

# Measure

## Requirements for Using Mathematics

Across the curriculum, at a level appropriate to their ability, pupils should be enabled to:

- choose the appropriate materials, equipment and mathematics to use in a particular situation;
- use mathematical knowledge and concepts accurately;  
• work systematically and check their work;
- use mathematics to solve problems and make decisions;  
• develop methods and strategies, including mental mathematics;
- explore ideas, make and test predictions and think creatively;
- identify and collect information;  
• read, interpret, organise and present information in mathematical formats;
- use mathematical understanding and language to ask and answer questions, talk about and discuss ideas and explain ways of working;
- develop financial capability;
- use ICT to solve problems and/or present their work;

using their **Knowledge and Understanding of:**

**Measure (weight)**

**Measure (length)**

**Measure (capacity)**

**Measure (area)**

**Measure (time)**

(Non-Statutory)

# Prerequisite Skills (Q Skills) in **USING MATHEMATICS** across the Curriculum

Progress is also demonstrated by decreasing levels of support from adults: with direction, with decreasing direction, without direction.

<b>Q1 Experience</b> (experience/encounter)	<b>Q2 Respond</b> (become aware, respond, interact intermittently)
In sensory activities and activity-based learning/play-based learning, pupils:	In sensory activities and activity-based learning/play-based learning, pupils:
<ul style="list-style-type: none"> <li>• encounter a variety of mathematical materials and equipment;</li> </ul>	<ul style="list-style-type: none"> <li>• interact with materials and equipment;</li> </ul>
<ul style="list-style-type: none"> <li>• experience mathematical activities;</li> <li>• experience daily routines;</li> </ul>	<ul style="list-style-type: none"> <li>• respond to mathematical activities;</li> <li>• become aware of daily routines;</li> </ul>
<ul style="list-style-type: none"> <li>• experience a problem;</li> <li>• encounter simple logical strategies;</li> </ul>	<ul style="list-style-type: none"> <li>• become aware of the existence of a problem;</li> <li>• respond and interact with simple logical strategies;</li> </ul>
<ul style="list-style-type: none"> <li>• experience a variety of simple patterns;</li> </ul>	<ul style="list-style-type: none"> <li>• become aware of and respond to a variety of simple patterns;</li> </ul>
<ul style="list-style-type: none"> <li>• encounter collections of objects;</li> <li>• encounter a variety of objects/pictures/symbols;</li> </ul>	<ul style="list-style-type: none"> <li>• interact with a range of objects;</li> <li>• interact with matching and collecting of objects/pictures/symbols;</li> </ul>
<ul style="list-style-type: none"> <li>• experience a range of mathematical language;</li> </ul>	<ul style="list-style-type: none"> <li>• respond to some basic mathematical language;</li> </ul>
For example:	For example:
<ul style="list-style-type: none"> <li>• experience two similar objects that are clearly different in weight only;</li> </ul>	<ul style="list-style-type: none"> <li>• respond with some interest to two similar objects that are clearly different in weight only;</li> </ul>
<ul style="list-style-type: none"> <li>• experience two similar objects that are clearly different in length only;</li> </ul>	<ul style="list-style-type: none"> <li>• respond with some interest to two similar objects that are clearly different in length only;</li> </ul>
<ul style="list-style-type: none"> <li>• experience a range of materials and sizes and shapes of containers;</li> </ul>	<ul style="list-style-type: none"> <li>• respond with some intermittent interest to a range of materials and sizes and shapes of containers;</li> </ul>
<ul style="list-style-type: none"> <li>• experience covering a surface with a range of paints/crayons and sizes and shapes of paper;</li> </ul>	<ul style="list-style-type: none"> <li>• respond with interest to covering a surface with a range of paints/crayons and sizes and shapes of paper;</li> </ul>
<ul style="list-style-type: none"> <li>• experience daily routines;</li> <li>• experience the terms 'now'/'later' and 'first'/'then'.</li> </ul>	<ul style="list-style-type: none"> <li>• respond to daily routines;</li> <li>• respond to the terms 'now'/'later' and 'first'/'then'.</li> </ul>

# Prerequisite Skills (Q Skills) in **USING MATHEMATICS** across the Curriculum

Progress is also demonstrated by decreasing levels of support from adults: with direction, with decreasing direction, without direction.

