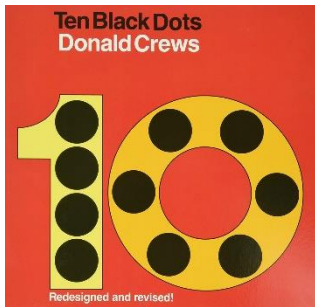


Books to support mathematical learning

General

Ten Black Dots, by Donald Crews

This one is deceptively simple, but the stark black dots are great visually for younger children and really stand out on the page, so it's a good starter for learning about counting. There are also lots of ideas for maths activities with this book that you can find online.



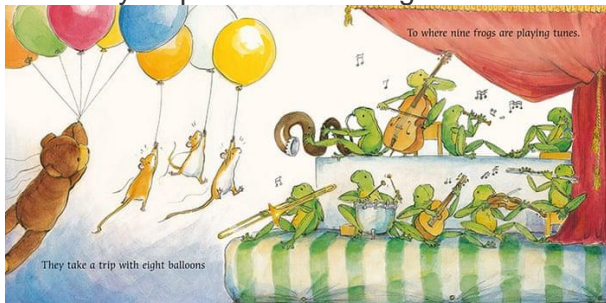
The Very Hungry Caterpillar, by Eric Carle

Kids love to hear the story of the cute caterpillar munching his way through pieces of fruit, and it's an amazing introduction to counting from one to five.



One Ted Falls Out of Bed, by Julia Donaldson

This tale of bedtime adventure integrates the numbers from one to ten so neatly into the story that you almost don't notice they are there. It's a book children will want to read over and over, and really helps with cementing the order of numbers to ten, both forwards and backwards.



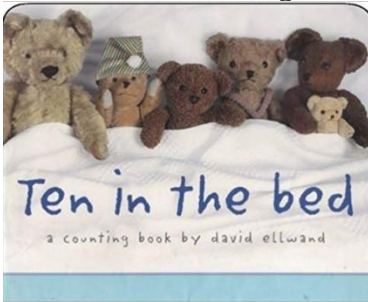
Ten Apples up on Top, by Dr Seuss

Dr Seuss is another storyteller that kids can listen to on repeat - and this one integrates numbers beautifully into a typically whacky story with easy language that is perfect for children who are just learning to read. As things get crazier towards the end of the story, you can use the iconic illustrations as a springboard for some extra maths questions, and your kids probably won't even realise they're doing calculations.



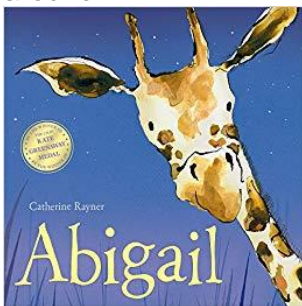
Ten in the Bed: A Counting Book, by David Ellwand

Ten in the bed is a classic rhyme showing that, if you take away one, the number left is the previous counting number: this emphasises the one-less-than relationship between numbers when counting backwards. This book shows the bears that have fallen out as well as those still in the bed, with no number for the former, providing opportunities for children to count the irregularly arranged bears and also to identify the complement to ten each time another bear falls out. Decreasing and increasing staircase patterns can represent the declining number of bears in the bed alongside the growing number of fallen bears.



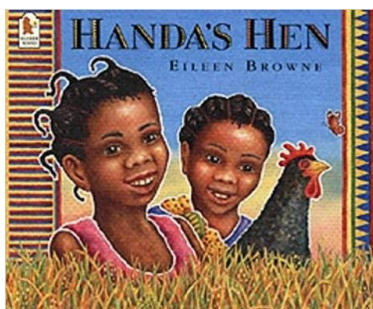
Abigail, by Catherine Rayner

Abigail loves to count, but all the things she tries to count keep moving! Her friends try to help her but unfortunately they aren't very good at counting. Abigail teaches her friends how to count the flowers in the field, and when the sun goes down they work together to count 1,267 stars in the sky. This book provides children with an opportunity to consider accurate methods of counting. What would they say to help Zebra and Cheetah learn how to count the ten flowers accurately? And why does it make it more difficult if the things you're trying to count keep moving around?



