# Ysgol Pen Barras

## Numeracy Websites

Here are some useful websites that include various games and activities to support Numeracy work for Years 3 to 6.

www.FunBrain.co.uk
www.mathzone.co.uk
www.primarygames.co.uk
www.teachingtables.co.uk
www.woodlands-junior.kent.sch.uk
www.echalk.co.uk/Maths/maths.aspx
www.coxhoe.durham.sch.uk/curriculum-links/numeracy
www.topmarks.co.uk
www.sgfl.org.uk/games/games/maths
http://www.learnyourtables.co.uk/en/index2.htm

## Numeracy at School

# Addition & Subtraction

· **Having problems with homework?**

· **Can't understand our methods?**

*"This isn't the way we did sums when we were at school!"*

**Have a look at the maths guidelines in our leaflet.  Hopefully they will help!**

# Content Page

- Use a number line to find differences between positive and negative numbers.

e.x.  -50 to 12 = 62
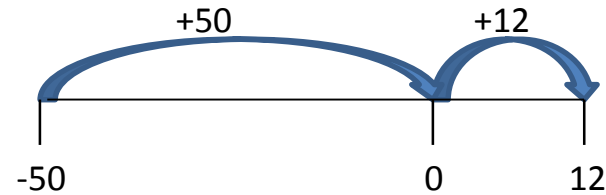


```
        +50              +12

 -50                0        12
```

- Use inverse method to check for accuracy.

```
                      7 1      8 1           6 1      8 1
    4 5 4 1 2 8      8 0 6 9 4            7 1 5 9 7
  + 1 2 7 5 6 6    - 3 7 5 6 6   or    - 4 4 1 7 8
    5 8 1 6 9 4      4 3 1 2 8            2 7 4 1 9
      1       1
```

- Able to discover differences between numbers with two decimal places.

```
              1 5   1      8      1
e.x.        1 6 2 7 9 . 3 7
          -     7 5 5 2 . 8 4
              8 7 2 6 . 5 3
```

## Year 6 — Addition & Subtraction

- Reading, writing and counting forwards and backwards to 1,000,000.

- Continue methods from Y5 to ensure understanding of compact method, developing to larger numbers.

e.x.
```
   9 4 7 2 3 7
 + 3 6 9 4 8 5
 1,3 1 6 7 2 2
     1 1   1 1
```

- Develop addition of decimals, understanding the place value.

e.x.
```
   3 8 6 9 . 4 6
 +    4 9 2 . 2 3
   4 3 6 1 . 6 9
        1 1 1
```

```
   4 7 . 6 8
   7 2 . 9 4 2
 +    6 . 2 7
 1 2 6 . 8 9 2
      1 1   1
```

- Develop vertical methods of subtraction from Y5.

e.x.
```
   6 11 1
   7̶ 2̶ 5 2 4 7
 -     8 7 2 3 5
   6 3 8 0 1 2
```

- Develop subtraction of decimals.

e.x.
```
   4 16 1
   3 5̶ 7̶ 2 . 7 6
 -    2 8 7 . 3 2
   3 2 8 5 . 4 4
```
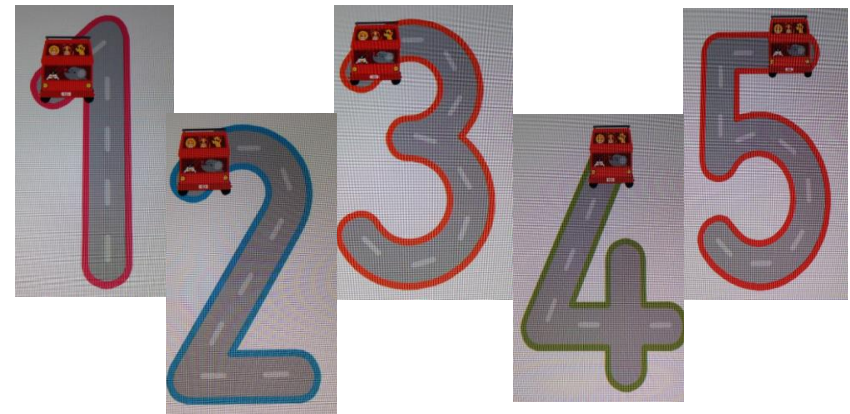
## Nursery — Addition & Subtraction

- Recite numbers from 1 to 10.

- Write numbers from 1 to 5.
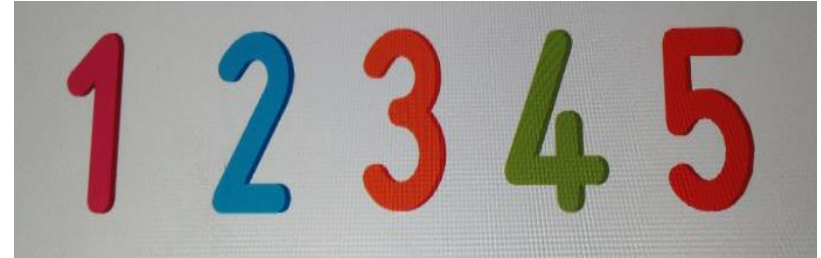


- Name and order numerals to at least 5.

