

Mathletics

User Guide for Teachers



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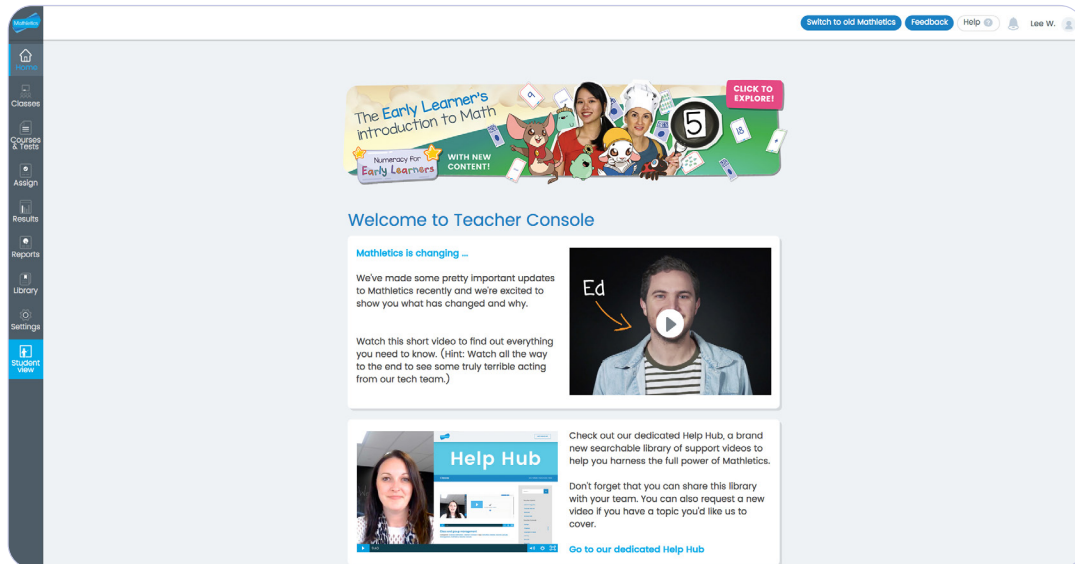
Una and Jiro's Number Journey

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Accessing Numeracy for Early Learners

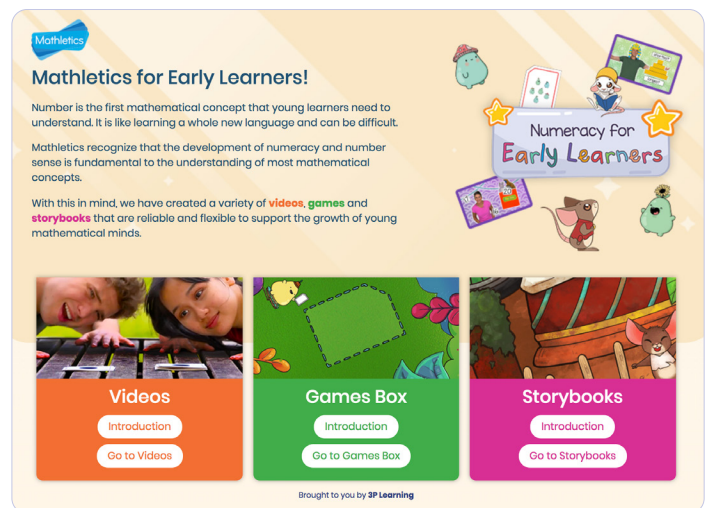
Numeracy for Early Learners is accessed from within the Teacher Console.

Simply select the tile located in the Teacher Console to open the Numeracy for Early Learners content page.



The Numeracy for Early Learners site consists of 3 different sections; Videos, Games Box and Storybooks.

- **Videos:** Over 15 videos that cover a range mathematical concepts, with lesson guides and printables.
- **Games Box:** Over 30 mathematical card games.
- **Storybooks:** 10 interactive storybooks that support the development of count and quantity skills, with teacher guides and worksheets.



Click the Introduction button for an overview of each section or select the Go to button beneath each section to jump straight in!

Numeracy for Early Learners is your collection of blended learning resources to teach foundational mathematics skills. Let's explore each offering and inclusions in more detail.



Jump into the Magic Mentor Videos!

Meet Ed, Emma and Joann; the first of the Mathletics Magic Mentors!



The Magic Mentors explore a range of mathematical concepts across a collection of 18 videos aimed at early learners. The topics covered include **Number, Measurement, Grouping and Sharing, Geometry and Data.**

Through art creation, game playing, monster slime and other relatable contexts, the Magic Mentors will keep your students engaged – laughing and learning from start to finish.

Every video has a teacher guide with additional support materials to help facilitate discussion during the video, and extend and consolidate understanding beyond the screen.



Choosing a Magic Mentor Video

On the Numeracy for Early Learners home page select [Go to Videos.](#)

Mathletics

Mathletics for Early Learners!

Number is the first mathematical concept that young learners need to understand. It is like learning a whole new language and can be difficult.

Mathletics recognize that the development of numeracy and number sense is fundamental to the understanding of most mathematical concepts.

With this in mind, we have created a variety of **videos**, **games** and **storybooks** that are reliable and flexible to support the growth of young mathematical minds.

Videos

Introduction

[Go to Videos](#)

Games Box

Introduction

[Go to Games Box](#)

Storybooks

Introduction

[Go to Storybooks](#)

Filters

When you arrive at the Videos page you will be presented with the entire collection of Magic Mentor Videos.

Use the filters at the top of the page to view only the videos relevant to the selected topic, and then select a video.

