ORANGE HIGH SCHOOL

ASSESSMENT TASK NOTIFICATION

Subject	Year 10 5.1 Mathematics
Topic	End of Course Examination
Class Teacher	Mrs Sood, Mr McAlpine, Mr. Smith, Mrs Routh
Head Teacher	Ms Stevenson
Year	10MA5, 10MA6, 10MA7, 10MA8
Date Given	Week 2, 28/10/2020
Date of the Examination	Week 5, Term 4 **13/11/2020**
Weighting	45%

Assessment Outline

PART A: SEMESTER ONE CONTENT

- **Financial Mathematics**
  Wages, Salaries, Leave Loading and Overtime; Piecework, Commission, Deductions, Types of Income; Pay as you Go (PAYG) Taxation
- **Measurement**
  - Units of Measurement; Significant Figures; Scientific Notation (large and small numbers); determining perimeter and perimeter of compound and non-compound shapes); surface area and perimeter of prisms; volume of cylinders
- **Algebraic expressions and indices**
  - Terminology and Substitution; The Four operations with algebra; Expanding Brackets; Factorising; Index Laws
- **Probability**
  - Defining Probability; Venn Diagrams; Two-way tables; Mutually and Non-mutually Events; Relative Frequencies
- **Data**
  - Types of Data; Mean and Mode; Median and Range; Frequency Tables; Dot Plots; Stem and Leaf Plots; Frequency Histograms and Polygons

PART B: LINEAR RELATIONSHIPS (MA5.1-1WM, MA5.1-2WM, MA5.1-3WM, MA5.1-6NA)

- The Cartesian Plane, the four quadrants, plotting points, table of values
- The x-intercept, the y-intercept, drawing linear rules using table of values, gradient and the y-intercept.
- Calculating the gradient of a rule on graph, using the rise/run formula and counting the rise and run on a grid paper.
- Calculating the midpoint and the distance between two points by applying the Pythagoras' Theorem
- The horizontal lines (using $y = 2$)and vertical lines(using $x = 4$)
- The gradient intercept form of a linear rule

PART C: PROPERTIES OF GEOMETRICAL FIGURES (MA4-17MG, MA4-18MG, MA5.1-11MG)

- Complementary, supplementary, vertically opposite and angles at a point
- Angles formed in parallel lines cut by a transversal
- Types of triangles, angle sum of a triangles and exterior angle on a triangle
- Quadrilaterals-types and angle sum
- Polygons- angle sum ($sum = 180(n-2)$), exterior angle of a polygon
- Congruent triangles – identifying the four rules(SSS,SAS,AAS,RHS)
- Similar figures and applying the scale factor to calculate the missing side in a pair of similar triangles
- Using the scale factor to test for similar triangles

- Scale drawing on a grid paper

PART D: RIGHT ANGLED TRIANGLES (MA5.1-10MG, MA5.2-13MG, MA-2WM, MA5.1-3WM)

- Applying Pythagoras' Theorem to calculate the hypotenuse and one of the shorter sides
- Practical applications of Pythagoras' Theorem, including the word problems
- Identifying the hypotenuse, opposite and adjacent in a right-angled triangle
- Applying the Trigonometric ratios using SOHCAHTOA
- Calculate a missing side using SOHCAHTOA
- Calculate a missing angle using $sin^{-1}, cos^{-1}, tan^{-1}$of the appropriate ratio using SOHCAHTOA
- Angle of Elevation and the angle of Depression

NOTE: PLEASE BRING YOUR OWN PEN AND CALCULATOR FOR THE EXAMINATION.

Non-completion of Task:

If you know you are going to be away on the day that the task is due, you must make alternative arrangements with your teacher beforehand. If you are suddenly away on the day that the task is due, you must contact your teacher or Head Teacher on your return to school. Documentation will be required in both classes.

Plagiarism:

Plagiarism, the using of the work of others without acknowledgement will incur serious penalties and may result in zero award. Any cheating will also incur penalties.

Failure to follow the above procedures may result in a zero award.
The policies and procedures that are outlined on the ROSA booklet will be followed regarding the non-completion of assessment tasks.

Outcomes Assessed

- uses appropriate terminology, diagrams and symbols in mathematical contexts MA5.1-1WM
- selects and uses appropriate strategies to solve problems MA5.1-2WM
- provides reasoning to support conclusions that are appropriate to the context MA5.1-3WM
- solves financial problems involving earning, spending and investing money MA5.1-4NA
- operates with algebraic expressions involving positive-integer and zero indices, and establishes the meaning of negative indices for numerical bases MA5.1-5NA
- calculates the areas of composite shapes, and the surface areas of rectangular and triangular prisms MA5.1-8MG
- interprets very small and very large units of measurement, uses scientific notation, and rounds to significant figures MA5.1-9MG
- uses statistical displays to compare sets of data, and evaluates statistical claims made in the media MA5.1-12SP
- calculates relative frequencies to estimate probabilities of simple and compound events MA5.1-13SP
- applies trigonometry, given diagrams, to solve problems, including problems involving angles of elevation and depression MA5.1-10MG
- applies trigonometry to solve problems, including problems involving bearings.
- determines the midpoint, gradient and length of an interval, and graphs linear relationships (MA5.1-6NA)
- provides reasoning to support conclusions that are appropriate to the context
- graphs simple non-linear relationships MA5.1-3WM