

Curriculum at Bowes

Wednesday 30th September 2015

+ Aims

- How we teach Maths and English at Bowes
- How you can help your child at home
- Share resources - workshops



+ KS2 Outcomes - 2015



Level 4 Combined (Reading, Writing and Maths) – **93%**

	Level 4+	Level 4B+	Level 5+	Level 6
Reading	95%	86%	57%	0%
Writing	95%	-	34%	0%
SPaG	93%	80%	68%	2%
Maths	93%	88%	41%	11%

+ Maths at Bowes

- Continue to have high standards in maths at Bowes
- Due to changes to the NC - we reviewed MMS across the alliance
- Part of review process - trial medium term plans devised by the Local Authority across the alliance
- Successful – continue to maintain practical and hands on approach
- Continue to use practical and visual approach to teaching maths – using aspects of MMS





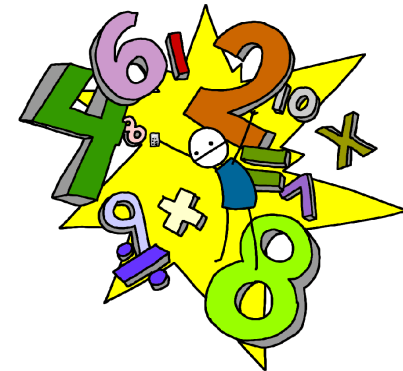
Local Authority - Maths Medium Term Plans



- Key stage 1 and Key stage 2 party – Maths subject leaders
- Maths subject leaders were divided into specialist year groups
- Considered variety of documents from NCETM, DfE, Lancashire, STA, N-rich

+ Additional Resources

- **Calculation Policy** – how to teach addition, subtraction, multiplication, division, fractions and mental maths.
- **Exemplification materials** – examples of what ‘age related expectations’ look like for each objective/year group.

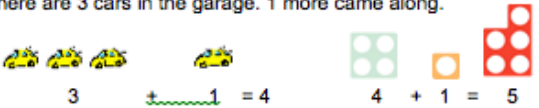
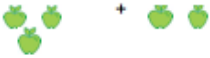


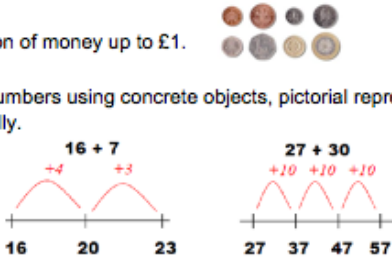
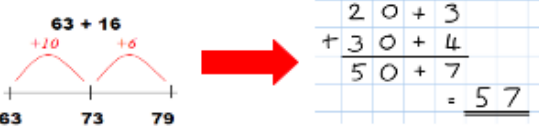




Calculation Policy

- In line with the new National Curriculum

Key Stage 1 – Addition

Y1	Y2
<p>Through practical activities in meaningful contexts and informal written methods.</p> <ul style="list-style-type: none"> Recall number bonds to 20 and within 20. Pictures and Marks – 1 more / 2 more. There are 3 cars in the garage. 1 more came along.  <p>$3 + 1 = 4$ $4 + 1 = 5$</p> <p>Terry has 3 apples and Tony has 2 apples. How many altogether?</p>  <ul style="list-style-type: none"> Number lines to 20. <p>$6 + 3 = 9$</p>  <ul style="list-style-type: none"> Derive related facts to 20. <p>$\square = 5 + 4$ $5 + 4 = \square$ $\square + 4 = 9$ $\square + \square = 9$</p>  <ul style="list-style-type: none"> Money and addition up to 20p. Read, write and interpret mathematical statement involving addition (+) and equals (=). <p>Video clips: Using a range of equipment and strategies to reinforce addition statements</p> <p>National Curriculum requirements: Add 1 digit and 2 digit numbers to 20, including 0.</p>	<p>Through practical activities in meaningful contexts and informal written methods.</p> <ul style="list-style-type: none"> Fluent recall of bonds to 20 and within 20. Derive and use related facts up to 100. Addition of money up to £1. Add numbers using concrete objects, pictorial representations and mentally.  <ul style="list-style-type: none"> Show that addition of two numbers can be done in any order (commutative). Recognise and use the inverse relationship between addition and subtraction. Progressing to partitioned columnar method (in preparation for year 3).  <p>National Curriculum requirements: <i>(using concrete objects, pictorial representations and mentally)</i> Add 2 digit numbers and ones. Add 2 digit number and tens. Add two 2 digit numbers. Add three 1 digit numbers.</p>