1 Choose a Topic

2 Select a Video

Videos

TOPICS

All Number Measurement Grouping and Sharing

Geometry Data

Addition within 5
Drawing and Imagination

Addition within 10
Building a city

Addition within 20
Beading, reading and cleaning

Counting to 5
You've got mail

Counting to 10
Shopping for 10

Counting to 20
Toy collections



Planning with Magic Mentor Videos

Once you have selected a Magic Mentor Video you will be presented with the video along with a teacher support guide specific to that video.

Before the video

- Practise counting up to 10 objects using one-to-one correspondence.

During the video

First viewing:
Watch the video without stopping or pausing. Afterwards, ask the children to explain what happened in the video. Begin to draw out key vocabulary or possible misconceptions.

Second viewing:

Pause point	Key learning	Action/discussion
1:40	Conservation of quantity	The tower has been turned on its side. Will it have the same number of blocks now?
4:28	Number bonds	How many different ways can we make a tower of 8?

After the video

Mathletics coloured block cards #1:

- Students count the number of blocks in the first coloured section and record this number.
- Students count the number of blocks in the second coloured section and record this number.
- Students count the total number of blocks and record the whole number sentence using informal language.

Mathletics coloured block cards #2:

- Students take one block card each.
- Ask students to find others with the same total of blocks on their card.
- Students share the number sentence showing on their card using informal language, eg 1 yellow block and 5 blue blocks make 6 blocks altogether.

Download block cards

Mathletics worksheets:

- Coloured blocks addition worksheet

Download worksheet

The teacher support guide outlines the **learning intentions**, **success criteria**, **prerequisites**, **language** and **misconceptions** in preparation for sharing a video with your class.

Before presenting a Magic Mentor Video, read the teaching notes and watch the video yourself.

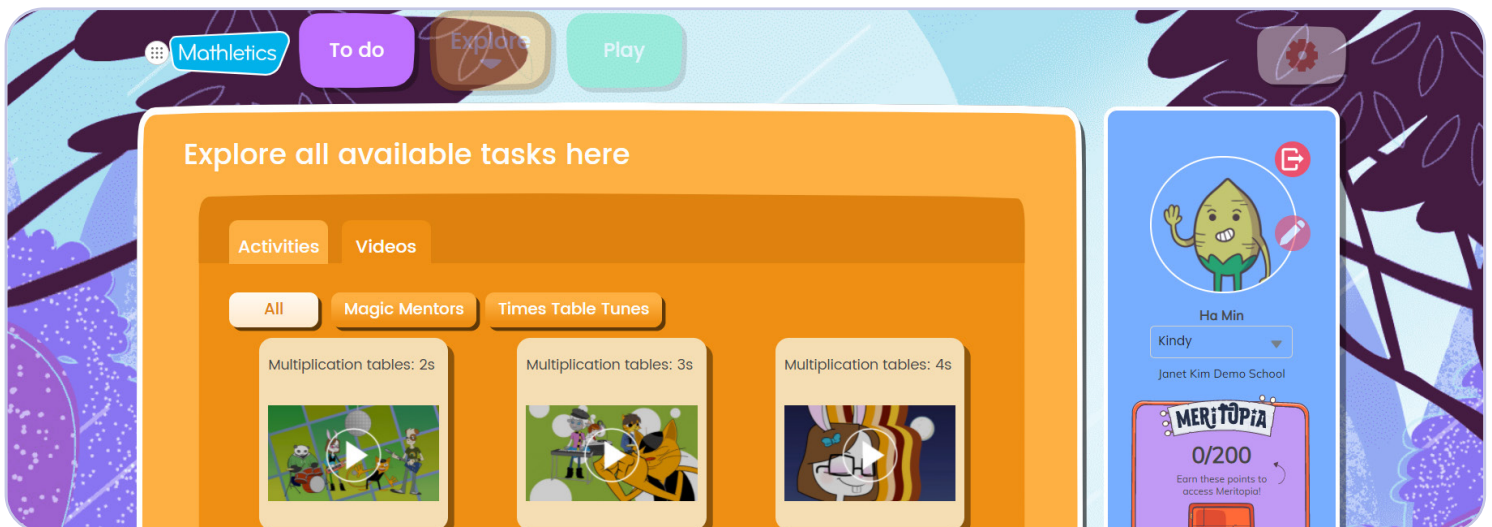
The guides also suggest introduction activities for **before** the video, pause points and opportunities for discussion **during** the video, and additional support materials such as worksheets and activities to extend and consolidate understanding **after** the video.

Download the printables and prepare any additional resources required for the follow-up activities.

Now you are ready to jump in and watch how the Magic Mentors can bring the magic into your classroom!

Student Console

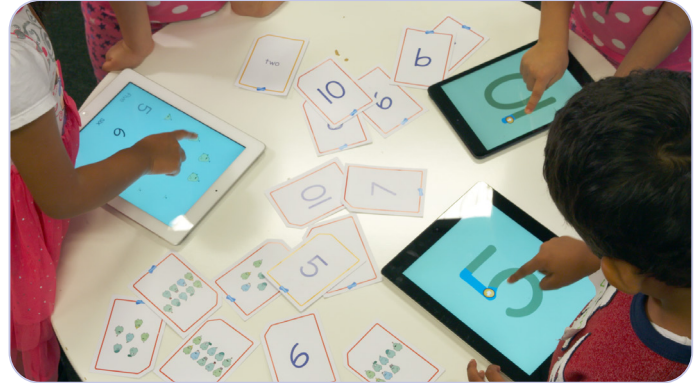
Students can also access the Magic Mentor Videos from within the primary Mathletics Student Console by selecting the Videos tab.



What's inside the Numbeanies Games Box?

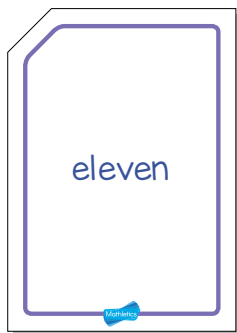
► Overview

The **Numbeanies Games Box** contains materials to teach numeracy concepts and include Mathletics cards and card games. These cards have been themed with cute, plant-based blobs called 'Numbeanies'. They are easy to count, fun to say and guaranteed to get students giggling.



