



Supporting Learning

Maths in the Summer

**Practical support for learning
in the SUMMER terms.**

Year Six

Summer



INTRODUCTION

Summer

Journeys

Use the chart in the front of a road atlas that tells you the distance between places.

- Find the nearest place to you.
- Ask your child to work out how long it would take to travel to some places in England if you travelled at an average of 60 miles per hour, i.e. 1 mile per minute, e.g.

York to Preston: 90 miles 1 hour 30 minutes
 York to Dover: 280 miles 4 hours 40 minutes

Encourage your child to count in 60s to work out the answers mentally.

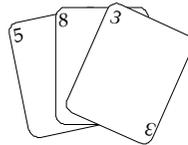
One million pounds

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.

£1,000,000

Card game

Use a pack of playing cards. Take out the jacks, queens and kings.



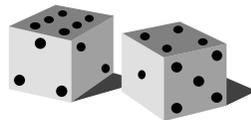
- Take turns.
- Take a card and roll a dice.
- Multiply the two numbers.
- Write down the answer. Keep a running total.
- The first to go over 301 wins!

82	33	60		11	73	22
65	12	74		28	93	51
19	67	76	41	75		85
86	29	68	58	20	46	
50	69	30	78	59		10

Remainders

Draw a 6 x 6 grid like this.

- Choose the 7, 8 or 9 times table.
- Take turns.
- Roll a dice.
- Choose a number on the board, e.g. 59. Divide it by the tables number, e.g. 7. If the remainder for $59 \div 7$ is the same as the dice number, you can cover the board number with a counter or coin.
- The first to get four of their counters in a straight line wins!



Doubles and trebles

- Roll two dice.
- Multiply the two numbers to get your score.
- Roll one of the dice again. If it is an even number, double your score. If it is an odd number, treble your score.
- Keep a running total of your score.
- The first to get over 301 wins.

At North Nibley C of E Primary we are always looking for ways to help you help your children. This booklet contains a number of games and ideas to support the learning taking place within school.

You can help by talking to your children about the maths you use everyday. You can ask them to help you work out things in real situations. They can;

- tell you the time
- weigh items, add up the cost and count change when shopping
- talk with you about numbers on buses, cars and road signs
- measure out ingredients in the kitchen
- use catalogues to see if you or they can afford things
- check the amount of fuel you are putting in the car.

Talk to your children about the mental and written methods they are using in school. If you don't recognise these methods please don't insist that your child changes what they are doing. Instead encourage your child to explain their method to you.

How you can help your child at home

It is important that you talk and listen to your child about their work in maths. It will help your child if they have to explain it to you.

Be positive about maths, even if you don't feel confident about it yourself.

Remember, you are not expected to teach your child maths, but please share, talk and listen to your child.

A lot of maths can be done using everyday situations and will not need pencil and paper methods.

Play games and have fun with Maths!

Reception Summer

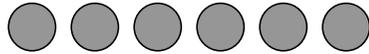
Collections

You need something to collect, e.g. sticky shapes, dried beans.

- In turn, one player claps 1, 2, 3, or 4 times while the other player closes his eyes and listens.
- How many claps did you hear? Take that number of shapes.
- The first to make a pattern with 12 sticky shapes wins.

Spot the difference

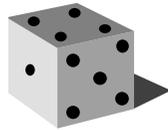
Draw a row of six big coloured spots.



- In turn, one player closes his or her eyes.
- The other player hides some of the spots with a sheet of paper.
- The first player looks and says how many spots are hidden.
- Try with other numbers of spots, e.g. five or seven.

One more, one less

For this game you need a dice, a coin and some building blocks or Lego bricks.



- Take turns to roll the dice.
- Build a tower with that number of blocks or bricks.
- Then toss the coin. Heads means take one brick off. Tails means add one on.
- If you can guess how many bricks there will be after this, you keep them!
- The first to collect 20 bricks or more wins!

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.

Cupboard maths

Ask your child to help you sort a food cupboard out, putting **heavier** items on the lower shelf and **lighter** items on an upper shelf.



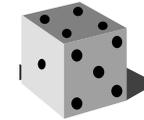
Year Five Summer

Car numbers

- Choose a car number.
- You may add or subtract 10, 20, 30, 40, 50, 60, 70, 80 or 90.
- Try to get as close as possible to 555.
- Who can get closest during a week?

