

# Maths Games And Activities Pack

20 Fun Maths Challenges To Do At Home

Year 1

## Note to Parents and Carers

Your child works hard during school and we know they deserve some rest and relaxation when they're at home. BUT... this pack is here to help you with some ideas of how to bring maths into your home in a fun way. The challenges are not intended to be too much like 'work'. They should provide just a bit of a mathematical focus every now and then.

The activities are separated into individual activities and partner activities. We understand that pupils are not always able to complete activities with others and as such hope this will help you and your child select appropriate activities to complete.

### Individual activities

#### 1 Number Bond Mosaic (Addition)

**Your challenge:**

- Can you use your number bonds knowledge to reveal the picture hidden in the grid?

**How to play:**

1. Work out the answer to the calculation in each square using your knowledge of number bonds to 10 and 20.
2. Colour in each square based on the key at the top of the sheet.

**You will need:**

- Challenge 1 Sheet
- Colouring pencils or felt tips

#### 2 Number Bond Mosaic (Subtraction)

**Your challenge:**

- Can you use your number bonds knowledge to reveal the picture hidden in the grid?

**How to play:**

1. Work out the answer to the calculation in each square using your knowledge of number bonds to 10 and 20.
2. Colour in each square based on the key at the top of the sheet.

**You will need:**

- Challenge 2 Sheet
- Colouring pencils or felt tips

#### 3 Get Arty!

**Your challenge:**

- Can you make a picture from at least one of each of these shapes: triangle, square, rectangle, circle?

**Things to remember:**

1. You can use any type of materials you like (pencils, pens, paint).

**You will need:**

- A piece of plain paper
- Colouring pencils or crayons

# Challenge 1 Sheet Number Bond Mosaic (+)

Answer the questions in the squares below. Colour in the squares with the colours based on your answer. What picture will you make?

**Red:** 2, 3, 4, 5, 16, 17, 18, 19

**Blue:** 6, 7, 8, 9, 10, 11, 12

**Green:** 13, 14, 15, 20

**Brown:** 1, 0

$4 + ? = 10$	$? + 2 = 10$	$? + 9 = 20$	$10 = ? + 1$	$0 + ? = 10$	$12 + ? = 20$	$20 + 0 = ?$	$3 + ? = 10$
$20 = 8 + ?$	$10 = 0 + ?$	$13 + ? = 20$	$10 + ? = 10$	$20 = 9 + ?$	$5 + ? = 20$	$? + 4 = 10$	$20 = 11 + ?$
$10 = 3 + ?$	$5 + ? = 10$	$20 = 1 + ?$	$9 + ? = 10$	$20 = 6 + ?$	$3 + ? = 20$	$? + 10 = 20$	$8 + ? = 20$
$? + 2 = 20$	$6 + ? = 10$	$? + 1 = 20$	$7 + ? = 10$	$4 + ? = 20$	$2 + ? = 20$	$? + 8 = 10$	$? + 11 = 20$
$? + 4 = 20$	$20 = 2 + ?$	$10 = ? + 6$	$20 = 15 + ?$	$20 = ? + 3$	$? + 7 = 20$	$10 = 5 + ?$	$? + 8 = 20$
$20 = 18 + ?$	$? + 16 = 20$	$? + 7 = 10$	$20 = 4 + ?$	$6 + ? = 20$	$20 + 0 = ?$	$10 = ? + 7$	$14 + ? = 20$
$20 = ? + 4$	$10 = 8 + ?$	$? + 15 = 20$	$20 = ? + 3$	$5 + ? = 20$	$7 + ? = 20$	$3 + ? = 20$	$11 + ? = 20$
$20 = 9 + ?$	$? + 5 = 10$	$1 + ? = 20$	$16 + ? = 20$	$0 + ? = 20$	$20 = ? + 1$	$10 + ? = 20$	$? + 13 = 20$
$2 + ? = 10$	$4 + ? = 10$	$8 + ? = 10$	$20 = ? + 2$	$10 = ? + 7$	$? + 14 = 20$	$20 = ? + 9$	$20 = 8 + ?$
$20 = ? + 10$	$3 + ? = 10$	$20 = ? + 8$	$10 = ? + 2$	$9 + ? = 20$	$? + 12 = 20$	$20 = 13 + ?$	$10 = 1 + ?$

# Challenge 2 Sheet Number Bond Mosaic (-)

Solve the questions in the squares below. Colour in the squares with the colours based on your answer. What picture will you make?