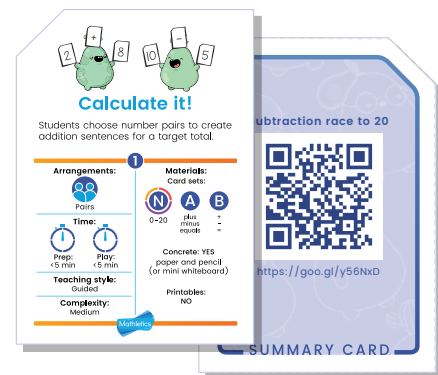
► Mathletics cards

There are 4 decks of 84 flashcards that are used in all the games.



► Card games

The **Numbeanies Games Box** contains over 30 card games and teacher guides that cover a variety of topics in numeracy – all contained in a central card games library.

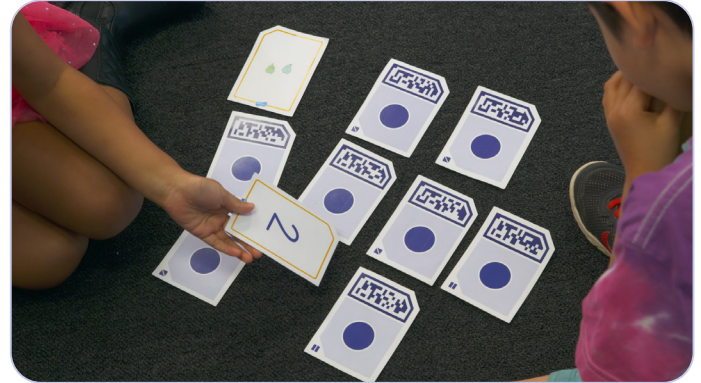


Mathletics cards

► Overview

All of the games in the Numbeanies Games Box make use of the Mathletics cards meaning you can print them once and use them multiple times for hours of learning. They have been designed to help you print, set up, play and pack up with ease.

There are 4 decks to download and print, each containing 84 cards. Within each deck, the Mathletics cards are then color coded into number ranges for easy sorting and game preparation.



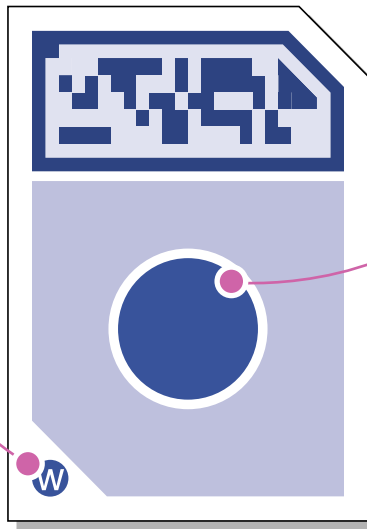
► Mathletics card design features

Back of card

Corner icon

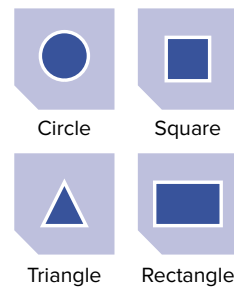
Represents the card set.

- N** **Mathletics number cards**
21 cards: Numerals 0 to 20
- A** **Operational word cards**
10 cards: makes, take away, minus, plus, added to, equals, is equal to, is more than, is less than
- W** **Mathletics word cards**
21 cards: Words zero to twenty
- B** **Operational symbol cards**
7 cards: =, +, -, ÷, x, <, >
- I** **Mathletics image cards**
21 cards: Images of Numbeanies to 20
- C** **Ordinal suffix cards**
4 cards: st, nd, rd, th



Shape symbol

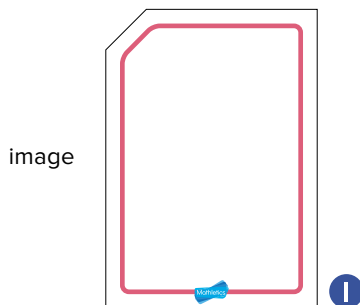
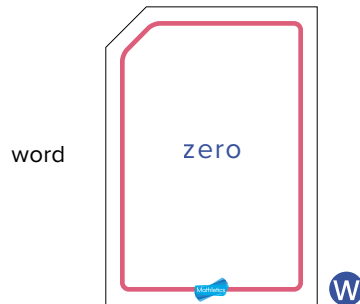
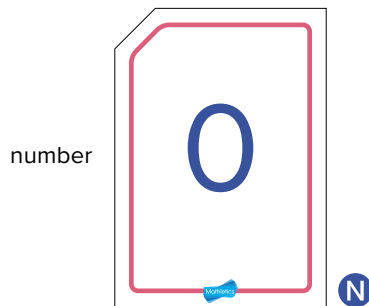
For easy sorting back into the original deck:



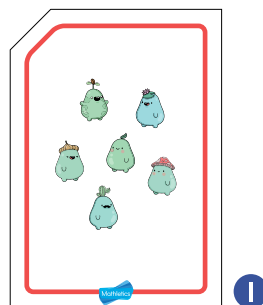
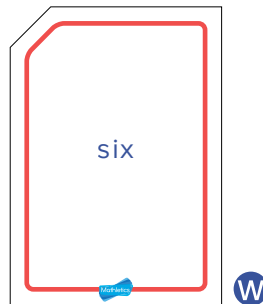
Mathletics cards

Front of card

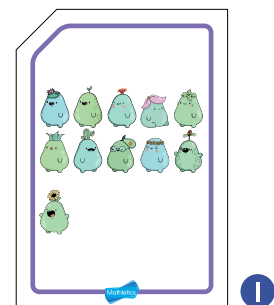
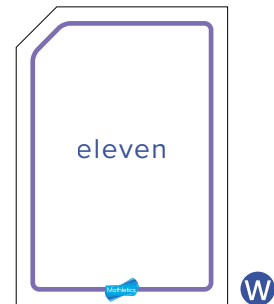
A **yellow** border represents card ranges from 0 to 5.



