



## Looking for educational gifts for Christmas with a maths focus?

As Christmas time approaches, many parents, carers, relatives and friends are looking for gifts for young children. A friend of mine always recommends five types of gifts:

- something to read
- something to wear
- something to play with
- something to make
- something to learn

This resource focuses on the last point, something to learn, and in this case, all these gift ideas have to do with building numeracy through mathematics. Providing children with mathematical gifts encourages them to see the creativity and fun aspect of mathematics. The types of gifts build numeracy skills in number sense, spatial awareness, patterning, reasoning, communicating and problem solving.

### 1. LEGO®

I couldn't start this list without suggesting LEGO®. Whether it's DUPLO® or LEGO®, this is the gift that keeps on giving! Children can use their imagination to build their own ideas or learn to follow instructions when building specific sets. The LEGO® pieces themselves are referred to by their mathematical term, for example, 'one by four' or 'two by eight'. This is a wonderful opportunity to talk with children about why they are named this way and see if children notice the dot patterns on top of the pieces that make an [array structure](#). This visual array structure assists children in



image from <https://www.lego.com/en-au>



developing multiplication skills.

Other teachable moments that come from Lego include:

- large numbers - when talking about pieces in a set
- fractions - when comparing sizes of pieces to each other
- sorting and classifying - when organising left over Lego pieces for storage
- two- and three-dimensional space - when building and talking about the shapes and objects they are using

## 2. TENZI™

TENZI™ is a game that focuses on many aspects of counting. It is for 2+ players and involves rolling 10 dice at once to try to get all ten of your dice with the same number. After your first roll, you keep aside any dice with the same number already, for example 4 fives, then keep rolling and repeating the process until you get 10 fives and call out TENZI™!



image from <https://ilovetenzi.com/shop/>

Games are a great place to start children's love of mathematics. Games provide an aspect of competition as well as some chance and can become very addictive, like TENZI™. This game specifically develops children's ability to instantly recognise dice patterns and to relate the visual pattern to a number. This is the base of all number sense. Many young children may be able to tell you the amount of dots on the dice without actually counting them, this is called [subitising](#).

There is also a card pack that you can buy to go with TENZI™ that provides a range of other suggested ways to play ([77 ways to play](#)), like rolling all odd numbers, or rolling pairs of numbers or rolling one of each number.

### 3. Press Here

If the child doesn't already have the book [Press Here](#) by Henri Tullet then you might like to purchase that as well! However, the game Press Here, which is based on the book, is a visually stimulating and creative game that focuses on patterns. The game involves finding similarities and differences within pattern images of dots and lines where players take turns trying to place their own dots on the pattern boards. There is some logic involved in playing so as children play the game a number of times, some more strategic choices may come to mind.

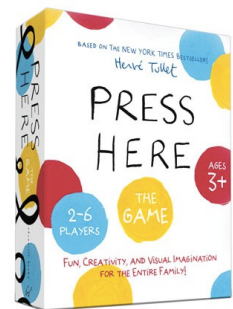


image from <https://www.chroniclebooks.com/titles/press-here-the-game.html>

### 4. How many?

[How many?](#) by Christopher Danielson is a wonderful book to read with children that allows them to notice and wonder about numbers. The book is a selection of real-world photographic images of things children may find around their house. The idea is to discuss 'how many?' of each thing you can see in the image. There is one page with a shoe in a shoe box, there are holes in the shoe's base, stitching around the shoe, laces and eyelets to count, and that's just the start! I like that the book focuses on the visual nature of counting and provides opportunities for even the youngest of children to participate in counting. They may start counting by ones then begin to count by twos or more when exploring the images.

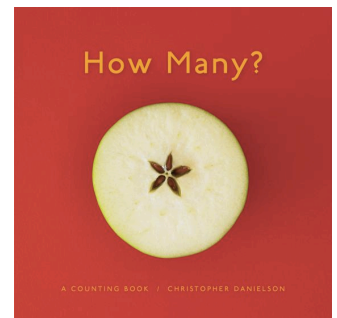


image from <https://www.stenhouse.com/content/how-many-student-book>

There are countless, excuse the pun, books that focus on mathematical concepts that would make great Christmas gifts. This [link](#) provides a nice list that is organised into mathematics areas to help in choosing what the child may like or need.

A few of my top favourites at the moment are:

- [Which one doesn't belong?](#) by Christopher Danielson
- [One is a snail, ten is a crab](#) by April Pulley Sayre and Randy Cecil
- [This is a ball](#) by Beck Stanton and Matt Stanton
- [Wacky Wednesday](#) by Dr Seuss
- [Mr Left and Mr Right](#) by Daniel Fehr

## 5. Makedo™ cardboard construction

Watch out if you buy this gift, as the parents may just enjoy it more than the child! This is mathematics in action, mathematics in the ‘real-world’, the mathematics of engineering. There is a string focus on STEM (Science, Technology, Engineering and Mathematics) that aims to integrate these areas so children see the interconnectedness of what we learn and what we do with what we learn.



image from <https://au.make.do/>

The Makedo™ kits come in a range of sizes but basically, they are set of tools and connectors so you build stuff with cardboard! What a great way to use up all those boxes that all the other gifts come in! It's creative, innovative, sparks curiosity and gets children ‘doing things’ making cars, houses, robots, animals, furniture, the possibilities are endless.

By creating and building, children explore mathematical concepts of; two-dimensional and three-dimensional space, measurement ideas around length and area, structural uses for triangles and solving problems when things don't work the first time.

I hope these ideas inspire you to buy gifts with a mathematical learning purpose this year!