Mathematics

This chapter provides 30 lessons based on the objectives taken from the Primary National Strategy's *Primary Framework for mathematics*, covering all seven strands and a range of objectives. The curriculum grids below are also provided, in editable format, on the accompanying CD-ROM.

The interactive whiteboard can enhance all three parts of the lesson, allowing you to demonstrate concepts and model strategies. Children will become actively involved by highlighting, writing and dragging the particular elements of each lesson. Mathematical resources such an interactive 100-square and a random number generator can appear on screen from a Gallery; a bar chart can take minutes to draw (allowing time to interpret and discuss); picture images will allow the children to take the mathematics outside the classroom and link it to real-life scenarios or objects.

On the CD-ROM you will also find links to relevant DfES *Interactive Teaching Programs* (ITPs). The whiteboard is an ideal medium for making the most of these exciting and interactive resources.

Lesson title	PNS objectives	NLS objectives	Expected prior knowledge	Cross-curricular links
Lesson 1: Ordering numbers	Counting and understanding number • Read, write and order whole numbers to at least 1000 and position them on a number line.	• To order whole numbers to at least 1000.	• Order whole numbers to 100. • Read, write and count numbers to 1000.	Science PoS Sc1 (2f) To make systematic measurements.
Lesson 2: Hundreds, tens and units	Counting and understanding number • Read, write and order whole numbers to at least 1000. • Partition three-digit numbers into multiples of 100, 10 and 1 in different ways.	• To read, write and order whole numbers to at least 1000. • To know what each digit represents in terms of place value.	• Read and write numbers to 100. • Understand place value for tens and ones (units).	There are no specific links for this lesson.
Lesson 3: Add and subtract nine	Calculating • Add or subtract mentally combinations of one-digit and two-digit numbers.	• To add and subtract mentally a *near multiple of* ten to or from a two-digit number.	• How to add and subtract ten.	There are no specific links for this lesson.
Lesson 4: Shopping	Using and applying mathematics • Represent information using £.p notation.	• To understand and use £ and p notation.	• Understand p notation. • Recognise coins.	Speaking and listening Objective 27: To use talk to organise roles and actions.
Lesson 5: Venn diagrams	Handling data • Use Venn diagrams or Carroll diagrams to sort data and objects using more than one criterion.	• To solve a given problem by organising and interpreting numerical data in simple lists, tables and graphs.	• Can count a set of objects. • Can select criteria to sort.	Science PoS Sc3 (1a) To compare the properties of everyday materials and objects. History PoS (1a) To place events, people and changes into correct periods of time. Geography PoS (4a) To recognise and explain patterns made by individual physical and human features in the environment.
Lesson 6: Collecting and recording data	Handling data • Answer a question by collecting, organising and interpreting data; use tally charts to represent results and illustrate observations.	• To solve a given problem by organising and interpreting numerical data in simple lists, tables and graphs.	• Can count a set of objects when moving quickly. • Discuss outcomes and respond to posed questions.	Geography QCA Unit 6 'Investigating our local area' Speaking and listening Objective 25: To explain a process or present information. Speaking and listening Objective 26: To show whether they agree or disagree in a whole-class discussion.