop addition and subtraction strategies including the ‘jump’ and ‘split’ methods, as well as vertical addition and subtraction. Pupils practice grouping and sharing, and use the multiplication and division signs. They learn how to find a fraction of a collection of items.

Pupils 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. Pupils tell time to the nearest 5 minutes and use a calendar to identify particular dates. They construct tally charts and pictograms, and interpret data in a variety of ways.



YEAR	LESSON NUMBER	LESSON NAME	DOMAIN	LESSON CONTENT
2	101	Counting 100-500	Place Value	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	Position & Direction	Understand the effect of one-step slides, flips and turns. Know that moved objects do not alter size or features. Identify a quarter, half and three quarter turn. Tessellate shapes.
2	103	Adding 9	Addition & Subtraction	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	Estimate lengths using metres. Measure lengths using metres. Compare lengths. Use comparative language: more than 1m; 1m; less than 1m.
2	105	Partitioning Numbers to 1000	Place Value	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	Place Value	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 5s.
2	107	Chance 2	Statistics	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	Addition & Subtraction	Determine if a number is odd or even. Use rules to add odd and even numbers.
2	109	The Calendar	Measurement	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	Addition & Subtraction	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	Multiplication & Division	Share a collection of objects into two, three, four or six equal 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	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	Multiplication & Division	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 equal addends. Solve word problems by grouping and counting.



Content Overview

Mathseeds Year 2: Lesson 101–150

YEAR	LESSON NUMBER	LESSON NAME	DOMAIN	LESSON CONTENT
2	114	Quarter to and Quarter past	Measurement	Tell time to the quarterhour. 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	Multiplication & Division	Recognise multiplication as repeated addition, groups and arrays. Write an equation using signs: \times , $=$. Use language of multiplication: groups of, multiply. Multiply groups by 1, 2, 3, 4, 5.
2	116	Volume	Measurement	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 & Place Value	Skip count forwards and backwards by threes, fives, tens, hundreds.
2	118	Word Problems: + and –	Addition & Subtraction	Solve addition word problems. Solve subtraction word problems.
2	119	The Rhombus	Properties of Shapes	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	Addition & Subtraction	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	Properties of Shapes	Recognise the top, front, side and base of 3D objects. Identify and count the numbers of vertices.
2	122	Comparing Numbers	Number & Place Value	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	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	Addition & Subtraction	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 Amounts of Money	Measurement	Match amounts with equivalent coins. Use 2 coins, 3 coins and 4 coins.
2	126	Measuring Centimetres	Measurement	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	Calculate how much time has elapsed between 2 specific times to the hour and half hour.
2	128	Addition 2	Addition & Subtraction	Use vertical addition. Add two-digit numbers with no regrouping and add 2 three-digit numbers with no regrouping.
2	129	Rounding Numbers	Number & Place Value	Use a number line. Identify the 'midpoint' and round numbers within 100 up or down to the nearest ten.
2	130	Word Problems: Multiplication	Multiplication & Division	Introduce multiplication word problems that use the strategy of 'creating a picture'.
2	131	Word problems: Working Backwards	Addition & Subtraction	Work backwards to solve a word problem. Use addition and subtraction number sentences.
2	132	Fractions	Fractions	Revise halves and quarters, and introduce the term 'eighths'. Identify items that have been cut into equals halves, quarters and eighths.



