

## Shape

- Introduce nets for circular based pyramids, spheres and cylinders
- Create nets for 3d shapes
- Use a protractor to draw 2d shapes
- Consolidate radius, diameter and circumference

## Angles and Symmetry

- Understand and recognise acute/ obtuse/reflex angles
- Estimate/measure and draw angles
- Calculate size of missing angles
- Develop understanding of line symmetry
- Introduce translation (co-ordinates)
- Introduce 3 figure bearings
- Explore rotational symmetry
- Understand the negative x and y axis on a co-ordinate diagram
- Identify co-ordinates on a 4 quadrant grid
- Give examples of how, where and why scale is used e.g. Office plans, extensions, car design, maps
- Interpret simple models, maps and plans in order to calculate the true dimensions of the object(s) shown, e.g. The true length of the office, corridor etc.
- Calculate the true dimensions of an object shown in a scale drawing or model
- Given the true dimensions of an object, make a scale drawing of that object

## Information Handling

- Justify a range of ways to collect, organise and display data
- Conduct own investigations giving consideration to purpose, audience and suitability
- Work with others to display data accurately, choosing appropriately from their range of tables, charts, diagrams and graphs
- Introduce Key vocabulary - statistics, continuous data, discrete data, represent, conclusion
- Use technology to display and organise data

*We would love to hear your views on our  
Mathematics and Numeracy Milestones. Please  
contact us at:*

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# St. Andrew's Primary School and Nursery Class

Numeracy and Mathematics  
Milestones



# Primary 7

The Milestones outlined in this booklet set the **minimum** expectations we have for the children in St. Andrew's within Numeracy and Mathematics for our nursery pre-school children

It is our aim to ensure a smooth transition for our children into Primary 7 with a clear focus on clear and progressive learning pathways.

The Milestones are split into the following sections:

- Estimation & Rounding
- Number & Number Processes and Patterns & Relationships
- Fractions, Decimals and Percentages
- Money
- Time
- Measurement
- Shape
- Angles and Symmetry
- Information Handling

Under each heading there is detail about the specific learning children will experience

## Estimation & Rounding

- Round to the nearest 1000000
- Use skills of estimation and rounding in real life contexts

## Number & Number Processes and Patterns & Relationships

- Be able to work with numbers to 1000000 and beyond
- Place value to 1000000 and beyond
- Order of operations (BOMDAS)
- Explain the link between a digit, its place and its value up to 3 decimal places
- Recognise problem solving as an essential life skill and know and apply taught strategies
- Understand the inverse relationships of  $+/-/x//$

- Understand that if you multiply or divide 2 positive numbers or negative numbers the answer is positive
- Understand that if you multiply negative by positive or vice versa then the answer will be negative
- Sequence negative numbers (up to -50)
- Recite without hesitation more complex patterns
- Identify a sequence and write the formula to match
- Experiment using own number sequences
- Extend well known number patterns e.g. Square numbers/ triangular numbers, Fibonacci
- Deepen understanding of effect of multiplying and dividing by 10,100,1000
- Introduce prime numbers

## Multiples, Factors and Primes

- Apply knowledge of multiples and factors to solve algebraic equations

## Fractions, Decimals and Percentages

- Order/compare/read decimal fractions up to 3rd decimal place
- Sequence decimal fractions up to 3 decimal places
- Understand what happens to decimal fractions when multiplied or divided by 1000
- Use written/mental methods to find percentages of amounts
- Find a percentage by subdividing a number
- Show awareness of relationship between fractions and decimals and percentages
- Sequence simple equations e.g.  $1/5 = 20/100 = ?/200 = 80/?$

## Money

- Compare costs from different retailers and work out which is best value for money
- Consider special offers, e.g. 3 for the price of 2, 50% extra free – Is it really a bargain?
- Know the meaning of the terms profit and loss and be able to explain them e.g. A company has increased its annual profit of £100, 000 by 5%. So,  $5/100 (0.05) \times 100\ 000 = £5000$ . £100, 000 (annual profit) + £5000 (5% increased profit) = £105, 000
- Use appropriate calculations to work out profit and loss in buying and selling activities

## Time

- Consolidate 24 hour times (past and to the hour, durations)
- Apply to world times e.g. When it is 1430 in London what is the time in France/ New York
- Use and apply timetables for travel, television, cooking
- Introduce concept of rate and speed per second
- Introduce speed (mph)read

## Measurement

- Calculate complex areas of irregular shapes
- Consolidate conversion between units of measurement by multiplying and dividing by 10,100 and 1000
- Find perimeter of irregular shapes
- Consolidate application of formula to find volume