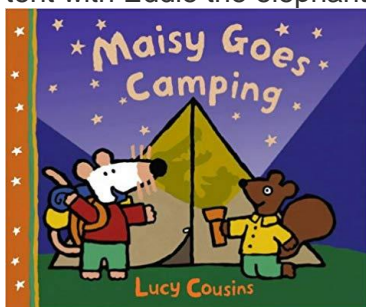
Handa's Hen, by Eileen Browne

Handa feeds breakfast to Mondri the hen every morning. But one morning, Mondri isn't there. Handa and her friend Akeyo spend the morning looking for the hen in lots of different places. They find two fluttery butterflies, three stripy mice, four little lizards... all the way up to nine shiny starlings. Then they find ten chicks, and they work out where Mondri has been all this time! This story provides a lovely context for children to count groups of animals up to ten. The final page shows each group of animals as an array, so children could explore these numbers and begin to think about how each group is different from the others.



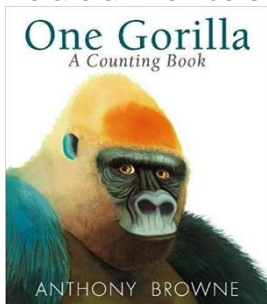
Maisy Goes Camping, by Lucy Cousins

Maisy and her friends are going camping in the countryside. But pitching the tent is very difficult! And even if they can get the tent ready before nightfall, will there be enough room in it for Maisy, Charley, Tallulah, Cyril and Eddie? In this story, each character goes into the tent one at a time, before there are too many characters in the tent and they all pop out. There are opportunities here for children to practise their counting skills and to use calculations to work out how many characters are in the tent at each point in the story. This story could also be linked to the concept of size - which characters are bigger or smaller? And why can't any other characters fit in the tent with Eddie the elephant?



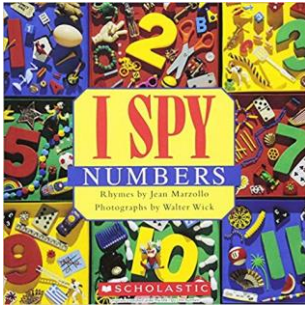
One Gorilla: A Counting Book, by Anthony Browne

In this beautifully illustrated board book, each page shows a different type of primate for children to count, matching the number of creatures to the numeral up to ten. The last page shows that we are all members of the same family!



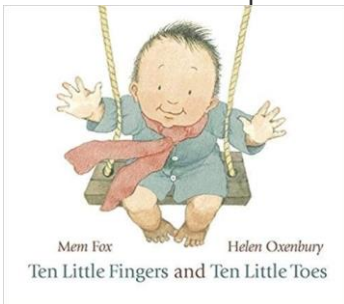
I Spy Numbers, by Jean Marzollo and Walter Wick

There is lots of visual interest in this book, with each photograph showing a numeral from 1 to 9 with lots of small objects around it. Each object relates to the numeral in some way, but children might have to look carefully at the photograph to work out how! This is an engaging context in which children can practise their counting and observation skills. This book also provides some opportunities for lateral thinking and reasoning, e.g. how can B + C represent 5?



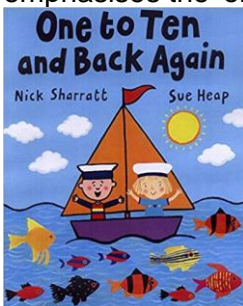
Ten Little Fingers and Ten Little Toes, by Mem Fox and Helen Oxenbury

This rhyming book features pictures of babies from all over the world, whose lives are very different but who all have one thing in common: each baby has ten little fingers and ten little toes. Children can practise counting to ten by counting the fingers and toes in each picture.



