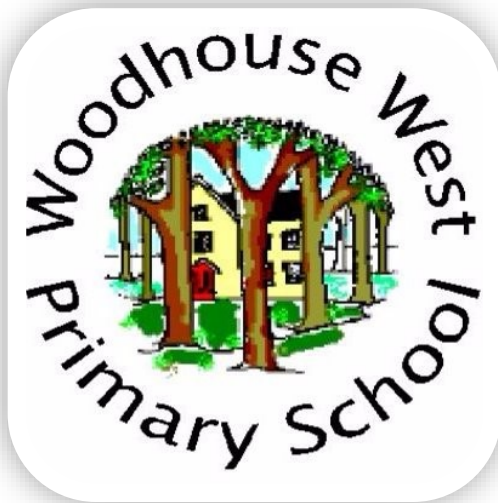
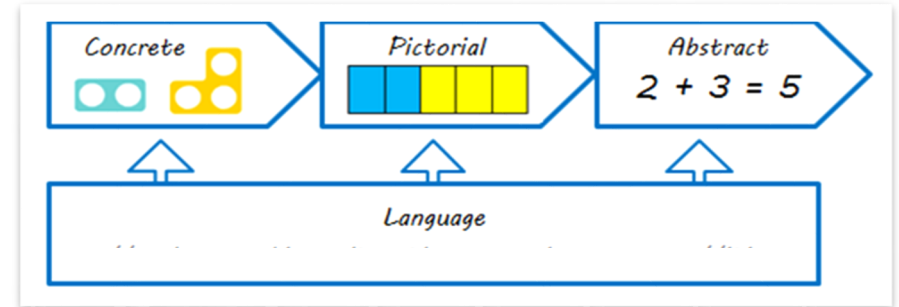
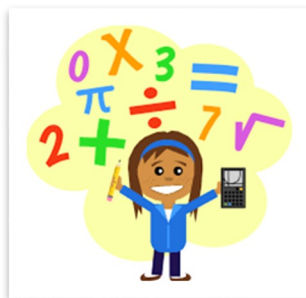




This leaflet contains a variety of games that you can play at home with your child (ren) to develop their love of Maths. You will need some basic resources that can be found around the home.

Have fun!



Woodhouse West Primary School Maths Guide

KS2 Maths Games

Count Down!

This game is a simple at home version of the TV favourite and can be played with any number of players.

What you need to play:

- ◇ 4 'large number' cards with the numbers 25, 50, 75 and 100 on them
- ◇ A set of cards with the digits 1–10 on them, with at least two cards for each number

How to play:

Step 1: Set out 4 large number cards (25, 50, 75 and 100) face down and mixed up.

Step 2: Do the same with the 1 – 10 cards, making sure you have at least 2 cards for each number.

Step 3: Players take it in turns to select one of the big number cards or one of the small number cards, until there are 6 cards laid out all together.

Step 4: Someone who is playing the game needs to generate a 3–digit number. This can be by throwing a dice, or selecting cards from a pile of 0 to 9 cards.

Step 5: Once the number has been generated, turn over the six cards and players have to try and get to that total using any of the six number cards and any of the four operations.

Each card can only be used once and the winner is the first person to reach the total, or the player who is closest after a set length of time.

The game can be adapted for younger children, by choosing the numbers on the cards carefully and having them aiming to reach a 2–digit number, rather than a 3–digit number.

Link to video explaining how to play: https://www.youtube.com/watch?v=RZgkr5_Xn58&feature=emb_logo

Salute

This simple game is all about bringing together verbalisation and maths.

