### 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.

<table>
<thead>
<tr>
<th>Q1 Experience (experience/encounter)</th>
<th>Q2 Respond (become aware, respond, interact intermittently)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In sensory activities and activity-based learning/play-based learning, pupils:</td>
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</tr>
<tr>
<td>• encounter a variety of mathematical materials and equipment;</td>
<td>• interact with materials and equipment;</td>
</tr>
<tr>
<td>• experience mathematical activities;</td>
<td>• respond to mathematical activities;</td>
</tr>
<tr>
<td>• experience daily routines;</td>
<td>• become aware of daily routines;</td>
</tr>
<tr>
<td>• experience a problem;</td>
<td>• respond and interact with simple logical strategies;</td>
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<tr>
<td>• encounter simple logical strategies;</td>
<td>• become aware of the existence of a problem;</td>
</tr>
<tr>
<td>• experience a variety of simple patterns;</td>
<td>• respond to some basic mathematical language;</td>
</tr>
<tr>
<td>• encounter collections of objects;</td>
<td>• interact with a range of objects;</td>
</tr>
<tr>
<td>• encounter a variety of objects/pictures/symbols;</td>
<td>• interact with matching and collecting of objects/pictures/symbols;</td>
</tr>
<tr>
<td>• experience a range of mathematical language;</td>
<td>• respond to daily routines;</td>
</tr>
<tr>
<td>• respond with some interest to two similar objects that are clearly different in weight only;</td>
<td>• respond to the terms ‘now’/‘later’ and ‘first’/‘then’;</td>
</tr>
<tr>
<td>• experience two similar objects that are clearly different in length only;</td>
<td>• respond with some intermittent interest to a range of materials and sizes and shapes of containers;</td>
</tr>
<tr>
<td>• experience a range of materials and sizes and shapes of containers;</td>
<td>• respond with interest to covering a surface with a range of paints/crayons and sizes and shapes of paper;</td>
</tr>
<tr>
<td>• experience covering a surface with a range of paints/crayons and sizes and shapes of paper;</td>
<td>• respond to daily routines;</td>
</tr>
<tr>
<td>• experience daily routines;</td>
<td>• respond to the terms ‘now’/‘later’ and ‘first’/‘then’.</td>
</tr>
</tbody>
</table>

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

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### Q3 Engage

**In structured activities, in familiar and accessible contexts within activity-based learning/play-based learning, pupils:**

- engage with mathematical materials in response to teacher guidance/modelling;
- recognise mathematical activities in response to cues and prompts;
- engage with and daily routines in response to teacher modelling;
- engage with and imitate ways of asking for help;
- recall simple logical strategies in response to teacher modelling;
- imitate simple and familiar patterns in response to teacher modelling;
- respond to and engage with objects being collected;
- engage with and imitate a simple sequence of objects/pictures/symbols that includes an element of choice;
- recognise and engage with some basic mathematical language;

**For example:**
- imitate adult by handling a group of similar objects that are different in weight;
- become familiar with language associated with weight, such as heavy/light;
- imitate adult by handling a group of similar objects that are different in length;
- become familiar with language associated with length, such as long/short;
- engage with a range of materials and sizes and shapes of containers;
- become familiar with language/symbols associated with capacity, such as full/empty;
- imitate teacher modelling of covering the surface of a page with paint or spreading a table with a cloth;
- engage in an increasing number of daily routines and activities;
- engage in activities about personal recent/past/future events, such as birthdays, news time etc;
- engage with vocabulary involving time, such as snack time, lunch time, bus etc;
- recognise and tolerate the terms 'now'/ 'later' and 'first'/ 'then'.

### Q4 Actively Participate

**In structured activities, in familiar and accessible contexts within activity-based learning/play-based learning, pupils:**

- recognise that a choice has to be made when selecting materials and equipment for a simple activity;
- participate in mathematical activities;
- participate in daily routines;
- demonstrate a basic understanding that problem solving requires a strategy, such as asking for help;
- participate in simple supported logical strategies;
- participate in copying simple patterns;
- actively participate in the collection of objects/information;
- represent familiar events/situations/experiences with appropriate symbols/objects/pictures;
- recall and participate in activities involving simple mathematical language;

**For example:**
- interact with/explore/handle similar objects that are different in weight;
- identify objects that are heavy/light;
- interact with/explore/handle similar objects that are different in length;
- identify objects that are long/short;
- explore a range of materials and sizes and shapes of containers;
- identify containers that are full/empty;
- participate in an activity that involves the covering of a surface, such as a page, with paint or a table with a cloth;
- anticipate and participate in an increasing number of daily routines and activities;
- participate in a range of turn-taking activities;
- recall personal recent/past/future events such as today, tomorrow, yesterday, ‘time to’;
- 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;
- demonstrate an acceptance/understanding of the terms ‘now’/‘later’ and ‘first’/‘then’ used in context;
- participate in activities that introduce the language of days of the week, such as daily/weekly pictorial timetable.

### Q5 Consolidate

**In structured activities, in familiar situations and contexts, pupils:**

- make choices in selecting specific materials and equipment for a simple activity;
- show some understanding of mathematical notation, such as numerals/words/sets;
- anticipate and follow through daily routines;
- attempt a range of problem-solving strategies, such as seeking help;
- become familiar with an increasing range of basic logical strategies;
- recognise and continue simple patterns;
- communicate basic information and assist in its organisation;
- represent a wider range of familiar/unfamiliar events/situations/experiences with appropriate symbols/objects/pictures;
- begin to understand appropriate mathematical language;

**For example:**
- compare and order two or three objects that are associated with weight;
- sort objects that are heavy/light;
- compare and order two or three objects that are associated with length;
- sort objects that are long/short;
- compare and order two or three objects that are associated with capacity;
- sort containers that are full/empty;
- demonstrate an understanding of the language associated with area;
- identify daily routines;
- demonstrate understanding of following a timetable, such as ‘what we need to do first, then, and then, and finally’;
- demonstrate an understanding of turn-taking, such as waiting for your turn;
- demonstrate an understanding of personal recent/past/future events using terms such as today, tomorrow, yesterday, ‘time to’ etc;
- demonstrate an understanding that a clock can indicate specific times, such as home time, lunch time, play time;
- demonstrate an acceptance/understanding of the terms ‘now’/‘later’ and ‘first’/‘then’ used in context;
- learn by rote names of the days of the week.