

West Ashton CE Primary School



*Guide to maths games to play
at home*

Recognising numbers

Choose a number for the week, e.g. 2.
Encourage your child to look out for this number all the time.

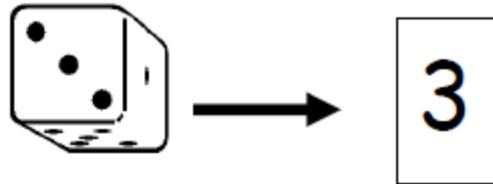
- Can your child see the number 2 anywhere?
 - **at home** - in the kitchen, on pages in a book
 - **in the street** - on doors, on car number plates, on buses
 - **while out shopping** - on the shop till, on shelves, in shop windows
- Find two apples, toys, spoons, straws, sweets, etc.
- Make patterns, such as two knives, two forks, two spoons, two knives, two forks, two spoons...
- Practise writing the number 2.

Choose a different number each week

Dice game

Use a 'dotted' dice and write the numbers 1 to 6 on a sheet of paper (or use the numbered animals).

- Throw the dice. Can your child guess how many dots there are? Check by counting.
- Ask your child which number on the paper matches the dots on the dice.



Build a tower

For this game you need a dice and some building blocks or lego bricks.

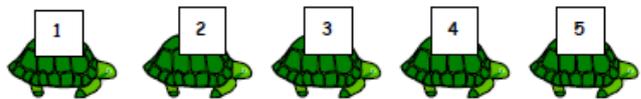
- Take turns.
- Roll the dice.
- Collect the number of bricks to build your own tower.
- The first to 10 wins!

For a change, start with 10 blocks or bricks each. Take away the number on the dice. First to exactly zero wins.

Counting and putting numbers in order

Use old magazines, comics or greetings cards.

Cut out pictures of animals, or anything else your child is interested in. Label the animals 1 to 5.



- Shuffle the animals. Put them in order from 1 to 5.
- Remove one animal. Ask your child which number is missing. Repeat with other numbers and more than one missing number.
- Ask your child to say what number comes before or after a number you choose.

When your child can do this, repeat with numbers 1 to 10.

Counting

Practise counting. Start at 5, and count on from there to 11.

Start at 9, count back from there to zero.

Choose a different starting number each time.

Rhymes

Teach your child any number rhymes or songs that you know, particularly ones that involve holding up a number of fingers, like *Five little speckled frogs*. Practise them regularly, with actions.

Shape activity

At home, or when you are out, look at the surface of shapes.

Ask your child - what shape is this plate, this mirror, the bath mat, the tea towel, the window, the door, the red traffic light, and so on.

Choose a shape for the week, e.g. a square.

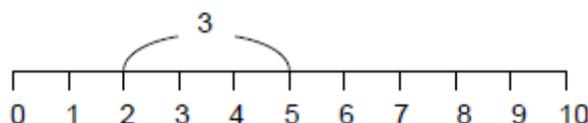
How many of these shapes can your child spot during the week, at home and when you are out?

Dice game

You need a 1-6 dice, paper and pencil.

- Take turns.
- Choose a number between 1 and 10 and write it down.
- Throw the dice and say the dice number.
- Work out the difference between the chosen number and the dice number, e.g. if you wrote down a 2 and the dice shows 5, the difference is 3.

You could also draw a number line to help your child to see the difference between the two numbers.



Secret numbers

Write the numbers 0 to 20 on a sheet of paper.

Ask your child secretly to choose a number on the paper. Then ask him / her some questions to find out what the secret number is, e.g.

Is it less than 10?

Is it between 10 and 20?

Does it have a 5 in it?

He / she may answer only yes or no.

Once you have guessed the number, it is your turn to choose a number. Your child asks the questions.

Cupboard maths

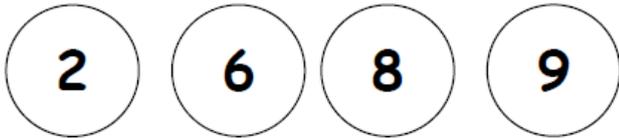
- Choose two tins or packets from your food cupboard.
- Ask your child to hold one in each hand and tell you which is heavier, and which is lighter. (Check by reading the weight on each tin or packet.)
- If he / she is right, they keep the lighter one. Then choose another item from the cupboard, trying to find one that is lighter still.
- Carry on until your child has found the lightest item in the cupboard. It might be suitable to eat as a prize!

For an easier game, use numbers up to 10. For a harder game, use only 5 questions, or use bigger numbers.

