Week 7

Preparing to Work with Children in Schools

OCN Level 1

Developing Skills for Listening to Children

Learning Outcomes

By the end of the session you will be able to:

- *Recap week 6*
- *Recognise the use of numeracy in everyday life*
- Develop skills on how to support children's numeracy skills
- *Identify own maths knowledge and skills*

Presentations

At the end of the course one group will present a 15 minute topic to the other group

The presentation will be on any aspect of education.
Choose your topic wisely. Perhaps.....

•An area in the programme that you would like to explore in more detail

•An area that is not covered and you wish to expose others to new information

•Experiences of education you wish to share with the group –all members experiences will have to link together

Everyday Maths (Functional maths)

The term ''functional'' should be considered in the broad sense of providing learners with the skills and abilities they need to take an active and responsible role in their communities, everyday life, the workplace and educational settings.

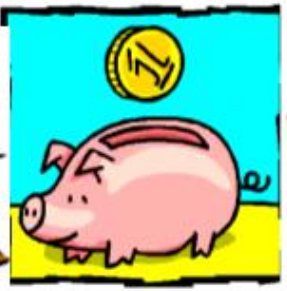
Functional mathematics requires learners to use mathematics in ways that make them effective and involved as citizens, operate confidently and to convey their ideas and opinions clearly in a wide range of contexts."

Everyday Maths (Functional maths)

What every day (functional maths did you use this morning?.....

Complete the everyday maths pictures –what maths skills do you think are being done?

Identify the maths skills being used in each picture



Feelings about maths

What were you experiences of learning maths at school?

What are your feelings about maths now?

Why does maths scare some of us?

How would you do this sum?

4.00 x 0.25

4 x 25 = 100

1.00

How would you do this one?

Jane buys 4 sweets each costing 25p.
How much did she spend?

EYFS – Maths Early Learning Goals

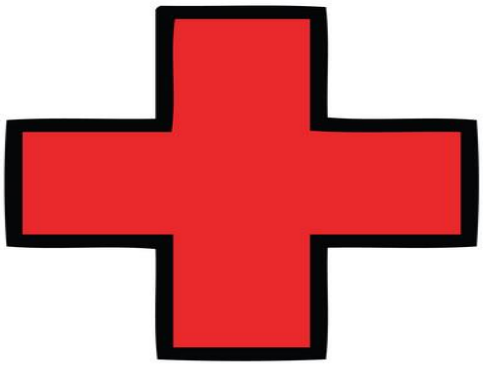
- Numbers:
- children count reliably with numbers from 1 to 20,
- place them in order
- say which number is one more or one less than a given number.
- Using quantities and objects, they add and subtract two single-digit numbers
- count on or back to find the answer.
- They solve problems,
- doubling, halving and sharing.

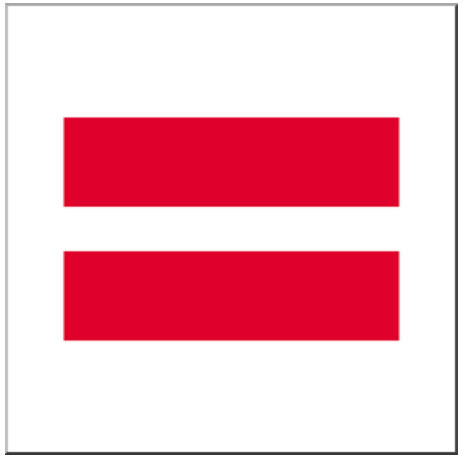
- Shape, space and measures:
- children use everyday language to talk about size, weight, capacity, position, distance, time and money
- compare quantities and objects and to solve problems.
- They recognise, create and describe patterns.
- They explore characteristics of everyday objects and shapes
- use mathematical language to describe them.

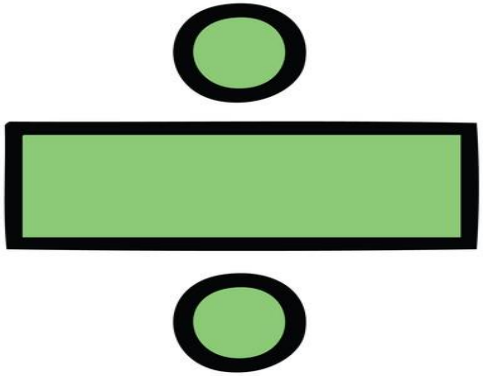
Primary Numeracy

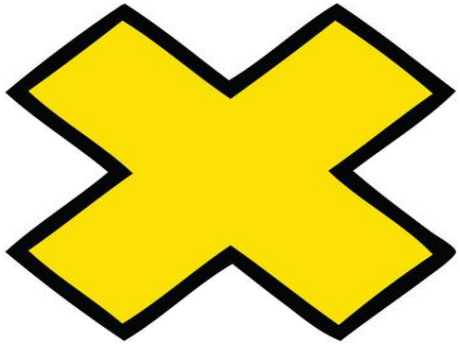
- Based on the NC + compatible with EYFS.
- Structured, daily mathematics lesson
- Emphasis on mental calculation through oral and mental work.
- Formal recording now comes later on.
- Direct, interactive whole class teaching, maximising participation.
- Differentiated group work – same topic, different levels.
- Takes advantage of ICT – for teachers and pupils.

