

MATHEMATICS AND NUMERACY

FOUNDATION STAGE

The minimum content for Mathematics and Numeracy is set out below.

Teachers should enable children to develop knowledge, understanding and skills in:

NUMBER:

Understanding Number

Pupils should be enabled to:

- count a variety of objects;
- develop an understanding of one-to-one correspondence and come to appreciate that the size of a set is given by the last number in the count;
- investigate different ways of making sets for a given number within 5/10;
- match numerals to sets;
- order numerals and sets within 5/10;
- develop an understanding of conservation of number within 5/10;
- understand in counting activities that 'none' is represented by zero;
- explore ordinal number;
- explore the number that comes after, before, between a given number;
- carry out simple mental calculations;
- extend, when appropriate, understanding of number beyond 10.

Counting and Number Recognition

Pupils should be enabled to:

- count in the context of number rhymes, jingles and stories;
- count forwards in ones within 5/10 from different starting points;
- count backwards in ones within 5/10 from different starting points;
- recognise numerals up to 5/10;
- state, without counting, quantities within 5;
- make a sensible guess of quantities within 10;
- explore numbers relevant to their every day lives;
- extend, when appropriate, counting in ones and recognition of numbers beyond 10;
- extend activities to include counting in 2s, 5s and 10s.

Understanding Money

Pupils should be enabled to:

- use money in various contexts;
- talk about things that they want to spend money on;
- understand the need to pay for goods;
- become familiar with coins in everyday use;

- talk about different ways we can pay for goods;
- use their number skills in shopping activities.

MEASURES

Pupils should be enabled to:

- compare two objects of different length/weight/capacity/area; understand and use the language of comparison;
- order three objects of different length, weight, capacity, area; talk about the ordering using appropriate language;
- find an object of similar length, weight, capacity, area; talk about their findings in terms of 'just about the same' length, weight, capacity, area;
- begin to explore the notion of conservation of length, weight, capacity in practical situations; engage in discussion about their observations;
- choose and use, with guidance, non-standard units to measure length/capacity/weight; talk about their work;
- sequence two or three familiar events;
- talk about significant times on the clock;
- compare two intervals of time; talk about their observations in terms of took longer/shorter time;
- explore time patterns;
- choose and use, with guidance, non-standard units to measure time; talk about their work.

SHAPE AND SPACE

Pupils should be enabled to:

- explore and talk about shapes in the environment;
- build and make models with 3D shapes; create pictures and patterns with 2D shapes;
- investigate and talk about the properties of shapes;
- sort collections of shapes in several ways; describe the arrangements;
- describe and name common 3-D and 2-D shapes;
- explore body space through different types of movement;
- explore movement through space during indoor and outdoor play activities;
- understand and use a range of positional words;
- explore movement using programmable devices;
- follow/give directions from/to a partner for simple movements.

SORTING

Pupils should be enabled to:

- explore freely properties of a range of materials and one/two/three property collections; respond to questions about the arrangements;
- sort collections of random materials;
- sort for one criterion using one-property materials; talk about the arrangement;
- sort for one criterion using two-property collections; re-sort for the second criterion; explain their work;

- sort for one criterion using three/four-property collections; find the various possibilities; explain their work;
- partition sets into subsets in preparation for exploring components of number.

PATTERNS AND RELATIONSHIPS

Pupils should be enabled to:

- investigate and talk about pattern in the environment;
- copy a simple pattern;
- continue a simple pattern;
- create patterns;
- explore pattern in number;
- discover the components of numbers within 5/10 by investigating different ways of partitioning sets into subsets practically; talk about the outcomes;
- understand the concept of addition by combining sets of objects to find ‘how many’;
- match objects in real contexts;
- compare sets by matching objects/counting objects to understand the terms ‘more than’ less than’ ‘the same’;
- investigate the relationship between addition and subtraction in practical situations.

Progression

As pupils progress through the Foundation Stage they should be enabled to:

- use appropriate mathematical language and symbols;
- sort and re-sort materials, recording the outcomes in a variety of ways;
- talk about data represented in simple block graphs, tables and diagrams;
- understand the conservation of number;
- count forwards and backwards from different starting points;
- recognise numbers to at least 20;
- carry out mental calculations such as 1 more/less than up to 20, doubles up to 10 and mentally add and subtract within 10;
- understand that ‘teen’ numbers are made up of 10 plus another number;
- begin to measure using non-standard units;
- talk about the properties of 3-D and 2-D shapes using appropriate mathematical language;
- be involved in solving practical problems.