## YEAR 4

Maths at home for Parents and Carers Place value and addition and subtraction


This short leaflet covers the Core Concepts and ideas that your child will need to know this year.

You will find suggestions for games to play, activities to do and websites to access to support you, as your support your child.

## Website and links*not maths boo

Key learning 1

- https://classroom.thenational.academy/units/reasoning-with-4-digit-numbers-ffd2 (4 digit numbers)
- www.bbc.co.uk/bitesize/articles/zmdpnrd (numbers to 1000)
- www.bbc.co.uk/bitesize/articles/zhpq7nb (comparing numbers to 1000)
- www.bbc.co.uk/bitesize/articles/zb86t39 (ordering numbers to 1000)

Key learning 2

- www.bbc.co.uk/bitesize/articles/z72dwty (adding 2 three digit numbers)
- www.bbc.co.uk/bitesize/articles/zvxpscw (efficient addition and subtraction methods)
- www.bbc.co.uk/bitesize/articles/zvm72sg (subtraction of 2 three digit numbers)
- https://classroom.thenational.academy/units/addition-and-subtraction-48c0 (all addition and subtraction videos).


## Equipment

Many of the activities included in this helpful leaflet will not require any special equipment. If you have access to online resources this will be useful but not essential when supporting your child.

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## Often Heard words tee copyerer 2and add

- Exchange - swopping for something equivalent e.g. 1 ten for 10 ones (you may have used the term 'borrow' but as we will not be giving it back 'exchange' is the correct term to use.
- Partition - split the number (e.g. into hundreds, tens and ones)
- Compose - joining groups or a set of numbers to make another number, (e.g. $200+30+$ 6 = 236)
- Decompose - break down the number into parts $(451=400+50+1)$


## Key Learning 1

- Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning.


## Spin the number

Each player needs a 4 digit box

|  |  |  |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |

## The aim of the game is to be the one who makes either:

a. The smallest number
b. The largest number
c. An even number
d. An odd number
e. A number less than 2000
f. A number greater than 5000

Use the spinner to generate the numbers. Each spin, make a decision on where you will put the number to win.

(Use a paperclip, hold down in the centre and spin the outer edge)

## Jake has made a 4 digit number with these cards

```5
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What other 4 digit numbers could he make with the cards?
What is the largest number he can make?
(Try this with other numbers)

## ACTIVITIES

## ACTIVITIES

- •••
- • - •
-     - Create numbers where the digit sum is 6 .
- • E.g. 1203, 3003...
-     -         - What is the largest/ smallest number?
-     - . How many numbers can you make?
-     -         - Try another total- does this make a difference to the amount of numbers that you can
-     - . make?
-     - • -

Place value number hunt
Find the numbers around your home (TIP: look at food packets, magazines...)

| Category | 4 digit <br> number | Where you found it |
| :--- | :--- | :--- |
| A number with a 3 ones |  |  |
| A number with all odd digits |  |  |
| A number with a 5 hundreds |  |  |
| A number with 2 even digits |  |  |
| A number with 9 in the tens column |  |  |
| A number whose digits add up to 9 |  |  |
| A number with 0 in the tens column |  |  |
| A number that is less than 2000 |  |  |
| A number that is greater than 8000 |  |  |
| A number whose digits add up to 5 |  |  |

## Largest value

Use a deck of cards, select 4
Whoever has the largest value wins the point!
(Can be changed to lowest value/ odd number/ even/ greater than/less than/ rounded to)


## Outdoor numbers

Draw 4 circles on the pavement (with chalk or a stone) Label them Th H T O


Use $\times 10$ balled up socks / screwed up paper to throw into the circles.
What number does it make? Can your opponent make a higher number?

Build a number
Make numbers $0-9$ on cards, shuffle and place them face down
Select 4 place in grid
How many of the criteria can you get in 2 minutes? 1 point for each correct criteria!

|  |  |
| :--- | :--- |
| Criteria |  |
| An even number |  |
| A number greater than 5000 |  |
| A number with an even number of tens |  |
| An odd number |  |
| A number less than 3000 |  |
| A number with an odd number of hundreds |  |

## Key Learning 2

- Add and subtract numbers with up to 4 digits using the formal written methods of
- Columnar addition and subtraction where appropriate
- Estimate and use inverse operations to check answers to a calculation.


ACTIVITIES

Word challenge

| A | $£ 11$ | N | $£ 114$ |
| :---: | :---: | :---: | :---: |
| B | $£ 12$ | O | $£ 115$ |
| C | $£ 13$ | P | $£ 116$ |
| D | $£ 14$ | Q | $£ 117$ |
| E | $£ 15$ | R | $£ 118$ |
| F | $£ 16$ | S | $£ 119$ |
| G | $£ 17$ | T | $£ 120$ |
| H | $£ 18$ | U | $£ 121$ |
| I | $£ 19$ | V | $£ 122$ |
| J | $£ 110$ | W | $£ 123$ |
| K | $£ 111$ | X | $£ 124$ |
| L | $£ 112$ | Y | $£ 25$ |
| M | $£ 113$ | Z | $£ 26$ |

What word/s would be worth $£ 100$ ?
What is the value of your name?
What is the highest value shortest word?
Which of your spelling words is the most/least expensive?

Missing numbers
What missing numbers are $\square$ ?


Bake a cake!


Use this cake recipe and weigh out all of the ingredients yourself.
170 g self-raising flour
114g margarine
114 g caster sugar
$3 x$ eggs

1. Mix the margarine and sugar together
2. Beat the eggs in a separate cup
3. Add the eggs and flour to the sugar and margarine mix
4. If needed, add a small amount of milk
5. Bake at $200^{\circ}$ for 15 mins

How many grams of flour and sugar have you used?
How many grams of margarine and flour?
How many grams of flour+ margarine+ sugar have you used?

## Largest total

Roll a 1-6 die, fill in each of the boxes to try an make the largest total possible.
Repeat and try and find different answers.

|  |  |  |  | + |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Iflknow...
If you know $3+7=10$, write as many other facts that you can from this calculation
For example: $13+7=20$

$$
30+70=100 . . .
$$

Try it will other bonds:- $8+2,4+6,9+1$

Quickest to 1000

| 10 | 20 | 30 | 40 | 50 | 60 | 70 | 800 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 90 | 100 | 110 | 120 | 130 | 140 | 150 | 160 |
| 170 | 180 | 190 | 200 | 210 | 220 | 230 | 240 |
| 250 | 260 | 270 | 280 | 290 | 300 | 310 | 320 |
| 330 | 340 | 350 | 360 | 370 | 380 | 390 | 400 |
| 410 | 420 | 430 | 440 | 450 | 460 | 470 | 480 |
| 490 | 500 | 510 | 520 | 530 | 540 | 550 | 560 |
| 570 | 580 | 590 | 600 | 610 | 620 | 630 | 640 |

1. Cut out the numbers and shuffle them.
2. Put into a pile in the middle of the players.
3. Each player takes a card and keeps a total- adding up as they go along.
4. When a player nears 1000 they have to decide whether to 'stick' or continue.
5. Any player who goes over 1000 has lost the round.
(This can then be used for subtraction- starting with 1000 and taking numbers away - nearest to 0 )
