

## Maths Targets

### Year 6

#### **STATISTICS**

I can calculate the probability of an independent event.

I can read and interpret linear proportional graphs (eg speed).

I can calculate the mean as an average and understand when it is appropriate to find the mean of a set of data.

I can solve problems using the data from line graphs (including conversion graphs) and pie charts including ones I have constructed myself.

I can construct a pie chart.

I can interpret a pie chart.

#### **SHAPE**

I can solve problems using my knowledge of circle properties.

I can recognise vertically opposite angles and use this to calculate missing angles.

I can illustrate and name parts of a circle including radius, diameter and circumference and know that diameter is twice the radius.

I can compare and classify geometric shapes based on their size and properties and can find unknown angles in any triangle, quadrilateral or regular polygon.

I can recognise, describe and build simple 3D shapes, including making nets.

I can accurately draw 2D shapes using given angles and diameters.

#### **POSTION AND DIRECTION**

I can express missing co-ordinates algebraically.

I can predict missing co-ordinates using the properties of shapes.

I can reflect simple shapes in the axes.

I can draw and translate simple shapes on a 4 quadrant grid.

I can label the axes of a grid in all 4 quadrants and describe a position on the grid.

#### **PLACE VALUE**

I can use negative numbers in context and calculate intervals across zero.

I can round any whole number to a required degree of accuracy.

I can read, write, order and compare numbers up to 10,000,000 and determine the value of each digit.

BROCKTON C.E. PRIMARY SCHOOL

# LEARNING LADDERS

## READING, WRITING AND MATHS YEAR 6

Name \_\_\_\_\_

Class \_\_\_\_\_



# New Curriculum & Changes to Assessment

## BACKGROUND

In September 2014, schools teaching KS1 and KS2 pupils took on a new Primary National Curriculum. This now applies to all pupils, except for those in Year 2 and 6 who are still working on the old curriculum for maths and English.

The government wanted to provide schools with a slimmed down curriculum that ensure that the core principles were outlined, whilst giving teachers more freedom with the breadth of the content. This is particularly the case in the foundation subjects where key principles have been shared but the 'topics' for driving this can be wide ranging.

The new maths and English curriculums are aimed at further raising standards nationally and many objectives have been moved into lower year groups as children are expected to grasp key skills more quickly.

With the change in curriculum expectations comes a change in assessment. Children who are currently in Year 2 and Year 6 will continue with the previous maths and English curriculum and its end of year assessment procedures, but children in Year 1, 3, 4 and 5 will no longer be assessed using 'Levels'.

The government felt that schools should have greater autonomy in deciding how they assess pupil achievement, and that the Levels system had become out-dated and was no longer fit for purpose. It was also felt that parents did not feel that Levels were clear enough in explaining their child's attainment and progress.

We will be trialling a new Learning Ladders system for the purposes of target setting, reporting, assessing and recording. This project was recognised by the Department for Education earlier this year and is being adopted by schools nationally.

## Maths Targets

### Year 6

#### **PROBLEM SOLVING**

I can solve real life and financial problems eg comparing holiday packages or working out household bills.

I can solve a variety of number problems using formulae and algebraic equations.

I can find pairs of numbers that satisfy an equation with 2 unknowns.

I can express missing number problems algebraically.

I can solve multi-step word problems and investigations involving all 4 operations from a large range of contexts.

I can round and estimate as a means of predicting and checking the order of magnitude of my answers to a decimal calculation.

I can consistently check the reasonableness of my answer in all calculations.

I can solve addition and subtraction multi-step problems in context, with increasingly large numbers deciding which operation to use and why.

#### **PROPERTIES OF NUMBER**

I can identify the region for solutions of square roots and use this as a starting point for trial and improvement.

I can identify square roots and cube roots which give integer solutions.

I can make generalisations about number patterns and express them algebraically.

I can explore the order of operations using brackets.

I can identify common factors, common multiples and prime numbers with increasingly large numbers.

#### **MEASURES**

I can understand compound units for speed and use them in context eg science experiments.

I can convert between miles and km.

I can recognise when it is impossible to use formulae to calculate volume.

I can calculate, estimate and compare volume of cubes and cuboids using standard units eg  $\text{cm}^3$

I can solve problems involving calculation and conversion of units of measure using decimal notation up to 3 decimal places.

I can use, read, write and convert between standard units of measure using decimal notation up to 3 decimal places.

#### **PERIMETER AND AREA**

I can calculate area and perimeter of compound shapes including parallelograms and triangles.

I can recognise when it is possible to use formulae to calculate area.

I can calculate the area of parallelograms and triangles.

I can investigate relationships between area and perimeter eg shapes with the same area can have different perimeters and vice versa.

## Maths Targets

### Year 6

#### **MULTIPLICATION**

I can use long multiplication to multiply THTO or HTO x TO.

I can use related facts to multiply multiples of 10 and 100 eg  $2 \times 3 = 6$   
 $200 \times 30 = 6000$

I can multiply numbers with up to 2 decimal places by whole numbers.

#### **DIVISION**

I can divide numbers up to 4 digits by a 2 digit whole number using long division.

I can express a quotient as a fraction decimal or rounded according to context.

I can divide numbers up to 4 digits by a 2 digit whole number using expanded long division.

#### **FRACTIONS**

I can multiply more complex pairs of proper fractions eg  $3/5 \times 4/7$

I can recognise and explore the relationship between multiplying by a whole number and dividing by its reciprocal.