Content Overview

Mathseeds Year 2: Lesson 101–150

YEAR	LESSON NUMBER	LESSON NAME	DOMAIN	LESSON CONTENT
2	133	Number Patterns 1	Place Value	Identify a pattern in order to complete a number pattern: +2 pattern, -10 pattern, +100 pattern.
2	134	Subtract 3-digit Numbers	Addition & Subtraction	Practise vertical subtraction. Subtract two 2-digit numbers with no regrouping. Subtract two 3-digit numbers with no regrouping.
2	135	Comparing Mass	Measurement	Use non-standard units to measure the mass of different items. Count the units using tally marks. Present the information as a pictogram and interpret the graph.
2	136	The Division Sign	Multiplication & Division	Use the division sign. Share items between groups and divide using a number line.
2	137	Word Problems: Make a Table	Addition & Subtraction	Solve a word problem by organising information in a table.
2	138	Finding Fractions of a Collection	Fractions	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	Addition & Subtraction	Break a word problem into 2 separate sums. Focus on just addition, addition and subtraction sums, and just subtraction.
2	140	Revision	Addition & Subtraction	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 pictograms.
2	141	Word Problems: Length	Measurement	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	Addition & Subtraction	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	Statistics	Measure different lengths in cm and construct a bar chart to show the results. Interpret the bar chart to answer questions.
2	144	Adding within 1000	Addition & Subtraction	Explore 3 different strategies to add two 3-digit numbers: use base ten equipment to decompose and compose numbers; use vertical addition; use a number line.
2	145	Quadrilaterals	Properties of Shapes	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	Addition & Subtraction	Explore 3 different strategies to subtract two 3-digit numbers: use base ten equipment to decompose and compose numbers; use vertical subtraction; use a number line.
2	147	Word Problems: Money	Measurement	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	Addition & Subtraction	Use strategies to mentally add and subtract 10 or 100 to or from a given number 100-900.
2	149	Area of Rectangles	Measurement	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	Addition & Subtraction	Add and subtract up to four 2-digit numbers using a variety of strategies including vertical algorithms, number lines and related number facts.



Content Overview

Mathseeds Year 3: Lesson 151–200

Pupils learn to count to 10 000, using place value to order numbers. They explore number patterns created by adding and subtracting, including the Fibonacci Sequence. Pupils 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.

Pupils 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	DOMAIN	LESSON CONTENT
3	151	Counting 1000–5000	Number & Place Value	Order numbers on a number line, counting forwards and backwards in thousands, hundreds and tens. Order numbers from smallest to largest.
3	152	Symmetry	Properties of Shapes	Explore vertical and horizontal lines of symmetry. Identify images in the environment that are symmetrical.
3	153	Number Patterns 2	Number & Place Value	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	Introduce the litre and millilitre as units of measure. Understand that 1 L = 1 litre and 1 ml = 1 millilitre, and that 1 L = 1000 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	Multiplication & Division	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	Counting 5000–10 000	Number & Place Value	Model a number using base ten 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	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 m ² .
3	158	Times Tables: x2, x4	Multiplication & Division	Explore the ×2, ×4 tables. Identify patterns in a hundred chart and understand that 2 × 2 means two groups of two.
3	159	Money: Equivalent Amounts 2	Measurement	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	Fractions	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 Numbers	Number & Place Value	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	Recognise that there are 60 minutes in an hour, and tell time to the nearest minute.
3	163	Equivalent Number Sentences	Addition & Subtraction	Explore the connection between addition and subtraction using wholes and parts, related number facts and equivalent number sentences.
3	164	Maps		Identify features and places on a simple map using basic coordinates and compass directions.
3	165	Division	Multiplication & Division	Revision of grouping and sharing using the division sign and related number facts.



Content Overview

Mathseeds Year 3: Lesson 151–200

YEAR	LESSON NUMBER	LESSON NAME	DOMAIN	LESSON CONTENT
3	166	Odd & Even Numbers 2	Number & Place Value	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	Investigate different chance experiments. Identify outcomes and possibilities and record results.
3	168	Multiplication Word Problems 2	Multiplication & Division	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	Properties of Shapes	Identify prisms and pyramids and describe their key features.
3	170	Addition 3	Addition & Subtraction	Use vertical addition. Add two 3-digit numbers and introduce regrouping.
3	171	Times Tables 2: x8	Multiplication & Division	Explore the 4x and 8x tables. Identify number patterns and investigate the associative property of multiplication.
3	172	Kilograms & Grams	Measurement	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	Addition & Subtraction	Use the compensation strategy to add and subtract numbers mentally.
3	174	Data 3	Statistics	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	Fractions	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: Mental Facts	Multiplication & Division	Explore times tables, including the 3x and 6x tables. Identify number patterns and investigate the distributive property of multiplication.
3	177	Angles	Properties of Shapes	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	Addition & Subtraction	Apply place value to subtract two 3-digit numbers. Use a variety of strategies to demonstrate regrouping when subtracting.
3	179	Comparing Times	Measurement	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	Fractions	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	Multiplication & Division	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	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	Addition & Subtraction	Solve a variety of addition and subtraction word problems using different strategies.
3	184	Properties of 2D Shapes	Properties of Shapes	Revise the different categories of 2D shapes and group shapes according to their attributes.
3	185	Adding Fractions	Fractions	Add simple fractions that share the same denominator. Solve simple word problems.
3	186	Multiplication	Multiplication & Division	Use vertical multiplication. Multiply 1 digit by 1 digit, and 2 digits by 1 digit.
3	187	Creating Graphs	Statistics	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	Addition & Subtraction	Solve word problems that involve the four operations. Interpret the question and determine the appropriate operation to solve the problem.



