

Pencil and Paper Math Games

Did you know that there are many math games that are quick and easy to play and require very little equipment?

All you need for some games is a pencil and paper and you are ready to go.

Listed below are some of my favorite math games.

These are games that I have used many times and I know how much kids love to play them.

Higher or Lower

This is a great game for exploring number order and place value.

- To begin select the upper and lower number limits, eg between 10 and 100.
- One player selects a number and records it on a piece of paper.
- The other player/s guess what they think the number might be.
- For each guess the first player tells if the chosen number is higher or lower.
- Play continues until the number is guessed.

This game can also be played in more advanced varieties to develop skills in ordering larger numbers, decimals or fractions. See the examples of more advanced games below.

- 3 digit number between 300 and 600 (eg 345)
- 4 digit number between 2000 and 4000 (eg 3027)
- number with 1 decimal place between 6 and 9 (eg 7.3)
- number with 2 decimal places between 4 and 5 (4.87)
- fraction with single digit numerator and denominator, between 0 and 1 (e.g. $\frac{4}{5}$)

Jumbled Operation

Play Jumbled Operation to practice any computation.

- Simply give a jumble of numbers and signs for kids to unjumble, e.g. $X = 1, 2, 3, 7$.
- Children then work out a sensible number sentence that uses each sign and digit, i.e. $3 \times 7 = 21$.

- Several of these can be written on the board or on a piece of paper with each set of signs and digits written in a separate circle or box. Challenge children to see who can be the first to solve all or time children to see how long it takes them to solve all.

Find It First

To practice basic multiplication tables (and addition, subtraction or division), try playing Find It First.

- Simply write the answers to facts you are going to practice, randomly over the board or a piece of paper, e.g. to practice 8 times tables write – 8, 16, 24, 32, 40 etc. To make the game bit more challenging, you can also add a few other numbers.
- Two children stand or sit either side to the numbers and a multiplication table is given, e.g. 7 times 8.
- Children compete to be the first to point to the answer.
- The first to find the answer scores a point and the first to score three points is the winner.

This game works well as a whole class game with children representing their team or have a tournament to see who the class champ is with every child having a turn.

This game can also be used at home with the child being challenged to find as many answers as they can in 1 minute. Keep a record of their score to monitor their improvement.

Corners

This is a challenging game of strategy for two people. It is simple to learn and quick to play and children love to play again and again.

To play corners draw a 10 by 10 grid. Each player uses a different colored pen.

- Both players start in opposite corners.
- Players take turns at coloring a block of 2 squares that are joined by a side.
- Every block that is colored after the first one must join to one of the other colored blocks that has been colored by that player, but only at the corner.
- A player can not have 2 of their colored blocks joined side by side.
- When a player is unable to color a block of 2 squares, he is out and the other player is the winner.

Corners can be played in different ways in different situations.

- Game sheets for Corners can be printed from **Print and Play Games Masters** – one of the bonus books available from [Making Math More Fun](http://www.makingmathmorefun.com).

- Use pencil and paper to play or play on a whiteboard or blackboard.
- Play on the computer by drawing a table in a Microsoft Word doc. This will also give practice at computer skills at the same time.
- Play in the classroom on the board with one side of the room challenging the other side.
- In the classroom, have a tournament by pairing students off to play against each other. Winners of each game can play again in the next round and then continue until a class champ is found.

Sprouts

This is a simple but challenging game for 2 people.

To play Sprouts draw three random dots on a sheet of paper.

- Each player takes turns at drawing a curved line to link 2 dots then placing another dot somewhere along the line.
- There are 2 rules for this game - no line can cross another line and no dot can have more than 3 lines leaving it.
- The last player who is able to make a join is the winner.

Game sheets for Sprouts can be printed from **Print and Play Games Masters** – one of the bonus books available from [Making Math More Fun](http://www.makingmathmorefun.com).