Adding circles

For this game, you need a dice and pencil and paper.

Each of you should draw four circles on your piece of paper. Write a different



number between 2 and 12 in each circle. Roll the dice twice. Add the two numbers.

If the total is one of the numbers in your circles then you may cross it out. The first person to cross out all four circles wins.

Housey, housey

When walking down the street with your child, look at house numbers.

These will probably be following a pattern of either odd or even numbers.

Can your child predict what number will be on the next house?

Talk about the pattern.

Out and about

On the way to school, see how many cuboids, spheres and cylinders you can spot.

Which did you see most of?

How heavy?

You will need some kitchen scales that can weigh things in kilograms.

♦ Ask your child to find something that weighs close to 1 kilogram.

♦ Can he / she find something that weighs exactly 1 kilogram?

♦ Find some things that weigh about half a kilogram.

How much?

♦ Once a week, tip out the small change from a purse. Count it up with your child.

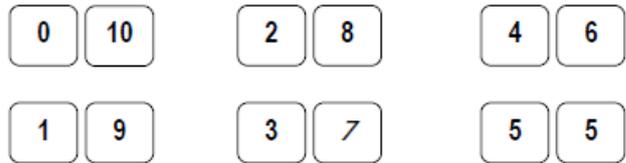
Speedy pairs to 10

Make a set of 12 cards showing the numbers 0 to 10, but with two 5s.

If you wish, you could use playing cards.

♦ Shuffle the cards and give them to your child.

♦ Time how long it takes to find all the pairs to 10.



Repeat later in the week. See if your child can beat his / her time.

Guess my shape

- ◆ Think of a 2-D shape (triangle, circle, rectangle, square, pentagon or hexagon). Ask your child to ask questions to try and guess what it is.
- ◆ You can only answer Yes or No. For example, your child could ask: Does it have 3 sides? or: Are its sides straight?
- ◆ See if he can guess your shape using fewer than five questions.
- ◆ Now ask them to choose a shape so you can ask questions.

Straight lines

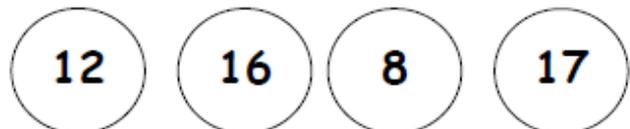
Choose 4 toys and lay them on the table in order of length. Use a ruler to measure each toy to the nearest cm.

Shopping maths

- After you have been shopping, choose 6 different items each costing less than £1. Make a price label for each one, e.g. 39p, 78p. Shuffle the labels. Then ask your child to do one or more of these.
- ◆ Place the labels in order, starting with the lowest.
 - ◆ Say which price is an odd number and which is an even number.
 - ◆ Add 9p to each price in their head.
 - ◆ Take 20p from each price in their head.
 - ◆ Say which coins to use to pay exactly for each item.
 - ◆ Choose any two of the items, and find their total cost.
 - ◆ Work out the change from £1 for each item.

Circle trios

Draw four circles each on your piece of paper. Write four numbers between 3 and 18, one in each circle.



- ◆ Take turns to roll a dice three times and add the three numbers.
- ◆ If the total is one of the numbers in your circles then you may cross it out.
- ◆ The first to cross out all four circles wins.

Can you tell the time?

Whenever possible, ask your child to tell you the time to the nearest 5 minutes. Use a clock with hands as well as a digital watch or clock.

Also ask:

- What time will it be one hour from now?
- What time was it one hour ago?

Time your child doing various tasks, e.g.

- getting ready for school;
- tidying a bedroom;
- saying the 5 times, 10 times or 2 times table...

Ask your child to guess in advance how long they think an activity will take. Can they beat their time when they repeat it?

Fractions

Use 12 buttons, or paper clips or dried beans or...

Ask your child to find half of the 12 things.

Now find one quarter of the same group.

Find one third of the whole group.

Repeat with other numbers.

Number games

Roll two dice. Make two-digit numbers, e.g. if you roll a 6 and 4, this could be 64 or 46. If you haven't got two dice, roll one dice twice. Ask your child to do one or more of the activities below.

- Count on or back from each number in tens.
- Add 19 to each number in their head. (A quick way is to add 20 then take away 1.)
- Subtract 9 from each number. (A quick way is to take away 10 then add back one.)
- Double each number.

Bingo

One person has the 2x table and the other has the 5x table. Write six numbers in that table on your piece of paper, e.g.

4 8 10 16 18 20

Roll one or two dice. If you choose to roll two dice, add the numbers, e.g. roll two dice, get 3 and 4, add these to make 7.