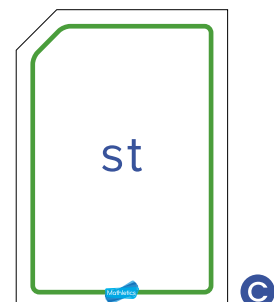
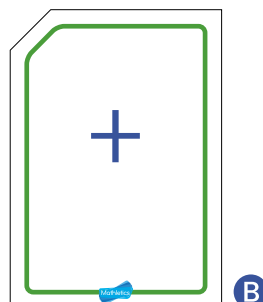
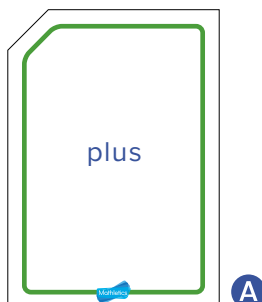
A **red** border represents card ranges from 6 to 10.



A **purple** border represents card ranges from 11 to 20.



Operational word, operational symbol and ordinal suffix cards have a **green** border.



Card games

► Overview

There are over 30 card games that teach a variety of numeracy concepts, all in one convenient and reliable place: the card games library.

The card games have been leveled from 0 to 2 to assist in selecting games that are suitable for your students. All the games have guides to support quick set up and play. They also include suggestions for differentiation and ways to assess understanding.

There are a number of ways to look for suitable games, each designed to make planning, preparation and play, easy and flexible.

Let's step through some ways to browse and find games.

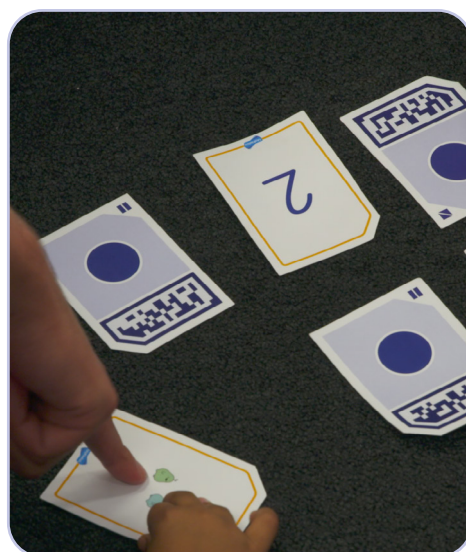
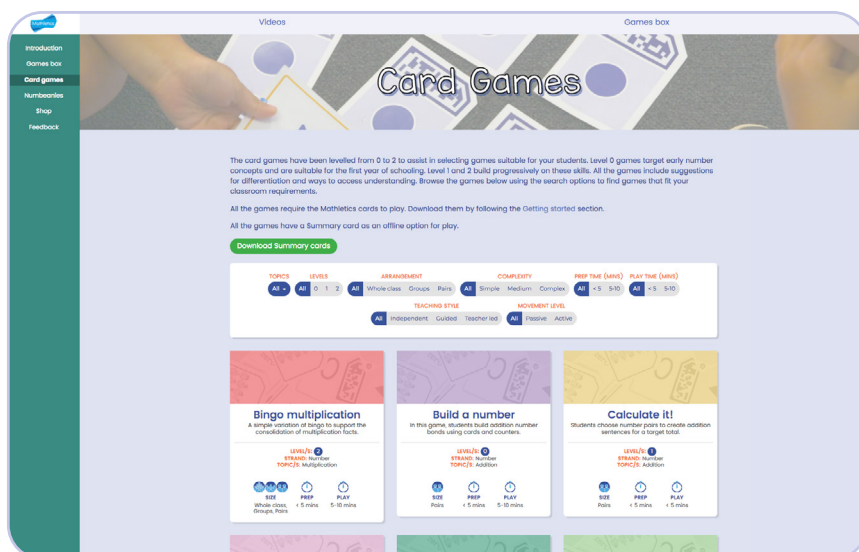
► Card games library

The card games library is an online method for browsing games to play. You can search on a computer, laptop or mobile device making planning convenient.

The library has a filter function that allows you to search for content that meets specific lesson requirements. Filter options include topic, level, arrangement, preparation time, play time, complexity, teacher dependency and movement level.

THE LESSON PLANNER

In this example a teacher is using the card games library to browse for games that meet specific lesson plan requirements. They are searching for card games that practice skills in **addition** for **level 1 students** with requirements including **quick preparation, 5 to 10 minutes** of play time and have **pairs** playing **independently** of the teacher.



Card games

► Teacher guides

The card games library provides teacher guides with sections that help in preparation, play and extension of games. The sections include learning outcomes, a list of materials, instructions on how to play, photographs, suggestions on how to differentiate the game and ways to assess student understanding.

► Summary cards

Every card game comes with a printable Summary card. The Summary card has information and materials needed for game play and can be used to encourage students to set up games independently.

However, the Summary cards also feature a QR code and URL for quick access to the extended online instructions and teacher guides. We recommend downloading the *QR Code Reader by Scan* application to read the QR code. They can be printed and stored in the classroom for a quick, hands-on method for browsing games.