**Red:** 0, 1

**Green:** 2, 3, 4, 5, 6, 7, 8, 9

**Brown:** 10, 11, 12, 13, 14

**Blue:** 15, 16, 17, 18, 19, 20

$10 - ? = 1$	$10 - 4 = ?$	$20 - 18 = ?$	$20 - 11 = ?$	$20 - ? = 12$	$20 - 10 = ?$	$10 - 5 = ?$	$10 - 7 = ?$
$20 - 8 = ?$	$10 - 6 = ?$	$20 - 13 = ?$	$10 - ? = 10$	$20 - 7 = ?$	$10 - ? = 6$	$10 - 10 = ?$	$10 - 1 = ?$
$10 - 2 = ?$	$10 - 9 = ?$	$10 - ? = 7$	$20 - ? = 8$	$20 - 15 = ?$	$20 - 18 = ?$	$20 - ? = 9$	$20 - 14 = ?$
$10 - 8 = ?$	$10 - ? = 5$	$20 - ? = 7$	$10 - 0 = ?$	$20 - ? = 13$	$20 - 7 = ?$	$10 - ? = 2$	$20 - ? = 15$
$20 - 16 = ?$	$20 - 9 = ?$	$10 - ? = 3$	$20 - ? = 9$	$20 - 6 = ?$	$10 - ? = 6$	$20 - 8 = ?$	$20 - ? = 17$
$20 - 0 = ?$	$20 - 1 = ?$	$20 - 4 = ?$	$20 - ? = 10$	$20 - ? = 8$	$20 - 3 = ?$	$20 - ? = 0$	$20 - ? = 5$
$20 - ? = 3$	$20 - 5 = ?$	$20 - 2 = ?$	$20 - ? = 6$	$20 - 7 = ?$	$20 - 1 = ?$	$20 - ? = 4$	$20 - ? = 3$
$20 - ? = 1$	$20 - ? = 2$	$20 - ? = 0$	$20 - 8 = ?$	$20 - 9 = ?$	$20 - 3 = ?$	$20 - 20 = ?$	$20 - 2 = ?$
$20 - ? = 5$	$20 - 19 = ?$	$20 - 2 = ?$	$20 - 10 = ?$	$20 - 6 = ?$	$20 - 5 = ?$	$10 - 7 = ?$	$20 - 4 = ?$
$20 - ? = 18$	$20 - ? = 14$	$20 - ? = 11$	$20 - ? = 16$	$10 - 3 = ?$	$10 - ? = 8$	$20 - 12 = ?$	$10 - 7 = ?$

## 4 Making Money

### Your challenge:

- Which coins can you find?

### What to do:

1. Find 10 coins in your house.
2. Draw the coins on your paper.
3. Can you put the coins in order from highest value (£2) to lowest value (1p).
4. Challenge: How much money do you have in total?

### You will need:

- Coins
- A piece of plain paper

## 5 How long?

### Your challenge:

- Can you find your longest toy?

### What to do:

1. Get 10 toys.
2. Compare your toys - which is the longest?
3. Put the toys in order from shortest to longest.
4. Draw your toys in order from shortest to longest.

### You will need:

- 10 toys
- A piece of plain paper

## 6 How heavy?

### Your challenge:

- Can you find your heaviest toy?

### What to do:

1. Get 10 toys.
2. Compare your toys - which is the heaviest?
3. Put the toys in order from lightest to heaviest.
4. Draw your toys in order from lightest to heaviest.