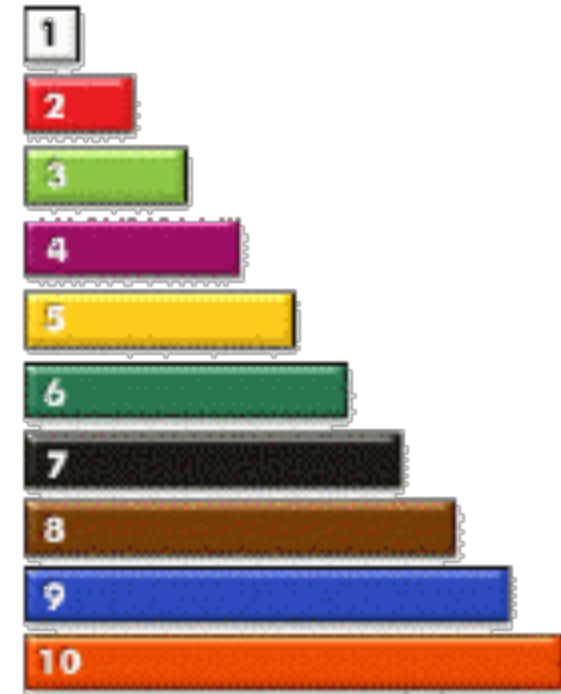
+ Maths Exemplars

- Examples of how to achieve objectives
- Link with our assessment documents/National Curriculum

Strand	Learning Objectives	Secure
YR1 Number and Place Value https://www.ncetm.org.uk/resources/42455	Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.	Count forwards from 80 to 110 Count backwards from 105
	Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens.	Find p 39 in a book Make a label to show how many things were in your collection Count groups of 10 each of 2p, 5p and 10p coins
	Given a number, identify one more and one less.	<i>There are twenty nine beads in this pot. I am putting one more bead in the pot. How many are in there now? How did you know? How can you check?</i> <i>This time there are forty beads in the pot. I take out one bead. How many beads are left in the pot? How did you know? How can you check?</i> <i>Start with a different number of beads in the pot. Ask your partner to put another bead in or take one out and then say how many there are in the pot. How will you know if your partner is right?</i>
	Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least.	<i>I'm giving each of you a strip of card with some numbers on [five numbers at random from 0 to 30].</i> <i>Point to the number which is worth most. Now point to the number which is worth least.</i> <i>Make these numbers using tens and ones apparatus and put them in order.</i> <i>Why have you put this number there?</i>