I can divide proper fractions by a whole number eg  $1/3 \div 2 = 1/6$ .

I can multiply simple pairs of proper fractions and write the answer in its simplest form eg  $1/4 \times 1/2 = 1/8$

I can add and subtract fractions and mixed numbers with different denominators using the idea of equivalence.

I can use common multiples to express fractions in the same denomination.

I can simplify fractions using common factors.

#### **DECIMALS**

When using a calculator to solve problems, I can round the answer appropriately in context.

I can recognise what degree of accuracy is appropriate when rounding decimals.

I can round answers with a specific degree of accuracy (where this has been specified).

I can calculate more complex decimal equivalents such as  $3/8 = 0.375$  using my understanding of the equivalence between fractions and decimals.

I can associate a fraction with division and calculate decimal equivalents of common fractions such as halves, quarters and fifths.

I can multiply and divide numbers by 10, 100 and 1000 giving answers up to 3 decimal places.

#### **PERCENTAGE AND RATIO**

I can solve more complex problems using a unitary method (ie scaling down to 1% and then up again).

I can link to calculating simple angles in a pie chart (eg recognise that  $50\% = 180^\circ$ ).

I can solve more complex % problems in context such as % deduction.

I can divide a quantity in a given ratio.

I can identify that a problem can be written as a ratio and solve problems using this relationship.

I can solve problems involving similar shapes where the scale factor is known or can be found.

I can solve % problems in a variety of contexts such as comparing.

I can recall and use equivalence between fractions, decimals and % to solve problems.



# How do Learning Ladders Work?

'Learning Ladders' is an assessment system involving a set of ladders for the core subjects of reading, writing and maths. Each of these ladders divides the new curriculum up into key skills, and the rungs on the ladders are then the key milestones. The ladders depict the progression steps that children will make in their learning.

'Learning Ladders' is primarily an assessment tool to be used by teachers within school to replace Assessing Pupils' Progress (APP) sheets for assessment and record keeping. However we felt that as parents, you would be interested in knowing the key skills that your child would be expected to achieve for their age, to allow you to appropriately support your child's learning, so we have adapted the ladders to show the key skills in reading, writing and maths for each year group.

This 'Learning Ladder' Booklet for Parents provides you with attainment statements for reading, writing and maths to help you understand what they will be learning at school.



## Writing Targets

### Year 6

#### **ORGANISATION**

I can use the setting and the weather as a 'sympathetic background' to the characters situations e.g thunderstorm for the dangerous parts with sun coming out when all is well.

My writing is well paced.

My writing is well constructed and shows a secure grasp of the given genre.

#### **PURPOSE**

In non-fiction writing my paragraphs will have an introductory sentence, followed by approximately 3 points. Each of these points may involve 2 or more sentences, the use of examples and connectives to guide the reader.

I can make links between paragraphs in non-fiction writing – 'As mentioned previously'.

In narrative, I can use references to the start of a story to signal a change at the end of the story I am beginning to vary structure and length of paragraphs for effect on the reader.

I can demonstrate a range of techniques to signal overall direction of the text for the reader .

#### **GRAMMAR GIANTS**

I can use brackets, dashes or commas to indicate parenthesis.

I can use passive verbs to affect the presentation of information in a Sentence.

I can recognise vocabulary and structures that are appropriate for formal speech and writing.

I can use semi-colons, colons or dashes to mark boundaries between independent clauses.

#### **WORD WONDER**

I can make assertive use of the characteristic language of the chosen text type.

I can use vocabulary that is varied, imaginative and appropriate, including use of technical and specific words.

I recognise how changing the word choice can change the meaning of the writing.

#### **SUPER SPELLER**

I can spell all of the year 5/6 word List.

I can spell words with the endings –ible and –able.

I can spell words with the endings –ance and –ence.

I can spell words with the endings –cial and –tial.

#### **HANDWRITING HERO**

## Reading Targets

### Year 6

#### **DECODER**

I can cope with different features of language used in poems and prose e.g dialect.

I can cope with different features of language such as abbreviations, colloquialisms and specialist vocabulary.

I can use connectives as sign posts to indicate a change of tone.

#### **COMPREHENDER**

I can distinguish between statements of fact and opinion.

I can recognise texts that contain features of more than one text type (eg persuasive letter).

I can prepare for factual research, considering what is known already.

#### **READING DETECTIVE**

I can identify and comment on explicit and implicit points of view.

I can use PEE (Point, Evidence, Explain) to support predictions and inferences.

I can use detailed knowledge of text types to make reasoned predictions.

#### **LANGUAGE LOVER**

I know how style and vocabulary are linked to the purpose of the text – '*Obviously common sense tells us..*' in a persuasive text.

I can compare and contrast the styles of individual writers and poets providing examples.

I can comment on and explain the writer's use of a language feature eg '*The rhythm and rhyme patter together make it mimetic, like the rhythm of a train.*'

#### **RESPONDER**

I can respond critically to issues raised in stories, locating evidence in text, and explore alternative courses of action and evaluate the author's solutions.

I can comment critically on the overall impact of poetry or prose, with reference to the text.

I can identify and describe the key characteristics about a writer's or poet's style.

I can identify and discuss themes and conventions in and across a wide range of writing.

#### **BIG READER**

I am beginning to evaluate texts by comparing how different sources treat the same information.

I understand that texts reflect the time and culture in which they were written.

I can identify different character types across a range of texts.

I can identify themes across a range of texts (Social, cultural and historical)