Supporting Learning

Maths in the Spring

Practical support for learning
in the SPRING terms.

Year Six   Spring

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?

Fours

   Use exactly four 4s each time.

   You can add, subtract, multiply or divide them.

   Can you make each number from 1 to 100?
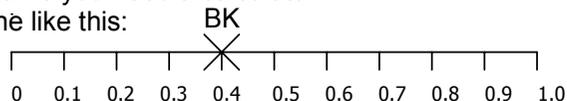
   Here are some ways of making the first two numbers.

$$1 = (4 + 4)/(4 + 4)$$
$$2 = 4/4 + 4/4$$

Three in a row

For this game you need a calculator.

Draw a line like this:

BK

0   0.1   0.2   0.3   0.4   0.5   0.6   0.7   0.8   0.9   1.0

   Take it in turns to choose a fraction, say $2/5$. Use the
   calculator to convert it to a decimal (i.e. 2 | 5 = 0.4) and
   mark your initials at this point on the line.

   The aim of the game is to get 3 crosses in a row without any
   of the other player's marks in between.

   Some fractions are harder to place than others, e.g. ninths.

Flowers

   Take turns to think of a flower.

   Use an alphabet code, A = 1, B = 2, C = 3... up to Z = 26.

   Find the numbers for the first and last letters of your flower,
   e.g. for a ROSE, R = 18, and E = 5.

   Multiply the two numbers together, e.g. 18 x 5 = 90.

   The person with the biggest answer scores a point.

   The winner is the first to get 5 points.

When you play again you could think of animals, or countries.

INTRODUCTION
Spring

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
stuations. 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 Spring

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.

You can get counting songs on audio tape for a very reasonable price.
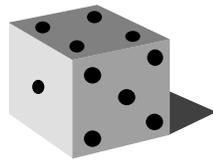
Dicey counting

Take turns to roll a dice and count back to zero from the number thrown. For example:
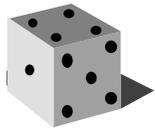
Four, three, two, one, zero!

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.

Roll a shape

Cut out 12 shapes.

Make 3 triangles, 3 squares, 3 rectangles and 3 circles.

Take turns to roll a dice and collect a shape that has that number of sides, e.g. roll a 4, collect a square.

The first to have four different shapes wins.

If you can name each shape you go first next time!
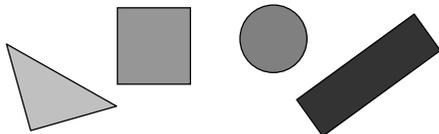
Year Five Spring

Car numbers

Try reading a car number as a measurement in centimetres, then converting it to metres, e.g. 456cm, which is 4.56m, or 4m and 56cm.

Try this with car numbers that have zeros in them, e.g. 307cm, which is 3.07m or 3m and 7cm; 370cm, which is 3.7m, or 3m and 70cm. These are harder!

Dicey subtractions

Take turns to roll a dice twice.

Fill in the missing boxes.   400☐ - 399☐

e.g.   4002 – 3994

Count on from the smaller to the larger number, e.g *3995, 3996, 3997, 3998, 3999, 4000, 4001, 4002.*

You counted on 8, so you score 8 points.

Keep a running total of your score.

The first to get 50 or more points wins.
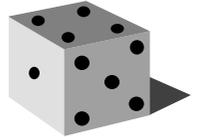
Tables

Make a times-table grid like this.

1	2	3	4	5	6	7	8	9	10
2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	27	30
4	8	12	16	20	24	28	32	36	40
5	10	15	20	25	30	35	40	45	50
6	12	18	24	30	36	42	48	54	60
7	14	21	28	35	42	49	56	63	70
8	16	24	32	40	48	56	64	72	80
9	18	27	36	45	54	63	72	81	90
10	20	30	40	50	60	70	80	90	100

Shade in all the tables facts that your child knows, probably the 1s, 2s, 3s, 4s, 5s and 10s.

Some facts appear twice, e.g. 7 x 3 and 3 x 7, so cross out both if the fact is known.

Are you surprised how few facts are left?

There might only be 10 facts to learn. So take one fact a day and make up a silly rhyme together to help your child to learn it, e.g. *nine sevens are sixty-three, let's have lots of chips for tea!*

Telephone challenges

Challenge your child to find numbers in the telephone directory where the digits add up to 42.

Find as many as possible in 10 minutes.

On another day, see if they can beat their previous total.

Telephone: 01264 738 281

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?
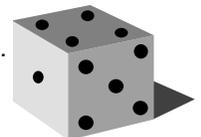
Year Four Spring

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.

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.

Looking around

Choose a room at home.
Challenge your child to spot 20 right angles in it.

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.

Sum it up

Each player needs a dice.

