

Maths Games

This week there are 5 different Maths games that can be easily played at home with a sibling or an adult.

Once you have played the game a few times, you will begin to understand it more and feel confident to develop your own strategy to try and win the game.

All of the games are from a section the NRICH website, called “Maths at Home” and you can find more activities for different age ranges at the following link:

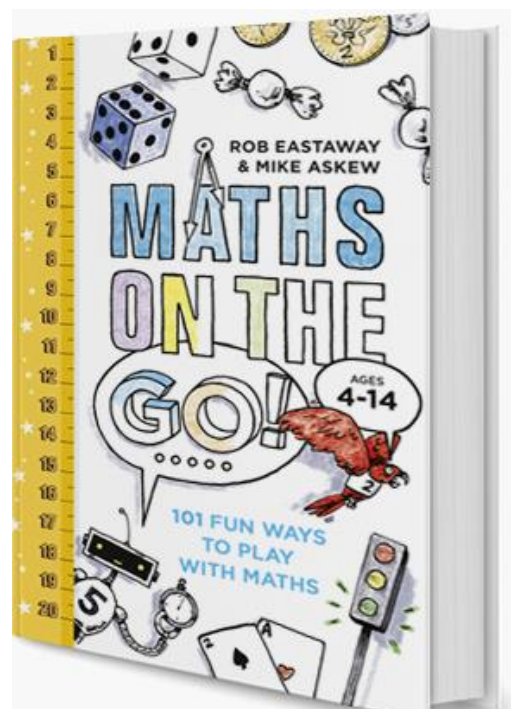
<https://nrich.maths.org/covid19>

You may also enjoy playing some of the games over the summer holidays, as they are a fun way to keep practising your key skills.

Some other fun Maths activities to try over the summer holidays can be found in a book called “Maths on the Go” by Rob Eastaway and Mike Askew.

This book contains 101 simple tips, games and activities to make practising maths enjoyable, for you as well as your child. All can be incorporated into the everyday routine – at home and on the go – with minimal fuss and no expensive kit.

In the car? Play a game of *Pub Cricket*, *Are We There Yet* or *The Bike Helmet Count*. Standing in a queue at Legoland? Play a game of *Who Wants to be a Mathionaire?* or work out how long you will be waiting before you get drenched on *Pirate Falls*.



Game 1: Four Go

- Draw a number line on a piece of paper, marked from 0 to 20, like this:

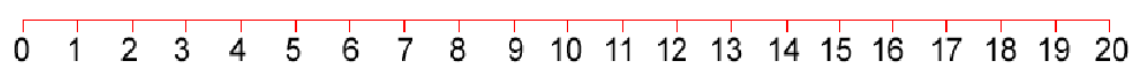
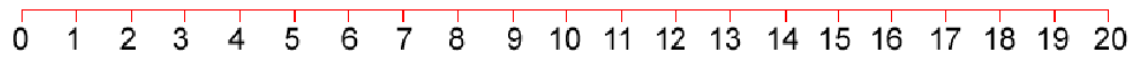
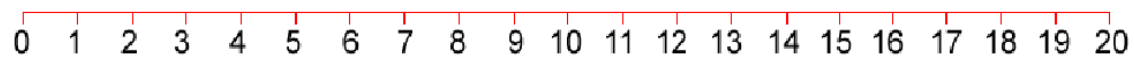
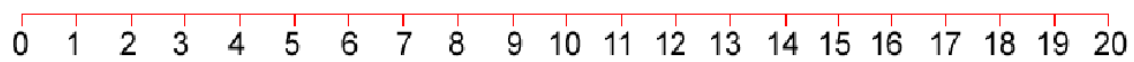
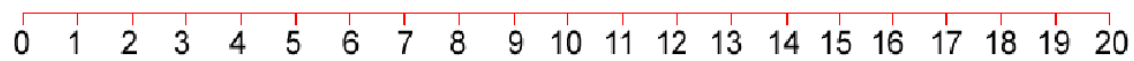
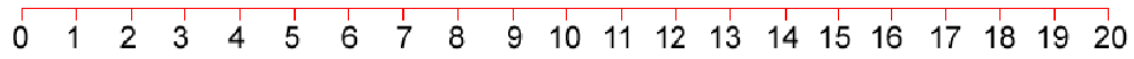
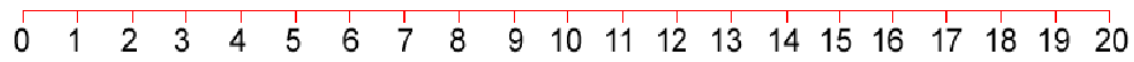
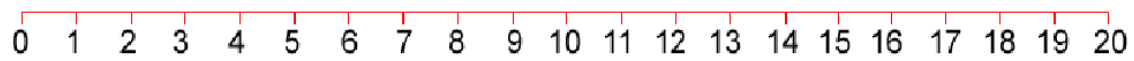


- This challenge is a game for two players. The first player chooses two numbers in this grid and either multiplies or divides them.
- You can use the templates on the next page when you play the game.

