## Tables for determining National Curriculum Levels from MEP Year 9 Diagnostic Test Results (Express)

### Diagnostic Test A

<table>
<thead>
<tr>
<th>Level 5:</th>
<th>Level 6:</th>
<th>Level 7:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$15 \leq \text{Mark} &lt; 29$</td>
<td>$29 \leq \text{Mark} &lt; 36$</td>
<td>$\text{Mark} \geq 36$</td>
</tr>
</tbody>
</table>

### Diagnostic Test B

<table>
<thead>
<tr>
<th>Level 6:</th>
<th>Level 7:</th>
<th>Level 8:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$11 \leq \text{Mark} &lt; 26$</td>
<td>$26 \leq \text{Mark} &lt; 41$</td>
<td>$\text{Mark} \geq 41$</td>
</tr>
</tbody>
</table>

### Diagnostic Test C

<table>
<thead>
<tr>
<th>Level 6:</th>
<th>Level 7:</th>
<th>Level 8:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$19 \leq \text{Mark} &lt; 34$</td>
<td>$34 \leq \text{Mark} &lt; 41$</td>
<td>$\text{Mark} \geq 41$</td>
</tr>
</tbody>
</table>

### Diagnostic Test D

<table>
<thead>
<tr>
<th>Level 6:</th>
<th>Level 7:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$18 \leq \text{Mark} &lt; 36$</td>
<td>$\text{Mark} \geq 36$</td>
</tr>
</tbody>
</table>

### Diagnostic Test E

<table>
<thead>
<tr>
<th>Level 6:</th>
<th>Level 7:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$14 \leq \text{Mark} &lt; 39$</td>
<td>$\text{Mark} \geq 39$</td>
</tr>
</tbody>
</table>

### Diagnostic Test F

<table>
<thead>
<tr>
<th>Level 7:</th>
<th>Level 8:</th>
<th>Exceptional Performance:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$17 \leq \text{Mark} &lt; 25$</td>
<td>$25 \leq \text{Mark} &lt; 42$</td>
<td>$\text{Mark} \geq 42$</td>
</tr>
</tbody>
</table>

The remainder of this document details the National Curriculum attainment target and level for each question in each of the Year 9 Diagnostic Tests (Express Route).
### Year 9 Diagnostic Test A Summary of Levels

<table>
<thead>
<tr>
<th>Level 5:</th>
<th>Level 6:</th>
<th>Level 7:</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 ≤ Mark &lt; 29</td>
<td>29 ≤ Mark &lt; 36</td>
<td>Mark ≥ 36</td>
</tr>
</tbody>
</table>

#### Chapter | Number | Question | Attainment Target | Level |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>1</td>
<td>Converting a binary number to base 10</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1.1</td>
<td>2</td>
<td>Converting a base 10 number to binary</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1.3</td>
<td>3</td>
<td>Multiplying with binary numbers</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1.4</td>
<td>4</td>
<td>Converting from base 8 to base 10</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1.4</td>
<td>5</td>
<td>Converting from base 10 to base 5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2.1</td>
<td>6</td>
<td>Multiplying decimals by 10 and 100</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>2.4</td>
<td>7</td>
<td>Multiplication problems</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>2.4</td>
<td>8</td>
<td>Long Multiplication and Division problems</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>2.4</td>
<td>9</td>
<td>Long Division and Multiplication problems</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>2.4</td>
<td>10</td>
<td>Problems involving weight and money</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>3.1</td>
<td>11</td>
<td>Working with positive indices</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>3.3</td>
<td>12</td>
<td>Working with negative indices</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>3.4</td>
<td>13</td>
<td>Writing a number in standard index form</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>3.5</td>
<td>14</td>
<td>Working with fractional powers</td>
<td>2</td>
<td>8</td>
</tr>
</tbody>
</table>

