

## 1. CREATE A POSITIVE ATTITUDE AROUND MATHS

Many adults who don't like maths often found it hard in school and as a result it is commonplace to hear people say '*I am rubbish at maths*' or '*I can't do maths*'. These throwaway comments result in maths having a very negative image which often influences children's attitudes to learning the subject.

As [White Rose Maths](#) states: "***Everyone Can Do Maths: Everyone Can!***".

In the 'old' days, if we got an answer wrong often we were made to feel foolish and perhaps even told off for getting the wrong answer. Today, by following a growth mindset approach, children are given a safe environment where they feel it is ok to get a question wrong. Instead of feeling defeated and giving up, an incorrect answer is actually considered a valuable learning opportunity to explore it more deeply to understand why and how it is wrong in order to get it right next time.

Parents may find it useful to use some of the following phrases when talking to their children about maths:

*"I can't do it."*

**"I can't do it yet."**

*"I can't do maths...I was never any good at it in school."*

**"I remember doing this at school and finding it a bit tricky so I am really proud of you for trying." "Perhaps you can show me how to do it to help me to understand."**

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**2. GET COOKING AND BAKING!**

The kitchen provides so many opportunities for children to gain a better understanding of mathematical concepts but especially measurement. Children will naturally discover that grams and kilograms refer to weighing solid objects to find their mass whereas millilitres and litres are used for measuring quantity of liquids.

Children can have a point of reference to help with estimating when they learn about measurement as they have physical experience of seeing and holding different amounts. For example children will recognise that 1 KG is the mass of a bag of sugar, 1 g is about the weight of 1 raisin, 1 L is usually the amount in a squash bottle and milk comes in pints.

Using analogue weighing scales and measuring jugs provide valuable opportunities to practise skills such as reading mathematical scales.

Cooking with older relatives such as Grandparents may not only create great bonding time, but it will also help older children to understand converting between 'new' metric and 'old' imperial units of measure.

Children will also get experiences of hot and cold temperatures and negative numbers through reading oven thermostats, fridge and freezer displays. Of course care should be taken to avoid injury from burning or scalding.

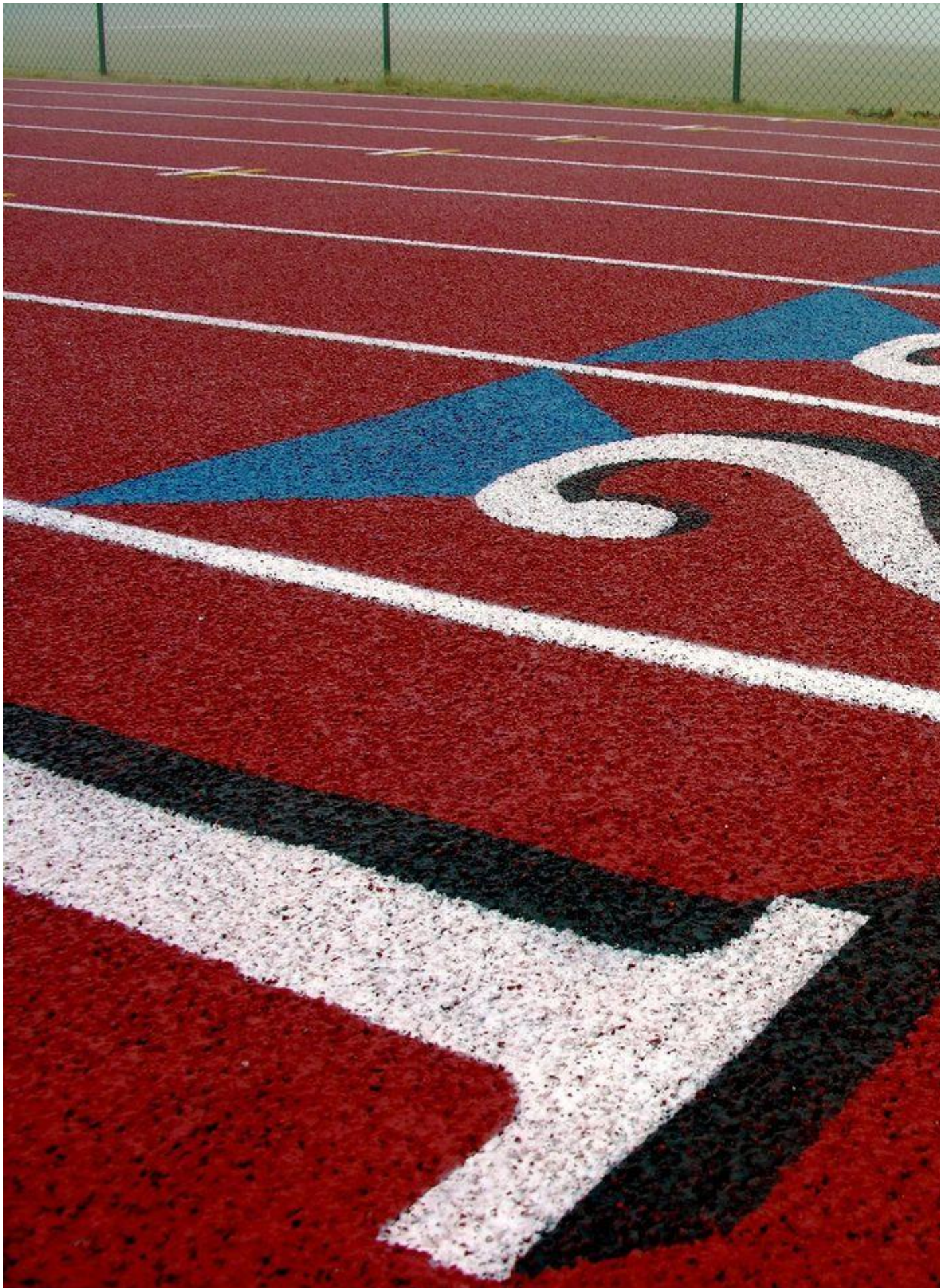
Another mathematical skill that can be practised is time as it is not possible to cook or bake without needing to set a timer or using a clock to work out how long to leave something in the oven.