### You will need:

- 10 toys
- A piece of plain paper

## 7 My Morning

### Your challenge:

- Can you draw what you do in the morning?

### What to do:

1. Draw the 4 first things you do in the morning on Challenge 7 Sheet.
2. Add the words first, next, then, after to order these events.

### You will need:

- Challenge 7 Sheet

## 8 Shape Hunt (3D)

### Your challenge:

- Which 3D shapes can you find in your house?

### What to do:

1. Look at Challenge 8 Sheet where there is a list of 3D shapes.
2. Find as many of these around your house as you can. Draw which items you find in the correct column.

### You will need:

- Challenge 8 Sheet

## 9 Shape Hunt (2D)

### Your challenge:

- Which 2D shapes can you find in your house?

### What to do:

1. Look at Challenge 9 Sheet where there is a list of 2D shapes (remember these are flat shapes - look for them in pictures, on books and on packages).
2. Find as many of these around your house as you can. Draw which items you find in the correct column.

### You will need:

- Challenge 9 Sheet

## 10 House Count

### Your challenge:

- What do you have in your house?

### What to do:

1. Go round your house and count how many windows, doors, lights and chairs you have.
2. Count them using Challenge 10 Sheet.

### You will need:

- Challenge 10 Sheet

# Challenge 7 Sheet My Morning

Draw the 4 first things you do in the morning on this sheet.

Add the words first, next, then, after to order these events.

First

Next

Then

After

# Challenge 8 Sheet Shape Hunt (3D)

Look at the list of 3D shapes. Find as many of these around your house as you can. Draw which items you find in the correct column.

Cube	Cuboid	Cylinder



# Challenge 9 Sheet Shape Hunt (2D)

Look at the list of 2D shapes (remember these are flat shapes - look for them in pictures, on books and on packages).

Find as many of these around your house as you can. Draw which items you find in the correct column.

Square	Rectangle	Triangle

## Challenge 10 Sheet House Count

Go round your house and count how many windows, doors, lights and chairs you have. Count them using this sheet.

Item	Count
Windows	
Doors	
Lights	
Chairs	

## Pair activities

### 11 Place Value Duel

#### Your challenge:

- Can you make a larger two-digit number than your partner?

#### How to play:

1. Get your digit cards ready. Cut them out from the Digit Cards Resource Sheet.
2. Shuffle both sets of the digit cards. You and your partner must each draw two big lines on your sheet of paper like this:  
  
\_\_\_\_\_
3. Take it in turns to turn over a digit card and decide where in your number you are going to place the digit.
4. Put the digit in that position and tell your partner what value that digit has. For example, if you put a 2 in the tens column, you would say 'this 2 is worth 2 tens or twenty'.
5. Once you have placed a digit in your number, you can't move it! So, it's important to think about where you're putting the digit. Play at least six rounds.

#### Who will be the champion?

I played with \_\_\_\_\_

The person who won was \_\_\_\_\_

#### You will need:

- Digit Cards Resource Sheet
- Two sheets of plain paper
- A partner

### 12 Two-handed Maths, Paper, Scissors

#### Your challenge:

- Have you ever played 'Rock, Paper, Scissors'? Well this is a maths version of the same game!

#### How to play:

1. On scissors, each of you puts out between 1 and 10 fingers.
2. You then need to race to add the number of fingers you have put out with the number of fingers your partner put out (e.g  $4 + 2 = 6$ ) and be the first to call out the answer.
3. The player to call the correct answer first, wins a point.
4. Record who wins each 'battle' in a simple table; the first player to 10 points wins!

I played with \_\_\_\_\_

The person who won was \_\_\_\_\_

#### You will need:

- A partner

## 13 Number Bond Duel

### Your challenge:

- Are you ready to have a number bond duel?

