

Maths Matters

The countdown is on to the biggest maths festival in the world, Maths Week Ireland. It takes place from October 14 – 22.



The Maths Week team are working with schools, colleges, museums, universities and communities throughout Northern Ireland to help deliver an exciting programme of events. Thousands of students from schools and colleges will enjoy mathematical activities designed to make maths fun.

Multi-talented maths educators and presenters will perform magic, card tricks, and amazing mathematical predictions to fascinate and educate young people about maths. The week seeks to promote a positive image of maths, highlighting its importance in everyday life.

There will be lots of events taking place across Northern Ireland. Maths Week 2017 partners include W5, Ulster University, Queen's University, Stranmillis University College, North West Regional College and Armagh Planetarium. Parents, schools, teachers, children and everyone can get involved with Maths Week! Maths is important for everyone and you can get involved this year with these fun maths activities! For more information events and activities see www.mathsweek.ie.

MATHS IN THE CITY:

The week in Northern Ireland culminates in Maths in the City at the Ulster Museum on Saturday October 21st with local and internationally renowned mathematicians entertaining the public with mazes, maths magic, puzzles and card tricks both inside and outside the Ulster Museum.

The event is free and all the family are welcome from tiny tots to mums, dads and grandparents. It is our experience that adults often get as much enjoyment out of these puzzles as their children.

For information on Maths in the City at the Ulster Museum visit www.mathsweek.ie/events



10 TOP TIPS FOR PARENTS:

Children need a positive attitude to maths if they are to succeed. Mathematical ability is not a gene, everybody can do it. As a parent you can do a lot to build your child's confidence and help your child at maths.

1 Be positive about maths. Children need a positive attitude to maths if they are to succeed. Never say 'I wasn't any good at maths' or 'I can't do maths' – your child will believe then that it is ok not to be good at maths and it will become a self-fulfilling prophecy! Like anything worthwhile you have to work at it.

2 Be encouraging but don't stress them out – remember your child is on a journey. It takes time to complete the journey; they don't have to finish the journey today or tomorrow. Encourage your child to think about how they might solve a problem. Once they have solved the problem, ask them to see if they can find another way to solve it. This encourages children to problem solve. It is always worthwhile to have puzzles and stimulating activities on hand for when your child gets bored.

3 Make sure your child knows that it is ok to make a mistake. We often learn more from making a mistake than from getting the answer correct first time. Research suggests that the brain actually grows when a mistake is made. Encourage your child to see where the mistake is made and correct it. Be patient and consistent.

4 It is important that your child understands what they are learning. There is no point in a child learning something by heart, if they don't understand the concept. Making it visual can often help this – for example division can be shown by cutting a pizza, or addition can be shown by adding different pieces of fruit. It is also important that a child understands that $2 \times 9 = 18$, is the same as $9 \times 2 = 18$.

5 Involve your child in simple maths in daily life. It is important for children to see that maths isn't just something you do in school, but that it is all around us. For example how long does it take to get to school? How many roads do you cross? How long does it take to bake the cake? If you are going on a journey, how far is the journey and how long will it take? If your child plays computer games for 10 minutes a day, how long will they play the computer game over the week?

6 It is important not to emphasise speed. It is important that your child gets the right answer and not how long it took them to get there. Completing a task under time pressure can cause anxiety in your child and may develop a negative attitude towards maths in them.

7 Make maths fun, play maths games with your children (see next page for ideas). Playing games can help them develop problem solving and logical thinking skills. This will help them in their mathematical journey. There are also plenty of maths games on the internet, but it is important that you gauge the right level for your child (see some suggestions on next page).

8 Some topics may be taught differently now. If so make sure you don't confuse your child with the "old" way.

9 If your child is having trouble with any aspect of maths speak to your child's teacher

10 Be familiar with your child's curriculum. Your child's teacher may also be able to explain the curriculum to you and also any new teaching methods.

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Make sure your school is registered for Maths Week on www.mathsweek.ie

Maths Games

TR4V3L G4ME5

Card Number Plate Bingo: Bingo cards can be prepared before a journey and the caller can pick the last number on number plates of passing cars.

For a simpler game without preparation the "caller" can decide what to look for: spot all the number plates ending with odd number/even numbers, spot silver cars with number plates that end in two odd numbers. There are endless possibilities.

USEFUL WEBSITES AND
RESOURCES FOR PARENTS:

WWW.MATHSWEEK.IE

WWW.YOUCUBED.ORG

WWW.MINDSETWORKS.COM

WWW.NRICH.MATHS.ORG

[WWW.NIDIRECT.GOV.UK/
INFORMATION-AND-SERVICES/PARENTS](http://WWW.NIDIRECT.GOV.UK/INFORMATION-AND-SERVICES/PARENTS)

Shopping Games

A shopping trip is a great way to get your child interested in numbers. Before you go, get your child to make a shopping list. It is also a good idea to get children to estimate the price of each item before you leave home, again it encourages the child to think and to understand costs.

