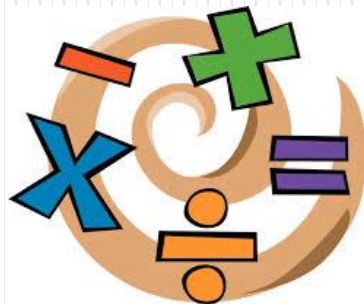


# Numeracy Workshop

## Year 1



# Introduction



- **The New Numeracy Curriculum**

Higher Expectation

Emphasis on 'Number Facts' **Number Pairs to 10, Doubles to 5 etc..**

Written methods introduced earlier

- **Numeracy Setting at Bessemer**

Year 1 – **Spring to Summer**

- **Numeracy Toolboxes**

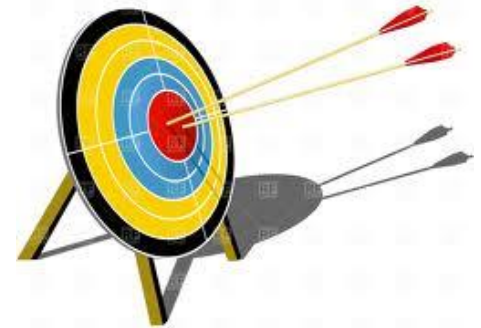
New system to promote problem solving by using set tools such as beads, number-lines, 100 square that are appropriate for your child's level

- **Maths Vocabulary**

A focus has been put on developing children's Maths language so that they can understand and use Maths words at an earlier age and they understand the specific language of Mathematics to help them solve problems

# Aims

- **Outline Main Changes in New Curriculum**
- **Discuss Progression in Calculation**
- **Tools – how to use them**
- **Supporting Children at Home**
- **Understanding Expected Levels – 1b/1a**



# New Curriculum – Greater Expectation

## Foundation

- Read, Write and Order Numbers to 20
- Double & Halve Numbers
- Add & Subtract 2 single digit numbers (6 + 2, 9 – 3 etc...)

## Year 1

- Read, Write and Order Numbers to 100
- Recognise the fractions  $\frac{1}{2}$ ,  $\frac{1}{4}$  and  $\frac{3}{4}$
- Add & Subtract 2-digit and 1-digit numbers
- Solve problems using 4 operations ( +, -, x and ÷ ) using objects

## Year 2

- Recognise fractions  $\frac{1}{3}$  and  $\frac{2}{3}$
- Add and Subtract 2 numbers up to 2-digits use column addition method
- Count in steps of 2, 3, 5 and 10
- Know Number bonds to 20, Doubles & Halves, Add & Subtract mentally, 2, 3, 5 and 10 times table

# Progression in Calculation

**Addition**

$$4 + 2$$

Objects/Counters

**Addition**

$$7 + 4$$

Number-line

**Addition**

$$11 + 8$$

$$26 + 12$$

100 Square

Dienes

**Subtraction**

$$5 - 3$$

Objects/Counters

**Subtraction**

$$17 - 4$$

Number-line

**Subtraction**

$$23 - 6$$

$$35 - 12$$

100 Square

Dienes

**Multiplication**

**&**

**Division**

**Sharing &  
Doubling**

**X 2 or ÷ 2**

**Repeated  
Addition/  
Subtraction**

**2, 5, 10, 3 x table**

# Numeracy in Bessemer – Year 1

- Transition Period – Autumn Term
- Whole Class Teaching – Spring & Summer Term
- Practical Approach – counters, beads, toys
- Social Stories
- Home Learning
  - Mathematics
  - Rocket Card
- Addition, Subtraction, Doubling & Halving/Sharing, Basic Word Problems, Shape, Non-Standard Measures (hand span, unifix cubes to measure), Patterns, Money (coins to £1), Basic Fractions, Counting in 2's or 10's, Number Facts (rocket card)

LIFE ONE?	
You Know Your Number Facts	
Step 10	• Mix of all number facts in a combination text
Step 9	• 11 times table • 12 times table • Count in 3's and 6's
Step 8	• 7 times table • 8 times table • Add/Subtract 2 3-digit multiples of 10/100
Step 7	• 6 times table • 8 times table • Add/Subtract 2 3-digit numbers
Step 6	• 3 & 4 times table • Add 3 single digits • Double/Halve to 50
Step 5	• 5 times table • Double/Halve of multiples of 10 to 100 • Number bonds to 100 (5 in units)
Step 4	• 10 times table • 1/10 more/less of numbers to 100 • Number bonds to 100 (or 10x)
Step 3	• 2 times table • Number bonds to 20 • Double & Halve numbers to 20
Step 2	• Number bonds to 15 • Double to 10 • Halve to 10
Step 1	• Number bonds to 5 • Number bonds to 10 • Double to 5



# Tools

- Tools that will be used in the classroom toolboxes are....

