The Eliot Bank and Gordonbrock Schools Federation

Mathematics Assessment Guidelines: Standard 6

Number, Ratio And Proportion, And Algebra

AF1 Number, Place Value, Approximation And Estimation/Rounding

- Read, write, order and compare numbers up to 10 000 000 **6N2**
- Determine the value of each digit in numbers up to 10 000 000 **6N3**
- Round any whole number to a required degree of accuracy **6N4**
- Use negative numbers in context, and calculate intervals across zero **6N5**
- Solve number problems and practical problems that involve 6N2– 6N5 **6N6**

AF2 Addition, Subtraction, Multiplication And Division (Calculations)

- Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy **6C3**
- Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why **6C4**
- Identify common factors, common multiples and prime numbers **6C5**
- Perform mental calculations, including with mixed operations and large numbers **6C6**
- Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication **6C7a**
- Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication **6C7b**
- Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication **6C7c**
- Solve problems involving addition, subtraction, multiplication and division **6C8**
- Use their knowledge of the order of operations to carry out calculations involving the four operations **6C9**

AF3 Fractions, Decimals And Percentages

- Use common factors to simplify fractions; use common multiples to express fractions in the same denomination **6F2**
- Compare and order fractions, including fractions >1 **6F3**
- Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions **6F4**
- Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. 1/4 × 1/2 = 1/8) **6F5a**
- Divide proper fractions by whole numbers (e.g. 1/3 ÷ 2 = 1/6) **6F5b**
- Associate a fraction with division to calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3/8) **6F6**
- Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places **6F9a**
- Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places **6F9b**
- Use written division methods in cases where the answer has up to two-decimal places **6F9c**
- Solve problems which require answers to be rounded to specified degrees of accuracy **6F10**
- Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts **6F11**

Number, Ratio And Proportion, And Algebra

AF4 Ratio and proportion

- Solve problems involving the relative sizes of two quantities, where missing values can be found by using integer multiplication and division facts **6R1**
- Solve problems involving the calculation of percentages (e.g of measures such as 15% of
- 360) and the use of percentages for comparison **6R2**
- Solve problem involving similar shapes where the scale factor is known or can be found **6R3**
- Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples **6R4**

AF5 Algebra

- Express missing number problems algebraically **6A1**
- Use simple formulae **6A2**
- Generate and describe linear number sequences **6A3**
- Find pairs of numbers that satisfy an equation with two unknowns **6A4**
- Enumerate possibilities of combinations of two variables **6A5**

Measurement, Geometry And Statistics

AF6 Measurement

- Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation of up to three decimal places **6M5**
- Convert between miles and kilometres **6M6**
- Recognise that shapes with the same areas can have different perimeters and vice versa **6M7a**
- Calculate the area of parallelograms and triangles **6M7b**
- Recognise when it is possible to use the formulae for the area of shapes **6M7c**
- Calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm3) and cubic metres (m3), and extending to other units (e.g. mm3 and km3) **6M8a**
- Recognise when it is possible to use the formulae for the volume of shapes **6M8b**
- Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate **6M9**

AF7 Geometry – Properties Of Shape

- geometric shapes based on their properties and sizes **6G2a**
- Describe simple 3–D shapes **6G2b**
- Draw 2–D shapes using given dimensions and angles **6G3a**
- Recognise and build simple 3D shapes, including making nets **6G3b**
- Find unknown angles in any triangles, quadrilaterals and regular polygons **6G4a**
- Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles **6G4b**
- Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius **6G5**
- Draw and translate simple shapes on the co-ordinate plane, and reflect them in the axes **6P2**
- Describe positions on the full co-ordinate grid (all four quadrants) **6P3**

AF8 Statistics

- Interpret and construct pie charts and line graphs and use these to solve problems **6S1**
- Calculate and interpret the mean as an average **6S3**