As you and your child(ren) go shopping, depending on their age you can:

- encourage him/her to read the prices of different brands on the shelf and perhaps to write these prices on paper
- talk to your child about his/her estimate and the actual prices – this will open your child's eyes to actual prices
- get your child to assess the best value for money when choosing an item looking at the discounts and offers available. This may involve multiplication or division. Sometimes children will discover that the offers are actually deceiving
- get him/her to calculate prices of a number of items together, for example, how much money is spent on vegetables/fruit/frozen food/meat/confectionary
- speak to your child about the trip and what you could do differently on the next trip to save money – perhaps you have to pay for parking or the bus



Maths on the FARM!



**14 – 22nd
OCTOBER 2017**

Coordinated by:

CALMAST



Waterford Institute of Technology

Supported by:



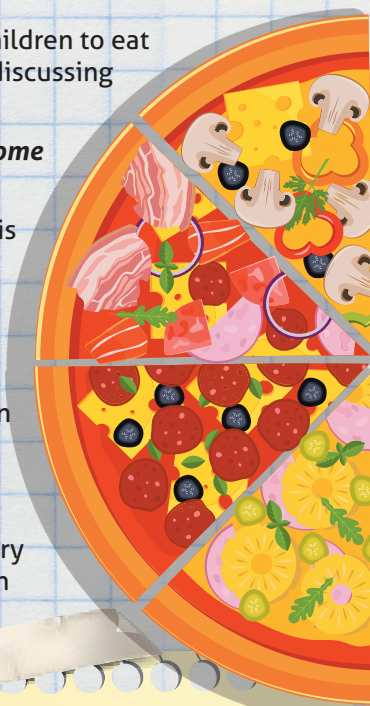


There are an endless number of maths games you can play in the kitchen.

Pizza Fractions is fun and allows children to eat something nice and yummy while discussing fractions.

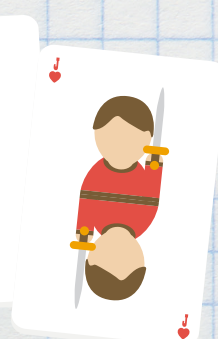
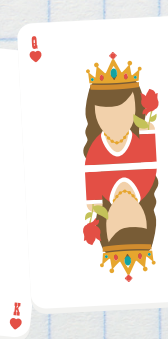
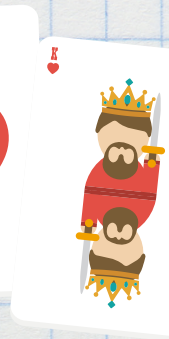
Have a pizza night. Take away or home made both work!

- Discuss how many slices a pizza is divided up into.
- What fraction is each slice?
- How many people are eating the pizza?
- How many slices will each person get? What fraction of the overall pizza will this be?
- Perhaps someone is very hungry and someone else is not so hungry – what fraction will you give each person if appetites vary?



Other fun kitchen games include:

- **Adding:** Calculating the price of ingredients to make an apple pie?
- **Time:** How long does it take to make a cake? Preparation time and cooking time?
- **Measuring Capacity:** How many teaspoons in a cup, how many cups in a jug and so on.



SUM FUN with Cards

- Deal equal numbers of cards to all players (players can't look at their cards)
- Players turn over the top two cards in their pile and add up the value of the two cards. (picture cards have the following values – J = 11, Q = 12, K = 13)
- The player with the highest sum wins the cards. In the event of a tie then the cards are split between tied players.
- When all the original cards are used then the player who has won most cards is the winner

Other fun family card games that improve mathematical thinking include: Crazy 8, Go Fish, Snap, Memory and Old Maid.

FOR MORE GREAT GAMES AND ACTIVITIES VISIT:

www.mathsweek.ie/activities



Some Fun Farm Questions...

- Q Can you count each type of animal shown?
- Q Are there more red apples or green apples?
- Q What do you think is the biggest animal in the picture and why?
- Q Can you find big animals and small animals?
- Q What time is it?
- Q Do you think it is morning or evening?
- Q What else can you count, sort and compare?

Did you know?

An adult's **heart** beats at an average rate of 72 beats per minute. In one year this would add up to **37 million** heartbeats. It's a good idea to take good care of your heart since it works so hard.

There are 35g of **sugar** in one can of many brands of fizzy drinks. If you drank one can each day for a year you would consume over **12 kg** of sugar from this. So drink water instead when you are thirsty!