What you need to play:

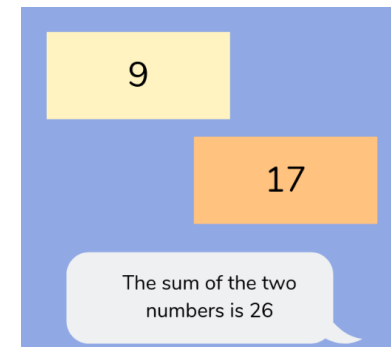
- ◇ Two willing participants
- ◇ Cards numbered 1–10 (these can be made from a sheet of paper)

How to play:

Step 1: The game starts with the two players facing each other. Each person selects a numbered card and sticks it on their forehead, so the other player can see.

Step 2: The person leading the game gives a statement, such as what the sum of the two numbers is, the difference between the two or the product of the two etc.....

Step 3: Each player has to work out what number is on their own card, based on what is written on the other person's head and the rule given.



Multiplication Bingo

Bingo is something that can be enjoyed by people of all ages, and this version puts a mathematical twist on this classic game.

What you need to play:

- ◇ Paper to write numbers down on

How to play:

Step 1: In this mathematical version of the game, all players write down 5 numbers, which are multiples of a given times table. For example: if they were doing the 5 times table, they might write 10, 35, 45, 50 and 60.

Step 2: A third person can lead the game and call out multiplication questions from the chosen times table, or they can be written on cards, jumbled up in a pile for players to take turns picking and reading out.

Step 3: If the player has an answer to the question on their bingo board, they can cross it out. First person to cross out all their numbers is the winner.

10	35	
45	50	60

Maths Problem Scavenger Hunt

All children enjoy a scavenger hunt, so why not make one based around maths?

What you need to play

- ◇ Some creativity
- ◇ A garden or home full of measurable objects!

How to play:

Step 1: Give children a grid with some pre-set weights and lengths on. It will then be a challenge for them to find something in the garden that is approximately 10cm long, or something in the house that weighs 300g (as an example).

Step 2: Get your child to gather all of the items they think match the weights and lengths on the card, and check how well they have done with some kitchen scales and a tape measure!

The Yes/No Game

This is another simple game that is loved by children in classrooms across the country!

What you need to play:

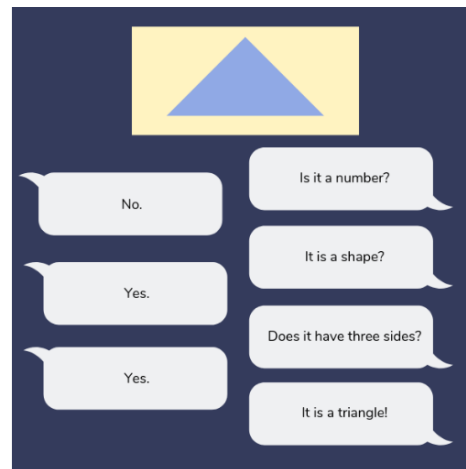
- ◇ A series of cards/pieces of paper

How to play:

Step 1: Both players put a card on their head. It could have a number on it, a shape etc....

Step 2: The first player asks a question which can only be answered with 'yes' or 'no'. E.g. 'Am I odd?' 'Am I under 20?' 'Do I have 4 sides?' etc.....

Step 3: They keep asking questions until they get the answer correct, or they run out of turns (you can set the number of turns they get at the beginning of the game). Then it is time for the other player to have a go.



Bang Bang

Bang bang is a great game for practising quick recall facts.

What you need to play:

- ◇ Two willing mathematicians!

How to play:

Step 1: 2 players stand back to back, cowboy shootout style.

Step 2: A question is called out, such as 'what is 7 x 6?'

Step 3: The first player to turn, face their opponent, shout 'bang bang' and to give the answer wins the round.

Step 4: This is then repeated until a number of points, decided at the start of the game, is reached. That player is then the winner.

Five To One

This game not only tests children's verbalisation and problem solving skills, but it also brings an element of competition into doing maths at home, and we all know how much children love to 'win'!

What you need to play:

- ◇ Cards with maths statements written on them
- ◇ Two players

How to play:

Step 1: The first person picks a card containing five statements. Each of the five statements provide a clue to the final answer, starting with a vague clue for the first statement, through to an easy clue for the fifth statement.

