ORANGE HIGH SCHOOL

ASSESSMENT TASK NOTIFICATION

Subject	Year 10 Mathematics Stage 5.3
Topic	Mid Course Examination (Measurement, Surds and Indices, Probability, Data)
Class Teacher	Harrison, Triggs
Head Teacher	Johnston
Year	10MA1 and 10MA2
Date Given	Week 3, Term 2
Date Due	Week 5, Term 2 (Friday 25th May)
Weighting	30%

Assessment Outline

90 minute in-class examination (double period)

Topics assessed (with concepts that may be used as a checklist):

- Measurement:
  - Converting units of measurement
  - Significant figures
  - Limits of accuracy
  - 3D Pythagoras' Theorem
  - Area
  - Surface area of prisms, cylinders, pyramids, cones and spheres
  - Volume of prisms, cylinders, pyramids, cones and spheres
- Surds & Indices:
  - Rational and irrational numbers
  - Simplifying surds
  - Adding, subtracting, multiplying and dividing surds
  - Expanding brackets and binomial products with surds
  - Rationalising the denominator
  - Positive index laws
  - Negative index laws
  - Fractional indices
  - Scientific notation
- Probability:
  - Single step experiments (basic probability)
  - Venn Diagrams
  - Two-way tables
  - Arrays
  - Tree Diagrams (including branch probabilities, with and without replacement)
- Data:
  - Types of data
  - Data displays/graphs
  - Measures of location (mean, median, mode)
  - Measures of spread (range, standard deviation, IQR)
  - Five number summaries
  - Box Plots (including parallel)
  - Scatter plots (including line of best fit by eye)

Required equipment

- Black or Blue pen or pencil
- Scientific calculator

Course Outcomes:

- **MA5.3-1WM** uses and interprets formal definitions and generalisations when explaining solutions and/or conjectures
- **MA5.3-2WM** generalises mathematical ideas and techniques to analyse and solve problems efficiently
- **MA5.3-13MG** applies formulas to find the surface areas of right pyramids, right cones, spheres and related composite solids
- **MA5.3-14MG** applies formulas to find the volumes of right pyramids, right cones, spheres and related composite solids
- **MA5.3-15MG** applies Pythagoras' Theorem, to solve problems, including problems involving three dimensions
- **MA4-13MG** uses formulas to calculate the areas of quadrilaterals and circles, and converts between units of area
- **MA4-14MG** uses formulas to calculate the volumes of prisms and cylinders, and converts between units of volume
- **MA5.3-5NA** selects and applies appropriate algebraic techniques to operate with algebraic expressions.
- **MA5.3-6NA** performs operations with surds and indices
- **MA5.1-12SP** uses statistical displays to compare sets of data
- **MA5.2-15SP** uses quartiles and box plots to compare sets of data, and evaluates sources of data
- **MA5.3-19SP** investigates the relationship between numerical variables using lines of best fit, and explores how data is used to inform decision-making processes

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 cases.

Plagiarism:

Plagiarism, the using of the work of others without acknowledgement, will incur serious penalties and may result in a 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.