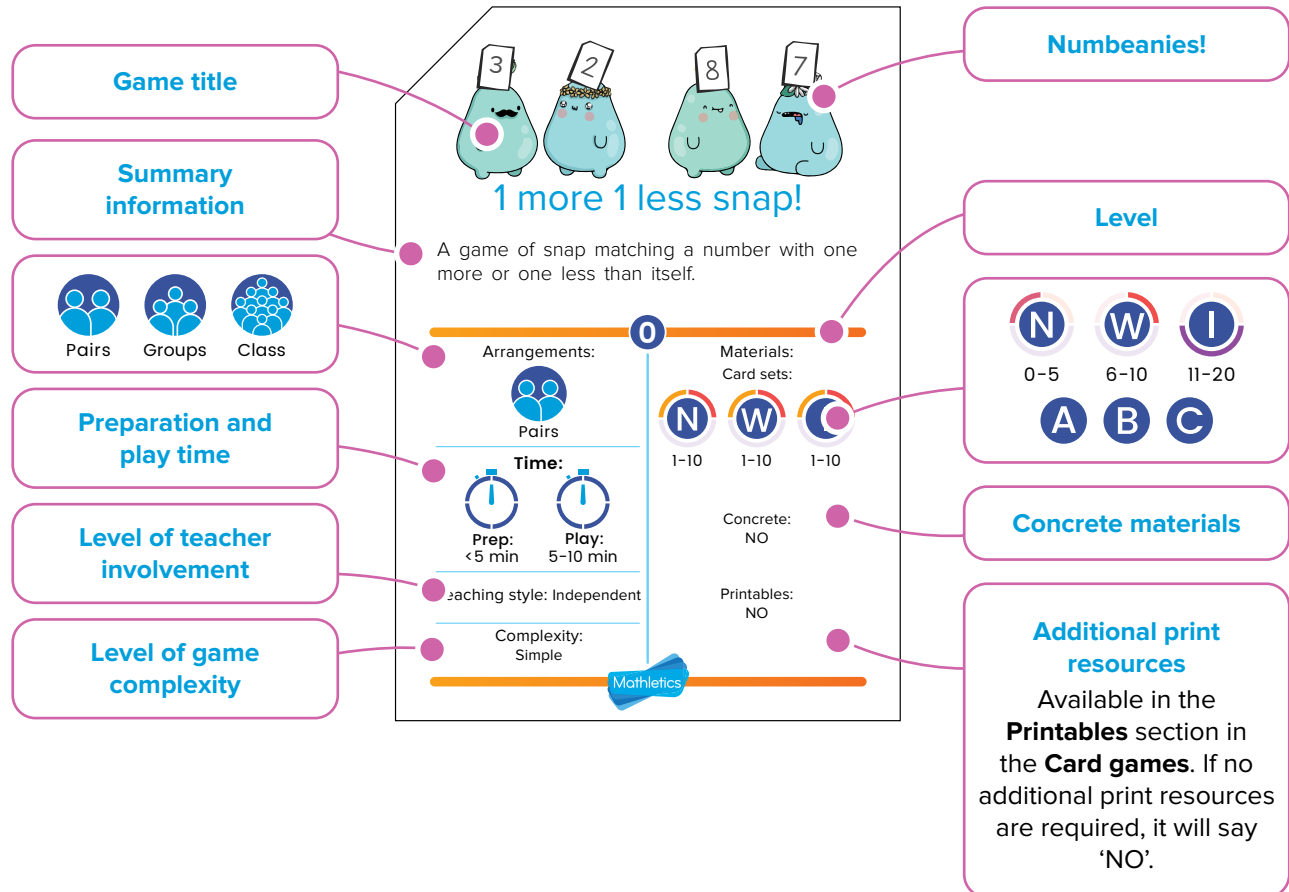
► Summary card design features

Back of card



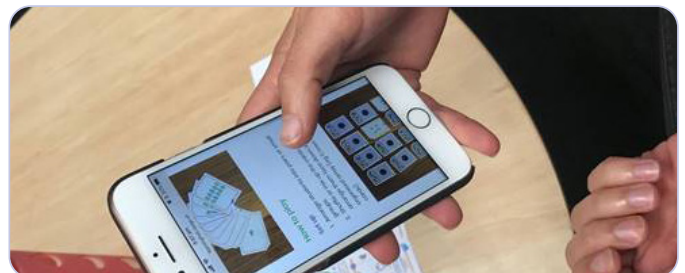
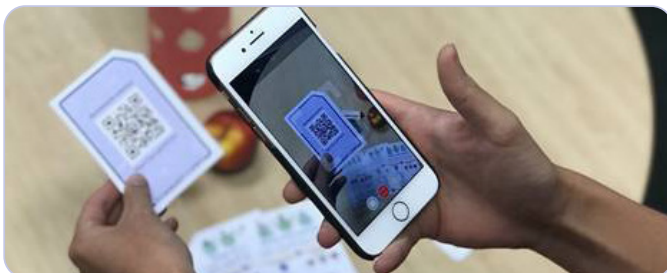
Card games

Front of card



THE LUNCHTIME BROWSER

In this example a teacher is using the Summary cards to browse for games during their lunch break. The teacher has found a game that meets their lesson requirements and is using the QR code to access the online instructions and teacher guides to further prepare.



Card games

THE QUICK THINKER

In this example a teacher is using the Summary cards to browse for games completely offline.

Two students have finished their work early, while others need more teacher support. With little time and no access to a device the teacher is using the summarized information on the Summary cards to find a card game that meets the requirements. These include simple in complexity, **quick preparation, 5 to 10 minutes** of play time, can be played in **pairs** and can be conducted **independently** of the teacher.



1 more 1 less snap!

A game of snap matching a number with one more or one less than itself.

Arrangements: Pairs	Materials: Card sets: 1-10 1-10 1-10
Time: Prep: <5 min Play: 5-10 min	Concrete: NO
Teaching style: Independent	Printables: NO
Complexity: Simple	





What is Una and Jiro's Number Journey?