Content Overview

Mathseeds Year 3: Lesson 151–200

YEAR	LESSON NUMBER	LESSON NAME	DOMAIN	LESSON CONTENT
3	189	Time Word Problems	Measurement	Solve word problems that focus on time. Use addition and subtraction to calculate time intervals in minutes.
3	190	Division 2	Multiplication & Division	Recall division facts, and solve problems where there is an unknown quotient.
3	191	Fraction Word Problems	Fractions	Solve word problems that include finding the fraction of a collection of objects, equivalent fractions and adding fractions.
3	192	Perimeter	Measurement	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.
3	193	Multiplication 2	Multiplication & Division	Use a variety of strategies to multiply one-digit numbers by multiples of 10.
3	194	Rounding to the Nearest 100	Place Value	Use a number line. Identify the 'midpoint' and round up or down to the nearest hundred.
3	195	Fluent Facts within 1000	Addition & Subtraction	Use a range of strategies to fluently add and subtract numbers up to and within 1000.
3	196	Division Word Problems	Multiplication & Division	Solve word problems that involve division. Interpret the questions and determine unknown quotients.
3	197	Whole Number Fractions	Fractions	Recognise that whole numbers can be written as fractions. Identify whole number fractions on a number line and compare sizes.
3	198	Measurement Data	Statistics	Measure items using centimetres and record data using a graph. Record measurements in whole numbers, halves and quarters. Interpret the results.
3	199	Fluent $\times \div$ within 100	Multiplication & Division	Use a range of strategies to fluently multiply and divide numbers within 100.
3	200	Area Problem Solving	Measurement	Interpret and solve problems involving area. Find the areas of various rectangles using an additive approach.