### How to play:

1. This game is simple, but addictive! Shuffle two sets of digit cards from resource sheet 1 and put them in a pile between the two players.
2. Turn over the card in the middle, and for the first set of rounds, race to make 10. So if you turned over an 8 you'd need to shout out 2 as  $8 + 2 = 10$ .
3. The person who shouts out the correct answer first gets to keep the cards. Keep playing until there are no cards left in the centre. The player with the most cards wins!
4. Once you have played with making 10, play again, then play twice making 20.

First, I played number bonds to 10 duel against \_\_\_\_\_

and the person who won was \_\_\_\_\_

Then, I played number bonds to 10 duel against \_\_\_\_\_

and the person who won was \_\_\_\_\_

Next, I played number bonds to 20 duel against \_\_\_\_\_

and the person who won was \_\_\_\_\_

Then, I played number bonds to 20 duel against \_\_\_\_\_

and the person who won was \_\_\_\_\_

### You will need:

- Two sets of the Digit Cards on Resource Sheet 1
- A partner

## 14 Twos Tennis

### Your challenge:

- Who can win a match of twos tennis?

### How to play:

1. Stand opposite your partner. The first player picks a number between 1 and 5 to start with and says that out loud. The other player must add 2 to the number. This becomes your running total.
2. Now it's back to the first player who adds 2 to the running total, and so on.

You win when:

- You are the first player to say a number over 20
- Your partner makes a mistake
- Your partner says 'umm'
- Your partner takes more than 3 seconds to answer.

Play at least 6 matches with your partner. Who will win the most games?

I played with \_\_\_\_\_

The person who won was \_\_\_\_\_

### You will need:

- A partner

## 15 Matching Pairs (Number Bonds)

### Your challenge:

- Find the pairs, with a maths twist!

### What to do:

1. Cut out the cards from Challenge Sheet 15. Place the answer cards (the cards with the shaded background) spread out face down on one half of your playing area. Then place the question cards (the non-shaded cards) face down on the other half of your playing area. You need to keep the questions and answers separate.
2. Take it in turns with your partner to turn over a question card, and then an answer card. If the answer matches the question, you get to keep the cards and take another go. If it does not, turn them back over, and your partner takes their turn.
3. Continue playing until all questions and answers have been matched. The player with the most cards at the end of the game wins.

Play the game twice. Did you get a different winner each time?

The first time I played the game \_\_\_\_\_ won.

The second time I played the game \_\_\_\_\_ won.

### You will need:

- Challenge 15 Sheet
- A partner

# Challenge 15 Sheet Matching Pairs (Number Bonds)

$1 + 9 =$	$8 + 2 =$	$4 + 6 =$	$5 + 5 =$	$12 + 8 =$
$19 + 1 =$	$6 + 4 =$	$7 + 13 =$	$11 + 9 =$	$3 + 7 =$
$5 + 15 =$	$16 + 4 =$		10	10
10	10	10	10	20
20	20	20	20	20

## 16 Tug of War

### Your challenge:

- Why not play a maths version of Tug of War?

### How to play:

1. First, decide which player is going to 'add' and which player is going to 'subtract', then shuffle the digit cards into one pile. Write down the number 14 at the top of your piece of paper.
2. The player who is adding starts first. They turn over 1 digit card and the player who is adding adds these to 14 (e.g.  $14 + 2 = 16$ ). The rest of this calculation is your new running total.
3. The player who is subtracting goes next. They turn over a digit and subtract it from the running total.
4. Keep playing in the same way, taking it in turns to make a number and add or subtract it. If the player who is adding gets above 30 they win, and if the player who is subtracting gets below 2 they win!

Who will win the tug of war?

I played with \_\_\_\_\_

The person who won was \_\_\_\_\_

### You will need:

- Digit Cards Resource Sheet 1
- A partner
- Paper to keep a track of your score

## 17 3D Shape Hunt

### Your challenge:

- Can you find the 3D shapes before your partner?