Older children can also look at using ratios to increase and decrease the amount of each ingredient to make enough for more or less people. For example if the 3-2-1 ratio of 300 ml milk, 2 medium eggs and 100 g of plain flour are used to make approximately 8 pancakes. By doubling all the ingredients 600 ml milk, 4 medium eggs and 200 g of plain flour, there would now be enough to make 16 pancakes.

Without noticing, children will be practically applying their knowledge of multiplying and dividing. Doing maths in the kitchen is so rewarding as you get to eat your learning!

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### **3. PLAYING AND WATCHING SPORTS**

Watching sporting events helps young children with number recognition and understand mathematical vocabulary such as first, second, last.

They can see who is winning or losing by seeing the score being more or less and calculating differences. Scoreboards can also help children to understand ordering and sequencing numbers.

One concept children often find confusing is that in order to win a race, the sportsperson who finishes in the fastest time wins so in fact they need to look at the smallest number not the biggest. This also provides 'time' for older mathematicians to discover that there are units of time smaller than a second.

It is possible to obtain visual representations to help them with making estimates. For example, 400 m is one lap of a standard outdoor track and an Olympic sized swimming pool is 50 m long and 25 m wide.

There are many opportunities to get children to do sporting activities and then put their maths measurement skills to good use by measuring their own performance by speed, distance or height.

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#### **4. Trips Out**

Many children (and adults!) think that maths is just about doing sums in books, but this is not the case. Maths is used everywhere. It is an essential life-skill and that can be practised in a visual, fun and practical



way when you're out and about, especially at weekends or school holidays to keep concepts fresh.

Visits to the shops and day trips all provide great opportunities to use mathematical language and maths skills without your child noticing that they are doing something educational!



## **5. USE TECHNOLOGY**

In these modern times, maths is no longer restricted to learning by using textbooks and writing out calculations. Technology allows children to explore maths using TV programmes, websites with online videos and games, apps and skills on a range of devices such as televisions, computers, tablets, mobile phones and even smart speakers. The following are shortcuts to sections that can be found later in this guide:

- [Useful Maths Websites](#)
  - [How Can the Echo Dot Kids Help With Maths?](#)
  - [How Does Amazon Alexa Support Maths Learning?](#)
  - [10 Alexa Skills to Help Children with Maths](#)
  - [How can the Amazon Fire Kids Tablets Help with Maths?](#)
  - [10 Apps to Help Children with Maths](#)
  - [How can Amazon Kids Help with Maths at Home?](#)
  - [How Does Numberblocks Teach Early Maths Skills to Children?](#)
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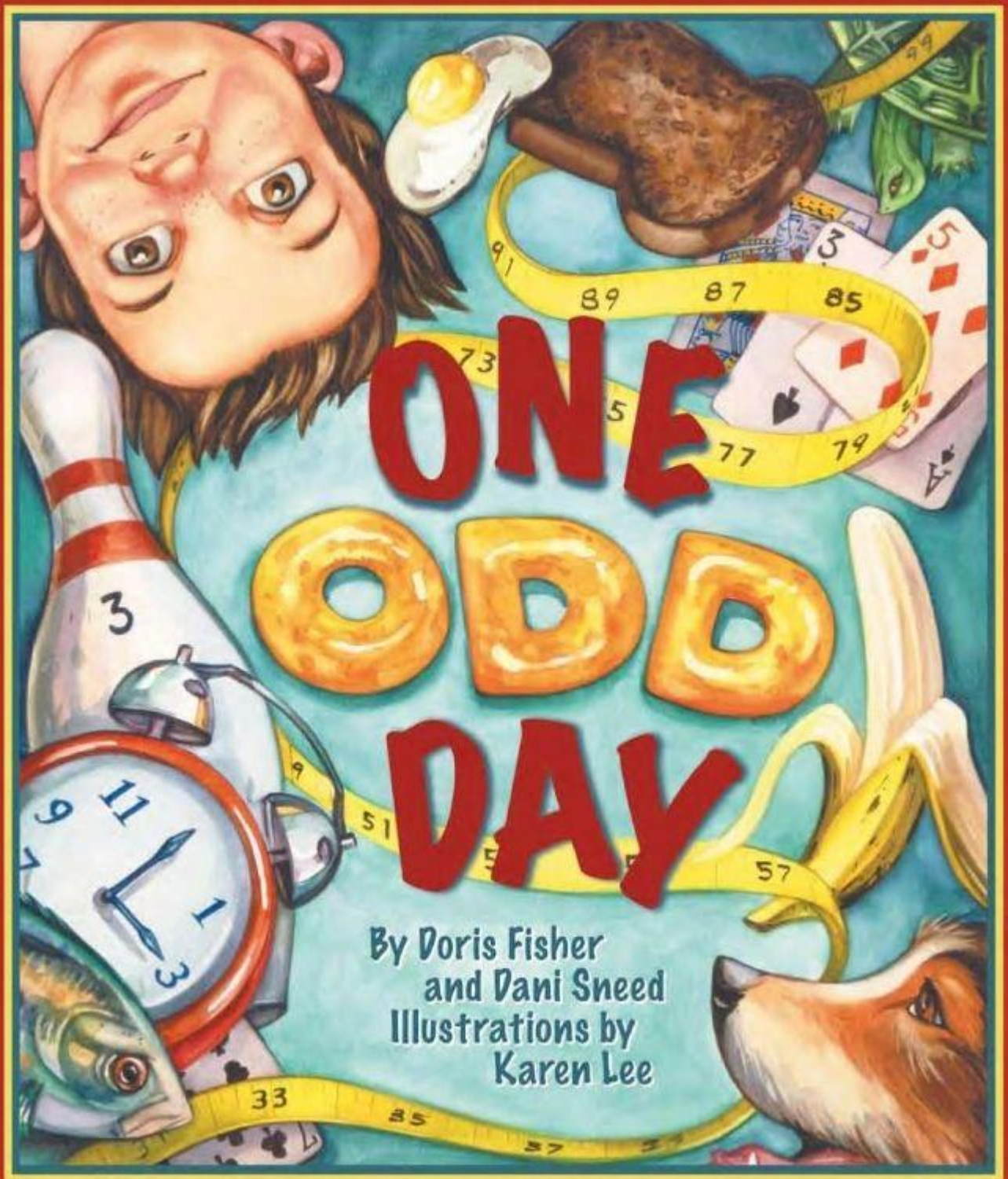


## **6. PLAY GAMES**

Playing board games and card games encourage logical thinking, develops a growth mindset to keep trying and most importantly creates an enjoyable experience with others. As is often the case, when children are playing games involving hands-on maths it becomes fun and engaging. As they want to win, children will need to use vocabulary and skills without realising they are actually doing mathematics. Practical activities like this are particularly useful for children who 'don't like maths'.

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## 7. READ MATHS STORYBOOKS

Using picture books and story books that have a maths-based theme are an enjoyable way to help children to read mathematical language and see

how numerical concepts are used in real-life. Of course the main benefit with using stories is that they will think they are just reading a story.

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