► Overview

Una and Jiro's Number Journey is a package of resources to support the development of count and quantity skills in early learners, at the same time providing other teaching and learning opportunities. While some of the resources in the package are familiar, the experience is enhanced for students through story and interactivity.

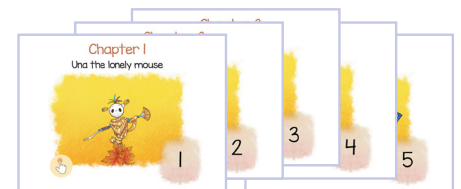
Meet **Una** and **Jiro** and their sidekick **Spot**.



We follow their journey along a winding river as they visit new places, meet new characters and discover numbers along the way.

► Interactive storybooks

This package currently contains 10 interactive storybooks which explore numbers 1 to 10.



► Printables

It includes a storybook themed Una, Jiro and Spot boat printable, number wall frieze, table reference frieze and worksheets to consolidate and expand on number knowledge and build on the storybook world.



► Teacher guides

Teacher guides outline key themes and opportunities for discussion related to the narrative and imagery in the interactive storybooks.



What is Una and Jiro's Number Journey?

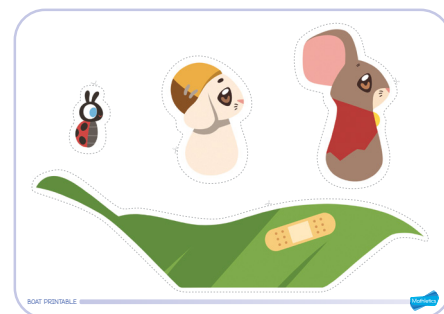
► Set up

Before starting **Una and Jiro's number journey**, display the number wall frieze at a level that all students can see. This can be all of the frieze from 1 to 10 or a single number. Introduce each number with a new storybook.

Cut out and laminate the Una, Jiro, Spot and boat printable, ready for the adventure that awaits.

In the storybooks, the adventurers are traveling down the river in their boat, meeting new and exciting characters and learning about numbers at each stop. The number frieze is the river and the boat marks the number of the storybook.

All aboard ... now your class is ready for **Una and Jiro's Number Journey**!



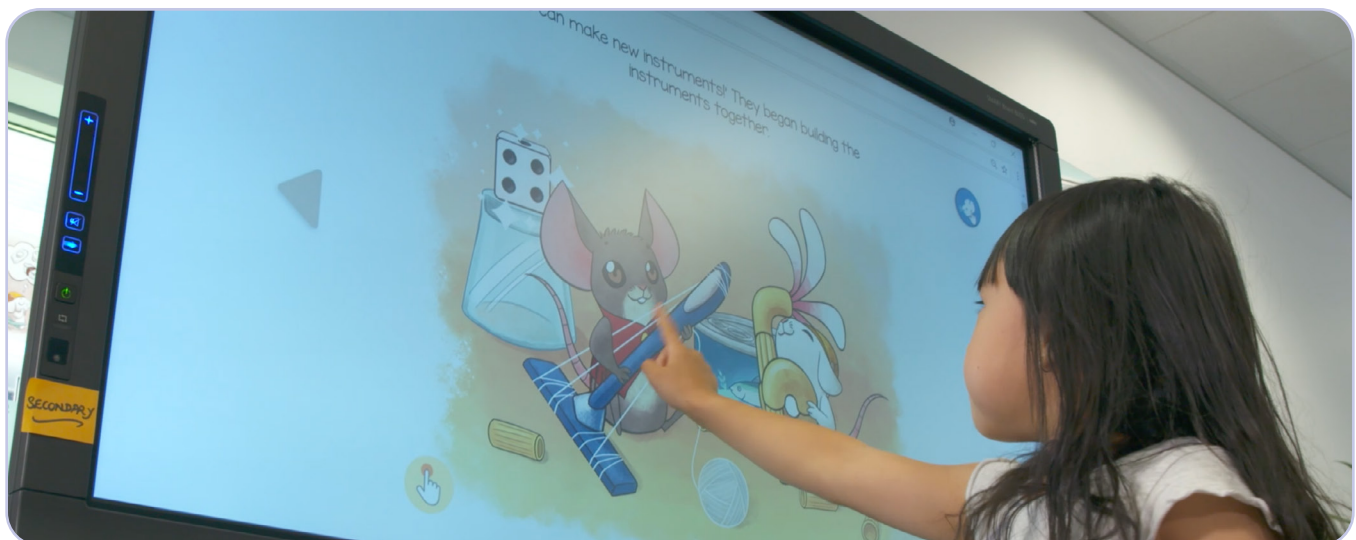
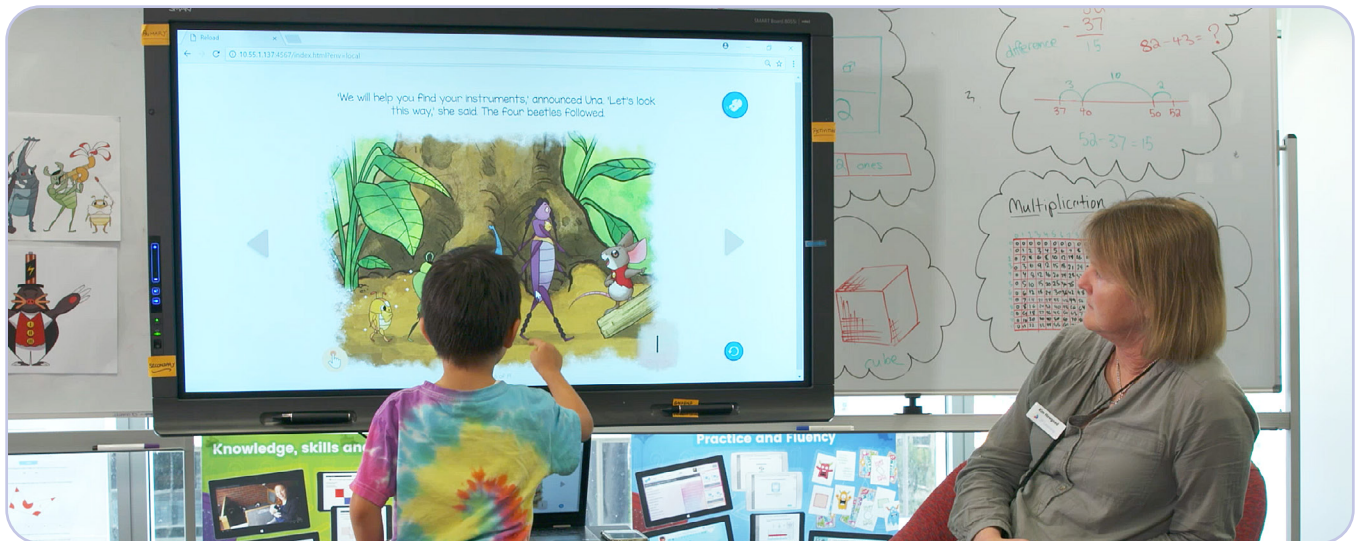


