



For your child starting Kindergarten

Maths trains brains

Maths activities for your child,
anytime, anywhere!



Time taken:
45 minutes

Things you need:
Thick paper or cardboard, glue or sticky tape, scissors and colouring pencils

Create a robot

Get your child to create their own robot by combining a range of 2D shapes. The most important thing you can do during this activity is to talk with your child about the features of 2D shapes that matter (the number of sides, lines and vertices) and those that don't (colour and orientation).

Step 1

Get your child to draw various shapes onto cardboard or thick paper. The shapes will make up the different parts of their robot's body.

For example:

- triangles for the nose
- quadrilaterals for the eyes and legs
- pentagon for the arms
- hexagons for the feet
- octagons for the body
- circles for the cheeks.

After your child is done, help them cut out their shapes.



Step 2

Now, use the shapes to start to form their robot.

Step 3

Finally, encourage your child to decorate their robot to make it their own, and give it a name. They might even want to write a story about their amazing robot.



The conversation

As your child is drawing shapes, encourage them to notice its particular features:

- the number of sides
- the number of vertices ('corners')
- the different types of 2D shapes. For example quadrilaterals can be rectangles, squares, trapeziums, rhombus and parallelograms
- the similarities and differences between different types of 2D shapes.

After this activity, challenge your child to spot their robot's shapes in their bedroom, on a walk, or on their way to school.

Time taken:
10 minutes

Things you need:
Your child's favourite picture books

Story book spotting

As you read your child a picture book, ask them to identify and describe where certain illustrations are on the page. The language they use to describe where a picture is in relation to another picture helps your child learn about position.

The challenge

Step 1

Pick one of your child's favourite picture books.

Step 2

As you read through each story, prompt your child to identify and describe the position of things, using words like:

- between
- next to
- beside
- behind or in front of
- inside our outside
- left or right
- on top or below
- position.

For example, you might ask them "What colour is the sheep between the red sheep and the purple sheep?", "What's below the bridge?", or "Who is next to the dinosaur?"

The conversation

After repeating this activity with your child's other books or a classic like 'Little Red Riding Hood', encourage them to draw a map of where the characters went. They can then use this to help re-tell the story to someone else.



Time taken:
30 minutes

Things you need:
Household items, objects from nature (optional), pen and paper

3D treasure hunt

Go on a 3D object hunt around the house, and get your child to find and sort cones, spheres, cubes, cylinders, rectangular prisms or pyramids.

The challenge

Step 1

Challenge your child to go around your home and collect as many different 3D objects as they can find. The more they can find, the better. For example, they may find a toilet roll or tin jars (cylinders), a tissue box (rectangular prism), or a tennis ball (sphere). You can do this activity outdoors as well.

Step 2

Once your child has collected the 3D objects, get them to sort them into:

- objects that you can roll
- objects that you can stack.

Feel free to come up with other categories based on the unique properties or features of the 3D objects they've found.

The conversation

While your child is sorting their 3D objects, point out how some 3D objects like a toilet roll can be sorted into more than one category; it's an object that can be both rolled and stacked.

This is because a cylinder has both flat and curved faces, while other 3D objects, like spheres, can only be rolled. This will help your child become more familiar and confident at describing the objects they see everyday, everywhere.



Time taken:
30 minutes

Things you need:
Household items, objects from nature (optional), pen and paper

Lunchbox packing

Get your child to pack their lunch with you and use this as an opportunity to explore mass.

The challenge

Step 1

Show your child what they would normally have for lunch.

Step 2

Ask your child to hold a food item in each hand to compare their mass to work out which is the lightest. While they're comparing, help them talk about the mass using words like:

- light, lighter, lightest
- heavy, heavier, heaviest.

Step 3

Get them to repeat step 2 until they have all the items ordered from lightest to heaviest.



The conversation

Ask your child questions like these to support their understanding of mass:

- "So the mandarin is lighter than the muesli bar?"
- "Is it lighter than the sultanas?"
- "Let's do this activity with your toys/books/balls?"
- "Are you surprised that the sandwich is lighter than the yoghurt cup, even though the sandwich is bigger?"



Four games to have fun with maths in Kindy

Games are a fun way to get your child thinking, communicating and reasoning like a mathematician. Here are 4 games for you to play together.