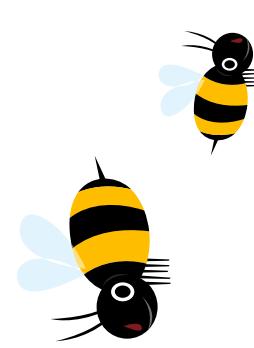
Driving Tests Overview Reception

Number	Operations	Patterns	Measurement	Geometry
1 How many? to 10	Count items for the total.	Picture addition to 5	Add groups of items together.	1 Object patterns Select the next object for a pattern.
2 Zero	Identify the number and numeral.	Subitise and add to 5	Recognise, subitise and add items.	1 Day and night Identify the time of day for an activity.
3 Count to 10	Select the right number of items.	Addition equations to 5	Addition number sentences.	2 Size Use comparison to measure size.
4 Numbers to 10	Identify numerals.	Match + number sentences	Identify an addition equation for a number.	3 Shape patterns Select the next shape for a pattern.
5 Count back	Count back to find a missing number in a series.	Manual addition to 5	Add without visual prompts.	4 Missing shapes Identify the missing term in a pattern of shapes.
6 Equal groups to 10	Match equal groups of items.	Subitise and add to 10	Recognise, subitise and add items.	5 Missing objects Identify the missing term in a pattern of objects.
7 Groups to 10	Count groups of items.	Picture addition to 10	Add groups of items together.	6 Missing colours Identify the missing term in a pattern of colours.
8 Compare to 10	Identify larger/smaller numbers.	Grouping	Counting groups of items.	7 Identify shape patterns Select shapes arranged in a pattern.
9 Sequence to 10	Identify a missing number in a series.	Making 10	Use ten frames for addition.	8 Identify object patterns Select objects arranged in a pattern.
10 Number words to 10	Match numerals and words.	Pairs of sums	Find equal number bonds to ten.	9 Identify colour patterns Select colours arranged in a pattern.
11 Teen numbers	Identify tens and ones to make teen numbers.	Addition equations to 10	Addition number sentences.	10 Height words Describe height.
12 Place value	Identify the number of tens and ones.	Mental addition to 10	Add without visual prompts.	11 Container weight Identify more or less capacity.
13 Numbers to 20	Identify numerals.	Difference to 5	Find the difference between two groups.	12 Weight words Count groups of items.
14 How many? to 20	Count items for the total.	Difference to 10	Find the difference between two groups.	13 Days of the week Identify the name of each day.
15 Count to 20	Select the right number of items.	Addition equations to 20	Addition number sentences.	14 Season order Order the seasons.
16 Sequence to 20	Identify a missing number in a series.	Subtraction to 5	Identify a subtraction equation for a number.	15 Capacity Add to find the total up to 20.
17 Number words to 20	Match numerals and words.	Subtraction to 10	Identify a subtraction equation for a number.	16 Capacity words Add to find the total in a table.
18 Groups to 20	Count groups of items.	Take away to 5	Use visual support to take away.	17 Time More and less for a table
19 Equal groups to 20	Match equal groups of items.	Take away to 10	Use visual support to take away.	18 Graph categories Find the difference between groups.
20 Compare to 20	Identify larger/smaller numbers.	Adding groups	Add doubles of items together.	19 Total of a graph Add to find the total.
21 Numbers to 30	Identify numerals.	Sharing	Share groups of items equally.	20 More and less for a graph Find the difference between groups.
22 Count to 30	Select the right number of items.	Subtraction sums to 5	Subtraction number sentences.	21 Compare graph categories Use comparative language.
23 Sequence to 30	Identify a missing number in a series.	Subtraction sums to 10	Subtraction number sentences.	22 Name 3D Match a shape to a name.
24 Ordinal numbers	Use symbols to show ordinal numbers.	Subtract to 5	Subtract without visual prompts.	23 3D objects Recognise 3D shapes in items.
25 Using ordinal numbers	Identify position using ordinal numbers.	Subtract to 10	Subtract without visual prompts.	24



