



**Helping your  
children with  
maths  
Reception**

**The maths curriculum in Reception is titled 'Problem solving, reasoning and numeracy'. It is split into three categories. They are:**

- **Numbers as labels and for counting**
- **Calculating**
- **Shape, space and measures**

At Recreation Road we teach all maths in a purposeful, practical way. Children continue to use play and exploration to acquire mathematical skills. A large majority of mathematical work is practical and learning happens in many different contexts around the classroom and outside. Some whole class work exploring mathematical concepts is teacher led and children can also freely explore these concepts through a variety of different activities and resources set up each day. Children will have many opportunities to explore number, shape, pattern and measures in the course of their learning. Role-play, cooking and visits within the local community can also offer the chance to understand how Mathematics is used in every day life e.g. visit to the supermarket. The staff encourage the children to use appropriate mathematical language through modelling and in play situations. When ready the children begin to record their ideas and calculations using standard notation.

**This booklet** is designed to give you some guidance on what you might like to do to support your children mathematical learning at home. We want to stress that most early mathematical development happens through incidental life learning skills and play. It is often the day-to-day language used by a supporting adult that can further a child's understanding of new concepts. Therefore the following suggestions for activities are best incorporated into everyday life situations and play. We hope you find it helpful.

## **Numbers as labels and for counting**

Early learning goal expectations for the end of Reception are:

- Says some number names in familiar contexts such as nursery rhymes
- Counts reliably up to three everyday objects
- Counts reliably up to six everyday objects
- Say number names in order
- Recognises numerals 1 to 9
- Counts reliably up to 10 everyday objects
- Orders numbers up to 10
- Uses developing mathematical ideas and methods to solve practical problems

Children who exceed these expectations may be able to:

- Recognise, count, order write and use numbers up to 20 and beyond.

**You can help with this category at home by:**

- Singing counting songs and rhymes
- Shopping activities - real or pretend - use real money to help identify coins and weight.
- Looking at house numbers, bus numbers, car registration numbers and using lifts when out and about.
- Number jigsaws
- Cooking
- Bath time Fun!
- Playing games with dice - remember to use dice with dots and numbers on.
- Dominoes

## Calculating

Early learning goal expectations for the end of Reception are:

- Responds to the vocabulary involved in addition and subtraction in rhymes and games
- Recognises differences in quantity when comparing sets of objects
- Finds one more or one less from a group of up to 5 objects
- Relates addition by combining two groups
- Relates subtraction to taking away
- In practical activities and discussion begins to use the vocabulary involved in adding and subtracting
- Finds one more or one less than a number from 1 to 10
- Uses developing mathematical ideas and methods to solve practical problems

Children who exceed these expectations may be able to:

- Use a range of strategies for addition and subtraction including some mental recall of number bonds.

**You can help with this category at home by:**

- Singing songs that take away or add things e.g. 10 green bottles, 1 man went to mow, 5 current buns
- Dinner table maths - calculate how many fish fingers, strawberries each person will have from a set amount. How many would you need if 1 more person arrived/left?
- Commercial games such as snakes and ladders, Bus Stop etc - these help with the counting on strategy
- Dice games - adding two dice together
- Number stories
- Throwing beanbags/balls at numbered targets and adding up scores - who scored the most? The least?
- Playing skittles or Ten Pin bowling.

## **Shape, space and measures**

Early learning goal expectations for the end of Reception are:

- Experiments with a range of objects and materials showing some mathematical awareness
- Sorts or matches objects and talks about sorting
- Describes shapes in simple models, pictures and patterns
- Talks about, recognises and recreates simple patterns
- Uses everyday words to describe position
- Uses language such as 'circle' or 'bigger' to describe the shape and size of solids and flat shapes
- Uses language such as 'greater', 'smaller', 'heavier', or 'lighter' to compare quantities
- Uses developing mathematical ideas and methods to solve problems
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Children who exceed these expectations may be able to:

- Use mathematical language to describe solid (3D) and flat (2D) shapes

**You can help with this category at home by:**

- Looking for and naming shapes at home and in the environment
- Talk about solid shape names - packaging on food items is an excellent way
- Pull apart a cereal box - what shapes is it made up of?
- Junk model with 2 and 3D shapes - can you name them all?
- What shapes can you see in the supermarket?
- Cooking - can you weigh out the ingredients?
- Measuring - compare feet sizes and height of other family members.

## 10 useful maths equipment ideas

**Dice, playing cards and dominoes** - Many of the 'old fashioned' games, like snakes and ladders, ludo, '21' and dominoes can be great for calculation and number recognition.

**Money** - Money offers children a real context for adding and subtracting. A jar full of spare change can be a wonderful resource for helping your child to understand how numbers work.

**Globes and maps** - With help, older children can work out real life distances using the scale provided, i.e. 1cm = 5km. A great real life reason to multiply!

**Measuring jugs with litres (l) and millilitres (ml)** - How much more do we still need to add? If each of us has 100ml of juice, how much will we need to have in the jug to begin with?

**A tape measure marked in centimetres (cm)** - How much taller are you than your brother? How much have you grown since last year?

**A stopwatch or timer** - Great for comparison and accumulation of times.

**Beadstrings** - These can be bought, but also be made quite simply and inexpensively. 2 different coloured beads are typically used and grouped together in 10s. Beadstrings are particularly good at helping children to understand tens and units. For example, looking at the beadstring below, 12 can begin to be understood as one group of 10 and 2 extra units.

**Hundred squares** - As already demonstrated above, these can be a useful aid to addition and subtraction. Ask your class teacher, and I'm sure they'd photocopy one for you.

**Kitchen scales and measuring spoons** - "So, that's 3 spoons full of honey. Each of these is 10ml, so how much do you think we put in?"

**Lego and duplo (equally great in the bath!)** - Every colour can be worth a different amount: "can we make a monster that's worth exactly 20 points?"

## 10 Everyday Maths Ideas

**Count the scoops** of ice cream for each member of the family.

**Sort and match** pairs of socks etc.

**Read the numbers** on houses that you pass on the way to school.

Do you spot any patterns, like odd and even?

**Car number plate maths** - add numbers on car number plates.

What's the highest / lowest total you can find?

**Name score** - Give each vowel a score (i.e. a=1, e=2, i=3, o=4, u=5).

Which person, football team or place name has the highest score?

**Grocery times tables** - practice by counting things that come in sets:

Two - socks, shoes, cherries.

Three - bars of soap, sandwiches in a pack.

Four - bread rolls, yogurts.

Five - slices of cold meat.

Six - Eggs, jam tarts, cans of cola.

**Timetables** - Help your child keep a weekly timetable of activities for the family.

**Give pocket money** - Counting and calculation suddenly becomes meaningful when your own money is involved.

**D.I.Y.** - Get your child familiar with a tape measure and involve in measuring, comparing and recording.

**Cookery** - Maths, maths, everywhere! Try scaling up a recipe for 2 into a recipe for 4. Great doubling practice!

**For more help and ideas as your child enters year 1 and 2 please see the booklet 'Helping your children learn to calculate' on our school website.**

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Nicola Cushion

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