## THIRD SPACE <br> LEARNING

## Summer Maths

Activities

## 20 fun maths activities for the summer holidays

## Note to children

Hooray! It's the summer holidays!
You've worked so hard this year, and learned so many new things in Year 2 you deserve a big pat on the back. You also deserve to be able to start Year 3 still knowing what you know now - and not forget everything over the summer! So in between your summer adventures and relaxing are you up for an extra challenge?

Your task is to complete 10 of the activities in this special Summer Maths Activities pack. Along with being lots of fun, the activities will help make sure all of the amazing maths that you have learned in Year 2 sticks in your brain ready for your new learning adventures in Year 3.
Simply tick off the activities you have attempted and bring this pack back with you when school starts again.
Have fun!

## Note to parents and carers

The summer holidays are finally here! Your child has worked hard all year learning all the maths we expect Year 2 students to know and now they deserve some rest and relaxation. BUT... this pack is here to make sure they also don't forget all that they've learned and have some fun maths activities to keep them going over the summer!
There is lots of evidence that doing just a little bit of maths practice over summer holidays will make it much, much easier for them to start the next school year.

The activities are not intended to be too much like 'work'. They should provide just a bit of a mathematical focus every now and then, and most will fit into your day-today plans and life during summer holidays. We're setting a target for your child to complete 10 activities over the holidays, which is only a couple of activities a week. If children are struggling with maths, just knowing that they can tick off a handful of activities over the holidays will really boost their confidence and success when they move into Year 3.

Other children may want to do more and really push themselves. Do what's right for your child. When they've done each activity, please date and sign it so the child knows it's important. Thank you for your support, and we hope you and your child have fun with the activities!

## 1 Playing Games With Maths

## Your challenge:

- Can you find the maths in your favourite board or card game such as Go Fish, UNO or Monopoly?


## You will need

- Your favourite board or card game to play
- People to play it with

How to play:
1 Play your chosen game. While you are playing it, have a think about all the maths skills you are using!

2 Search hard - most games do involve some maths somewhere, but if your favourite game doesn't, then try your second favourite game!

The game I played was $\qquad$
The maths I spotted in it was $\qquad$

Completion date:
Adult initials:

2 Who Creates the Most Washing?

## Your challenge:

- Can you find out who creates the most washing in your house?

What to do:

1 This one involves helping out with the washing for a week. (Sorry!) Families generate a LOT of washing, right? But who in your house generates the most washing?

2 Before you begin, predict who you think will create the most washing over the next week.

3 I think that the following person will make the most washing:

4 Over the next week, use Resource Sheet 1 to record your results. In the table, record how many items of laundry each person in your house makes in the table.

5 Next create a pictogram of your results.
6 The person who created the most laundry was $\qquad$

Completion date:
Adult initials:

3 The Great Maths Bake Off

## Your challenge:

- Can you bake something tasty and find the hidden maths?


## You will need

- A recipe for something yummy
- Ingredients
- An adult to help you


## What to do:

1 Cooking is so much fun! But did you know it involves a lot of amazing maths too?

2 Work with an adult to bake something yummy. Need an idea of some recipes? Head to bit.ly/TSLrecipes to get some ideas. Have fun in the kitchen, and then fill in the details below. What did you make, and what maths skills did you think you used!?

3 Don't forget to taste what you have made!

I made: $\qquad$
The maths I used was $\qquad$

Completion date:
Adult initials:

4 Speedy Difference

## Your challenge:

- How quickly can you find the difference between 2 numbers?


## You will need

- Two sets of the digit cards on Resource Sheet 2
- A partner


## How to play:

1 Shuffle the digit cards from Resource Sheet 2 and deal them between the two players.

2 Count to 3, and on 3, both players turn over one of their cards.

3 The first player to find the difference between the two numbers on the cards AND put their hands over the card wins the cards!

4 Keep playing until someone has all the digit cards.

Who will win? Play the game at least 3 times.
The first time I played the game the person who won was
The second time I played the game the person who won was $\qquad$
The third time I played the game the person who won was $\qquad$

Completion date:
Adult initials:
$\qquad$
$\qquad$

## 5 Speedy Sum

## Your challenge:

- How quickly can you find the sum of 2 numbers?


