PRE-APPROVED LEARNING AND ASSESSMENT PLAN

**Stage 1 Essential Mathematics**

*This pre-approved learning and assessment plan is aligned with Stage 1 Essential Mathematics Program 2 – Semester 2 – Trade focus.*

Pre-approved learning and assessment plans are for *school use only*.

* Teachers may make changes to the plan, retaining alignment with the subject outline.
* The principal or delegate endorses the use of the plan, and any changes made to it, including use of an addendum.
* The plan does not need to be submitted to the SACE Board for approval.

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| School |  | Teacher(s) |  |

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| SACE  School Code | | |  | Year |  | Enrolment Code | | | | |  | Program Variant Code (A–W) |
| Stage | Subject Code | | | No. of Credits (10 or 20) |
|  |  |  |  | **1** | **M** | **E** | **M** | **10** |  |

**Addendum – changes made to the pre-approved learning and assessment plan**

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| Describe any changes made to the pre-approved learning and assessment plan to support students to be successful in meeting the requirements of the subject. In your description, please explain:   * what changes have been made to the plan * the rationale for making the changes * whether these changes have been made for all students, or for individuals within the student group. |

**Endorsement**

The use of the learning and assessment plan is approved for use in the school. Any changes made to the plan support student achievement of the performance standards and retain alignment with the subject outline.

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| Signature of principal or delegate |  | Date |  |

Stage 1 Essential Mathematics

Assessment Overview

The table below provides details of the planned tasks and shows where students have the opportunity to provide evidence for each of the specific features of both assessment design criteria.

| Assessment Type and Weighting | Name and details of assessment | Assessment Design Criteria | | Assessment conditions (e.g. task type, page limit, time allocated, supervision) |
| --- | --- | --- | --- | --- |
| C&T | R&C |
| Skills and Applications Tasks  Weighting 50% | **SAT One:** Students demonstrate mathematical knowledge and skills from **Topic Four: Data in Context**. The content covers key questions and key concepts within subtopics 4.1 to 4.4. Students apply their knowledge and skills to a range of routine and complex questions in problems based on trade relevant contexts. This SAT will have two parts:  **Part A:** Non-calculator section (30 Minutes) – Subtopic 4.1 to 4.4  **Part B:** Calculator section (15 minutes) – Subtopic 4.4  Students will be required to use mathematical reasoning to draw conclusions and consider the appropriateness of solutions when interpreting data and conclusions that can be drawn from it. Clear and logical communication of solutions and correct use of notation and terminology are required. | 1, 3 | 1, 2, 3 | Supervised assessment.  One A4 page of handwritten notes permitted.  Total time: 45 minutes  Appropriate calculator technology (graphics calculator is not required) |
| **SAT Two:** problems requiring the application of skills learned in subtopics 6.1 and 6.2 **Topic Six: Investing** will be assessed in this SAT. Students require access to technology solve a range of financial calculations on investments using both simple and compound interest. Problems will be set in context, and investment rate information will be provided explicitly in some question contexts, and in others students will need to acquire the investment rate information from tables sourced from banks and other financial institutions that will be provided with the test. Opportunities for interpretation of the mathematical results will be provided throughout the test. Correct use of notation and terminology are required. | 1, 2, 4 | 1, 3 | Supervised assessment.  Students will have access to a calculator and 1 A4 page of handwritten notes is permitted. |
| Folio  Weighting 50% | **Topic Four: Data in Context**  In this folio task students consider aspects of manufacturing (in this case the baking of a batch of muffins) which impact on variation in the product. They will work in groups, each group deciding on a method they hope will ensure the most consistent muffins in their batch. They will measure each muffin and analyse the data statistically. Using tables and graphs they will compare their results with those of two other groups in the class and use statistically supported arguments to rank the consistency of the three batches. Clear and logical communication of data and reasoned arguments are required in a basic report format. Students are encouraged to consider limitations of the initial investigation. | 2, 3 | 1, 3, 4 | 3 weeks to complete. Class time is provided for the practical and group aspects of the task to be completed.  **Maximum of 6 A4 pages**  A basic investigation report format is required. |
| **Topic Five: Measurement**  In this folio task students utilise skills that they have developed in Subtopics 5.1 and 5.2. They design two different outdoor decks on which a dining table and chairs will be placed and create a scaled plan for each design. Students investigate the basic design structure of a deck to assist them in determining all of the materials that they will need to construct the deck. Showing all calculations students determine the cost of materials required to construct both of the designs. They compare different aspects of their designs, and discuss in detail which of the two designs they would recommend to a client. Clear and logical communication of data collected and appropriate graphical representations are required in a basic report format. Students are encouraged to discuss their results. | 2, 3 | 1, 2, 3 | 3 weeks to complete. Class time is provided to support the students and to support verification of the student work.  **Maximum of 6 A4 pages**  A basic investigation report format is required. |

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