Multiply that number by 2 or by 5 (that is, by your table number, e.g. 7×2 or 7×5).

If the answer is on your paper, cross it out.

The first to cross out all six of their numbers wins.

Secret sums

Ask your child to say a number, e.g. 43.

Secretly do something to it (e.g. add 30). Say the answer, e.g. 73.

The child then says another number to you, e.g. 61.

Do the same to that number and say the answer.

The child has to guess what you are doing to the number each time!

Then they can have a turn at secretly adding or subtracting something to each number that you say to them.

Digit Divide

Make digit cards 0-9 cut out and place face down on a surface. Choose 3 and make a 3 digit number. Ask your child to read aloud the number and then partition it.

4

5

6

Eg

- four hundred and fifty six → four hundreds, five tens and six ones.

Mugs

You need a 1 litre measuring jug and a selection of different mugs, cups or beakers.

Ask your child to fill a mug with water.

Pour the water carefully into the jug.

Read the measurement to the nearest 10 millilitres.

Write the measurement on a piece of paper.

Do this for each mug or cup.

Now ask your child to write all the measurements in order

Measuring

Use a tape measure that shows centimetres.

Take turns measuring lengths of different objects, e.g. the length of a sofa, the width of a table, the length of the bath, the height of a door.

Record the measurement in centimetres, or metres and centimetres if it is more than a metre, e.g. if the bath is 165 cm long, you could say it is 1m 65cm (or 1.65m).

Write all the measurements in order.

Pairs to 100

This is a game for two players.

Each draw 10 circles. Write a different two-digit number in each circle - but not a 'tens' number (10, 20, 30, 40...).

In turn, choose one of the other player's numbers.

The other player must then say what to add to that number to make 100, e.g. choose 64, add 36.

If the other player is right, she crosses out the chosen number.

The first to cross out 6 numbers wins.

Number game

You need about 20 counters or coins.

Take turns. Roll two dice to make a two-digit number, e.g. if you roll a 4 and 1, this could be 41 or 14.

Add these two numbers in your head. If you are right, you win a counter. Tell your partner how you worked out the sum.

The first to get 10 counters wins.

Now try subtracting the smaller number from the larger one.

Number game

Put some dominoes face down

Shuffle them.

Each choose a domino.

Multiply the two numbers on your domino.

Whoever has the biggest answer keeps the two dominoes.

The winner is the person with the most dominoes when they have all been used.

Dicey division

You each need a piece of paper. Each of you should choose five numbers from the list below and write them on your paper.

5 6 8 9 12 15 20 30 40 50

Take turns to roll a dice. If the number you roll divides exactly into one of your numbers, then cross it out, e.g. you roll a 4, it goes into 8, cross out 8.

If you roll a 1, miss that go. If you roll a 6 have an extra go.

The first to cross out all five of their numbers wins.

Number game

Use three dice.

If you have only one dice, roll it 3 times.

Make three-digit numbers, e.g. if you roll 2, 4 and 6, you could make 246, 264, 426, 462, 624 and 642.

Ask your child to round the three-digit number to the nearest multiple of 10.

Check whether it is correct, e.g.

76 to the nearest multiple of 10 is 80.

134 to the nearest multiple of 10 is 130.

(A number ending in a 5 always rounds up.)

Roll again. This time round three-digit numbers to the nearest 100.

Out and about

Choose a three-digit car number, e.g.

569.

Make a subtraction from this, e.g. $56 - 9$.

Work it out in your head. Say the answer.

If you are right, score a point.

The first to get 10 points wins.

Left overs

Take turns to choose a two-digit number less than 50.

Write it down. Now count up to it in fours. What number is left over?

The number left is the number of points you score, e.g.

The first person to get 12 or more points wins.

➤ Choose 27.

➤ Count: 4, 8, 12, 16, 20, 24.

Dicey tens

For this game you need a 1-100 square (a snakes and ladders board will do), 20 counters or coins, and a dice.

Take turns.

Choose a two-digit number on the board e.g. 24.

Roll the dice. If you roll a 6, miss that turn.

Multiply the dice number by 10, e.g. if you roll a 4, it becomes 40.

- 3 left over to get to 27.
- So you score 3 points.

Now try the same game counting in threes, or in fives.
Can you spot which numbers will score you points?

Either add or subtract this number to or from your two-digit number on the board, e.g. $24 + 40 = 64$.
If you are right, put a coin on the answer.
The first to get 10 coins on the board wins.

Decimal number plates

Choose 2 digits from a car registration plate.