## How to play:

## You will need

- Two sets of the digit cards on Resource Sheet 2
- A partner

1 Shuffle the digit cards from Resource Sheet 2 and deal them between the two players.

2 Count to 3, and on 3, both players turn over one of their cards.

3 The first player to find the sum of the two numbers on the cards AND put their hands over the card wins the cards!

4 Keep playing until someone has all the digit cards.

Who will win? Play the game at least 3 times.
The first time I played the game the person who won was
The second time I played the game the person who won was $\qquad$
The third time I played the game the person who won was $\qquad$

Completion date:
Adult initials:
$\qquad$
$\qquad$

## 6 Hunting 4 Halves and Quarters

## Your challenge:

- Can you find the halves and quarters all around us?


## You will need

How to play:
1 On a plain piece of paper, write 'Halves and quarters are all around us' in the middle.

2 Fill the rest of the paper with places you use or see halves and quarters in real life over the holidays.

3 Perhaps you've been to the supermarket - do you see any there? Have you shared some cake over the holidays? I bet you used them there too! Look carefully, and you will find halves and quarters everywhere!

Completion date:
Adult initials:

## Your challenge:

- Can you find 3-D shapes in the real world?


## You will need

- Paper/ pencil


## What to do:

1 On a plain piece of paper, write '3-D Shape Hunt' in the middle. Then divide it into four parts: Cubes, Cuboids, Cones, Cylinders

2 Fill the rest of the paper with places you use or see 3-D shapes in real life over the holidays.

3 Perhaps you've been to the supermarket - do you see any there? Look around your house? I bet you used them there too! Look carefully, and you will find 3-D shapes everywhere!

Completion date:
Adult initials:

## 8 What Shape Am I?

## Your challenge:

- Can you be the person who asks the least number of questions to figure out the other player's shape?


## You will need

- Resource Sheet 3
- A partner


## What to do:

1 Each player chooses a shape from Resource Sheet 3 and writes 5 facts about their shape. Start with vague facts and then make them more specific, to encourage the other player to ask more questions. For example, 'My shape is 2-D', then 'my shape has more than 3 sides', then 'my shape has 6 vertices'...

2 Once both players have written their facts, they take turns sharing the facts one at a time. After a player receives a fact on the mystery shape, they can choose to make a guess, or ask for another fact. If they guess correctly after the first statement, they get the full 5 points. If they guess after two statements, they get 4 points, and so on. If they make a guess and it is incorrect, they receive 0 points for that round.

3 The player with the most points at the end of the game wins.

Who will win? Play the game at least 3 times.
The first time I played the game the person who won was $\qquad$
The second time I played the game the person who won was $\qquad$
The third time I played the game the person who won was $\qquad$

Completion date: $\qquad$
Adult initials: $\qquad$

9 Make 20

## Your challenge:

- Can you match all the pairs of numbers that are equal to 20 before the time runs out?


## You will need

- One or more players
- Post it notes with the numbers 0-20
- A large circle (this can be a hoop or a circle draw on paper)


## What to do:

1 Put the circle in the middle and place the post-its around the outside.

2 Time the player to see how quickly they can match the pairs of post-it notes that equal 20 and stick them in the circle.

3 Either the next player goes and tries to beat the first player's time, or if playing alone, the same player plays again and tries to complete the task faster.

Who will win? Play the game at least 3 times.
The first time I played the game the fastest time was $\qquad$
The second time I played the game the fastest time was $\qquad$
The third time I played the game the fastest time was $\qquad$

Completion date:
Adult initials:
$\qquad$
$\qquad$

## 10 Measuring Around the House

## Your challenge:

- Can you order the objects by their lengths?


## What to do:

## You will need

- A partner
- A coin (label heads 'longest' and tails 'shortest')
- A collection of household items with a clear length (pencil, pen, spoon, etc.)

1 Have the items in a pile in the center of the group.

2 At the beginning of the round, each person grabs an item.
3 One person flips the coin. If it is heads, the person with the longest item gets a point. If it is tails, the person with the shortest items gets a point.

4 Place all the items back in the center and then each person picks a new item. You must grab a new item each time.

5 The first player to get 5 points wins.

Who will win? Play the game at least 3 times.
The first time I played the game the person who won was
The second time I played the game the person who won was $\qquad$
The third time I played the game the person who won was $\qquad$

Completion date:
Adult initials:
$\qquad$
$\qquad$

## 11 Telling Time Memory

## Your challenge:

- Can you match the times on the clocks?