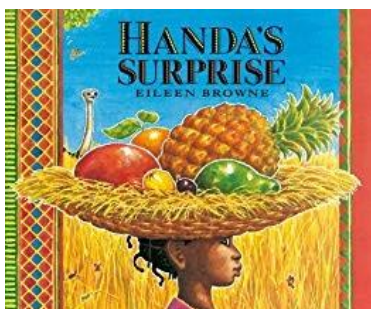
One to Ten and Back Again, by Nick Sharratt and Sue Heap

In this colourful picture book, we see one boy, one girl, two gloves, two shoes, three buttons and four bows... all the way up to nine biscuits and ten cakes. Then the story counts down from ten oranges on a tree, back to one girl and one boy again. At the end of the story is a picture of one moon and a hundred stars. This story gives children very clear pictures to count, and helps children make links between counting up and counting down. The final page shows the pictures counted throughout the story as two staircase patterns, with numerals next to each row - this emphasises the 'one more/less than' pattern of counting up or down.



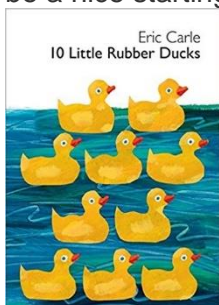
Handa's Surprise, by Eileen Browne

Handa carries a basket of seven different tropical fruit in a basket on her head; she is unaware that a succession of seven animals each steal one, but they are replaced by a huge number of tangerines from a tree butted by a goat. Children could show the decreasing 'one less than' relationship between the numbers by counting back with their fingers as well as following the story on a number track or staircase. Children can make up their own subtraction stories with different animals stealing different numbers of fruit. They can also estimate the number of tangerines and other items in baskets.



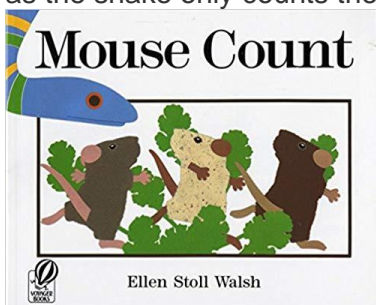
10 Little Rubber Ducks, by Eric Carle

"Ducks overboard!" shouts the captain, as a giant wave washes a box of 10 little rubber ducks off his cargo ship and into the sea. The ducks are swept away in various directions. One drifts west, where a friendly dolphin jumps over it. A whale sings to another. But as the sun sets, the 10th little rubber duck is left all alone, bobbing helplessly on the big wide sea. Young readers and listeners will empathise with the little duck's plight - and will rejoice at the heartwarming surprise ending. This book provides opportunities for children to count to ten as they follow the journey of each rubber duck. Each duck is referred to as the first, second, third, etc. which could be a nice starting point for a discussion of how we can use ordinal numbers to refer to objects.



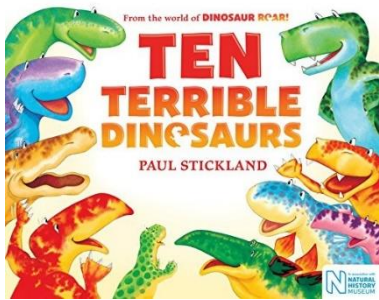
Mouse Count, by Ellen Stoll Walsh

In this exciting story, ten mice fall asleep in a meadow and are counted into a jar for a snake's dinner. When they trick the snake and escape, the mice count themselves back out of the jar, counting down from ten to one. Children can count the mice in the clear pictures on each page and they can also follow the patterns of counting up to ten and counting down from ten, linking these concepts together as opposites. This story also emphasises accurate counting methods as the snake only counts the next number after dropping a mouse into the jar.



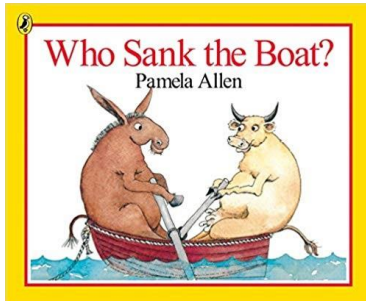
Ten Terrible Dinosaurs by Paul Stickland

This colourful book counts down from ten dinosaurs to just one dinosaur, emphasising the one-less-than relationship between numbers when counting backwards. Only the dinosaurs remaining in the group are shown at each stage. The numbers of dinosaurs are represented at the end of the book as an increasing staircase pattern, counting up from one dinosaur to ten dinosaurs - this provides a lovely opportunity for children to practise both counting up to ten and counting down from ten.