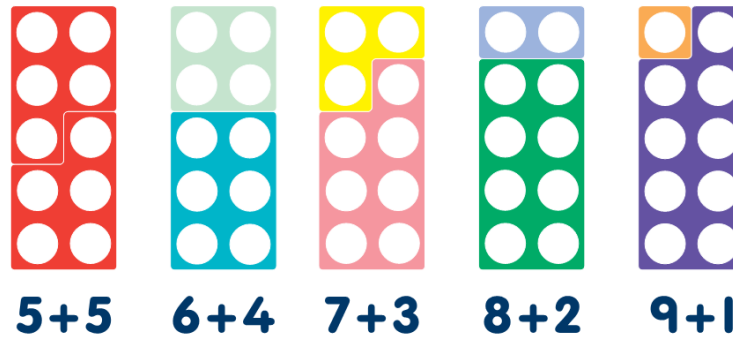
+ Resources

Cuisenaire



+ Resources

Numicon – Resources and support documents



Finding doubles

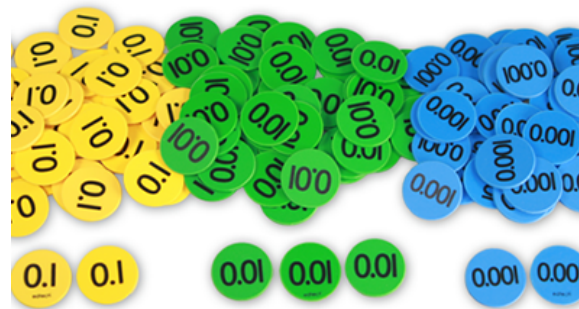
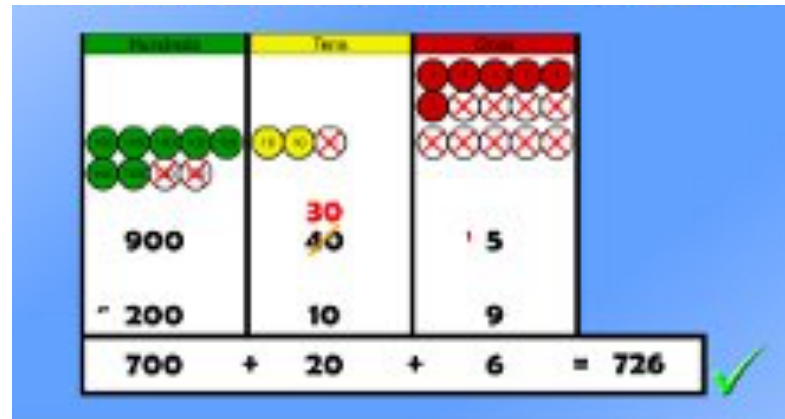
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+ Resources

Place Value Counters



+ Maths Targets

Maths Targets		Year 6 – Number and Place Value, Addition, Subtraction, Multiplication and Division and Algebra	
1	I can read, write, order and compare numbers up to 10,000,000, and determine the value of each digit.	7	I can interpret remainders as whole number remainders, fractions or by rounding (e.g. $26 \div 4 = 6 \text{ r}2 = 6\frac{2}{4} = 6.5 = 7$).
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:
2	I can round any whole number to a required degree of accuracy.	8	I can identify common factors, common multiples and prime numbers (also relate to finding equivalent fractions).
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:
3	I can use negative numbers in context and calculate intervals across zero.	9	I can solve problems involving any operation.
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:
4	I can solve number and practical problems involving, numbers up to 10,000,000, rounding and crossing zero.	10	I can generate and describe linear number sequences.
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:
5	I can multiply multi-digit numbers up to 4 digits by 2 digits using a formal written method.	11	I can express simple missing number problems algebraically.
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:
6	I can divide up to 4 digits by 2 digits using a formal written method.	12	I can use simple formulae (e.g. The cost of 3 apples and 2 oranges is $75p$ $3a + 2b = 75$).
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:

Maths Targets		Year 6 – Fractions and Ratio and Proportion	
13	I can compare and order fractions, including fractions > 1 .	19	I can use written division methods in cases where the answer has up to 2 decimal places.
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:
14	I can associate a fraction with division to calculate decimal fraction equivalents. (e.g. $\frac{3}{8} = 3 \div 8 = 0.375$).	20	I can solve problems which have answers that have to be rounded to specified degrees of accuracy.
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:
15	I can add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions - e.g. $\frac{1}{2} + \frac{1}{4} + \square = 1$	21	I can solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:
16	I can multiply simple pairs of proper fractions, writing the answer in its simplest form.	22	I can solve problems involving the calculation of percentages and the use of percentages for comparison (e.g. of measures, and such as 15% of 360. Pupils also link percentages or 360° to calculating angles of pie charts)
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:
17	I can divide proper fractions by a whole number - e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$	23	I can solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. (e.g. What fraction is 500ml of 400ml?)
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:
18	I can multiply one-digit numbers with up to 2 decimal places by whole numbers.	24	I can use percentages to compare. Which is less? <input type="radio"/> 90% of 60 <input type="radio"/> 80% of 70 <input type="radio"/> neither; they are equal
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date complete:



+ How can I help my child?

