## Select an Activity

| Make 20p | Stamps | Dominoes | Turn Them Over | Odd One Out | Evens and Odds |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Coins in My Purse | 12 Bones | Sweets! | Vegetable Shop | Make 7 | Roll 6 Dice |
| How <br> Many Ways? | Bean Bags | Odd One Out 2 | Make 10 | Sequence | Inflation |
| $\begin{gathered} \text { Dominoes } \\ 2 \end{gathered}$ | Roll the Dice | Football Cards | Bake Sale | 50p | $\begin{gathered} \text { Dominoes } \\ 3 \end{gathered}$ |
| Find It! | Roll 4 Dice | What's My Number? | Odd One Out 3 | Towers | Darts |
|  |  | Missing Numbers | Simple Or Tricky |  |  |

## Make 20p

Equipment: Whiteboard and pens
How many different amounts that equal 20 p can you make using only 2 ps and 5 ps? Which can't you make? Why do you think that is?



## Stamps

Equipment: Whiteboard and pens
The post office has only $1 p, 2 p$ and $5 p$ stamps left.
Can you make all the different amounts that equal 20p for the customers? Use as few stamps as possible - they don't want to do too much licking!


## Dominoes

Equipment: Whiteboard and pens
Play with a partner or in a small group.
Turn all the dominoes face down.
Everyone choose a domino and find the difference between the 2 sides.
The person with the smallest difference wins all the dominoes from that round.


## Turn them Over

Equipment: 2 dice per group, 1-10 digit cards (or digits written on whiteboards)

Each team or pair has a set of 1-10 digit cards face up in front of them.
Teams take it in turns to roll 2 dice and add them together.
Then, decide which cards to turn over. You can turn over the total you have made, or any 2 numbers which make that total.

First team to turn all their digit cards face down wins the game.


## Odd One Out

Equipment: Whiteboard and pens
What is the odd one out in each group and why? (you may think differently to other people!)


## Evens and Odds

Equipment: Whiteboard and pens
Play in pairs or small groups.
Choose a starting number 50 or below.
Take it in turns to halve an even number and subtract 1 from an odd number.
Write down all the numbers that you say until you get to 1 .
The team that find the longest chain are the winners.


## Coins in My Purse

Equipment: Whiteboard and pens
I have 30p in my purse.
a. What coins might I have if the coins are all the same?
b. What coins might I have if I have 4 different types of coins?
c. What are the fewest coins I might have?
d. What are the most coins I could have?


## 12 Bones

Equipment: Whiteboard and pens, counters
I have 12 bones to share equally between my dogs.
How many dogs might I have?


## Sweets!

Equipment: Whiteboard and pens
Mike spent $8 p$ on a bag of sweets. He gave the exact amount.
How might he have paid for them? How many different ways can you find?


## Vegetable Shop

Equipment: Whiteboard and pens
You can only buy 1 kind of vegetable from my shop at a time. Which vegetables can you buy for exactly 15 p and how many can you buy?


Can you make up a similar question for your friends?

## Make 7!

Equipment: Whiteboard and pens
How many different ways can you find that equal 7 by adding or subtracting?
eg. $2+5,20-10-3$


## Roll 6 Dice

Equipment: Whiteboard and pens, 6 dice per group (or roll a dice 6 times and write the numbers on the board)

How many of these numbers can you make by adding or subtracting? You don't have to use all the dice. Can you make all the numbers of 1 colour?

| 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: |
| 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 |

## How Many Ways?

Equipment: Whiteboard and pens, 8 counters (draw 2 plates on a whiteboard)

Get 8 objects and place them on 2 plates.
How many different ways can you do this?
Can you record each one as an addition number sentence?
What about as a subtraction?


## Bean Bags

Equipment: Whiteboard and pens
If Mark throws 3 bean bags into the hoops what is the highest score he can get?

What are all the possible scores he can get?