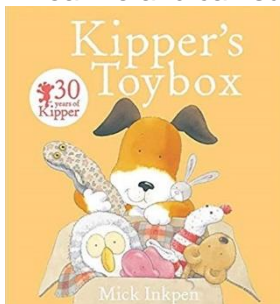
Who Sank the Boat?, by Pamela Allen

In this picture book, a cow gets into one end of a boat and a donkey climbs into the other end to balance it. Next, a pig and a sheep get in on either side and sit opposite each other. Finally, the mouse leaps in and the boat sinks! Children can practise counting each animal as they get into the boat in order to keep track of how many animals are in the boat at each stage. There are also links to measures, as children can think about different weights and how to make things balance. Children might like to predict which other combinations of animals would sink the boat - would five mice sink the boat? What about five donkeys?



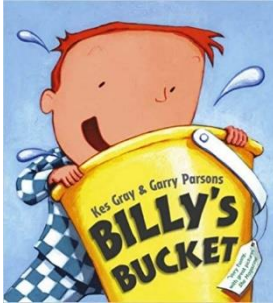
Kipper's Toybox, by Mick Inkpen

Kipper knows that he has one, two, three, four, five, six favourite toys. But when he counts them, he finds that he has seven toys... and when he counts them again, he only counts five toys! Where has the sixth toy gone? This story is a lovely opportunity for children to practise counting accurately. When he is counting, Kipper uses some different counting techniques, including linking each number explicitly to an item (e.g. "Big Owl one, Hippopotamus two, ..."). As well as checking Kipper's counting in the pictures, children can have a go at counting a group of objects in real life and can suggest ways of checking their count if the answer isn't what they expected.



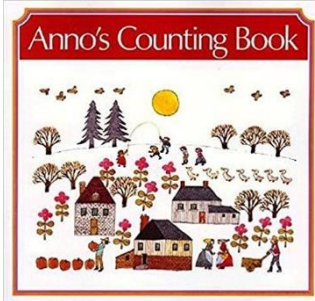
Billy's Bucket, by Kes Gray

All Billy wants for his birthday is a bucket. He goes to a bucket shop and carefully chooses one that's 19 shelves up and 78 along from the left - and there are all sorts of wonderful things inside it! This book would make a lovely introduction to an activity about fitting objects inside a bucket, as well as providing the opportunity for children to count items.



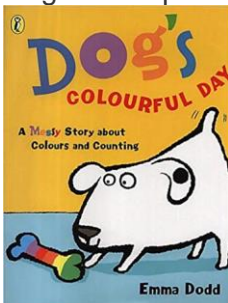
Anno's Counting Book, by Mitsumasa Anno

At first there is an empty field. Then in January, month 1 of the year, there is one building, one fir tree and one snowman. Each month of the year is explored with a detailed watercolour picture, full of objects to group and count. There are coloured blocks at the side of each page representing the month number, which children can match with the numerals and with the objects that they can count in the picture. This book provides lots of opportunities for children to practise their counting and observation skills.



Dog's Colourful Day, by Emma Dodd

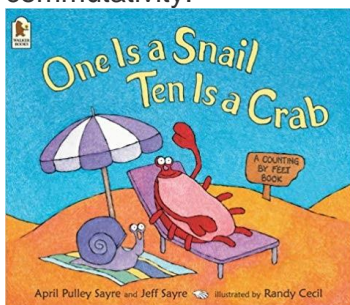
Dog starts the day with just one black spot on his left ear. Then a drip of red jam lands on his back, and Dog has two spots now! Throughout his messy day, Dog gets covered in spots from different things, and by the end of the day he has ten different coloured spots. Finally, Dog is given a bath and he goes back to having just one black spot on his ear. The repetition of 'Now Dog has ___ spots' in this story reinforces the idea that as we count from one to ten, each number is one more than the one before it. At the end, Vicky counts all ten of Dog's spots, and children can count along using both the picture of Dog and the numerals on the page as a guide. Children can also begin to make links with the idea of subtraction, as the bath takes away all of Dog's new spots and just leaves him with the black spot on his ear that he started with.