- Support with multiplication facts up to 12×12 and corresponding division facts.
- Support them with how to use the four operations using our methods - calculation policy will be available on the website.

Real life experiences

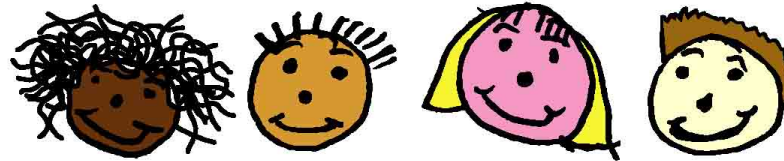
- Bus timetables
- Get them involved when cooking – weighing scales/quantities
- When shopping encourage them to look at prices/paying/change



+ Curriculum and Assessment

- Changes to the National Curriculum – see website for expectations

Bowes Learning Alliance



be included

+ **English – New Curriculum**

New content or emphasis

- Year-by-year objectives for Y1 and Y2, then LKS2 and UKS2
- Higher reading expectations
- Required spelling & grammar objectives & wordlists
- Priority on phonics in both key stages
- Focus on reading for pleasure
- Reciting poetry
- Clearer objectives in developing writing



+ Promoting Reading at Bowes

- 'Literacy and Language' Programme
- Reading Comprehension questions
- Extreme Reading
- Themed Book Days
- Oxfam's 'Message in a book'
- 'First News' newspaper for children
- 'Beanstalk' reading volunteers
- Reading Zone
- Reading Focus Groups



+ Read Write Inc. Phonics

- From Rec. through to Year 1
- Lively and rigorous teaching of synthetic phonics
- Small groups
- Regular assessments to ensure progression
- Used as an intervention in Year 2



+ What is Literacy and Language?

Literacy and Language is a complete literacy programme for children in Years 2-6. It is designed to stimulate and challenge children's thinking and create enthusiastic, lifelong readers and writers.





The core purpose of the programme is to ensure that children, as the new National Curriculum aims state:

- Read easily, fluently and with good understanding
- Develop the habit of reading widely and often for both pleasure and information
- Acquire a wide vocabulary
- Use grammar correctly
- Appreciate our rich and varied literacy heritage
- Write clearly, accurately and coherently, adapting their language and style in and for a range of contexts, purposes and audiences
- Use discussion in order to learn; they should be able to elaborate and explain clearly their understanding and ideas
- Are competent in the arts of speaking and listening, making formal presentations, demonstrating to others and participating in debate



+ Weekly Planning



- At Bowes each unit is intended to last a half term (fiction & non-fiction)
- 3 x Literacy and Language
- 1 x Spelling and Grammar
- Extended writing session

+ Reading Assessment

- We have split the new reading curriculum into different areas and the areas are now called **Learning Focuses** rather than Assessment Focuses
- They are split into year groups rather than levels
- Spoken language has been added as it is again threaded throughout the reading curriculum

+ Learning Focuses

Learning Focus

LF1: Word Reading

LF2: Comprehension – Understanding

LF3: Comprehension – Making Inferences

LF4: Comprehension – Structure/Language for effect

LF5: Comprehension – Themes and Conventions

LF6: Comprehension – Spoken Language



+ Grammar

- Grammar Targets for year groups National Curriculum – tested in KS1 and KS2 SATS
- Grammar taught throughout year groups in Literacy and Language and in stand alone lessons.
- Individual ‘Writing Targets’ include grammar objectives specific to year group.



+ Spellings



Spelling patterns taught weekly with a list sent home each week from Mid-Year 1 to Year 6.

Children offered opportunities to use these words to check for understanding the following week.

‘Informal testing’ of spellings in upper years in preparation for SATS.



How can I help my child?

- Encourage a culture of reading for pleasure!
- Tune in to your child's interests (range of text types, fiction and non-fiction)
- Visit the library (special events/reading challenges)
- Read to and with your child
- Ask questions (predictions, vocabulary, similarities/differences to other texts etc.)
- Support learning of Weekly Spellings
- Encourage ambitious word choices when speaking
- Create writing opportunities (letters, diaries, lists, stories etc.)