#### Attainment Target | Question | Level |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number &amp; Algebra (2)</td>
<td>6,7,8,9,10,11,12,13,14</td>
<td>5,4,5,5,5,7,7,8,8</td>
</tr>
<tr>
<td>Shape, Space &amp; Measure(3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statistics (4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non NC material</td>
<td>1,2,3,4,5</td>
<td></td>
</tr>
<tr>
<td>Chapter</td>
<td>Number</td>
<td>Question</td>
</tr>
<tr>
<td>---------</td>
<td>--------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>3.4</td>
<td>1</td>
<td>Working with numbers in standard index form</td>
</tr>
<tr>
<td>4.4</td>
<td>2</td>
<td>Working with percentages and ratios</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>Problems involving rounding</td>
</tr>
<tr>
<td>4.3</td>
<td>4</td>
<td>Multiplying and dividing with fractions</td>
</tr>
<tr>
<td>5.2</td>
<td>5</td>
<td>Turning an equation into a straight line graph</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>Solving an equation involving ( ) ‘s</td>
</tr>
<tr>
<td>5.5</td>
<td>7</td>
<td>Solving equations with x on both sides</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Solving simultaneous equations</td>
</tr>
<tr>
<td>6.3</td>
<td>8</td>
<td>Working with probabilities for two events</td>
</tr>
<tr>
<td>6.4</td>
<td>9</td>
<td>Probabilities associated with throwing 3 dice</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attainment Target</th>
<th>Question</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number &amp; Algebra (2)</td>
<td>1,2,3,4,5,6,7</td>
<td>8,6,7,7,6,6,6/7</td>
</tr>
<tr>
<td>Shape, Space &amp; Measure (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statistics (4)</td>
<td>8,9</td>
<td>8,7/8</td>
</tr>
</tbody>
</table>
## Summary of Levels

<table>
<thead>
<tr>
<th>Level 6:</th>
<th>Level 7:</th>
<th>Level 8:</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 ≤ Mark &lt; 34</td>
<td>34 ≤ Mark &lt; 41</td>
<td>Mark ≥ 41</td>
</tr>
</tbody>
</table>

## Chapter Number Question

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Number</th>
<th>Question</th>
<th>Attainment Target</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.6</td>
<td>1</td>
<td>Reading average heights for boys and girls from a graph</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>4.4</td>
<td>2</td>
<td>Working with proportions ( %, Ratio, Probability) drawing information from a two way table</td>
<td>2/4</td>
<td>6</td>
</tr>
<tr>
<td>3.4</td>
<td>3</td>
<td>Calculations involving standard form</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>6.3</td>
<td>4</td>
<td>Probability of more than one event</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>7.4</td>
<td>5</td>
<td>Reflection in Horizontal, Vertical and diagonal mirror lines</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>7.6</td>
<td>6</td>
<td>Combining transformations</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>8.1</td>
<td>7</td>
<td>Combinations and Permutations</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>8.1</td>
<td>8</td>
<td>Working with unitary ratios to calculate population densities</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>8.1</td>
<td>9</td>
<td>Working with percentage pie charts</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8.2</td>
<td>10</td>
<td>Reading information from a cumulative frequency curve (Median)</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>8.1</td>
<td>11</td>
<td>Interpreting information displayed in a percentage pie chart</td>
<td>4</td>
<td>7</td>
</tr>
</tbody>
</table>

## Attainment Target

<table>
<thead>
<tr>
<th>Attainment Target</th>
<th>Question</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number &amp; Algebra (2)</td>
<td>1,2,3</td>
<td>5,6,8</td>
</tr>
<tr>
<td>Shape, Space &amp; Measure (3)</td>
<td>5,6</td>
<td>5,8</td>
</tr>
<tr>
<td>Statistics (4)</td>
<td>2,4,7,8,9,10,11</td>
<td>6,8,7,6,5,8,7</td>
</tr>
</tbody>
</table>
## Year 9 Diagnostic Test D Summary of Levels

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Question Number</th>
<th>Question</th>
<th>Attainment Target</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.3</td>
<td>1</td>
<td>The probability of throwing two dice</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>7.4</td>
<td>2</td>
<td>Transformation of shapes on a co-ordinate grid</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>9.4</td>
<td>3</td>
<td>The area and circumference of circles</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>9.4</td>
<td>4</td>
<td>The volume of a prism</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>10.1</td>
<td>5</td>
<td>Writing the nth term of a sequence and generating the terms of a sequence from an expression</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>10.2</td>
<td>6</td>
<td>Interpreting an expression</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>10.3</td>
<td>7</td>
<td>Substitution of positive numbers into expressions</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>11.1</td>
<td>8</td>
<td>Substitution and simplification of expressions</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>11.1</td>
<td>9</td>
<td>Adding algebraic fractions</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>11.2</td>
<td>10</td>
<td>Expanding two brackets and factorising algebraic expressions</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>12.3</td>
<td>11</td>
<td>Constructing a triangle and the loci of points around the triangle</td>
<td>3</td>
<td>6/7</td>
</tr>
</tbody>
</table>