One Is a Snail, Ten Is a Crab: A Counting by Feet Book, by April Pulley Sayre, Jeffrey Sayre and Randy Cecil

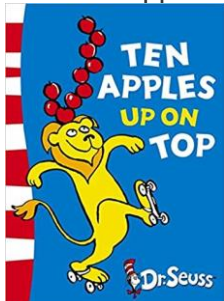
A snail has one foot, a person has two, a dog has three, insects have six, spiders have eight and crabs have ten (if you count their claws). This book shows delightfully ludicrous illustrations of numbers made up of other numbers, such as 7 as an insect and a snail. Younger children can enjoy exploring and recording ways to make a number, such finding different ways of making 9 (e.g. a spider and a snail or two dogs and a snail), or making 20 just using dogs, people and snails. There are also interesting patterns to spot, such as the way you can make odd numbers

by adding a snail to the previous creature, or make 40 with four crabs or ten dogs, illustrating commutativity.



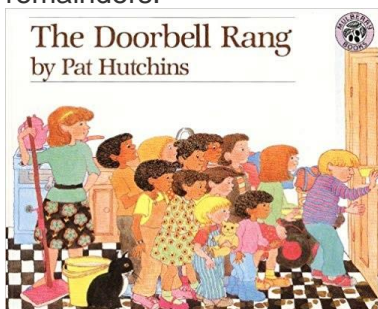
Ten Apples Up On Top, by Dr. Seuss

In this rhyming book, three animals compete to see how many apples they can balance on their heads. They start off with one or two each, but by the end each animal is balancing ten apples! Children can count along with the pictures (although not every number between one and ten is featured), and the final picture links to the ten times table as there are twelve animals who each have ten apples.



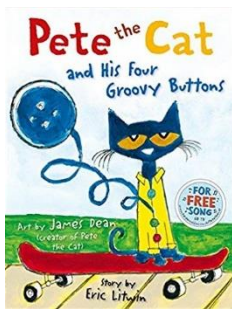
The Doorbell Rang, by Pat Hutchins

Two children are about to share a plate of cookies (six each) when the doorbell rings and two friends come in (three each), then two more (two each) and then six more arrive! The story ends when Grandma arrives with huge plateful. This story can be acted out, the numbers changed and questions posed. For younger children, sharing, say 14, between two people and then solving the problem of how to share with one more person is interesting, especially with the remainders.



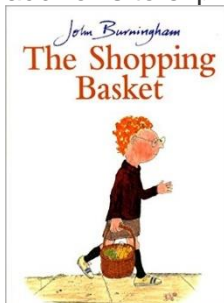
Pete the Cat and His Four Groovy Buttons, by Eric Litwin

Pete the cat loves his favourite shirt with its four groovy buttons. He even sings a song about them! But how will the song change as each button pops off and rolls away? This story uses words and numerals to represent the numbers up to four, and subtraction number sentences are used to show what has happened each time a button pops off and rolls away. This story would make a lovely introduction to written subtraction.



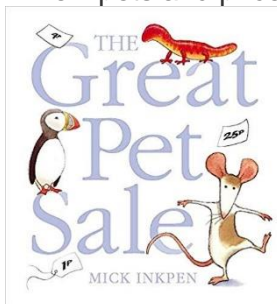
The Shopping Basket, by John Burningham

Steven goes to buy six eggs, five bananas, four apples, three oranges, two doughnuts and a packet of crisps. The 'one less than' pattern of the consecutive numbers is illustrated as a triangular pattern. However, although Steven cunningly foils a series of thefts by various animals, he loses one of each of the items (presenting a new number pattern). Children can reproduce the 'one less than' number patterns and play games in pairs of secretly stealing one item (while the other child hides their eyes) and finding what has been taken. Older children can add rows to explore triangular numbers.