100	25	5
10	2	36
12	4	3

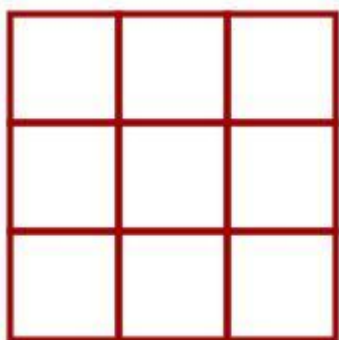


- He or she then marks the answer to the calculation on the number line.
- The second player then chooses two numbers and either $\times$ or $\div$, and marks that number in a different colour on the number line.
- If the answer is too big or too small to be marked on the number line, the player misses a go.
- The winner is the player to get four marks in a row with none of their opponent's marks in between.
- ***What good ways do you have of winning the game?***
- ***Does it matter if you go first or second?***

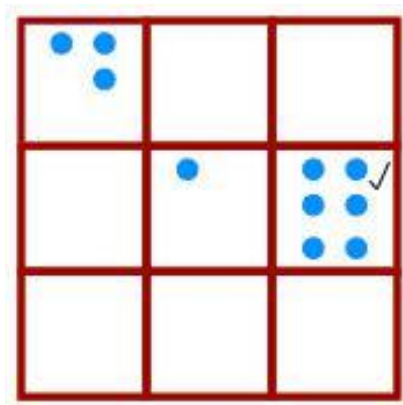


Game 2: Dotty Six for Two

- This is a game for two people
- You'll also need a 1 to 6 dice, or use an [interactive dice](#)
- You need a grid like the one below, which are on the next page



- Take turns to throw the dice and draw that number of dots in one of the boxes on the grid.
- Put *all* of your dots in one of the boxes. You can't split them up and you can't have more than six dots in a box.
- When a box is full, you could put a tick in the corner like this:



- Keep going until there are three ticks in a row or column or diagonal.
- The winner is the person who puts the last tick.
- Can you change the game to make your own version?
- How do you know where to put your dots?

Game 3: Nim 7 for Two

This is a basic form of the ancient game of Nim.

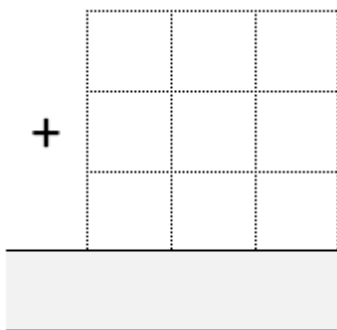
- You'll need someone to play with.
- You will also need seven objects, such as counters or blocks.
- Place the 7 counters in a pile and starting with the adult, take turns to take away either one or two counters.
- The person who takes the last counter wins.
- Swap who goes first, and keep playing until you work out a winning strategy.
- *Does it matter who has the first turn?*
- *What happens when there are three counters left?*
- *How can you win at this game?*
- *What happens when you start the game with more counters?*

Game 4: Dickey Operations

- This is a game for two or more players.
- You'll need a scoring sheet
- You'll also need a 1 to 6 dice, or even a 0 to 9 dice or spinner. You could use this [interactive dice/spinner](#).
- Take turns to throw the dice and decide which of your cells to fill.
- This can be done in two ways: either fill in each cell as you throw the dice or collect all your numbers and then decide where to place them.
- There are four different types of games you can play.

Game 1

Each of you draw an addition grid like this:



Throw the dice nine times each until all the cells are full.

Whoever has the sum closest to 1000 wins.

There are two possible scoring systems:

- A point for a win. The first person to reach 1000 wins the game.
- Each player works out the difference between their result and 1000 after each round. They keep their running total. First to 5000 loses.

You can vary the target to make it easier or more difficult.

Game 2

Each of you draw a subtraction grid like this:

A blank 2x4 grid of squares, intended for drawing a picture related to the text.

Throw the dice eight times each until all the cells are full.

Whoever has the difference closest to 1000 wins.

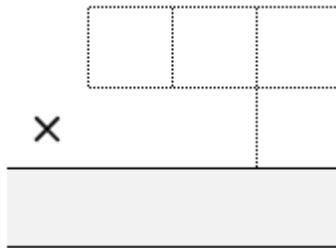
There are two possible scoring systems:

- A point for a win. The first person to reach 10 wins the game.
- Each player works out the difference between their result and 1000 after each round. They keep their running total. First to 5000 loses.

You can vary the target to make it easier or more difficult, perhaps including negative numbers as your target.

Game 3

Each of you draw a multiplication grid like this:



Throw the dice four times each until all the cells are full.

Whoever has the product closest to 1000 wins.

There are two possible scoring systems:

- A point for a win. The first person to reach 10 wins the game.
- Each player works out the difference between their result and 1000 after each round. They keep their running total. First to 5000 loses.

You can vary the target to make it easier or more difficult.