### Attainment Target

<table>
<thead>
<tr>
<th>Question</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number &amp; Algebra (2)</td>
<td>6,7,7,7,7,8</td>
</tr>
<tr>
<td>Shape, Space &amp; Measure (3)</td>
<td>6,6,6,6/7</td>
</tr>
<tr>
<td>Statistics (4)</td>
<td>6</td>
</tr>
</tbody>
</table>
## Year 9 Diagnostic Test E

### Summary of Levels

<table>
<thead>
<tr>
<th>Level 6:</th>
<th>14 ≤ Mark &lt; 39</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Level 7:</th>
<th>Mark ≥ 39</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Number</th>
<th>Question</th>
<th>Attainment Target</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1</td>
<td>1</td>
<td>Changing the angle in a pie chart to an amount</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>9.4</td>
<td>2</td>
<td>Calculating the cross sectional area of a prism and its depth given the volume</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>9.3</td>
<td>3</td>
<td>Using algebra in the context of the area and perimeter of a rectangle</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>9.3</td>
<td>4</td>
<td>Using the circumference of a circle to find the area of a circle</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>10.2/10.3</td>
<td>5</td>
<td>Finding the nth term of a sequence of match stick pictures</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>13.1</td>
<td>6</td>
<td>Solving an inequality</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>13.3</td>
<td>7</td>
<td>Drawing a cubic curve by substituting values of x into an equation</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>14.4</td>
<td>8</td>
<td>Maximum and Minimum area and percentage problems</td>
<td>2</td>
<td>7 *</td>
</tr>
<tr>
<td>14.4</td>
<td>9</td>
<td>Maximum and Minimum problems involving temperature</td>
<td>2</td>
<td>7 *</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attainment Target</th>
<th>Question</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number &amp; Algebra (2)</td>
<td>3,5,6,7,8,9</td>
<td>6,7,7,8,8,8</td>
</tr>
<tr>
<td>Shape, Space and Measure (3)</td>
<td>2,4,</td>
<td>6,6</td>
</tr>
<tr>
<td>Statistics (4)</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>

*Both of these questions could be rated as Exceptional Performance as they involve identifying upper and lower bounds.*
| Level 7: | Level 8: | Exceptional Performance: |
| 17 ≤ Mark < 25 | 25 ≤ Mark < 42 | Mark ≥ 42 |

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Number</th>
<th>Question</th>
<th>Attainment Target</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.4</td>
<td>1</td>
<td>Finding the cross sectional area and depth of a prism given the volume</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>9.2</td>
<td>2</td>
<td>Calculating the maximum and minimum volume of a sphere</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>15.3</td>
<td>3</td>
<td>Using trigonometry to find the missing sides of a right angled triangle</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>15.4</td>
<td>4</td>
<td>Using trigonometry to find the missing angle in a right angled triangle</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>16.3</td>
<td>5</td>
<td>Drawing a cumulative frequency curve for a set of grouped data and finding the median, UQ and LQ</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>11.3</td>
<td>6</td>
<td>Solving a quadratic equation using factorisation</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>17.3</td>
<td>7</td>
<td>Solving a quadratic equation by completing the square</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>18.2</td>
<td>8</td>
<td>Discussion of the different types of samples, systematic, stratified, random</td>
<td>4</td>
<td>E</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attainment Target</th>
<th>Question</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number &amp; Algebra (2)</td>
<td>6,7</td>
<td>8,8</td>
</tr>
<tr>
<td>Shape, Space &amp; Measure (3)</td>
<td>1,2,3,4</td>
<td>6,8,8</td>
</tr>
<tr>
<td>Statistics (4)</td>
<td>5,8</td>
<td>8,E</td>
</tr>
</tbody>
</table>