National Curriculum Links

Links to the National Curriculum in England

# **Chapter 16: Decimal numbers and rounding**

Pupils should be taught to:

## Year 3

* count up and down in tenths; recognize that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10

## Year 4

* count up and down in hundredths; recognize that hundredths arise when dividing an object by one hundred and dividing tenths by ten
* recognize and write decimal equivalents of any number of tenths or hundredths
* recognize and write decimal equivalents to 1/4; 1/2; 3/4
* find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths
* round decimals with one decimal place to the nearest whole number
* compare numbers with the same number of decimal places up to two decimal places

## Year 5

* identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths
* read and write decimal numbers as fractions [e.g., 0.71 = 71/100]
* recognize and use thousandths and relate them to tenths, hundredths and decimal equivalents
* round decimals with two decimal places to the nearest whole number and to one decimal place
* read, write, order and compare numbers with up to three decimal places

## Year 6

* calculate decimal fraction equivalents [e.g., 0.375] for a simple fraction [e.g., 3/8]
* identify the value of each digit in numbers given to three decimal places
* recall and use equivalences between simple fractions *(and)* decimals …, including in different contexts
* solve problems which require answers to be rounded to specified degrees of accuracy

Links to Curriculum for Excellence in Numeracy and Mathematics in Scotland

# **Chapter 16: Decimal numbers and rounding**

## Second

***Experiences and outcomes:*** *… having explored how decimal fractions are constructed, I can explain the link between a digit, its place and its value.* ***MNU 2-02a***

*I have explored the contexts in which problems involving decimal fractions occur and can solve related problems using a variety of methods.* ***MNU 2-03b***

***Benchmark:***

* reads, writes and orders sets of decimal fractions to three decimal places
* explains the link between a digit, its place and its value for numbers to three decimal places
* partitions a wide range of whole numbers and decimal fractions to three decimal places, for example, 3∙6 = 3 ones and 6 tenths = 36 tenths
* multiplies and divides decimal fractions to two decimal places by 10, 100 and 1000
* rounds decimal fractions to the nearest whole number, to one decimal place and two decimal places

Links to Curriculum for Wales: Programme of Study for Mathematics, Key Stages 2–4

# **Chapter 16: Decimal numbers and rounding**

Learners should be taught to:

## Year 5

* compare numbers with 1 and 2 decimal places
* use understanding of simple fraction and decimal equivalences when measuring and calculating, e.g. ½ = 0.5, 1 ⁄ 10 = 0.1
* use understanding of simple fraction and decimal equivalences when measuring and calculating, e.g. ½ = 0.5, 1 ⁄ 10 = 0.1

## Year 6

* read and write … numbers to 3 decimal places
* use understanding of simple fraction, decimal and percentage equivalences, e.g. find 25% of 60 cm and know that this is equivalent to ¼ of 60 cm

Australian Curriculum for Mathematics

This maps entries in the **Australian Mathematics Curriculum (from Foundation Stage to Year 7)** to the content of chapters of Haylock, *Mathematics Explained for Primary Teachers*, 6th edition.

**Chapter 16: Decimal numbers and rounding**

## Year 4

* Make connections between fractions and decimal notation

## Year 5

* Recognize that the place value system can be extended beyond hundredths
* Compare, order and represent decimals

## Year 6

* Connect decimal representations to the metric system
* Multiply and divide decimals by powers of 10
* Multiply decimals by whole numbers and perform divisions by non-zero whole numbers where the results are terminating decimals, with and without digital technologies

## Year 7

* Round decimals to a specified number of decimal places
* Connect fractions (and) decimals and carry out simple conversions