Curriculum and Assessment Plan:   
VCE Vocational Major Numeracy

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| Senior secondary education provider details | |
| Senior secondary education provider name: | Click here to enter text. |
| Contact name/s: | Click here to enter text. |
| Contact telephone: | Click here to enter text. |
| Contact email: | Click here to enter text. |
| Principal name: | Click here to enter text. |
| Principal telephone: | Click here to enter text. |
| Principal email: | Click here to enter text. |
| What is the accreditation period and title of the VCE Vocational Major study design being used to complete this document?  ***NOTE:*** *Please ensure that you use the study design that is accredited for the year that you plan to commence delivery.* | Click here to enter text. |

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| **Schedule 8 – Minimum standards for registration to provide an accredited senior secondary course:**  **2 Student learning outcomes**  A senior secondary education provider that provides, or proposes to provide, an accredited senior secondary course must:   1. deliver the course to the standards established by the awarding body for the qualification; and 2. ensure that a student who satisfactorily completes all of the course requirements is entitled to be awarded the registered qualification.   *(Education and Training Reform Regulations 2017*, Schedule 8.2)  **5 Teaching and learning**  A senior secondary education provider must have:   1. processes to ensure the consistent application of assessment criteria and practices; and 2. processes to oversee the conduct of assessments of the course including processes to conduct investigations and hearings and, if necessary, amend or cancel assessments.   *(Education and Training Reform Regulations 2017*, Schedule 8.5) | |
| **Evidence requirement** | Complete this template to provide a curriculum and assessment plan for VCE Vocational Major (VM) Numeracy as follows:   * for Units 1 to 4: a curriculum and assessment plan identifying how students will meet the requirements of each outcome. |
| **What the VCAA is assessing** | A senior secondary education provider must be able to demonstrate that:   * the course is being delivered to the standards established by the VCAA * students are able to satisfactorily complete the course * there is consistent application of assessment criteria and practices * there are compliant processes in place to oversee the conduct of assessments. |
| **Compliance is measured against** | * VCE VM study design applicable for the year of delivery * VCE VM assessment principles * any additional documents as prescribed in the study design and located on the study’s webpage, e.g. VCAA Bulletin items * the *VCE Administrative Handbook* |
| **Resources** | * [VCE VM study webpages](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/Pages/VCEVMStudyDesigns.aspx) * [VCE VM assessment principles](https://vcaa.vic.edu.au/Documents/vce/VCEassessmentprinciples.docx) * [VCE Administrative Handbook](https://www.vcaa.vic.edu.au/administration/vce-handbook/Pages/index.aspx) |

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| **Advice on completing these plans**  A curriculum and assessment plan must be completed for each unit for which the senior secondary education provider is applying for permission to deliver. Use the template provided.  Senior secondary education providers that have established documentation in place; e.g. assessment tasks and tools, are invited to include these as attachments. | |
| **Checklist**  Prior to submitting this document, ensure the following points are checked: | |
|  | Correct study design is being used. |
|  | Correct outcomes, key knowledge and key skills are being taught and assessed. |
|  | Students have opportunity to demonstrate the key knowledge and key skills required to satisfactorily meet the requirements of each outcome within the units. |
|  | The teaching of this study design is based on the applied learning principles and practices. |
|  | All learning activities and applications require the use of the problem-solving cycle and mathematical toolkit. |
|  | All learning activities and applications involve at least one of the outcomes and collectively involve all three. |
|  | An assessment task used to demonstrate achievement of one outcome in a VCE VM unit is not used to demonstrate achievement in any other VCE VM unit, VPC unit, VET unit of competency or VCE study. |
|  | Authentication management is appropriate |
|  | Students will cover the eight areas of study at least once across Units 1 and 2, and across Units 3 and 4 (four areas of study in each unit). |
|  | Each unit must include three numeracies. |
|  | All six numeracies must be covered across Units 1 and 2, and Units 3 and 4. |
|  | Select either one or two areas of study to support each selected numeracy (four areas of study are covered in each unit). |
|  | Select a minimum of four and a maximum of six areas of study per unit. |

**For each unit that is being applied for permission to deliver, please use the tables below to indicate how the six numeracies and eight areas of study will be covered.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | Unit 1 | | |
| Numeracy 1  E.g. Health | Numeracy 2  E.g. Vocational | Numeracy 3  E.g. Recreational |
| **Area of Study** | 1. Number |  |  |  |
| 1. Shape |  |  |  |
| 1. Quantity and measures |  |  |  |
| 1. Systematics |  |  |  |
|  | **Unit 2** | | |
|  | Numeracy 4  E.g. Financial | Numeracy 5  E.g. Civic | Numeracy 6  E.g. Personal |
| 1. Dimension and direction |  |  |  |
| 1. Data |  |  |  |
| 1. Uncertainty |  |  |  |
| 1. Systematics |  |  |  |