## You will need

- Resource Sheet 4


## What to do:

1 Shuffle the cards from the Resource Sheet 4 and lay them face down.

2 Turn over two at a time. If the two do not match, flip them over and leave them in the same spot. If the two do match, keep them, and turn over another two.

3 Players continue taking turns turning over two cards, until all the cards have been collected.

Who will win? Play the game at least 3 times.
The first time I played the game the person who won was
The second time I played the game the person who won was $\qquad$
The third time I played the game the person who won was $\qquad$

Completion date:
Adult initials:

## 12 Year 3 Countdown

## Your challenge:

- Can you figure out how many days are left until Year 3 starts without counting each straw?


## You will need

- Straws
- Rubber bands


## What to do:

1 At the beginning of summer holidays, count out one straw to represent each day until school starts again. Then group the straws by tens wrapping each ten in a rubber band. Place them in a jar or somewhere easy to see each day.

2 Each day of the summer holidays, remove one straw. Instead of counting each straw to see how many are left, use the groups of ten to figure out how many days are left.

Completion date:
Adult initials:

13 Is It Equal?

## Your challenge:

- Can you figure out if the calculation is true or false?


## You will need

- Playing cards 2-10
- Resource Sheet 5


## What to do:

1 Shuffle the playing cards. Then place 4 playing cards on Resource Sheet 5 to complete the calculation.

2 Decide if the calculation is true or not. A correct answer is worth 1 point.
3 If the calculation is false, explain one number (only one!) that could be changed to make the calculation true. A correct answer is worth 1 point.

4 Play until all the cards have been used. The winner is the player with the most points. If playing alone, write down your score and try to beat it when you play again.

Who will win? Play the game at least 3 times.
The first time I played the game the person who won was $\qquad$
The second time I played the game the person who won was $\qquad$
The third time I played the game the person who won was $\qquad$

Completion date:
Adult initials:
$\qquad$
$\qquad$

14 Counting From Today

## Your challenge:

- Can you count from today's date?

What to do:
Version 1

## You will need

- A calendar

1 Find the day of the month on the calendar.

2 Start at the number of the day of the month and count to 120 .
3 Add a tick or a star on the calendar each day you complete this activity.

## Version 2

1 Find the day of the month on the calendar.

2 Start at the number of the day of the month and count backwards to 0 .

3 Add a tick or a star on the calendar each day you complete this activity.

Completion date:
Adult initials:

## 15 Adding and Subtracting From Today

## You will need

## Your challenge:

- Can you mentally add or subtract from today's date?
- A calendar


## What to do:

1 Find the day of the month on the calendar.

2 Without counting, find 10 more and 10 less of the number.
3 Add a tick or a star on the calendar each day you complete this activity.

Adult initials:

## 16 Summer Collection

## Your challenge:

- Can you collect something over the summer and find the total?


## You will need

What to do:
1 Choose an item that you want to collect or count this summer (for example, count the number of bees you see, count the times you play with a friend, count the number of books you read, etc.).

2 Keep count of the item you are collecting or counting on a piece of paper.

3 At the end of each week, add the total.
Show and explain how you did this to an adult.
4 Complete the counting process each week.

5 For an extra challenge, add up all the week totals at the end of the summer for a final summer total.

Completion date:
Adult initials:

## 17 Place Value In the Bucket

## Your challenge:

- Can you fill the buckets to show the place value of a number?

What to do:

## You will need

- Two buckets - one labelled 'Tens' and one labelled 'Ones'
- A rope or a line drawn on the ground
- Small items to thrown (bean bags, ping pong balls, etc)
- Resource Sheet 6

1 Draw a card from Resource Sheet 6. Decide how to show the number on the card with tens and ones.

2 Stand behind the line and throw the small items into the buckets until you have shown the place value of the number.

3 Take turns with everyone playing, giving one point for each correct turn.
4 The first player to 5 points wins.

Who will win? Play the game at least 3 times.
The first time I played the game the person who won was
The second time I played the game the person who won was $\qquad$
The third time I played the game the person who won was $\qquad$

Mathematical Note: There are many ways to partition the same number. For example, the number 23 can be ' 2 tens and 3 ones', but it is also ' 1 ten and 13 ones.'