- Add and subtract one object, from a ser of up to 5 objects.

- Form numbers and count reliably up to 5 objects.

# Reception

- Reading, writing and counting up to 10.

### Forming Numbers

It is important that you encourage your child to form numbers correctly. I hope that the following guidelines will assist you as parents/guardians when helping your child form numbers at home.

The red dot denotes the starting point to form the number with a pencil.

The pencil should always stay on the paper following the path of the arrows.

When forming number 4 the pencil must be raised in order to complete the second part of the number. The red cross denotes the second starting point.

If you need further information/advice please contact your child's classroom teacher.

- Recognise numbers to 10.

- Form numbers up to 10 correctly using the above guidelines.

- Understand the meaning above, below, near and middle.

- Introduce simple patterns
  ex. Every other – red, blue, red, blue.
  In pairs – red, red, blue, blue.

- When practicing counting forwards with your child always start with the largest number ex. 3 + 2 start with 3 then add 2 (say 4 then 5.)
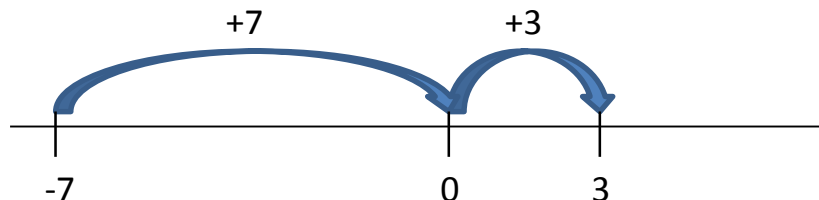
# Year 5

- Use a number line to find differences between positive and negative numbers.

e.x. -7 to 3 = 10



- Use inverse method to check for accuracy.

```
            8 1       8 1        8 1        8 1
   5 4 1 2 8   9 1 6 9 4      9 1 6 9 4
 +   3 7 5 6 6  - 3 7 5 6 6  or  - 5 4 1 2 8
   9 1 6 9 4     5 4 1 2 8       3 7 5 6 6
     1       1
```

- Able to discover differences between numbers with one decimal place.

```
           2 1      8   1
e.x.     3 2 7 9 . 3
       - 2 4 5 2 . 8
         0 8 2 6 . 5
```

## Year 5 — Addition & Subtraction

- Reading, writing and counting forwards and backwards to 100,000.

- Continue using Year 4 methods to ensure understanding of compact methods, by developing larger numbers.

```
      H T U              Th H  T  U
e.x.  2 5 4              2  4  6  8
    + 1 3 3            + 1  7  5  6
      3 8 7              4  2  2  4
                           1  1  1
```

- Leading on to compact methods, to 100,000

```
      5 4 1 2 8
    +   3 7 5 6 6
      9 1 6 9 4
          1      1
```

- Developing vertical addition and subtraction with money and measurements.

e.x.

```
                    2 1  0 1
                    3 6.1 4 km
   £24.35           
 + £14.26         -  28.09 km
   £38.61           08.05 km
       1
```

## Year 1 — Addition & Subtraction

- Reading, writing and counting forwards and backwards to 20.

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

- Learn Number Bonds of 10.

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

- Adding and subtracting numbers using up to 10 objects.

e.x.   Add 2 objects and 3 objects together makes....

 **+** 

e.x.   3 objects take away 1 object leaves …

 **-** 

## Addition & Subtraction

## Addition & Subtraction

- Reading, writing and counting forwards and backwards to 100.

| 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 |

- Continue to revise number bonds of 10 in order to add similar numbers to 100.

  e.x.     7 + 3 = 10            70 + 30 = 100

- Understand that subtraction is the inverse (opposite) method of addition.

  e.x. 6 + 4 = 10    so     10 - 4 = 6   or   10 - 6 = 4
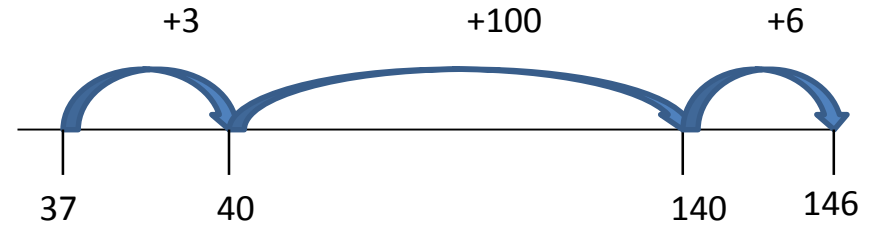
- Revision of the number line, counting up from the smallest number

e.x.  146  -  37  =  3 + 6 + 100 = 109



- Leading on to develop compact ,methods with tens and hundreds.

e.x.   125 – 38 =  87

```
      0 11  1
      1  2  5
   -     3  8
      _____
         8  7
```

- . Introduce vertical addition and subtraction with money.

e.x.
```
                        6  1
      £4.36         £7 . 3 9
    + £2.17        - £3 . 6 4
    _____        _____
      £6.53          £3 . 7 5
        1
```

## Year 4 — Addition & Subtraction

- Reading, writing and counting forwards and backwards to 10,000.

