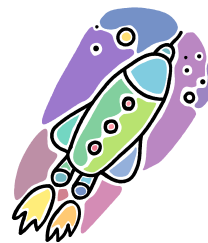


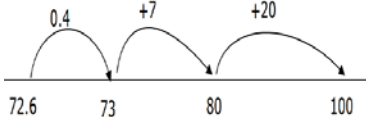
## Level 5 Maths



As parents, you will wish to know how your child is getting on in maths, and some of you may wish to support your child with extra practise at home. This handout shows some of the key assessment criteria for **level 5** in the area of 'number', along with examples of questions your child may be expected to answer in this area. You could discuss the questions with your child at home, and help them to understand and practise similar questions in any areas where they have difficulty. However, we would stress the following points:

- **This is only a sample of the skills children are assessed on! Achieving the examples set out below does not mean your child has achieved Level 5 overall. Even the skills below need to be applied in a wider range of contexts.**
- We want children to enjoy maths! Practising regularly for short periods may be better than one long session! Often maths skills can be developed effectively through games, or involvement in real life situations like shopping.

Skill	<u>Examples</u> of how the skill may be assessed	Answers/Tips
I can round decimals to the nearest decimal place	<p>Round these decimals to the nearest tenth.</p> <p style="text-align: center;"><b>1.21    3.39    2.091</b></p> <p>Circle the number closest in value to 0.2</p> <p style="text-align: center;"><b>0.9   0.3   0.21   0.02   1.2</b></p>	<p>The decimals rounded to the nearest tenth are:</p> <p style="text-align: center;"><b>1.2    3.4    2.1</b></p> <p>The number closest in value to 0.2 is <b>0.21</b>.</p> <p><i>(Note: 0.19 would also round to 0.2 and would be equally close)</i></p>
I can recognise and use number patterns and relationships	<p>The rule for this sequence of numbers is 'add 4 each time'.</p> <p style="text-align: center;"><b>1, 5, 9, 13, 17, 21,</b></p> <p>Sophie says, "If you continue the sequence long enough, you will eventually come to a multiple of 4." Is she correct? Explain how you know.</p> <p>A similar question about the same sequence might be, "Will the number 401 be in the sequence? How do you know?"</p> <p>How many prime numbers can you find with 2-digits?</p> <p>Write the 3 prime numbers which multiply to make 231</p> <p><u>   </u> x <u>   </u> x <u>   </u> = 231</p>	<p><b>Sophie is not correct.</b> The explanation should be along these lines. <i>Because the sequence starts at 1, rather than 0, each number in the sequence is <b>one more than a multiple of 4</b>. If you keep adding 4, this will always be the case.</i></p> <p>Prime numbers are only divisible by 1 and themselves. There are 21 with 2 digits. The first of these are 11 and 13.</p> <p><b>3 x 7 x 11 = 231.</b> It would be good to discuss with your child how this puzzle can be solved, e.g. using estimation and 'trial and improvement'.</p>
I can order fractions and decimals	<p>Put these decimals in order:</p> <p style="text-align: center;"><b>4.213   4.2   4.08   4   4.12</b></p> <p>Order these fractions from smallest to largest.</p> <p style="text-align: center;"><b><math>\frac{1}{2}</math>   <math>\frac{1}{4}</math>   <math>\frac{6}{10}</math>   <math>\frac{2}{5}</math>   <math>\frac{4}{5}</math></b></p> <p>Which is larger, <math>\frac{1}{3}</math> or <math>\frac{2}{5}</math>? Explain how you know.</p>	<p style="text-align: center;">4   4.08   4.12   4.2   4.213</p> <p>When ordering decimals, look first at the whole numbers, then the tenths, then hundreds, etc</p> <p style="text-align: center;"><b><math>\frac{1}{4}</math>   <math>\frac{2}{5}</math>   <math>\frac{1}{2}</math>   <math>\frac{6}{10}</math>   <math>\frac{4}{5}</math></b></p> <p>When ordering fractions with different denominators, try to convert them to fractions with a common denominator (e.g. this set could be converted into <math>\frac{5}{20}</math>, <math>\frac{8}{20}</math> etc)</p>

<p>I can use known facts, place value and knowledge of operations to calculate</p>	<p>Calculating decimal complements to 10 or 100, for example:  <math>72.6 + \square = 100</math></p> <p>Calculating simple fractions or percentages of a quantity, for example:          Find <math>\frac{3}{8}</math> of 400g          Find 60% of £300</p>	 <p>The number line shows that  <math>72.6 + 27.4 = 100</math></p> <p><math>\frac{1}{8}</math> of 400 = 50, so <math>\frac{3}{8}</math> of 400g = 150g  <math>10\%</math> of 300 = 30. <math>30 \times 6 = 180</math>, so  <math>60\%</math> of £300 = £180</p>
<p>I can apply inverse operations</p>	<ol style="list-style-type: none"> <li>4 times a number is 2000. What is the number?</li> <li><math>100 \div \square = 2.5</math></li> </ol>	<p><b>Answers</b></p> <ol style="list-style-type: none"> <li>500</li> <li>40</li> </ol> <p>For both of these questions it helps to know that multiplication is the inverse of division. For example, for number 2, children can apply the fact: <math>2.5 \times 40 = 100</math>. They may work this out by trial and improvement, or by working out that <math>2.5 \times 10 = 25</math>, and so <math>2.5 \times 40 = 100</math>.</p>
<p>I can add and subtract negative numbers in context</p>	<ol style="list-style-type: none"> <li><i>The temperature is 7 degrees Celsius. It then falls by 21 degrees. What is the temperature now?</i></li> <li>Mr Smith, the teacher, gives his class a number sequence that starts at 100 and decreases by 35 each time. What are the first 2 numbers in the sequence which are lower than zero?</li> </ol>	<p><b>Answers:</b></p> <p>- 14 degrees          - 5 and - 40</p> <p><b>Tips:</b>          It can be helpful to represent the numbers on a number line if children are struggling with the concept of negative numbers.          Can you discuss other real life contexts where negative numbers are used?</p>
<p>I can use all four operations with decimals to two places</p>	<p>Add and subtract numbers that do not have the same number of decimal places.          e.g. <math>235.34 + 354.9</math></p> <p>Multiply or divide decimal numbers by a single digit.          e.g. <math>31.63 \times 6</math></p>	<p>For information about calculation methods, do an internet search for 'MathsWeb'. Then navigate via 'Primary Teachers' to the Leicestershire Calculation Policy. Look at the policy for Years 6 and 7. MathsWeb also has a 'Parents' section with other helpful advice.</p>

Reference: Pitch and Expectations - Primary Framework website (from QCA sources); APP materials