FD56 UPN

Make the smallest and largest numbers you can, each with 1 decimal place, e.g. 5.6 and 6.5.
Now find the difference between the two decimal numbers, whoever makes the biggest difference scores 10 points.
The person with the most points wins.

e.g. $6.5 - 5.6 = 0.9$.

Play the game again, but this time score 10 points for the smallest difference, or 10 points for the biggest total. (If you add the numbers)

Guess my number

Choose a number between 0 and 1 with one decimal place, e.g. 0.6.
Challenge your child to ask you questions to guess your number. You may only answer 'Yes' or 'No'. For example, he could ask questions like 'Is it less than a half?'
See if he can guess your number in fewer than 5 questions.
Now let your child choose a mystery number for you to guess.

Extend the game by choosing a number with one decimal place between 1 and 10, e.g. 3.6. You may need more questions

Finding areas and perimeters

Perimeter = distance around the edge of a shape

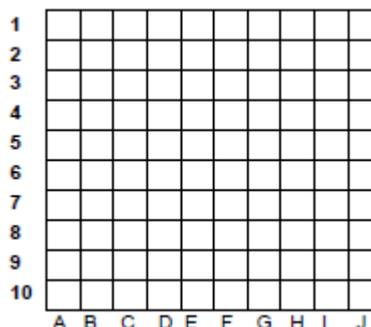
Area of a rectangle = length \times breadth (width)

Collect 5 or 6 used envelopes of different sizes.
Ask your child to estimate the perimeter of each one to the nearest centimetre.
Write the estimate on the back.
Now measure. Write the estimate next to the measurement.
How close did your child get?
Now choose 5 or 6 adverts from newspapers or magazines.

You could do something similar using an old newspaper, e.g.

Battleships

Draw two grids like this



Choose ships of various lengths (use between 2 and 4 squares)
Hide your grid from your partner
Take it in turns to guess the co-ordinates of your opponents ships.
Respond with "hit" or "miss"
Try to get as close as possible to 555

Ask your child to estimate the area of each advert to the nearest centimetre squared - write these down.
Now measure and calculate
How close did your child get?

The winner is the person to sink all their opponents ships

How much?

While shopping, point out an item costing less than £1.
Ask your child to work out in their head the cost of 3 items.
Ask them to guess first. See how close they come.
If you see any items labelled, for example, '2 for £3.50', ask them to work out the cost of 1 item for you, and to explain how they got the answer.

Target 1000

Roll a dice 6 times.
Use the six digits to make two three-digit numbers.
Add the two numbers together.
How close to 1000 can you get?

Four in a line

Draw a 6 x 7 grid.
Fill it with numbers under 100

26	54	47	21	19	5	38
9	25	67	56	31	49	13
39	41	6	1	75	28	90
14	50	81	23	43	4	37
45	29	72	34	7	58	17
36	2	55	11	22	40	42

Take turns.
Roll three dice, or roll one dice three times
Use all three numbers to make a number on the grid.
You can add, subtract, multiply or divide the numbers, e.g. if you roll 3, 4 and 5, you could make $3 \times 4 - 5 = 7$, $54 \div 3 = 18$, $(4 + 5) \times 3 = 27$, and so on.
Cover the number you make with a coin or counter.
The first to get four of their counters in a straight line wins.

TV addicts

Ask your child to keep a record of how long he / she watches TV each day for a week. Then ask him / her to do the following:-

- Work out the total watching time for the week
- Work out the average watching time for a day

Instead of watching TV, you could ask them to keep a record of time spent eating meals, or playing outdoors, or anything else they do each day. Then work out the daily average.

Recipes

Find a recipe for 4 people and rewrite it for 8 people, e.g.

4 people

8 people

125g flour

250g flour

50g butter

100g butter

75g sugar

150g sugar

30ml treacle

60ml treacle

1 teaspoon ginger

2 teaspoons ginger

Can you rewrite it for 3 people? Or 5 people?

Favourite food



- ◆ Ask your child the cost of a favourite item of food. Ask them to work out what 7 of them would cost, or 8, or 9. How much change would there be from £50?
- ◆ Repeat with his / her least favourite food. What is the difference in cost between the two?

Sale of the century

- ◆ When you go shopping, or see a shop with a sale on, ask your child to work out what some items would cost with:

50% off

25% off

10% off

5% off

- ◆ Ask your child to explain how s/he worked it out.

£1,000,000

One million pounds

Assume you have £1 000 000 to spend or give away. Plan with your child what to do with it, down to the last penny.