Interactive storybooks

► Overview

Currently there are 10 interactive storybooks. Each storybook explores a new number including various numerical representations, opportunities to count quantities both forward and backward and count objects in different arrangements. With narration and interactions in every storybook, students can actively explore numbers through auditory and visual feedback — making them feel part of the adventure.

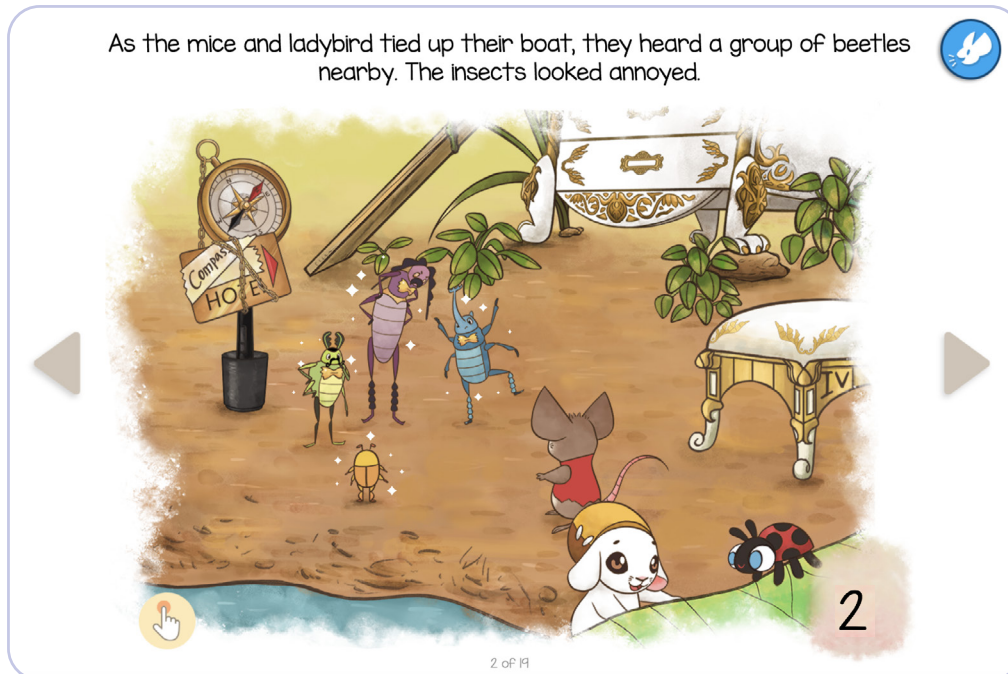
The interactive storybooks are intended to be played to a whole class on an interactive whiteboard. However, they can be listened to and played independently on an iPad with the help of the narration button.





Interactive storybooks

► Page features



	<p>The 'Next' and 'Previous' buttons will navigate through the pages of the book.</p>		<p>The 'Interaction sparkles' indicate the interactive zone/s on the page.</p> <p>Interaction types: Count: One-to-one Count: Sequence of actions Swap: Numerical representation</p>
	<p>The 'Narration' button will narrate the words on the page.</p> <p>The 'Narration' button will turn green when in use.</p>		<p>The 'Retry' button will appear once the interaction on the page has been completed and can be used to restart the interaction on the page.</p> <p>Note: The 'Retry' button will not appear on pages with the 'Swap: Numerical representation' interaction as this interaction is infinite.</p>
	<p>The 'Interaction' button indicates that the page is interactive.</p> <p>Interaction types: Count: One-to-one Count: Sequence of actions Swap: Numerical representation</p>		<p>The 'Number display' shows the count of interactions on the page as they are activated.</p> <p>Note: The 'Number display' will not appear on pages with the 'Swap: Numerical representation' interaction as this interaction is infinite.</p>



Interactive storybooks

► Types of interactions

In the interactive storybooks there are a few types of interactions which behave differently. Below is a description of each interaction type and an outline of what it will look like so you know what to expect.

One-to-one count interaction

Description: When there are 1 or more objects on a page to count, all interactive objects will have an 'interaction sparkle' — this is a **one-to-one count interaction**. Once selected, the objects will react or animate and the 'number display' will keep a count of the objects.

What it will look like: In this example, from Chapter 4, there are 4 beetles with the 'interaction sparkles'. Once selected, each beetle will animate and the 'number display' will keep count.



Sequence of actions count interaction

Description: When there is 1 object on the page with 'interaction sparkles', and after selection the 'interaction sparkles' remain — this is a **sequence of actions count interaction**. The 'interaction sparkles' will disappear once the object has completed a number of actions and the 'number display' will keep a count of the actions.