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| --- | --- | --- | --- | --- |
|  | | Unit 3 | | |
| Numeracy 1  E.g. Health | Numeracy 2  E.g. Vocational | Numeracy 3  E.g. Recreational |
| **Area of Study** | 1. Number |  |  |  |
| 1. Shape |  |  |  |
| 1. Quantity and measures |  |  |  |
| 1. Systematics |  |  |  |
|  | **Unit 4** | | |
|  | Numeracy 4  E.g. Financial | Numeracy 5  E.g. Civic | Numeracy 6  E.g. Personal |
| 1. Dimension and direction |  |  |  |
| 1. Data |  |  |  |
| 1. Uncertainty |  |  |  |
| 1. Systematics |  |  |  |

Units 1 and 2 Curriculum and assessment plan

A curriculum and assessment plan must be completed for each unit for which the senior secondary education provider is applying for permission. Use the template provided. Demonstration of achievement of outcomes and satisfactory completion of a unit are determined by evidence gained through the assessment of a range of learning activities and tasks.

Teachers must develop courses that are underpinned by the Pillars of Applied Learning, the VCE Assessment principles and provide appropriate opportunities for students to demonstrate satisfactory achievement of each outcome. The decision about satisfactory completion of a unit is distinct from the assessment of levels of achievement. Schools will report a student’s result for each unit to the VCAA as S (Satisfactory) or N (Not Satisfactory). In each VCE VM study, teachers and schools determine the assessment tasks to be used at Units 1 and 2.

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| Provide details of the content, key knowledge and key skills *(from the study design)* | List and describe the learning activities that will be used to provide appropriate opportunity for students to demonstrate satisfactory achievement of the outcome. Include the anticipated teaching time | List the assessment tasks that will be used to assess student achievement. Include an estimate of when each task will occur |
| **Unit 1** | | |
| **Outcome 1:** <insert outcome > | | |
| **Outcome 2:** <insert outcome> | | |
| **Outcome 3:** <insert outcome> | | |
| **Numeracy context 1:** <insert the Numeracy context>  **Supporting area of study 1:** <insert the area of study>  **Supporting area of study 2 (optional):** <insert the area of study> | | |
| **Anticipated teaching time allocation:** <insert as appropriate, e.g. Term 1 Week 1 – Term 1 Week 6> | | |
| <Provide details of the content, key knowledge and key skills> | <List and describe the learning activities that will be used and how these provide opportunity for students to demonstrate the relevant aspects of key knowledge and key skills for Outcomes 1, 2 and 3 with respect to the topic. Consider a range of resources, including [VCE VM Numeracy support materials](https://vcaa.vic.edu.au/curriculum/vce/vce-study-designs/VCEVMNumeracy/Pages/Index.aspx). Ensure that any activities directly sourced from a public resource are contextualised to your school’s/provider’s approach> | <Select and describe as appropriate. Refer to the VCE VM study design for guidance. Include evidence of assessment tools and estimates of when assessment tasks will occur.> |
| **Numeracy context 2:**  **Supporting area of study 1:**  **Supporting area of study 2 (optional):** | | |
| **Anticipated teaching time allocation:** | | |
|  |  |  |
| **Numeracy context 3:**  **Supporting area of study 1:**  **Supporting area of study 2 (optional):** | | |
| **Anticipated teaching time allocation:** | | |
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| **Unit 2** | | |

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| Outcome 1: |
| **Outcome 2:** |
| **Outcome 3:** |

|  |  |  |
| --- | --- | --- |
| Numeracy context 1:  Supporting area of study 1:  Supporting area of study 2 (optional): | | |
| **Anticipated teaching time allocation:** | | |
|  |  |  |
| **Numeracy context 2:**  **Supporting area of study 1:**  **Supporting area of study 2 (optional):** | | |
| **Anticipated teaching time allocation:** | | |
|  |  |  |
| **Numeracy context 3:**  **Supporting area of study 1:**  **Supporting area of study 2 (optional):** | | |
| **Anticipated teaching time allocation:** <insert as appropriate; e.g. Term 3 Week 1 – Term 1 Week 6> | | |
|  |  |  |

Outline how the units will provide learning opportunities that build on each student’s strengths, commencing with their point of need, interests and experiences.