Step 2: Player one picks a card and reads out the first statement. E.g. 'This shape has four sides'.

Step 3: Player two can choose to give an answer and score the maximum five points, if they are correct, but risk scoring zero if they are wrong. Alternatively, they can choose to hear the four point question. They keep on going until they get a question wrong, or they choose to pass to hear the next question until they get to the final one point question.

The 24 Game

This is a very simple game that will help your child practice their arithmetic skills, and it is a game they can play with a group of friends.

What you need to play:

- ◇ A pack of playing cards (The number cards only)

How to play:

Step 1: Each player picks 4 number cards at random from the pile.

Step 2: They then need to find a way to manipulate the 4 digits using any of the 4 operations (+, -, x, ÷) so the end result is 24. For example, if they chose 4, 7, 8, 8, they could do $(7 - (8 \div 8)) \times 4 = 24$

Step 3: If nobody is able to reach 24, you can make it closest wins!

Link to video explaining how to play: https://www.youtube.com/watch?v=HeO0q0cSvx0&feature=emb_logo

5 Of A Kind

This is a tricky maths card game that will truly put your child's (and maybe even your) skills and knowledge to the test.

What you need to play:

- ◇ 5 sets of cards numbered 2–9

How to play:

Step 1: The first player picks a card numbered from 2 – 9.

Step 2: They then collect another 4 cards with the same number as the first, so they have 5 cards with the same number.

Step 3: The aim of the game is to use one or more of the five cards to get an answer of each digit between one and ten.

If for example, the player chose a 5. They would then need to use one or more of the cards to find the answer 1, 2, 3..... To make 1, they could do $5 \div 5$, to make 2 they could do $(5 \div 5) + (5 \div 5)$ etc....

Life Size Board Games

Board games are a fun way to spend time with the family, but have you ever thought about actually becoming part of the board game?

To help your child learn maths outside, you can easily make a life size board game and become the characters in the game.

What you need to play:

- ◇ Paper plates (or even just sheets of paper will do)
- ◇ A large dice (or a cube shaped box which can be made into a dice)
- ◇ A dose of creativity!

How to play:

Step 1: Use paper plates as an easy way to make the board game squares, and if you don't have access to a large dice, a cube shaped box can be made into one instead.

Step 2: The board games you play can vary depending on the age of your child. With younger children, the plates can be numbered to encourage counting, whilst older kids could have times tables or other maths facts to answer as they go round the board.

Telling The Time Activity

Time is one of those things many children find tricky, but this game will help your child tackle this topic.

What you need to play:

- Chalk

How to play:

Step 1: Try drawing a clock on the ground with chalk.

Step 2: Then, get your child to use their body to make the hands of the clock. They could show just the hour or minute hands by lying straight, or they could use their body to make the hour and the minute hands, with their legs (the longer part) being the minute hand and their torso (the shorter part) the hour hand.

Multiplication Hopscotch

Everyone knows how to play hopscotch, but by introducing maths into the mix you can take this traditional playground game to the next level.

What you need to play:

- ◇ Chalk

How to play:

Step 1: Using chalk, draw out hopscotch squares on the ground and in each square, write either multiples of a number or multiplication facts.

Step 2: Each person then hop, skips and counts at the same time, which is a really good way of helping those multiplication facts stick.

The other great thing about this game is this can be done with one person, or if friends are visiting everyone can join in and have a go.

Skunk

This is the perfect game to teach your child all about probability, and whilst it seems like it would be easy to win, your child will soon find out that this isn't the case...

What you need to play:

- ◇ Two dice
- ◇ A sheet of paper

How to play

Step 1: Write the word skunk and separate each letter into a different column on a sheet of paper. Each letter of the word 'skunk' represents a different round of the game.