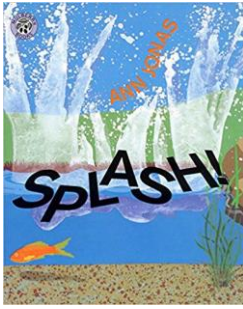
The Great Pet Sale, by Mick Inkpen

The sad-looking animals in the pet shop sale are all priced between 1p and 10p (apart from the komodo dragon at 25p). The rat with half his whiskers missing says, 'I'm a bargain, I'm only 1p. Choose me!' With the pictures reproduced on card, or toys priced similarly, children could choose which pets they might buy for 10p: for instance, they could have the 2p terrapin, the 3p turtle, the 4p tortoise and the rat, or two 'things beginning with P' at 5p each, such as the pelican and the platypus. They could then extend this activity by spending different amounts and adding in new pets and prices.



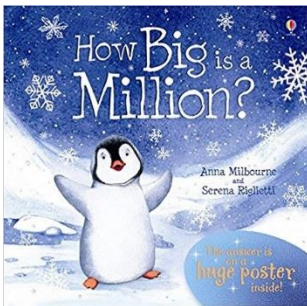
Splash!, by Ann Jonas

At the beginning of the story, there are two catfish and four goldfish in the pond. Then the turtle jumps into the pond! This is followed by lots of other animals jumping into and out of the pond in ones or twos, and at each point the reader is asked how many animals are in the pond. Younger children can follow the pictures and count the animals to work out how many are in the pond, while older children can consider how many animals are being added and subtracted from the total at each step of the story. Children can also act out the story with people or objects, becoming familiar with the concepts of addition and subtraction in a practical context.



How Big is a Million?, by Anna Milbourne and Serena Riglietti

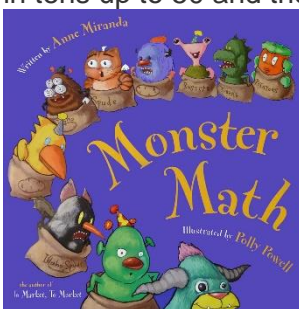
Pipkin the penguin goes on an adventure to find out how big a million is. On the way, he counts ten fish, one hundred penguins in a huddle, and one thousand snowflakes. Then when he gets home, his mum shows him one million stars in the sky! This book would make a good introduction to big numbers for children who are starting to be interested in concepts such as 'one thousand' and 'one million'. It emphasises that while one hundred and one thousand are big, one million is much bigger than those. It also links nicely to place value, and the pictures show that going from 10 to 100 to 1000 represents a big step up in size, even though these numbers don't look like they're getting much bigger when we write them as numerals.



Introducing addition, subtraction and beyond

Monster Math, by Anne Miranda

This fun book takes the traditional counting to ten stories to the next level, introducing counting in tens up to 50 and then some subtraction too, all while there's a crazy monster party going on.



Spinderella, by Julia Donaldson

Spinderella lives in a family of spiders who have no interest in numbers - their football matches are unfair and their scoring system is a disaster until Spinderella takes a maths class and introduces counting, division and multiplication into their lives. This is a great story for reinforcing how often we use maths in our daily lives, and how important it is!



The number zero

None the Number, by Oliver Jeffers

The concept of none or the number 'zero' is one that is often overlooked, but this quirky book explores it through a debate between two characters, accompanied by humorous illustrations. It's a great intro to counting, because as the author himself explains, 'none is sometimes the answer when you're asked to count something.'

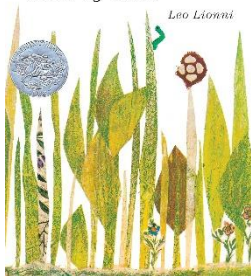


Measurement

Inch by Inch, Leo Lionni

A little inchworm avoids being eaten by a bird by proving his usefulness at measuring things. This great story starts kids thinking about units of measurement and the different ways of calculating the size of things - some of our Komodo kids measured the entire house using their own bodies as a unit of measurement after reading this one!

Inch by Inch



<https://komodomath.com/blog/favourite-story-books-for-introducing-kids-to-maths>

<https://nrich.maths.org/14111>