National Curriculum Links

Links to the National Curriculum in England

# Chapter 3: Learning how to learn mathematics

The national curriculum for mathematics aims to ensure that all pupils:

* become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately

Links to Curriculum for Excellence in Numeracy and Mathematics in Scotland

# Chapter 3: Learning how to learn mathematics

## Numeracy and mathematics, experience and outcomes

My learning in mathematics enables me to:

* develop a secure understanding of the concepts, principles and processes of mathematics …
* engage with more abstract mathematical concepts …

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

# Chapter 3: Learning how to learn mathematics

Learners should be taught to:

## Foundation Phase

* transfer mathematical skills to play and classroom activities
* identify steps to complete the task or reach a solution
* select appropriate mathematics and techniques to use
* select and use relevant number facts and mental strategies
* select appropriate equipment and resources
* use knowledge and practical experience to inform estimations

## Key Stages 2–4

* transfer mathematical skills to a variety of contexts and everyday situations
* identify the appropriate steps and information needed to complete the task or reach a solution
* select appropriate mathematics and techniques to use
* select and use suitable instruments and units of measurement
* choose an appropriate mental or written strategy and know when it is appropriate to use a calculator
* estimate and visualize size when measuring and use the correct units

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 3: Learning how to learn mathematics

## Proficiency strand: understanding

Students build a robust knowledge of adaptable and transferable mathematical concepts. They make connections between related concepts and progressively apply the familiar to develop new ideas. They develop an understanding of the relationship between the ‘why’ and the ‘how’ of mathematics. Students build understanding when they connect related ideas, when they represent concepts in different ways, when they identify commonalities and differences between aspects of content, when they describe their thinking mathematically and when they interpret mathematical information.

## Proficiency strand: fluency

Students develop skills in choosing appropriate procedures, carrying out procedures flexibly, accurately, efficiently and appropriately, and recalling factual knowledge and concepts readily. Students are fluent when they calculate answers efficiently, when they recognize robust ways of answering questions, when they choose appropriate methods and approximations, when they recall definitions and regularly use facts, and when they can manipulate expressions and equations to find solutions.