

# DESIGNER MATHS - Stage 1 Essential Mathematics (10-credits)

## Assessment Overview

| Assessment Type and Weighting                         | Details of assessment   | Assessment Design Criteria |         | Assessment conditions<br>(e.g. task type, page limit, time allocated, supervision)  |
|---|---|----------------------------|---------|---|
|   |   | C&T                        | R&C     |   |
| Folio<br><br>Weighting<br>50%                         | <p><b>CREATIVE CIRCLES 1 - 2D SHAPES:</b> Students produce a folio of work demonstrating developing understanding of circles and other two dimensional shapes, and how they are used in everyday and design contexts. They develop proficiency in applying mathematical skills and techniques to find solutions to two dimensional shape problems.</p> <p>This assignment has a FOUR tasks:</p> <ul style="list-style-type: none"> <li>• Task 1: SHAPE IN EVERYDAY CONTEXTS</li> <li>• Task 2: SHAPE IN DESIGN CONTEXTS</li> <li>• Task 3: CROP CIRCLES</li> <li>• Task 4: 'MY WORLD' LOGO</li> </ul>   | 1,2                        | 1,2,3,4 | <p>Students present their work in a folio up to 6 A4 pages in length.</p> <p>They may select evidence to present in their folios from across the range of tasks they complete to create their folio.</p>                      |
|   | <p><b>CREATIVE CIRCLES 2 - 3D SHAPES:</b> Students produce a folio of work demonstrating developing knowledge of cylinders, cones and other three dimensional shapes, and how they are used in design contexts. They develop proficiency in applying mathematical skills and techniques to find solutions to three dimensional shape problems including constructing shape nets.</p> <p>This assignment has FIVE tasks:</p> <ul style="list-style-type: none"> <li>• Task 1: 3D DESIGN ANALYSIS</li> <li>• Task 2: SPOILT MILK</li> <li>• Task 3: DESIGN A NUMERAL LANGUAGE</li> <li>• Task 4: CIRCLES &amp; FRACTIONS</li> <li>• Task 5: CUTTING THE CHEESE</li> </ul> | 1,3,4                      | 2,4     | <p>Students present their work in a folio up to 6 A4 pages in length.</p> <p>They may select evidence to present in their folios from across the range of tasks they complete to create their folio.</p>                      |
| Skills and Applications Tasks<br><br>Weighting<br>50% | <p><b>MEASUREMENT:</b> Students apply various measuring skills to a range of contextualized applications.</p> <p>This assignment has FOUR tasks:</p> <ul style="list-style-type: none"> <li>• Task 1: LINEAR MEASUREMENT</li> <li>• Task 2: MEASURING CUBOIDS</li> <li>• Task 3: MEASURING SPHERES, CONES AND CYLINDERS</li> <li>• Task 4: MEASURING ENERGY</li> </ul>  | 2,3,4                      | 3       | <p>Students complete each of the 4 sections of the <b>Measurement</b> booklet as they feel confident to attempt the tasks.</p> <p>Students receive appropriate teaching and engage in practice learning activities.</p>       |
|   | <p><b>RATIO &amp; SCALE IN THE VISUAL ARTS:</b> Students develop their understanding of ratio and scale and ways ratio and scale are used in art and photography. You will progressively develop proficiency in applying mathematical skills and techniques to find solutions to a range of ratio and scale problems.</p> <p>This assignment has four sections:</p> <ul style="list-style-type: none"> <li>• Section 1: RATIOS</li> <li>• Section 2: RATIOS &amp; PHOTOGRAPHY</li> <li>• Section 3: SCALE</li> <li>• Section 4: CREATIVE USE OF SCALE IN THE VISUAL ARTS</li> </ul>   | 1,2                        | 1,2     | <p>Students complete each of the 4 sections of the <b>Ratio &amp; Scale</b> booklet as they feel confident to attempt the tasks.</p> <p>Students receive appropriate teaching and engage in practice learning activities.</p> |

**Four assessments.** Please refer to the Stage 1 Essential Mathematics subject outline.