The **population** of the **Earth** is estimated to be around **7.5 billion** people

The distance around the **Earth's equator** is approximately **40,000 kilometres**

The distance from **Earth** to the **Moon** is around **384,400 kilometres**

The distance from **Earth** to the **Sun** is almost **150 million kilometres**

The new pound coin is 2.8mm thick and the maximum diameter is 23.43mm. If you stacked a **million** new **pound coins** on top of each other they would reach **2.8 kilometres (1.75 miles)** into the air. If you had a **billion pound coins** they would make a stack **2,800 kilometres high**. End to end a million new pound coins would stretch from Belfast to Bangor!

Maths Riddles

1. *Why did the girl wear glasses during maths class?*
2. *Why did the maths book look so sad?*
3. *What becomes smaller when you turn it upside down?*
4. *Why was 6 scared of 7?*
5. *How do you make seven even without subtracting, adding, multiplying or dividing?*
6. *Why do plants hate maths?*

Riddle Answers
1. Because it improves di-vision.
2. Because it had so many problems.
3. The number 9
4. Because 7 ate (8) 9
5. Remove the "S"
6. Because it gives them square roots



Some items we might have in the home to encourage maths activities

Clock – children can check the time at meals

Calendar – become familiar with dates

Cards – fun games on previous page

Calculator – become familiar with it before use in school

Chocolate Bar or Pizza – discussions about fractions

Measuring Jugs and Scales – measuring capacity and estimating

Smarties – sorting, grouping and adding

Ruler – measuring length

Dice – become familiar with the idea of probability and chance

Board Games – become familiar with patterns, probability, concentration & numbers

Dart Board – adding

Rings Board – adding

How do we write big numbers?

1 hundred (2 zeros)
100

1 thousand (3 zeros)
1,000

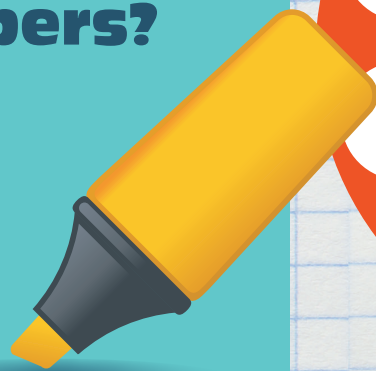
10 thousand (4 zeros)
10,000

100 thousand (5 zeros)
100,000

1 million (6 zeros)
1,000,000

1 billion (9 zeros)
1,000,000,000

1 trillion (12 zeros)
1,000,000,000,000

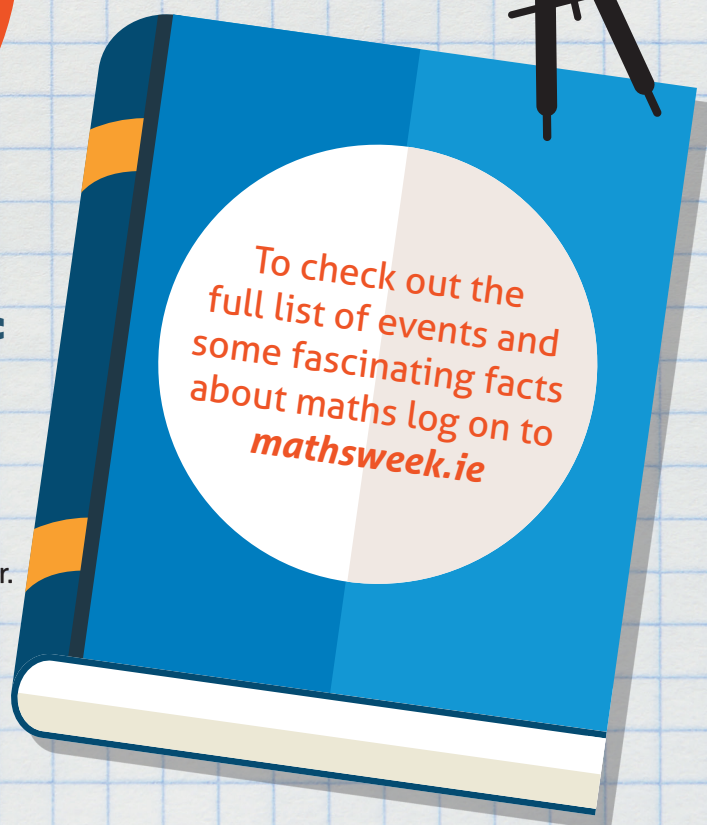


Target Boards is a great game to practice arithmetic

This is similar to Countdown, you have to make up the target number given the 9 numbers. You can add, subtract, multiply, divide.

However, the aim of the game is to find as many different ways to get the target number.

You can make up other target boards as you wish (smaller numbers for younger children) and of course you are free to make up your own rules (as long as you follow mathematical rules, of course).



To check out the full list of events and some fascinating facts about maths log on to **mathsweek.ie**