Completion date:
Adult initials:
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18 Maths, Paper, Scissors

## Your challenge:

- Can you win the maths version of ‘Rock, Paper, Scissors?’


## You will need

- 2 or more players


## How to play:

1 Players stand facing each other. Players make two fists, and simultaneously say 'maths, paper, scissors' while moving their fists up and down (like when you actually play "Rock, Paper, Scissors'). On scissors, each player puts out between 1 and 10 fingers.

2 Players race to add the number of fingers they put out by the number of fingers their partner put out and call out the answer. The player to call the correct answer first wins a point.

3 Play for the time period (for example, 2 minutes). The winner is the player with the most points.

Who will win? Play the game at least 3 times.
The first time I played the game the person who won was
The second time I played the game the person who won was $\qquad$
The third time I played the game the person who won was $\qquad$

Completion date:
Adult initials:
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$\qquad$

## Your challenge:

- Can you get the highest score without rolling ones?


## You will need

## - 2 or more players

- 2 dice
- Paper/ pencil (write 'think' on the paper and draw a line between each letter)


## How to play:

1 The first player rolls a pair of dice and finds the sum of the two dice. The score is written in the $T$ column. If either of the dice is a one, the player automatically scores zero.

2 Once a player has their first score under the letter ' $T$ ', they have to decide to either stop and take that score as their score for the entire game, or roll again and hope they score even more under the letter ' H ' to add to the first round score.

3 This continues for each round of t-h-i-n-k until the player decides to stop. However, if they roll a one in any of the rounds, the player takes the score from the previous round as their total for the game and they do not complete any other rounds. If at any point the player rolls two 1 s , the player automatically loses all of their points.

4 The winner is the player with the most points at the end of the game.
Who will win? Play the game at least 3 times.
The first time I played the game the person who won was
The second time I played the game the person who won was $\qquad$
The third time I played the game the person who won was $\qquad$

## T|H|I|N|K

Completion date:
Adult initials:
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20 Taking Away the Beans

## Your challenge:

- Can you have the fewest beans left without running out?


## How to play:

## You will need

- 2 or more players
- A bag of beans (or something else that is easily counted)
- A selection of 2 -digit numbers from 10-40

1 Each player starts with a pile of 100 beans.
2 On their turn, a player draws a 2-digit number card and takes away that many beans from their pile.

3 The player keeps drawing cards until they decide at any point to stop drawing cards. Once a player stops drawing cards, the amount of beans they have left is their final number. If a player draws a card that has a number larger than the amount of beans they have left, the player automatically loses.

4 Once all players have stopped drawing cards, the player with the least amount of beans wins.

Who will win? Play the game at least 3 times.
The first time I played the game the person who won was $\qquad$
The second time I played the game the person who won was $\qquad$
The third time I played the game the person who won was $\qquad$

Completion date:
Adult initials: $\qquad$

## Resource Sheet 1: Who Creates the Most Washing?

A Use the table below to help you record your data.

| Family member's name | Mon | Tues | Wed | Thur | Fri | Sat | Sun | Total |
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B Use the space below to record the totals for each family member. Use the following key or create your own (cross out the given key and show the key you created):
Key: $\square=2$ clothing items
Pictogram Chart Title: $\qquad$

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## Resource Sheet 2


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## Resource Sheet 2


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## Resource Sheet 3: What Shape Am I?

## 2-D Shapes



## 3-D Shapes



## Resource Sheet 4: Telling Time Memory



## Resource Sheet 5: Is It Equal?



Resource Sheet 6: Place Value In the Bucket

| 10 | 13 | 14 | 16 | 18 | 19 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 20 | 22 | 25 | 27 | 28 | 30 |
| 33 | 34 | 36 | 39 | 40 | 42 |
| 43 | 44 | 48 | 50 | 51 | 55 |
| 56 | 57 | 58 | 59 | 62 | 63 |
| 64 | 67 | 68 | 70 | 71 | 73 |
| 76 | 77 | 82 | 83 | 85 | 87 |
| 89 | 90 | 91 | 93 | 95 | 99 |

## Do you have a group of pupils who need a boost in maths this term?

Each pupil could receive a personalised lesson every week from our specialist 1-to-1 maths tutors.
$\checkmark$ Raise attainment
$\sqrt{ }$ Plug any gaps or misconceptions
$\checkmark$ Boost confidence

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