<p style="text-align: center;"><b>Q3</b> <b>Engage</b></p> <p style="text-align: center;">(engage with, imitate modelled behaviour, direct attention, focus, recognise)</p> <p style="text-align: center;">In structured activities, in familiar and accessible contexts within activity-based learning/play-based learning, pupils:</p>	<p style="text-align: center;"><b>Q4</b> <b>Actively Participate</b></p> <p style="text-align: center;">(interact, share, actively participate, collaborate, anticipate, recall)</p> <p style="text-align: center;">In structured activities, in familiar and accessible contexts within activity-based learning/play-based learning, pupils:</p>	<p style="text-align: center;"><b>Q5</b> <b>Consolidate</b></p> <p style="text-align: center;">(begin to develop an understanding)</p> <p style="text-align: center;">In structured activities, in familiar situations and contexts, pupils:</p>
<ul style="list-style-type: none"> <li>engage with mathematical materials in response to teacher guidance/modelling;</li> </ul>	<ul style="list-style-type: none"> <li>recognise that a choice has to be made when selecting materials and equipment for a simple activity;</li> </ul>	<ul style="list-style-type: none"> <li>make choices in selecting specific materials and equipment for a simple activity;</li> </ul>
<ul style="list-style-type: none"> <li>recognise mathematical activities in response to cues and prompts;</li> <li>engage with daily routines in response to teacher modelling;</li> </ul>	<ul style="list-style-type: none"> <li>participate in mathematical activities;</li> <li>participate in daily routines;</li> </ul>	<ul style="list-style-type: none"> <li>show some understanding of mathematical notation, such as numerals/words/sets;</li> <li>anticipate and follow through daily routines;</li> </ul>
<ul style="list-style-type: none"> <li>engage with and imitate ways of asking for help;</li> <li>recall simple logical strategies in response to teacher modelling;</li> </ul>	<ul style="list-style-type: none"> <li>demonstrate a basic understanding that problem solving requires a strategy, such as asking for help;</li> <li>participate in simple supported logical strategies;</li> </ul>	<ul style="list-style-type: none"> <li>attempt a range of problem-solving strategies, such as seeking help;</li> <li>become familiar with an increasing range of basic logical strategies;</li> </ul>
<ul style="list-style-type: none"> <li>imitate simple and familiar patterns in response to teacher modelling;</li> </ul>	<ul style="list-style-type: none"> <li>participate in copying simple patterns;</li> </ul>	<ul style="list-style-type: none"> <li>recognise and continue simple patterns;</li> </ul>
<ul style="list-style-type: none"> <li>respond to and engage with objects being collected;</li> <li>engage with and imitate a simple sequence of objects/pictures/symbols that includes an element of choice;</li> </ul>	<ul style="list-style-type: none"> <li>actively participate in the collection of objects/information;</li> <li>represent familiar events/situations/experiences with appropriate symbols/objects/pictures;</li> </ul>	<ul style="list-style-type: none"> <li>communicate basic information and assist in its organisation;</li> <li>represent a wider range of familiar/unfamiliar events/situations/experiences with appropriate symbols/objects/pictures;</li> </ul>
<ul style="list-style-type: none"> <li>recognise and engage with some basic mathematical language;</li> </ul>	<ul style="list-style-type: none"> <li>recall and participate in activities involving simple mathematical language;</li> </ul>	<ul style="list-style-type: none"> <li>begin to understand appropriate mathematical language;</li> </ul>
<p>For example:</p>	<p>For example:</p>	<p>For example:</p>
<ul style="list-style-type: none"> <li>imitate adult by handling a group of similar objects that are different in weight;</li> <li>become familiar with language associated with weight, such as heavy/light;</li> </ul>	<ul style="list-style-type: none"> <li>interact with/explore/handle similar objects that are different in weight;</li> <li>identify objects that are heavy/light;</li> </ul>	<ul style="list-style-type: none"> <li>compare and order two or three objects that are associated with weight;</li> <li>sort objects that are heavy/light;</li> </ul>
<ul style="list-style-type: none"> <li>imitate adult by handling a group of similar objects that are different in length;</li> <li>become familiar with language associated with length, such as long/short;</li> </ul>	<ul style="list-style-type: none"> <li>interact with/explore/handle similar objects that are different in length;</li> <li>identify objects that are long/short;</li> </ul>	<ul style="list-style-type: none"> <li>compare and order two or three objects that are associated with length;</li> <li>sort objects that are long/short;</li> </ul>
<ul style="list-style-type: none"> <li>engage with a range of materials and sizes and shapes of containers;</li> <li>become familiar with language/symbols associated with capacity, such as full/empty;</li> </ul>	<ul style="list-style-type: none"> <li>explore a range of materials and sizes and shapes of containers;</li> <li>identify containers that are full/empty;</li> </ul>	<ul style="list-style-type: none"> <li>compare and order two or three objects that are associated with capacity;</li> <li>sort containers that are full/empty;</li> </ul>
<ul style="list-style-type: none"> <li>imitate teacher modelling of covering the surface of a page with paint or spreading a table with a cloth;</li> </ul>	<ul style="list-style-type: none"> <li>participate in an activity that involves the covering of a surface, such as a page, with paint or a table with a cloth;</li> </ul>	<ul style="list-style-type: none"> <li>demonstrate an understanding of the language associated with area;</li> </ul>
<ul style="list-style-type: none"> <li>engage in an increasing number of daily routines and activities;</li> <li>engage in a range of turn-taking activities;</li> <li>engage in activities about personal recent/past/future events, such as birthdays, news time etc;</li> <li>engage with vocabulary involving time, such as snack time, lunch time, bus etc;</li> <li>recognise and tolerate the terms 'now'/'later' and 'first'/'then'.</li> </ul>	<ul style="list-style-type: none"> <li>anticipate and participate in an increasing number of daily routines and activities;</li> <li>participate in a range of turn-taking activities;</li> <li>recall personal recent/past/future events such as today, tomorrow, yesterday, 'time to';</li> <li>participate in activities that use language and terms associated with time, such as anticipate the end of an activity by responding to a visual timer;</li> <li>demonstrate an acceptance/understanding of the terms 'now'/'later' and 'first'/'then' used in context;</li> <li>participate in activities that introduce the language of days of the week, such as daily/weekly pictorial timetable.</li> </ul>	<ul style="list-style-type: none"> <li>identify daily routines;</li> <li>demonstrate understanding of following a timetable, such as 'what we need to do first, then, and then, and finally';</li> <li>demonstrate an understanding of turn-taking, such as waiting for your turn;</li> <li>demonstrate an understanding of personal recent/past/future events using terms such as today, tomorrow, yesterday, 'time to...' etc;</li> <li>demonstrate an understanding that a clock can indicate specific times, such as home time, lunch time, play time;</li> <li>demonstrate an acceptance/understanding of the terms 'now'/'later' and 'first'/'then' used in context;</li> <li>learn by rote names of the days of the week.</li> </ul>