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

100 square



bead string



number line



cubes/dienes

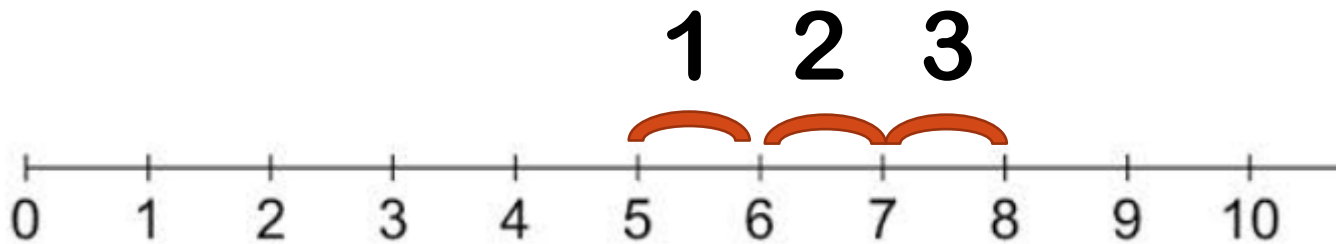


counters/objects  
for counting



# Number line

- How we use it



$$5 + 3 = 8$$



# 100 Square

- How we use it

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



$$12 + 4 =$$

$$15 + 11 =$$



$$15 - 3 =$$

$$23 - 12 =$$

# Supporting Maths at Home



- **Door Numbers** – Odd & even numbers, place value
- **Playing Board Games** – Place value and ordering
- **Baking** – Weighing, capacity, understanding scales
- **Clocks & Time** – Encourage children to wear a watch & tell the time
- **Shopping & Working Out ‘Change’** - Word problems, +, -, x, ÷
- **Food for Counting & Fractions** – Pasta shapes, pizza/cake fractions
- **Purses & Wallets** – Emptying your purse for children to count coins
- **Rubik’s Cubes, Puzzles & Toys** – Get presents that challenge children
- **Internet Activities** - [www.ictgames.com](http://www.ictgames.com) , [www.kenttrustweb.org.uk](http://www.kenttrustweb.org.uk),  
[www.woodlands-junior.kent.sch.uk](http://www.woodlands-junior.kent.sch.uk) , [www.kidsmathgamesonline.com](http://www.kidsmathgamesonline.com) , [www.bbc.co.uk](http://www.bbc.co.uk)

# 100 Square – Finding Patterns

Find patterns on the 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

- What do odd and even numbers always have?
- What's a quick way of adding 10 to any number?
- Taking away 10 from any number?
- Can you find numbers that have the number '3' unit in them?  
What do you notice?
- What is a quick way of adding 9?  
If you start on 36 jump down to add 10 and jump back to take away 1.

How about adding 11?



# 100 Square Games



- **Total of 10:** Find pairs of numbers on the hundred square that total 10. How many different pairs can you find? How could you organise your answers so that you know you have found all the possible ways? Extend to totals to 20, 50 and 100.
- **Favourite numbers:** Choose your favourite number from the hundred square. Make up 3 statements about it e.g. it is greater than 30, it is less than 70, it is not in the 10's but it is in the 5's. Can someone else guess your number correctly? If not, let them ask a question to help them.
- **Find the number:** Say a number to your child. Ask them to find it on the hundred square and cover it with a counter. Ask them how they found it. Play to improve. Can you find it quicker next time? How did you do it? Keep playing to improve strategy and explain.
- **Odds and Evens:** Game for 2 players, one person chooses to be 'evens' and one 'odds.' Each player rolls a dice and if the 'odd' player lands on an odd number they cross out an odd number on the square, if not they pass. Next the 'even' player rolls a dice and if they land on an even number they cross out even number, if not they pass. Winner is first to have all numbers crossed out.

# What Can a 1b/1a Child Do??

- Count to 50 confidently and attempt to 100
- Write numbers correctly - only odd incorrect orientation (3,5,9)
- Use a number line to 30 confidently
- Start to use a 100 square
- Know 2D & some 3D shapes – triangle, oblong, cube, sphere
- Count in 2s, 10s and start to count in 5s
- Know Number Facts – doubles, halves to 10, number pairs to 10/15
- Solve simple word problems - Jack has 18 apples. He eats 4. How many left?
- Add and Subtract numbers
  - 1 digit to 1 digit –  $5 + 4 / 7 + 5 =$
  - Low 2 digit to 1 digit –  $14 + 4 = / 18 + 5 =$
  - 1 digit from low 2 digit –  $16 - 3 = / 22 - 6 =$