Snakes And Ladders

This classic board game can help your child build confidence with quantifying collections, learning how numbers work and developing spatial skills.

Players take turns to roll the dice to determine how many spaces they need to move. Landing on a snake will send you plunging down the board, whereas landing on a ladder will get you closer to the winning square.

If you don't have a commercial copy of the game at home, you can make your own.



Tiny Polka Dot

You and your child can play different games with this versatile set of colourful cards. Playing Tiny Polka Dot can help build your child's understanding of how numbers work, help them quantify collections, and develop reasoning and communicating skills.

Go Fish

This card game can be played with a standard deck of playing cards.

Go Fish helps your child explore how numbers work as well as developing their skills in quantifying collections and patterning. There's also some strategic thinking required so they can outwit their opponents! You can shake things up by tweaking the rules to explore other mathematical ideas.



UNO Junior

UNO is a card game that develops your child's knowledge of quantifying collections, how numbers work and strategic thinking. It's played with a coloured deck of cards numbered one to 8.

The goal of the game is to run out of cards first, yelling UNO before anyone else when you have one card left in your hand. Coming in classic, junior and specialised formats, UNO is a game the whole family can enjoy!

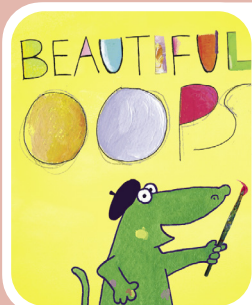


Five books to build positive maths mindsets in Kindy

Stoke the flame of your child's growing curiosity in maths with these 5 brilliant picture books that encourage exploration, experimentation and learning from mistakes.

These books can be purchased online, in stores or may be available to read and borrow from your local library.

Find your local library



Beautiful Oops!

Written and illustrated by Barney Saltzberg

As children get older, they may begin to feel like they have to get everything right the first time they try. Beautiful Oops! is a charming interactive picture book that'll help your young child learn that making a mistake can be an opportunity for adventures in creativity. The ideas in this book can help build a positive mindset towards learning in all subjects, including mathematics.



Your Fantastic Elastic Brain: Stretch It, Shape It

Written by JoAnn Deak PhD and illustrated by Sarah Ackerley

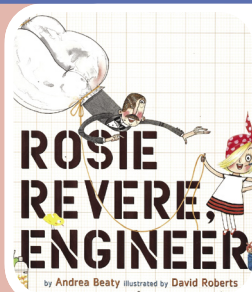
Another excellent picture book for teaching your child that making mistakes can, in fact, be a great thing! Mistakes not only help your child grow their brain, they can be helpful for overcoming fears and helping to build courage – essential ingredients for working like a mathematician.



The Most Magnificent Thing

Written and illustrated by Ashley Spires

An important story about perseverance and how one little girl made the "most magnificent thing" by keeping at it. This thought-provoking picture book will give your child perspective, and is a relevant read for them as young learners who need to develop the skills and confidence to keep trying even in the face of multiple set-backs.



Rosie Revere, Engineer

Written by Andrea Beaty and illustrated by David Roberts

Let Rosie's story and mission help your child see failure as an important stepping stone towards success. This triumphant book shares an important lesson: You only really fail when you quit. Like some of the most famous mathematicians of all time, you're in great company when you need to keep persisting to achieve your goals!



How To Catch A Star

Written and illustrated by Oliver Jeffers

This charming picture book tells the story of a boy who loves stars so much, he wants to catch one for himself! The eye-opening story will challenge the way your child sees the world, offering them a new perspective – which they can apply to the many different problems they find and solve.

Maths is everywhere



Explore a mix of fun games, useful resources and creative activities on the Everyday Maths Hub.

Scan to find more activities






Translated resources

We've translated a selection of our Everyday Maths resources into Arabic, Chinese, French, Indonesian, Japanese, Korean, Portuguese, Russian, Spanish, and Vietnamese.

Scan to find activities in your language

We acknowledge the homelands of all Aboriginal people and pay our respect to Country.

Say hello

 @NSWDepartmentofEducation
 @NSWEducation
 @NSWEducation
education.nsw.gov.au

© 2021 NSW Department of Education
GPO Box 33, Sydney NSW 2001,
Australia
T 1300 679 332