Number

	Operations	Patterns and Fractions	Measurement	Geometry
1	Add to 10	Addition number sentences.	1 Patterns Select the next object for a pattern.	1 2D Match a name to a 2D shape.
2	Add 3 numbers	Addition number sentences with 3 addends.	2 Missing terms Identify the missing term in a pattern.	2 Corners Identify the number of corners.
3	Subtract to 10	Subtraction number sentences.	3 Halves Find shapes cut into equal halves.	3 Sides Identify the number of sides.
4	Count on	Recognise, subitise and add items.	4 Identify patterns Select objects arranged in a pattern.	4 Above & below Describe relative position of items.
5	Count back	Use visual support to take away.	5 Fractions of shapes Select shapes cut into equal parts.	5 Left and right Describe relative position of items.
6	Make 10	Rearrange parts to make 10 and solve addition more easily.	6 Fractions of groups Select groups equally divided.	6 Name 2D shapes Match a 2D shape to a name.
7	Compare to 50	Use the signs < and >.	7 Count by 2s Identify the missing term in a 2s pattern.	7 3D Match a name to a 3D shape.
8	Number words	Match numerals and words.	8 Count by 5s Identify the missing term in a 5s pattern.	8 3D surfaces Use surfaces to sort 3D shapes.
9	Place value to 50	Match visual of tens and ones with numeral.	9 Count by 10s Identify the missing term in a 10s pattern.	9 Composing shapes Identify shapes that can be used to form larger shapes.
10	Partitioning to 50	Count groups of tens and ones.	10 Counting patterns Identify the skip-counting pattern.	10 Defining 2D Identify defining attributes of 2D shapes.
11	Count back from 50	Identify the missing number in a descending sequence.	11 Fraction notation Identify notation of $\frac{1}{2}$ and $\frac{1}{4}$.	11 Follow directions Find the relative position of items in a grid.
12	Numbers to 70	Identify the number and numeral.	12 Place value patterns Find the next term in a 1s or 10s pattern.	12 Turns Identify left and right when using a map.
13	Order to 120	Select numbers sequenced correctly.	13 Identify fractions Match image with fraction notation.	13 Composite shapes Identify a new shape formed by two smaller shapes.
14	Reverse order to 50	Identify the correct descending sequence.	14 Calculate fractions Find fractions of a group.	14 Rotations Identify movements on a map.
15	Before & after	Select the number one before or after.	15 Add ones to a 2-digit number. Add ones to a 2-digit number.	15 Giving directions Give directions for a map.
16	Sequence to 120	Identify a missing number in a series.	16 Number fact families Relate addition and subtraction to solve problems.	16 Correct directions Identify turns using arrows.
17	Count to 120	Count groups of tens and ones.	17 Add to 2-digits Add decades to a 2-digit number.	17 Duration Estimate the most correct length of time for everyday events.
18	True or False	Use the signs < and >.	18 Make 10 to add Add ones to form a number on the decade.	18 Comparing capacity Identify where capacity is being measured correctly.
19	Partitioning to 120	Match groups of tens and ones with numerals.	19 Add tens Add numbers on the decade.	19 Measuring capacity Measure items using informal units.
20	Compare to 120	Identify missing number in a descending sequence.	20 Subtract tens Subtract numbers on the decade.	20 3D edges Classify 3D shapes using edges.
21	Number lines to 120	Identify the missing number in the sequence.	21 Most & least Identify most and least by counting.	21 3D corners Classify 3D shapes using corners.
22	Match numerals to 120	Match numerals and words.	22 Might Determine the chance of events.	22 More or less Count on to find the difference between categories.
23	Reverse order to 120	Identify the correct descending sequence.	23 Certainty or impossible Determine the possibility of events.	23 Chance Identify chance of dice rolls.
24	Place value to 120	Match visuals of hundreds, tens and ones with numeral.	24 Compare categories Count on to find the difference between categories.	24 Order categories Identify most and least by counting.
25	Compare to 120	Identify missing number in a descending sequence.	25 Add all items Add to find the total in a graph.	25 More or less Count on to find the difference between categories.
26	Number lines to 120	Identify the missing number in the sequence.	26 Graph categories Count categories in a graph.	26 Graph question Identify popularity by counting.
27	Match numerals and words	Match numerals and words.	27 Graph question Identify popularity by counting.	



