

## End of Key Stage 2 Testing

In May of Year 6, children will take an arithmetic test of 30 minutes, and two broader maths tests of 40 minutes each. These will be sent away for marking with the results coming back at the end of the year. Your child's teacher will also make an assessment on whether or not your child has reached the expected standard by the end of the Key Stage.

## Activities to try at home

- ♦ Play traditional games such as battleships or draughts and chess, it's a great way of exploring coordinates and movement across the coordinates grid.

## TV addicts

Ask your child to keep a record of how long he / she watches TV each day for a week. Then ask him / her to do this.

- ♦ Work out the total watching time for the week.
- ♦ Work out the average watching time for a day (that is, the total time divided by 7).

Instead of watching TV, you could ask them to keep a record of time spent eating meals, or playing outdoors, or anything else they do each day. Then work out the daily average.

## One million pounds **£1,000,000**

Assume you have £1 000 000 to spend or give away.

Plan with your child what to do with it, down to the last penny.

## Remainders

Draw a 6 x 6 grid like this.

82	33	60	11	73	22
65	12	74	28	93	51
37	94	57	13	66	38
19	67	76	41	75	85
86	29	68	58	20	46
50	69	30	78	59	10

- ♦ Choose the 7, 8 or 9 times table.
- ♦ Take turns.
- ♦ Roll a dice.
- ♦ Choose a number on the board, e.g. 59. Divide it by the tables number, e.g. 7. If the remainder for  $59 \div 7$  is the same as the dice number, you can cover the board number with a counter or coin.
- ♦ The first to get four of their counters in a straight line wins

# Maths at Pensans in Year 6



## A booklet for parents

This booklet provides information on the maths taught in Year 6. It also includes End of Year expectations for children in Year 6, as well as ideas and activities to try at home.

## National Curriculum Expectations at the end of Year 6

The new National Curriculum is divided into different aspects of maths:

**Number and Place Value**, **Calculations**, **Fractions**, **Ratio and Proportion**, **Algebra**, **Measurements**, **Shape**, **Graphs and Data**.

By the end of Year 5, children are expected to be confident with the use of all four standard methods for written calculations, and to have secured their knowledge of the key number facts. Their work will focus more on fractions, ratio, proportion and the introduction of algebra.

### Number and Place Value:

- \* Work with numbers up to ten million (10,000,000) including negative numbers
- \* Round any number to any required number of digits or magnitude

### Calculations

- \* Use the standard method of long multiplication for calculations of 4-digit numbers by 2 digit numbers
- \* Use the standard method of long division for calculations of 4 digit by 2 digit numbers
- \* Identify common factors, common multiples and prime numbers
- \* Carry out complex calculations according to the mathematical order of operations
- \* Solve complex problems using all four operations

### Mathematical Order of Operations

Where calculations are written out in long statements,

First, calculations in brackets are completed

Then, multiplication or division calculations

Finally any addition or subtraction

so  $4 + 3 \times (6 + 1)$  has a solution of 25, not 43 or 49.

### Graphs and Data

- \* Construct and understand pie charts and line graphs
- \* Calculate the mean average of a set of data

### Fractions

- \* Use common factors to simplify fractions, or to add fractions with different denominators
- \* Place any fractions into size order
- \* Multiply pairs of fractions together
- \* Divide fractions by whole numbers e.g.  $\frac{1}{3} \div 2 = \frac{1}{6}$
- \* Use division to calculate the decimal equivalence of a fraction
- \* Know and use common equivalences between fractions, decimals and percentages e.g.  $\frac{1}{2} = 0.5 = 50\%$

### Ratio and Proportion

- \* Find percentages of quantities such as 15% of £360
- \* Use ratio to explain relationships and solve problems
- \* Use simple scale factors for drawings, shapes or diagrams

### Algebra

- \* Use simple formulae
- \* Describe sequences of numbers where the increase between values is the same each time
- \* Solve missing number problems using algebra
- \* Find possible solutions to problems with two variables e.g.  $a+b=10$

### Measurements

- \* Convert between metric units and smaller or largest units of the same measure
- \* Convert between miles and kilometres
- \* Use a given formula to find the area of a triangle or a parallelogram

### Shape

- \* Draw 2d shapes using given sizes and angles
- \* Use knowledge of 2d shapes to find missing angles in triangles, quadrilaterals and other regular shapes
- \* Name and label the radius, diameter and circumference of a circle
- \* Find missing angles in problems where lines meet at a point or on a straight line
- \* Use the standard grid of coordinates including negative values.