Click here to enter text.

Outline how community members such as employers, cultural leaders and other community leaders will engage with the school/provider and students to build mutually beneficial connections.

Click here to enter text.

Provide an example of how the assessment methods will ensure learners are afforded multiple opportunities to demonstrate achievement levels.

Click here to enter text.

Units 3 and 4 Curriculum and assessment plan

A curriculum and assessment plan must be completed for each unit for which the senior secondary education provider is applying for permission. Use the template provided. Demonstration of achievement of outcomes and satisfactory completion of a unit are determined by evidence gained through the assessment of a range of learning activities and tasks.

Teachers must develop courses that are underpinned by the Pillars of Applied Learning, the VCE Assessment principles and which provide appropriate opportunities for students to demonstrate satisfactory achievement of outcomes. The decision about satisfactory completion of a unit is distinct from the assessment of levels of achievement. Schools will report a student’s result for each unit to the VCAA as S (Satisfactory) or N (Not Satisfactory).

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| Provide details of the content, key knowledge and key skills *(from the study design)* | List and describe the learning activities that will be used to provide appropriate opportunity for students to demonstrate satisfactory achievement of the outcome. Include the anticipated teaching time | List the assessment tasks that will be used to assess student achievement. Include an estimate of when each task will occur |
| **Unit 3** | | |
| **Outcome 1:** <insert outcome > | | |
| **Outcome 2:** <insert outcome> | | |
| **Outcome 3:** <insert outcome> | | |
| **Numeracy context 1:** <insert the Numeracy context>  **Supporting area of study 1:** <insert the area of study>  **Supporting area of study 2 (optional):** <insert the area of study> | | |
| **Anticipated teaching time allocation:** <insert as appropriate, e.g. Term 1 Week 1 – Term 1 Week 6> | | |
| <Provide details of the content, key knowledge and key skills> | <List and describe the learning activities that will be used and how these provide opportunity for students to demonstrate the relevant aspects of key knowledge and key skills for Outcomes 1, 2 and 3 with respect to the topic. Consider a range of resources, including [VCE VM Numeracy support materials](https://vcaa.vic.edu.au/curriculum/vce/vce-study-designs/VCEVMNumeracy/Pages/Index.aspx). Ensure that any activities directly sourced from a public resource are contextualised to your school’s/provider’s approach> | <Select and describe as appropriate. Refer to the VCE VM study design for guidance. Include evidence of assessment tools and estimates of when assessment tasks will occur.> |
| **Numeracy context 2:** <insert the Numeracy context>  **Supporting area of study 1:** <insert the area of study>  **Supporting area of study 2 (optional):** <insert the area of study> | | |
| **Anticipated teaching time allocation:** | | |
|  |  |  |
| **Numeracy context 3:** <insert the Numeracy context>  **Supporting area of study 1:** <insert the area of study>  **Supporting area of study 2 (optional):** <insert the area of study> | | |
| **Unit 4** | | |
| **Numeracy context 1:** <insert the Numeracy context>  **Supporting area of study 1:** <insert the area of study>  **Supporting area of study 2 (optional):** <insert the area of study> | | |
| **Anticipated teaching time allocation:** | | |
|  |  |  |
| **Numeracy context 2:** <insert the Numeracy context>  **Supporting area of study 1:** <insert the area of study>  **Supporting area of study 2 (optional):** <insert the area of study> | | |
| **Anticipated teaching time allocation:** | | |
|  |  |  |
| **Numeracy context 3:** <insert the Numeracy context>  **Supporting area of study 1:** <insert the area of study>  **Supporting area of study 2 (optional):** <insert the area of study> | | |
| **Anticipated teaching time allocation:** | | |
|  |  |  |

Outline how the units will provide learning opportunities that build on each student’s strengths, commencing with their point of need, interests and experiences.

Click here to enter text.

Outline how community members such as employers, cultural leaders and other community leaders will engage with the school/provider and students to build mutually beneficial connections.

Click here to enter text.

Provide an example of how the assessment methods will ensure learners are afforded multiple opportunities to demonstrate achievement levels.

Click here to enter text.