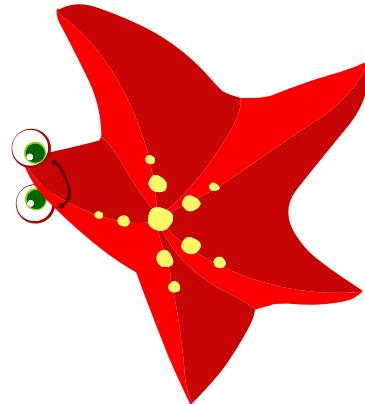
Number		Operations		Patterns and Fractions		Measurement		Geometry	
1	Numbers to 500	Identify the numeral for a 3-digit number.	Count on with a number line to add.	1	2s patterns	Identify the missing term in a 2s pattern.	1	Days	Identify days on a calendar.
2	Order to 500	Identify the correct sequence.	Add to 20	2	5s pattern	Identify the missing term in a 5s pattern.	2	Dates	Match dates to a marked calendar.
3	Number lines to 500	Identify the missing number in the sequence.	Odd or even	3	10s pattern	Identify the missing term in a 10s pattern.	3	Months	Identify number of days in a month.
4	Partition to 500	Count the number of hundreds, tens or ones.	Count back on the number line to subtract.	4	100s patterns	Identify the missing term in a 100s pattern.	4	Month order	Sequence months.
5	Numbers to 1000	Match number of hundreds, tens and ones to a numeral.	Subtraction number sentences.	5	Equal parts	Identify the number of equal shares in a shape.	5	Seasons	Match events to a season.
6	Order to 1000	Identify the correct sequence.	Making groups	6	Place value patterns	Find the next term in a 1s, 10s or 100s pattern.	6	Length and area	Identify the longest/shortest or is bigger/smaller.
7	Count to 500	Count groups of hundreds, tens and ones to find the total.	Add tens	7	Jump by 2s	Find the term in ascending and descending patterns.	7	Vertices	Match half and quarter past times.
8	Place value to 500	Match number word to numeral.	Adding arrays	8	Jump by 5s	Find the term in ascending and descending patterns.	8	Grid maps	Name shapes according to vertices.
9	Before and after to 500	Select the number one before or after.	Adding groups	9	Jump by 10s	Find the term in ascending and descending patterns.	9	Transitions	Find objects on a coordinate map.
10	Sequence to 500	Identify the next number in the sequence.	Repeated addition	10	Jump by 100s	Find the term in ascending and descending patterns.	10	Quadrilaterals	Sort quadrilaterals from other 2D shapes.
11	Count to 1000	Count groups of hundreds, tens and ones to find the total.	Equal groups	11	Wholes	Name the equal parts of a shape.	11	Turns	Identify flips, slides and turns.
12	Number lines to 1000	Identify the missing number in the sequence.	Groups	12	Fractions	Name the fraction a shape has been divided into.	12	Patterns	Identify the next turn for patterns.
13	Sequences to 1000	Identify the next number in the sequence.	Subtract tens	13	Describe patterns	Identify as a 1s, 2s, 5s, 10s or 100s pattern.	13	Directions	Give two-step directions for a map.
14	Compare to 500	Understand the meaning of < > and =.	Number line subtract	14	Fraction words	Use words to identify parts of fractions coloured.	14	Length units	Match items to rulers using cm or m.
15	Compare to 1000	Understand the meaning of < > and =.	Number line add	15	Fractions of groups	Identify a fraction of a divided group.	15	Length difference	Find the difference in cm between two objects.
16	Partition to 1000	Count the number of hundreds, tens or ones.	Add two-digits	16	Identify fractions	Match fraction notation to coloured fraction.	16	Season order	Sequence seasons.
17	Before and after to 1000	Select the number one before or after.	Subtract two-digits	17	Compare fractions	Match larger and smaller fractions.	17	Seasons & months	Match months to seasons.
18	Place value to 1000	Match number word to numeral.	Add three-digits	18	Compare numbers	Add a 2-digit and 2-digit number with a vertical algorithm.	18	Compare mass	Use two balance scales to find relative mass.
19	Expanded form to 500	Select the expanded form of a number.	Arrays	19	Balance scales	Identify the number of objects to balance the scales.	19	Tables	Identify tables showing data.
20	Expanded form to 1000	Select the expanded form of a number.	Linked sums to 100	20	am and pm	Relate addition and subtraction to solve problems.	20	Data displays	Identify data showing time.
21	Digit value to 500	Understand the meaning of digits in a number.	Subtract to 1000	21	Estimate lengths	Solve subtraction using Base 10 materials.	21	Certain and impossible	Identify the possibility of events occurring.
22	Digit value to 1000	Understand the meaning of digits in a number.	Doubles	22	Operations in length	Double groups of items to find the total.	22	Operations to find length totals.	Sort tables and graphs.
23	Number words to 500	Match numerals and words.	Add more numbers	23	Pictograms	Add three 2-digit numbers with a vertical algorithm.	23	Line plots	Identify graphs that represent data.
24	Words to 1000	Match numerals and words.	Add to 1000	24	Block diagrams	Solve addition using Base 10 materials.	24	Total items	Identify graphs that represent data.
25	Subtract three-digits	Use a subtraction algorithm for 3- and 2-digit numbers.	Subtract three-digits	25	Count categories	Relate addition and subtraction to solve problems.	25	Line plots	Identify and count categories in graphs.
26	Linked sums to 1000	Add one hundred, ten or one to a 3-digit number.	Mental addition	26	Interpret data	Add one hundred.	26	Count, check and classify data.	Add to find the total.
27	Mental addition	Solve addition using Base 10 materials.	Mental subtraction	27	Compare categories	Subtract one hundred, ten or one from a 3-digit number.	27	Compare categories	Count to find the difference between categories.



