Challenge 1

1.
- a) adjacent
- b) bearing
- c) quadrant
- d) quadrilateral
- e) sequence
- f) set
- g) shallow
- h) share
- i) yard
- j) year

2.
- a) decrease, percent, reduction
- b) angle, degree, obtuse angle, right angle
- c) horizontal, vertical

Super Challenge 1

1. block graph, pictogram, pie chart (other types of graph not listed in the dictionary should also be accepted)
2. lines, curves, angles and shapes
3. 1000 grams
4. 8 pints
5. How fast a sunflower grows

Challenge 2

1.
- a) 1/2
- b) 1/4
- c) 1/8
- d) 2/4
- e) 3/8
- f) 1/2 and 2/4

2.
- a) 2 slices
- b) 4 cupcakes

Super Challenge 2

1.
- a) £22
- b) £10
- c) £14
- d) £28
- e) £13
- f) £26

2.
- a) 267 centimetres
- b) 495 cm
- c) 350 cm

Challenge 3

1. Shapes b, e and f should be circled.
- a) octagon
- b) pentagon
- c) hexagon
- d) octagon
- e) pentagon
- f) hexagon

2. a) 3D = sphere
   b) 3D = cube
   c) 3D = pyramid

   Children should then be able to explain their choices by describing the properties of the shapes.

Super Challenge 3

1.
- a) 90°
- b) 150°
- c) 45°

2. a) The waves are parallel.
   b) The calculators are parallel.
   c) The cubes are perpendicular.

Challenge 4

1.

<table>
<thead>
<tr>
<th>Mass</th>
<th>Capacity</th>
<th>Length</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>grams</td>
<td>litres</td>
<td>metres</td>
<td>minutes</td>
</tr>
<tr>
<td>kilograms</td>
<td>millilitres</td>
<td>centimetres</td>
<td>seconds</td>
</tr>
<tr>
<td>tonnes</td>
<td></td>
<td></td>
<td>hours</td>
</tr>
</tbody>
</table>

2.
- a) metres and centimetres
- b) seconds

Super Challenge 4

1.

<table>
<thead>
<tr>
<th>stone</th>
<th>weight (mass)</th>
<th>height (length)</th>
<th>capacity</th>
<th>speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>pints</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>feet</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>miles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.
- a) 2.30 p.m.
- b) 5.15 (accept a.m. or p.m.)
- c) 4.05 (accept a.m. or p.m.)
- d) 12.15 a.m.

Challenge 5

1.
- a) pictogram
- b) bar chart
- c) block graph
- d) pie chart
- e) bar-line graph

Super Challenge 5

1.
- a) The mode is 15
- b) The median is 10
- c) The mean is 10
- d) The range is 20