## Odd One Out 2

Equipment: Whiteboard and pens
What is the odd one out in each group and why? (you may think differently to other people!)


## Make 10

Equipment: Whiteboard and pens
a. How many different ways can you make 10 with the digits 1-9?
b. Using 2 digits?
c. More than 2 digits?

## 12 <br> 3 <br> 45 <br> 

## Sequence

Equipment: Whiteboard and pens
a. What goes next in these sequences?

b. What colour will the 20th object be?

$$
1,2,4,8,16
$$

c. Can you explain what is happening?

## Inflation!

Equipment: Whiteboard and pens
The shopkeeper is doubling all of his prices. Can you help him?


How much will the items cost if he doubles his prices again?

## Dominoes 2

Equipment: Whiteboard and pens, Set of dominoes per group (optional)
a. How many dominoes have a total of 7 spots?
b. How do you know you have found them all?


## Roll the Dice

Equipment: Whiteboard and pens, 1 dice per pair
Play with a partner. Each player needs to draw 2 lines on a whiteboard for the tens and ones place value.

Take it in turns to roll the die then decide whether to write the digit in the tens or ones place value. Repeat until you both have a 2-digit number. Highest number wins.

Change the rules after a while e.g. lowest, closest to 50, highest multiple of 2 , lowest odd number.


## Football Cards

Equipment: Whiteboard and pens
I have 20 spare football cards.
I share them equally between my friends. How many friends might I have?


## Bake Sale

Equipment: Whiteboard and pens
I bake 40 buns for the school cake stall.
Each bun sells for 2 p.
If I sell half of the buns, how many buns do I sell and how much money do I raise?

What if I sell $\frac{1}{4}$ of them? What if I sell $\frac{3}{4}$ of them? What if I sell all of them?


## 50p

Equipment: Whiteboard and pens
I have 50p in my purse.
What coins might I have:
a. If all the coins are the same?
b. To have the fewest possible coins?
c. To have the most coins?
d. To have exactly 9 coins?


## Dominoes 3

Equipment: Set of dominoes per group
Play with a partner or in a small group.
Turn all the dominoes face down.
Everyone choose a domino and find the total of the 2 sides.
The person with the highest total wins all the dominoes from that round.


## Find It!

Work with a partner to find something in the classroom to fit each of the words below.

Join with another pair and compare objects.

## shortest

## smallest

## emptiest

## Roll 4 Dice

Equipment: Whiteboard and pens, 4 dice per group. (alternatively roll a dice 4 times and write the numbers on the board)

Can you make the numbers:

## 12345678910

using just the 4 numbers on the dice?
You can add, subtract, multiply and divide.

## What's My Number?

Equipment: Laminated 100 square per group, Whiteboard pen
Children work in pairs or small groups.
One child choses a secret number.
The rest of the group ask questions to eliminate numbers from the 100 square.

Which group can guess the number with the fewest questions?

HOME


## Odd One Out 3

Equipment: Whiteboard and pens
What is the odd one out in each group and why? (You may think differently to other people!)

## Towers

Equipment: Building bricks or connecting cubes
Make a tower like this:
Can you make another which is twice the size?
Can you make one which is three times the size?
Can you make another which is five times the size?

Choose a different starting tower between 2 and 5 bricks high and try this again.


## Darts

Equipment: Whiteboard and pens
I have 3 darts to throw at the board.
What is the highest possible score I can get?
How many different ways are there to score 10 points with 3 darts? What about 15 points?


## Missing Numbers

Equipment: Whiteboard and pens
What could be the missing numbers in these number sentences? Is there more than 1 way of solving these?

$$
\begin{array}{ll}
20=?+? & 18=?-5 \\
? \times 5=? & 24 \div ?=3
\end{array}
$$

## Simple or Tricky

Equipment: Whiteboard and pens
Look at the numbers below.
Which 2 numbers would be easy to add and why?
Which 2 numbers might be tricky? Can you think of ways of making them easier?
How would you go about adding them all together?