Driving Tests Mapped to the EYFS and National Curriculum

Reception

Number Tests		Year 1		Year 2	
Number Tests				Number Tests	
Number Tests				Number Tests	
Number		Operations Tests		Operations Tests	
Count from 1-20.	1-7, 11-15, 18, 19	Add & subtract 1-digit numbers.	1-7, 9-12	Addition and subtraction	Addition and subtraction
Order numbers 1-20.	9, 16	Count on or back to find the answer.	13, 14, 16, 17, 18, 19	Solve problems with addition and subtraction.	Solve problems with addition and subtraction.
Find one more or one less than a given number.	8, 20	Solve problems by doubling, halving and sharing.	8, 20, 21	Recall and use addition and subtraction facts fluently.	Recall and use addition and subtraction facts fluently.
Operations Tests		Operations Tests		Operations Tests	
Numbers		Number		Number	
Count forwards and backwards to 100.	2, 3, 4, 7, 11, 12, 13, 14, 16, 18, 20, 23	Number and place value	Number and place value	Number and place value	Number and place value
Identify one more and one less.	15	Identify, represent and estimate numbers.	1, 3, 4, 5, 7, 8, 11, 12, 16, 18, 19, 20, 21, 22	Compare and order numbers from 0 up to 100 and use <, > and = signs.	Compare and order numbers from 0 up to 100 and use <, > and = signs.
Identify and represent numbers using objects and pictorial representations.	1, 5, 6, 9, 10, 17, 19, 21, 24	Read and write numbers to at least 100 in numerals and in words.	2, 6, 9, 10, 13, 14, 15, 17, 23, 24	Read and write numbers to at least 100 in numerals and in words.	Read and write numbers to at least 100 in numerals and in words.
Operations Tests		Number		Operations Tests	
Patterns and Fractions Tests		Number		Number	
Patterns and Fractions Tests		Addition and subtraction		Addition and subtraction	
Recognise, create and describe patterns.	1-9	Interpret mathematical statements involving +, -, =, <, >.	10, 11	Solve problems with addition and subtraction.	Solve problems with addition and subtraction.
Geometry Tests		Fractions		Fractions	
Shape space and measures		Use number bonds and related subtraction facts within 20.	2	Add and subtract numbers using representations.	Add and subtract numbers using representations.
Explore everyday objects and shapes.	8	Add and subtract to 20.	1, 2, 3, 6	Recognise and use the inverse relationship between addition and subtraction.	Recognise and use the inverse relationship between addition and subtraction.
Measurement Tests		Fractions		Multiplication and division	
Shape space and measures		Use addition and subtraction problems using pictorial representations.	4, 5, 7, 9	Solve problems involving multiplication and division, using arrays and repeated addition.	Solve problems involving multiplication and division, using arrays and repeated addition.
Talk about size, weight, capacity, distance, time and money to compare quantities and objects and to solve problems.	7-12	Solve addition and subtraction problems involving missing numbers.	8, 12	6, 7, 8, 9, 10, 11, 12, 19	6, 7, 8, 9, 10, 11, 12, 19
Geometry Tests		Fractions		Multiplication and division	
Shape space and measures		Count in multiples of two, fives and tens.	7, 8, 9, 10, 12	Solve problems involving multiplication and division, using arrays and repeated addition.	Solve problems involving multiplication and division, using arrays and repeated addition.
Explore everyday objects and shapes.	1-8, 15-23	Recognise, find and name a half as one of two equal parts.	3, 5, 6, 11, 13, 14	6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17	6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Talk about position and distance to compare objects and to solve problems.	9-14	Recognise, find and name a quarter as one of four equal parts.	5, 6, 11, 13, 14	5, 11, 12, 14, 15, 16, 17	5, 11, 12, 14, 15, 16, 17
Data Tests		Measurement		Measurement	
Number		Compare lengths and heights, mass, capacity and volume.	2, 4, 11, 17	Compare and order lengths, mass, volume/capacity.	6, 8, 14, 18, 19, 21,
Count from 1-20.	1, 2, 3, 4, 5, 6, 10	Measure lengths, heights, mass, capacity and volume, time.	13, 14, 18, 19	Measure length/height, mass and capacity.	13, 15
Data Tests		Recognise and know the value of different denominations of coins and notes.	3, 5, 6, 7, 12	Recognise and use symbols for pounds (£) and pence (p).	9, 11
Number		Tell the time to the hour and half past the hour.	1, 8, 9, 10, 15	Find different combinations of coins that equal the same amounts of money.	12, 23, 24
Count from 1-20.				Compare and sequence intervals of time.	1, 2, 3, 4, 5, 16, 17,
				Tell and write the time to five minutes.	7, 10, 20
Geometry Tests		Geometry		Geometry	
Geometry Tests		Properties of shapes		Properties of shapes	
Geometry Tests		Recognise and name common 2-D and 3-D shapes.	1, 2, 3, 6, 7, 8, 10, 17, 18, 19	Identify and describe the properties of 2-D shapes.	4, 10
Position and direction		Describe position, direction and movement.	4, 5, 11, 12, 14, 15, 16	Identify and describe the properties of 3-D shapes.	3, 7
Position and direction				Identify 2-D shapes on the surface of 3-D shapes.	5, 6
Position and direction				Order and arrange combinations of mathematical objects in patterns and sequences.	12
Data Tests		Statistics		Statistics	
Number		Use mathematical vocabulary to describe position, direction and movement.	1, 2, 8, 9, 11, 13	Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.	4, 5, 7, 8, 9, 12
Count from 1-20.				Ask and answer questions by counting and sorting.	1, 10
				Ask and answer questions about totalling and comparing categorical data.	11, 13, 14