- Keep using Year 3 methods to ensure understanding of compact methods by developing larger numbers.

```
      T U
e.x.  5 4
    + 3 3
      8 7
```

```
    H T U
      6 8
    + 5 3
    1 2 1
        1
```

- Leading on to compact methods, up to HTU + HTU

```
    H T U
    1 2 8
  + 2 3 7
    3 6 5
        1
```

- *- Use of language is very important! Do the children know the value of each number? e.g. 8 add 7 equals 15, write down 5 and carry 10. 20 add 30 equals 50, plus the extra 10 is 60. Finally 100 add 200 equals 300)*

## Year 2 — Addition & Subtraction

- Using number factors that they know to help them count out new answers.

  e.x.   7 + 7 is 14, so 7 + 8 (1 more) is 15.

  If 5 + 3 = 8 so 15 + 3 (ten more) = 18

- Add and subtract numbers less than 10 in their heads, then move forward with the ability to add and subtract numbers up to 20;

  e.x.   What is 2 + 4?   or   What is 7 – 3?

## Useful Websites

- http://www.learnyourtables.co.uk/en/index2.htm
- http://www.topmarks.co.uk/
- http://www.bbc.co.uk/schools/starship/maths/
- http://www.primaryresources.co.uk/maths/maths.htm/
- http://nrich.maths/
- https://hwb.wales.gov.uk/
- http://resources.woodlands-junior.kent.sch.uk/maths/
- http://mathszone.co.uk/
- http://www.funbrain.com/brain/MathBrain/MathBrain.html
- http://www.crickweb.co.uk/ks1numeracy.html
- http://www.bbc.co.uk/cymru/dysgu/camaucyfri/
- http://www.maths-games.org/
- http://www.bbc.co.uk/bitesize/ks1/maths/

You can also download the Cyw app – **Cyfri gyda Cyw**.

# Addition & Subtraction
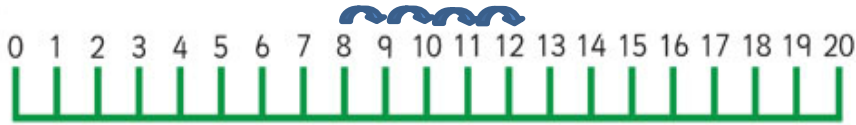
- Reading, writing and counting forwards and backwards to 1000.

- Horizontal sums, with numbers missing.

  e.x.    12  +  3  = ☐         8  + ☐ = 15

- Use a number line to add (in steps)

  e.x.  Start at 8 and add 4 = ☐

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

- Partition two digit numbers into Tens and Units.

  e.x.    24 + 13   =   24  + 10  + 3  = 37

  124 + 25   =  124   + 20  + 5 = 149

- Introduce vertical addition and carrying over.

```
        T U                    T U
e.x.    3 4                    7 9
       + 2 5                  + 1 3
        5 9                    9 2
                               1
```
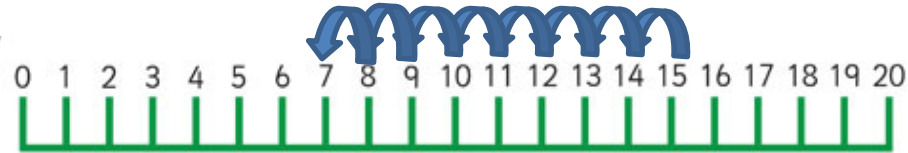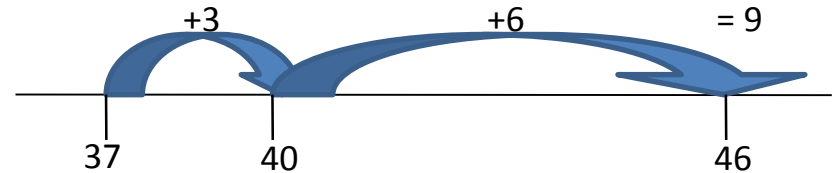
# Addition & Subtraction

- Use a number line to subtract (in steps).

  e.x.  Start at 15, take away  8 = ☐

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

- Use a blank number line to find small differences by counting up from the smallest number.

  e.x.  46  -  37  = 9

  +3              +6           = 9

  37        40                        46

- Introduce vertical subtraction.

  e.x.  34 – 18 =
```
              2 1
              3 4
            -  1 8
              1 6
```