### What to do:

1. Start at the same time. You each need to find the following 3D shapes in real life objects around the house before your partner. Who will be the quickest?

You need to find: 3 blue cuboids, 3 green cubes, 4 red cylinders.

### You will need:

- A partner

## 18 Number buzz

### Your challenge:

- You count to 20 without saying 5, 10 or 15?

### What to do:

- Starting from 1, you and your partner take it in turns to say one, two or three numbers (following on from what has been said before).
- If you are supposed to say 5, 10 or 15, instead you say buzz.
- If you say 5, 10 or 15 (not buzz), the other person wins.

For example:

Person 1 says 1, 2

Person 2 says 3, 4, buzz

Person 1 says 6

### You will need:

- A partner

## 19 The Great Maths Bake Off

### Your challenge:

- Bake something tasty and find the hidden maths.

### What to do:

- Cooking is so much fun! But did you know it involves a lot of amazing maths too?
- Work with an adult to bake something yummy. Need an idea of some recipes? Head to [bit.ly/TSLrecipes](https://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!?

I made: \_\_\_\_\_

The maths I used was  
\_\_\_\_\_

### You will need:

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



## 20 Unicorns Versus Giants

### Your challenge:

- Who will win in the battle between unicorn and giant?

### How to play:

1. Decide who will be the unicorn and who will be the giant and place the grid from Challenge 20 Sheet in between you.
2. Unicorn - you are trying to get to the giant's home.
3. Giant - you are trying to stop the unicorn. You do this by landing on the same hexagon as the unicorn.
4. Unicorn starts. Place your counter on one of the hexagons on the 'unicorn's home' side and carry out the calculation in the hexagon. If the calculation is correct (your partner needs to check and agree) you get to move to that hexagon. Then the giant does the same but starting at the 'giant's home'.
5. Carry on like this, moving one hexagon at a time. If you get the answer wrong, you don't move.
6. Try to play the game at least two times.

The first time I played, I played against \_\_\_\_\_

and the person who won was \_\_\_\_\_

The second time I played, I played against \_\_\_\_\_

and the person who won was \_\_\_\_\_

### You will need:

- Challenge 20 Sheet
- A partner
- A counter each (you could make your own out of paper)
- Plain paper for any working out

# Challenge 20 Sheet Unicorns vs Giants

## Unicorn's House

A large hexagonal grid containing 42 simple addition and subtraction problems for Year 1 students. The problems are arranged in a honeycomb pattern across seven rows. The problems are:

$7 + 3 =$	$20 + 1 =$	$20 - 5 =$	$10 + 2 =$	$2 + 8 =$	$20 + 9 =$	$10 + 10 =$
$20 - 7 =$	$1 + 9 =$	$20 - 1 =$	$3 + 7 =$	$4 + 6 =$	$20 + 5 =$	$10 - 9 =$
$20 + 7 =$	$10 - 5 =$	$20 - 17 =$	$10 + 8 =$	$6 + 6 =$	$7 + 8 =$	$20 - 3 =$
$20 - 10 =$	$11 + 3 =$	$4 + 6 =$	$7 + 10 =$	$10 - 8 =$	$2 + 4 =$	$9 + 1 =$
$8 + 6 =$	$10 + 3 =$	$20 - 6 =$	$20 - 12 =$	$10 - 3 =$	$20 - 12 =$	$5 + 6 =$
$7 + 6 =$	$20 + 12 =$	$20 + 14 =$	$20 - 9 =$	$2 + 8 =$	$10 - 9 =$	$8 + 8 =$
$10 + 6 =$	$20 - 6 =$	$20 - 10 =$	$15 + 5 =$	$11 + 9 =$	$10 + 6 =$	$10 - 2 =$
$10 + 10 =$	$20 + 5 =$	$20 - 16 =$	$9 + 1 =$	$7 + 3 =$	$5 + 5 =$	$10 - 6 =$

## Giant's House

# Resource Sheet 1

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