Foundational Research

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 programmes. Within these programmes, 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 programme 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 pupils and parents.

The Key Elements of Mathseeds

Mathseeds is an interactive Web-based mathematics teaching and learning programme for children Reception through Year 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 utilises the following instructional design elements to benefit pupils:

- 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 pupils can fully engage in activities.
- Several factors underpin the most effective instruction including motivation and engagement, building on pupils' thinking, making connections, structured lessons, tools and representations, feedback and assessment for learning.
- Pupils 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 programmes should provide a variety of approaches to cater for these different styles.
- Motivation plays a key role in successful educational programmes. Rewards positively reinforce achievement and encourage new learning to occur.
- Effective programmes provide pupils with many opportunities for success and also challenge them to move forwards and extend their knowledge and achievements. Effectively assessing and personalising 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 programmes.

Mathseeds has been built on best practice research alongside core curriculum initiatives, creating a programme 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 maximise pupil learning and to equip pupils with the strongest foundation possible to achieve lifelong mathematical success.



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Technical Requirements

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:
 - iPad 2+
 - iOS 6+
- Android:
 - Supported on Samsung Galaxy Tab 2, Galaxy Tab 3, Nexus 7 and 10 running Jelly Bean 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 Mathseeds 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 Mathseeds 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 school lock or antivirus software that is blocking the site. Ensure the following URL's have been added to your safe list.

*readingeggs.com

readingeggs.co.uk

mathseeds.co.uk

public.readingeggsassets.com

assets.readingeggsassets.com

books.readingeggsassets.com

student.mathseeds.com

api.readingeggs.com



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Results

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



98% of teachers shared they would **recommend** Mathseeds to other teachers.



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



70% of teachers shared that **Mathseeds met the needs** of their pupils.



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



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Pupils enjoy using Mathseeds, and the programme works well as an in-class reward activity.



"When first starting my pupils on Mathseeds, I immediately saw engagement and enthusiasm due to the high level of motivating tools that are on Mathseeds. This programme 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 pupils really shows how well put together this programme really is!"

Lyndsey C

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

Kimberly H

Your local Mathseeds consultant is:

“

Your pupils will love
the **highly
interactive and
rewarding** lessons!



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