- Give some words which can be used for the following symbols









addition

- add
- more
- plus
- sum
- total
- altogether

subtraction

- subtract
- minus
- leave
- less
- take away
- difference between

multiplication

- lots of
- times
- multiply
- groups of
- product
- multiplied by
- multiple of
- repeated addition
- array

division

- divide
- divided by
- divided into
- share
- share equally
- equal groups of

equals

- makes
- total
- same as
- equivalent
- balances

Developing maths skills

Emphasis on MENTAL maths

Understanding process rather than just the methods to use

Do you understand these maths words?

Partitioning

Number facts
Number bonds

Near doubles

Number line

Number Square

Place value
Grid method

Number facts

A number which is automatically recalled. They are leant by heart.
e.g. times tables

What is 7 x6? Well I remember 6 x6 is 36 and if I add another 6 I get 42

Children understand the concept of times tables and can use strategies to check if the multiplication fact is correct.

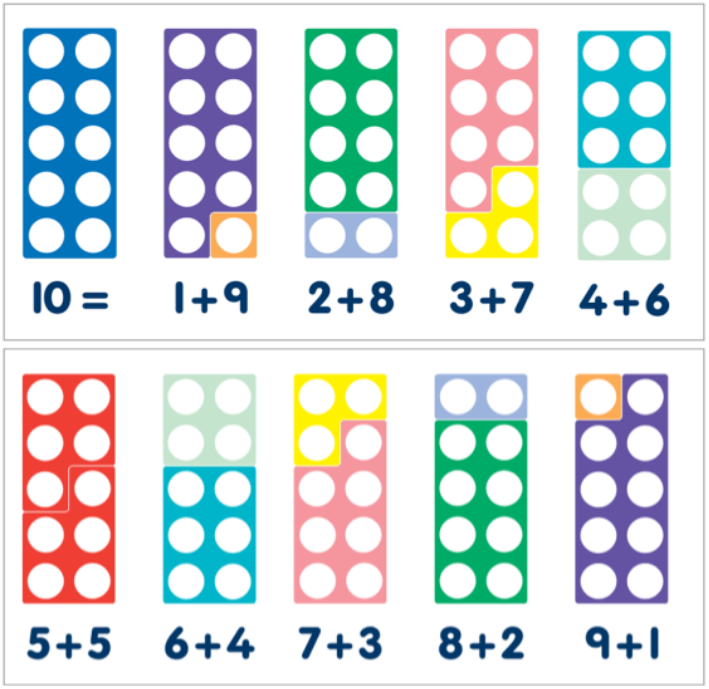
Is 9 x 8 really 72… Well I know 10 x8 is 80 so 8 less must be 72

Number bonds

These are also number facts as they are learnt my heart

Children learn number bonds to 10 which are ???????

Number bonds



Therefore children will use these strategies to work out sums e.g
60 + 40 =?

Number bonds to 20 + and –

Answers

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

Place Value

The value of a number depending where it is positioned

2 can mean two	2
Twenty	25
Two hundred	237
Two and twenty	22

Place Value

Tens	Ones
8	6

eighty-six

Hundreds	Tens	Ones
3	8	6

three hundred eighty-six

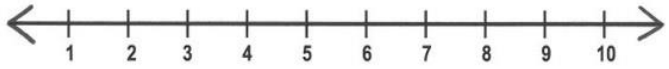
Thousands	Hundreds	Tens	Ones
1	3	8	6

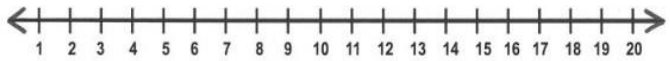
one thousand three hundred eighty-six

Number Square

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

Number line





Times table square

×	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Partitioning handout

Children will learn working out horizontally first then gradually move on to formal written calculations by KS2

Lets work through some maths tasks the way children will learn them at school

Try these using the methods taught today

1. Partition these numbers:

   92 144 1298

2. Add using the partitioning method:

   92 + 47 =

3. Using near doubles add:

   48 + 45 =

4. Using the grid method multiply

   43 x 56

Maths warm up game

You will be given a card/s . On top is a number or word in red which is the answer to a question which will be asked. DO NOT answer if you don't have the answer on your card Below is the question which you will ask when it is your turn ….. GET IT!!

Goals

Look over your goals and reflect on whether you are achieving them