Unit 1 Rubric – AOS 1: Number, AOS 2: Shape – Design a Boardgame

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| **Excelling** | Demonstrates thorough understanding of reading numbers, place value and decimal place value including rounding to two decimal places | Uses the order of operations correctly & consistently to solve a range of practical calculations with whole numbers, common decimals and fractions | Confidently solves a range of complex problems involving common fractions and decimals | Confidently calculates a range of common percentages of numbers and ratios | Correctly and consistently describes and classifies a range of common two- and three- dimensional shapes including the use of technology | Confidently demonstrates a strong and consistent understanding of reflection, rotation and symmetry | Confidently creates a range of common two- and three- dimensional shapes | Comprehensively shows confidence working with analogue equipment for both AOS | Shows confidence in selecting and working with digital tools for both AOS | Can confidently select the most appropriate tool as needed (analogue or digital) and justify its use within the context | Can provide thorough details when identifying the purpose of the task, and identify the mathematics involved | Can provide thorough details when performing the mathematics calculations and processes accurately | Can provide thorough details when reflecting on results, looks for accuracies and inaccuracies, and reflect on processes | Can provide thoroughly effective methods to communicate details; and can effectively communicate findings |
| **Achieving** | Demonstrates clear understanding of reading numbers, place value and decimal place value including rounding to two decimal places | Uses the order of operations correctly to solve a range of practical calculations with whole numbers, common decimals and fractions | Solves a range of complex problems involving common fractions and decimals | Calculates common percentages of numbers and ratios | Correctly describes and classifies a range of common two- and three- dimensional shapes including the use of technology | Demonstrates a strong understanding of reflection, rotation and symmetry | Creates a range of common two- and three- dimensional shapes | Consistently attempts to work with analogue equipment with both AOS | Can select and work with an array of different digital tools for both AOS | Can consistently select the most appropriate tool as needed (analogue or digital) and justify its use within the context | Can provide details to the purpose of the task and the mathematics involved | Can provide details when performing the mathematics calculations and processes accurately | Can provide details when reflecting on results, looks for accuracies and inaccuracies, and reflect on processes | Can choose effective methods to communicate details; and can effectively communicate findings |
| **Satisfactory** | Demonstrates some understanding of reading numbers, place value and decimal place value including rounding to two decimal places | Attempts to use the order of operations to solve a range of practical calculations with whole numbers, common decimals and fractions | Solves some problems involving common fractions and decimals | Calculates some common percentages of numbers and ratios | Correctly describes and classifies some common two- and three- dimensional shapes including the use of technology | Demonstrates some understanding of reflection, rotation and symmetry | Creates some common two- and three- dimensional shapes | Satisfactory use of selected analogue tools, needing some support to use with accuracy | Satisfactory use of selected digital tools, needing some support to use with accuracy | Satisfactory selection process but lacks justification within the context | Satisfactory identification of the purpose and the mathematics | Satisfactory details when performing the mathematics calculations and processes accurately | Satisfactory details when reflecting on results, looks for accuracies and inaccuracies, and reflection on processes | Satisfactory details when communicating findings |
| **Not yet satisfactory** | Demonstrates limited understanding of reading numbers, place value and decimal place value | Limited use of the order of operations to solve limited practical calculations with whole numbers, common decimals or fractions | Attempts to solve some problems involving common fractions and decimals | Attempts to calculate some percentages of numbers and ratios | Attempts to describe and classify some common two- and three- dimensional shapes including the use of technology | Demonstrates limited understanding of reflection, rotation and symmetry | Attempts to create some common two- and three- dimensional shapes | Shows limited understanding of selecting the most appropriate analogue tool/how to use it | Shows limited understanding of selecting the most appropriate digital tool/how to use it | Shows limited understanding of selecting the best tool and connecting it to the context | Limited identification of the purpose and the mathematics | Limited details provided when performing the mathematics calculations and processes accurately | Limited details when reflecting, looking for accuracies and inaccuracies, and reflection on process | Limited details communicating findings; messages being communicated are unclear and hard to understand |
| Not Shown | Not Shown | Not Shown | Not Shown | Not Shown | Not Shown | Not Shown | Not Shown | Not Shown | Not Shown | Not Shown | Not Shown | Not Shown | Not Shown |
| **Criteria** | **Demonstrates an understanding of reading numbers, place value and decimal place value including rounding to two decimal places** | **Uses the order of operations to solve a range of practical calculations with whole numbers, common decimals and fractions** | **Solves problems involving common fractions and decimals** | **Calculates common percentages of numbers and ratios** | **Describes and classifies common two- and three- dimensional shapes including the use of technology** | **Demonstrates an understanding of reflection, rotation and symmetry** | **Creates common two- and three- dimensional shapes** | **Using a variety of analogue tools** | **Using a variety of digital tools** | **Can select the appropriate tool** | **Step 1****Identify the mathematics** | **Step 2****Act on and use the mathematics** | **Step 3****Evaluate and reflect** | **Step 4****Communicate and report** |
| **Outcome 1** | **Outcome 3** | **Outcome 2** |
| Design a Board Game | Mathematical Toolkit | Problem Solving Cycle |