Step 2: The first player rolls a pair of dice and works out the total of the two dice. The score is written in the S column. If they roll a one they score zero.

The Pig Dice Game

This game is similar to the skunk game, but there only needs to be one player and one die. However, even with only one dice things will still get tense!

What you need to play:

- ◇ One die
- ◇ A sheet of paper

How to play:

Step 1: Throw the die and the player records the number that they roll. As long as a one isn't thrown, the player can roll again and add the number to their total.

Step 2: After each throw, the player has to decide whether to throw again or keep the points they've scored. If a one is thrown at any point, the player loses all the points scored so far.

Step 3: The first player to score 100 is the winner.

Link to video explaining how to play: https://www.youtube.com/watchlist=PLWIJ2KbiNEyoBDc5yLJ4PaiaY3o5E5xCB&v=foj6ujoT_HU&feature=emb_logo

Triangle Tower

This game is a great way to test your child's times tables skills, and it only takes two minutes to set up!

What you need to play:

- ◇ Two dice
- ◇ A sheet of paper
- ◇ Counter or coins

How to play:

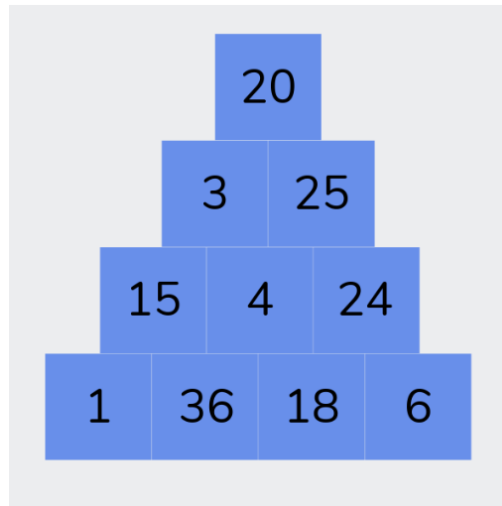
Step 1: Draw out a triangle made from squares, with four on the bottom up to one at the top.

Step 2: Each player chooses 10 number from the products table (1, 2, 3, 4, 5, 6, 8, 9, 10, 12, 15, 16, 18, 20, 24, 25, 30, 36). This is simply all of the possible options you can get when multiplying the numbers between 1 and 6 together.

Step 3: Write one number in each of the ten triangles from the product table results above.

Step 4: The first player then rolls 2 dice and multiplies the two numbers together. If they have the product of the two numbers written on their tower, they can then cover it with a counter.

Step 5: The winner is the first player to cover all their numbers in the tower.



Game extension idea

The game can include more challenging multiplication calculations by changing the numbers on the dice.

If one has the numbers 1–6 and the second has the number 7–12, the numbers each player has to choose from are (7, 8, 9, 10, 11, 12, 14, 16, 18, 20, 21, 22, 24, 27, 28, 30, 32, 33, 35, 36, 40, 42, 44, 45, 48, 50, 54, 55, 60, 66 and 72)

Alternatively, both dice marked with the numbers 7 – 12 would give the products 49, 56, 63, 64, 70, 72, 77, 80, 81, 84, 88, 90, 96, 99, 100, 108, 110, 120, 121, 132 and 144.

The Biggest Number

Place value is a crucial skill for children to grasp during primary school, and this simple card game will help them to do that in visual and fun way.

What you need to play:

- ◇ One place value grid (drawn onto a piece of paper)
- ◇ A deck of playing cards

How to play:

Step 1: Each player draws a place value grid, with an agreed number of places. E.g. Thousands, hundreds, tens and ones.

Step 2: Using a deck of cards 2–10, Ace and picture cards, with 2–10 being worth their digit, Aces being worth 1 and picture cards being worth 0.

Step 3: Players take turns to draw a card from the pile, and each player chooses which column to record the number in. The winner is the person to have the biggest number recorded at the end of the game.