Dicey division

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



- Take turns.
- Choose a two-digit number. Roll a dice. If you roll 1, roll again.
- If your two-digit number divides exactly by the dice number, put a coin on your chosen two-digit number. Otherwise, miss that turn.
- The first to get 10 counters on the board wins.

Line it up

You need a ruler marked in centimetres and millimetres.

- Use the ruler to draw 10 different straight lines on a piece of paper.
- Ask your child to estimate the length of each line and write the estimate on the line.
- Now give them the ruler and ask them to measure each line to the nearest millimetre.
- Ask them to write the measurement next to the estimate, and work out the difference.
- A difference of 5 millimetres or less scores 10 points. A difference of 1 centimetre or less scores 5 points.
- How close to 100 points can she get?

My estimate 8.5 cm

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!

Times tables

Ask your child a different times-table fact every day,

e.g. *What is 6 times 8? Can you use this to work out 12 x 8?*

and: *What is 48 divided by 6?*

Year Four Summer

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.

Choose 27.

Count: 4, 8, 12, 16, 20, 24.

3 left over to get to 27.

So you score 3 points.

4 8 12 16 20 24 28 32 36 40

- The first person to get 12 or more points wins.

Now try the same game counting in threes, or in fives.

Can you spot which numbers will score you points?

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.

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.

All the sixes

Time your child while he / she does one or more of these.

- Count in sixes to 60.
- Count back in sixes from 60 to zero.
- Start with 4. Count on in sixes to 70.
- Start with 69. Count back in sixes to 3.

6 12 18 24 30 36 42

Next week, try to beat the record.

Year One Summer

Car number bingo

- Each person chooses a target number, e.g. 10. Think about which pairs of numbers add to make your target.
- You have to see a car that has two numbers that add up to your target number.

K456 XWL

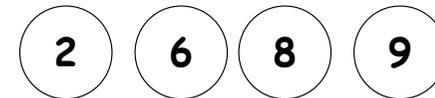
- Say: $4 + 6 = 10$, bingo!
- Change the target number each week.

You can extend this activity by looking for three numbers which add up to your target number.

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.

Dicey coins

For this game you need a dice and about twenty 10p coins.

- Take turns to roll the dice and take that number of 10p coins.
- Guess how much money this is. Then count aloud in tens to check, e.g. *saying ten, twenty, thirty, forty...*
- If you do this correctly you keep one of the 10p pieces.
- First person to collect £1 wins.
- Don't forget to give the coins back!

Out and about

On the way to school, see how many cuboids, spheres and cylinders you can spot. Which did you see most of?



Year Two Summer

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.

68p

Straight lines

Choose 4 different lengths between 5 and 20 centimetres. Use a ruler marked in centimetres. Draw lines of each length.

Board games

Make a board like this. The numbers are arranged differently from usual, but the games will still work if you use a normal snakes and ladders board.

- Roll a dice twice. Add the two numbers.
- Move along that number of spaces.
Before you move, you must work out what number you will land on.
- If you are wrong, you don't move!
- The first to the end of the board wins.

91	92	93	94	95	96	97	98	99	100
81	82	83	84	85	86	87	88	89	90
71	72	73	74	75	76	77	78	79	80
61	62	63	64	65	66	67	68	69	70
51	52	53	54	55	56	57	58	59	60
41	42	43	44	45	46	47	48	49	50
31	32	33	34	35	36	37	38	39	40
21	22	23	24	25	26	27	28	29	30
11	12	13	14	15	16	17	18	19	20
1	2	3	4	5	6	7	8	9	10

For a change, you could roll the dice and move backwards. Or you could roll the dice once, then move the number that goes with your dice number to make 10, e.g. throw a 3, move 7.

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.

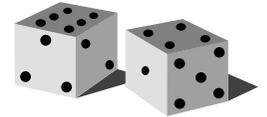
Year Three Summer

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.



Guess my number

Choose a car number you can see, e.g. 592.

P592 CTM

- Add 10 to the number in your head. Say the answer aloud.
- Can your child guess which car you were looking at? If so she or he can have a turn next.

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.

Cupboard maths

Ask your child to look at the weights printed on jars, tins and packets in the food cupboard, e.g.

tinned tuna 185g
tinned tomatoes 400g
jam 454g



Choose six items. Ask your child to put them in order. Is the largest item the heaviest?