Say: *Go!* Then each rolls a dice at the same time.

Add up all the numbers showing on your own dice, at the sides as well as at the top.

Whoever has the highest total scores 1 point.

The first to get 10 points wins.

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.

H569 TPK

Year One Spring

Takings

For this game you will need a dice and a collection of small things such as Lego bricks, sticky shapes or dried beans. You will also need pencil and paper.

Take turns.

Roll a dice. Take that number of beans. Write down the number.

Keep rolling the dice and taking that number of beans. BUT, before you take them, you must write down your new total.

For example, Sally has 7. She throws 4. She has to work out how many she will have now. She starts counting from seven: *eight, nine, ten, eleven*. She writes 11.

You can only take your beans if you are right.

The first person to collect 20 beans wins!
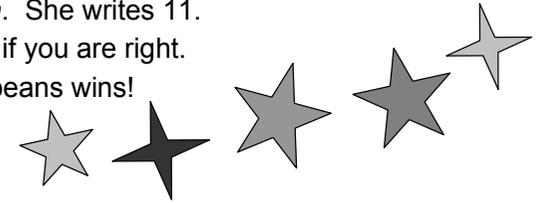
Track games

Make a number track to 20, or longer. Make it relevant to your child's interests – sea world, space, monsters… Then play games on it.
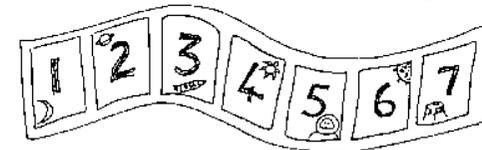
Throw a dice. Move along that number of spaces. BUT before you move, you must work out what number you will land on. If you are wrong, you don't move! The winner is the first to land exactly on 20. Now play going backwards to 1.

Throw a dice. Find a number on the track that goes with the number thrown to make either 10 or 20. Put a counter on it, e.g. you throw a '4' and put a counter on either 6 or 16. If someone else's counter is there already, you may replace it with yours! The winner is the first person to have a counter on 8 different numbers.

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!

Year Two   Spring

Car numbers
Each person chooses a target number, e.g. 15.

How many car numbers can you spot with 3 digits adding up to your target number, e.g. K456 XWL.

So 4 + 5 + 6 = 15, bingo!
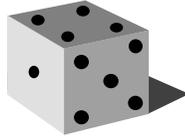
Bean subtraction
For this game you need a dice
and some dried beans or buttons.

Start with a pile of beans in the middle. Count them.

Throw a dice. Say how many beans will be left if you subtract that number.

Then take the beans away and check if you were right!

Keep playing.

The person to take the last bean wins!

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.

| 0 | 10 | | 2 | 8 | | 4 | 6 |
| 1 | 9 | | 3 | 7 | | 5 | 5 |

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.
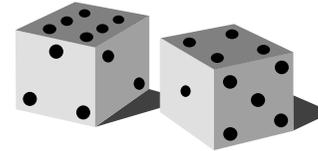
Now ask them to choose a shape so you can ask questions.
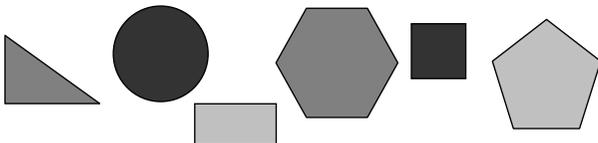
Year Three   Spring

Make 20
For this game you need to write out numbers 0 to 20 on a piece of paper. Make them big enough to put counters or coins on.

Take turns. Roll a dice. Put a coin on the number that goes with the dice number to make 20, e.g. throw a '4' and put a coin on 16.

If someone else's counter is there already, replace it with yors!

The first person to have counters on 6 different numbers wins.

Now roll two dice, add the numbers together and look for a number to make 20. The first with coins on 10 different numbers wins.

Board games

For these games you need to sketch a board like this. Notice how the numbers are arranged.

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

Start on 1. Toss a coin. If it lands heads, move 1 place along. If it lands tails, add 10, saying the total correctly before moving. First person to reach the bottom row wins.

Start anywhere on the board. Roll a dice. Even numbers move you forwards and odd numbers move you backwards. If you land on a multiple of five, you can move either 10 forwards or 10 backwards. The first person to reach either the top or bottom of the board wins.

Up and down the scales
Guess with your child the weights of people in your home.

Then weigh them (if they agree!). Help your child to read the scales.

Record each weight, then write all the weights in order.

Repeat after two weeks. What, if any, is the difference in the weights?

Bean race
You need two dice and a pile of dried beans.

Take turns to roll the two dice.

Multiply the two numbers and call out the answer.

If you are right, you win a bean.

The first to get 10 beans wins.