First To 100

This simple game is perfect for car journeys or the 10 minutes before dinner, and it will get your children practising their maths skills in a fun and exciting way!

What you need to play:

- ◇ A deck of playing cards
- ◇ A sheet of paper

How to play:

Step 1: Shuffle a pack of cards and place face down. Each player takes one card and turns it over in front of them.

Step 2: Record the number on the card (Ace is worth 1 and picture cards are worth 10).

Step 3: Each player then takes a second card and adds the number to the first number, recording it on the paper.

Step 4: Keep taking cards until the first person reaches 100. They are the winner.

Game extension idea

A variation on this game can be to start at 100 and keep subtracting until someone gets down to zero.

For older children, instead of adding the cards together, they can be multiplied each time, with the winner being the first to reach 1000.

Wild Jack

This is a fast paced maths card game for two or more players, where all eyes will be on the Jacks in the pack...

What you need to play:

- ♦ A deck of cards

How to play:

Step 1: Other than the Jacks, remove all of the picture cards from a deck. Jacks are 'wild cards' and can be used at any time to represent any number from 1 – 10.

Step 2: The aim of the game is to reach the target number. To make the target number, shuffle the pack and turn over the top two cards. If either are a 10 or joker, put them to the bottom. The 2 cards turned over make the target number. For example, if you turn over the 5 of hearts then the 2 of diamonds, your target number is 52.

Step 3: Each player is dealt 5 cards, which are set out face up. Players then can add, subtract, multiply and divide to try to reach the target number. If the target number is reached using all 5 cards, 10 points is scored, if it is made using less than 5 cards, 8 points is scored.

Battleships

This is a game that most people will be familiar with, but it just so happens to be fantastic practice for KS2 coordinates.

What you need to play:

- ♦ Some sheets of paper
- ♦ Pens or pencils

How to play:

Step 1: Each player draws out a grid with A – J along the **bottom and 1 – 10 up the side**.

Step 2: They then plot ships of various sizes on the grid by colouring in the squares:

- One ship five squares long (the aircraft carrier)
- One ship four squares long (the battleship)
- Two ships three squares long (the cruiser and submarine)
- One ship two squares long (the destroyer)

Step 3: The first player 'shoots' by calling out a grid reference, e.g. B3. If it hits an empty square, the other player shouts, 'miss!' whilst the first player draws a cross, but if it hits a square with a ship in it, they have to shout 'hit' and the other player draws a dot. Each player keeps track of their hits and misses on a separate grid.

Step 4: Once all the squares for a ship have been hit, that ship then 'sinks'. The winner is the one to sink all the other person's ships first.

Multiplication 4 In A Row

This game does the impossible, and manages to make learning multiplication facts fun.

What you need to play:

- ◇ Sheets of paper
- ◇ Counters or coins

How to play:

Step 1: Each player needs a set of coloured counters or different coins (2ps vs 10ps as an example).

Step 2: Make a grid containing the answers to the times tables being worked on (you can choose which times table you want your child to tackle) and a set of cards with the multiplication questions.

Step 3: Each player takes it in turns to pick a card, work out the answer and cover the answer with their counter. The first player to cover four in a row is the winner.

4 times table 4 in a row			
400	32	8	●
40	88	●	●
16	●	●	●
●	●	●	●

Dots And Boxes

This maths game is a classic, and the chances are high that some parents out there would have played this themselves when they were at school.

Please note, this game can be played by drawing dots on a page, but it is easier to download square dot paper and print it out.

What you need to play:

- ◇ A sheet of dotted paper
- ◇ A pen or pencil

How to play:

Step 1: The first player draws a line to join one of the dots to another of the dots, the next player then does the same.

Step 2: This continues until one player manages to join the lines to make a box. They write their initial in the box and get to take another go. Once they are no longer able to complete a full box, it goes back to the other player.

Step 3: The winner is the person who has their initial in the most boxes at the end of the game.