What it will look like: In this example, from Chapter 2, Una has the 'interaction sparkles'. Once selected, she will jump once, and on a second selection, will jump again. The 'number display' will keep count of the 2 actions and the page will carry out more animations.





Interactive storybooks

Numerical representation swap interaction

Description: When there is a numerical representation on the page with **'interaction sparkles'** — this is a **numerical representation swap interaction**. On selection it will swap to another numerical representation. This swapping loop is infinite. For this reason, the **'interaction sparkles'** will not disappear and the **'number display'** will not be present.

What it will look like: In this example, from Chapter 4, the **four representation** has the **'interaction sparkles'**. Once selected it will swap to the **4 representation** and will continue to swap infinitely on selection. There will be no **'number display'**.





Interactive storybooks

Numerical representations

Throughout the interactive storybooks there are a variety of opportunities to discuss and explore different numerical representations, counting forward and backward and in various arrays and patterns.



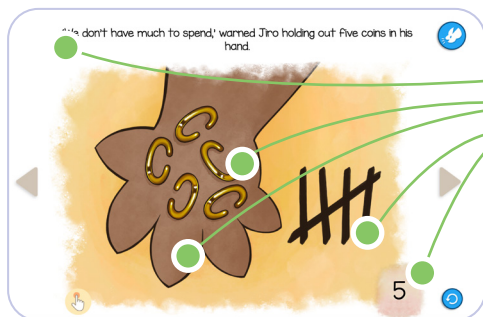
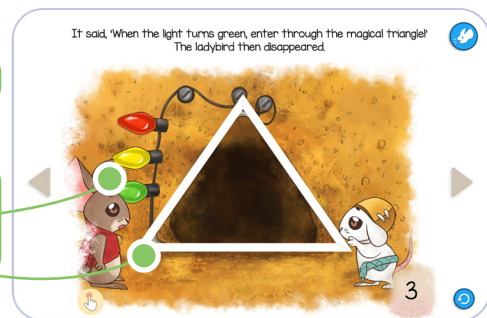
Word representations

Vertical arrangements



Dice patterns

Other representations,
eg sides of a triangle,
traffic lights



Word, numeral, tally,
fingers and coins

Tally patterns





Interactive storybooks

► Other teaching and learning opportunities

Throughout the interactive storybooks there are a variety of *other* teaching and learning opportunities embedded throughout the narrative and imagery.



Cultural

Example: Chapter 1 has a Japanese flag. The circle represents the Sun. No matter where you are in the world, there is only 1 Sun.



Literacy

Example: The narration button allows students to follow along with the words on the screen.



Social

Example: Chapter 2 explores social behaviors that are relevant to their age including working together and cooperation.



Cross curricular

Example: Chapter 4 involves music and Chapter 5 introduces the five senses.

► Teacher guides

Each storybook has a teacher guide that outlines key themes to provide opportunities for discussion related to the narrative and imagery.



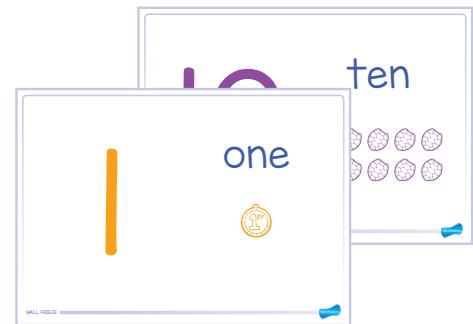
Support printables

► Overview

Una and Jiro's Number Journey provides support printables to consolidate and expand on skills in count and quantity. They are themed with characters and events from the storybooks to make them relevant and fun for the students.

► Wall frieze

Included in the package is a wall frieze with numbers 1 to 10 that shows collections of objects students explore in the interactive storybooks.



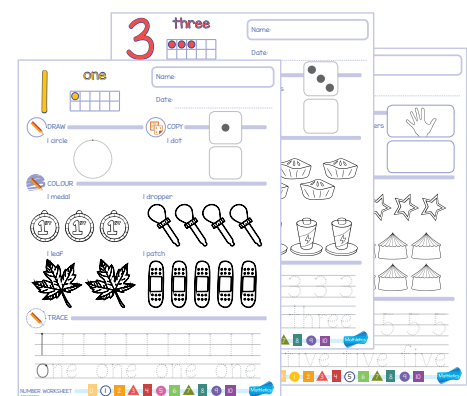
► Table frieze

There is a table frieze that students can use as a reference and to keep track of their number journey.



► Standard worksheets

Standard worksheets for numbers 1 to 10 explore representations and counting collections. These can be used before or after the interactive storybook to gauge existing knowledge or to consolidate understanding.

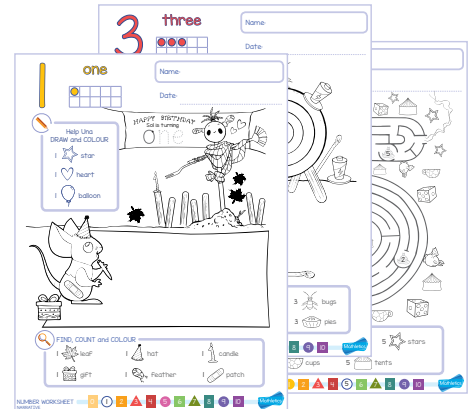




Support printables

► Narrative worksheets

Narrative-themed worksheets for numbers 1 to 10 explore representations and counting collections in various formats. These can be used to expand on and consolidate understanding.



Mathletics hopes the **Una and Jiro's Number Journey** turns learning numbers into an adventure for you and your students. Thank you.



For more information about Mathletics,
contact our friendly team.

www.mathletics.com/contact