Exemplar: Unit 1, Outcomes 1, 2 and 3

**The following is an example of the level of detail required in your response for the curriculum and assessment plan for Unit 1, Outcomes 1, 2 and 3.**

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| --- | --- | --- |
| Provide details of the content, key knowledge and key skills *(from the study design)* | List and describe the learning activities that will be used to provide appropriate opportunity for students to demonstrate satisfactory achievement of the outcome. Include the anticipated teaching time | List the assessment tasks that will be used to assess student achievement. Include an estimate of when each task will occur |
| **Unit 1** | | |
| **Outcome 1:** On completion of this unit, the student should be able to select, interpret and use the mathematical key knowledge and skills from areas of study 1–4, embedded in familiar, routine and some less familiar contexts across the chosen range of Numeracies. | | |
| **Outcome 2:** On completion of this unit, the student should be able to select, interpret and use the four stages of the mathematical problem-solving cycle, utilising a range of both informal and formal mathematical processes, representations and conventions relevant to the mathematical key knowledge and skills specified in the areas of study 1–4, and across the chosen range of Numeracies. | | |
| **Outcome 3**: On completion of this unit, the student should be able to select and effectively and accurately use the appropriate mathematical tools and applications chosen from a developing mathematical toolkit relevant to the key knowledge and key skills specified in the areas of study 1–4, and across the chosen range of Numeracies. | | |
| **Numeracy context 1:** Financial numeracy  **Supporting area of study 1:** Number (AOS1)  **Supporting area of study 2 (optional):** Relationships (AOS6)  **Supporting area of study 3 (optional):** Data (AOS2) | | |
| **Anticipated teaching time allocation:** Term 1 Week 1 – Term 1 Week 8 | | |
| The listed learning activities will form an integral part of the Problem-Solving Cycle (identifying the mathematics, acting on and using the mathematics, evaluating and reflecting on findings, communicating and reporting) and allow students to select and effectively use a range of tools chosen from their Mathematical Toolkit.  The Number area of study will cover the following key knowledge:   * whole numbers and decimals up to two places * place value and reading numbers expressed in digits or words * multiplication facts and knowledge of factors and multiples * rounding whole numbers and decimals up to two places * order of operations * common fractions and percentages, and their equivalence, such as ¼ = 0.25 = 25% * simple proportions   and the key skills:   * demonstrate an understanding of reading numbers, place value and decimal place value, including rounding to two decimal places * use the order of operations to solve a range of practical calculations with whole numbers and common decimals and fractions * solve problems involving common fractions and decimals, for example half, quarter, third, fifth and equivalent decimals * calculate common percentages of numbers, and increase and decrease numbers by common percentages * use simple proportions and divide quantities by a simple ratio such as 1 to 2.   The Relationship area of study will cover the following key knowledge:   * common and familiar relationships, such as rates of change, $/m, km/hr * simple, common and familiar algebraic formulae, relationships and algebraic expressions, such as for the area and perimeter of a rectangle and cost per hour * standard conventions used in the development, use and writing of simple, everyday algebraic relationships * representation and visualisation of change such as tables, simple charts or graphs   and the key skills:   * recognise and represent relationships with simple mathematical expressions, or simple pictorial or graphical representations * demonstrate simple algebraic substitution with simple formulae to find solutions to everyday problems * use and apply rates in familiar situations, such as $/m, km/hr * apply simple formulae to find solutions to everyday problems such as area, amounts or costings.   The Data area of study will cover the following key knowledge:   * simple data collection tools and processes * display of data with commonly used tables and graphs, including use of axes and simple scales * simple measures of spread, such as range and mean * interpretation and description of familiar and simple data sets and their displays   and the key skills:   * collect, collate and organise familiar and simple data sets, and display these choosing and using the most appropriate format, including axes and simple scales * choose and find simple common measures of spread for contextual data sets, for example mean and range of data * identify key facts from tables and graphs * read and interpret results from familiar and simple data presented in both graph and table form, including describing general patterns and trends. | **A1: Introduction to whole numbers, fractions, decimals and percentages (Outcome 1) (1 week)**  Covers the concepts mentioned in the title as well as calculations linked to place value and rounding. Its importance as preliminary knowledge is critical to the Number area of study.  A2: Introduction to ratio and proportion, rate versus ratio (Outcomes 1 and 3) (1 week)  Covers the concepts mentioned in the title and calculations linked to BIDMAS and its application to solve multi-step calculations, including those in real-life contexts. Its importance as preliminary knowledge is critical to the Number AOS.  A3: Calculating tax (Outcomes 1, 2 and 3) (2 weeks)  Covers the concepts mentioned in the title as well as calculations linked to loans and credit cards, income tax, tax tables, PAYG and today’s value versus future value. A review of fractions, decimals and percentages will be integrated into this content area.  The question of ‘How is tax viewed in the community?’ will be investigated. Consideration will be given to the importance of tax in society.  A4: Superannuation (Outcomes 1, 2 and 3) (1 week)  Covers the concepts mentioned in the title as well as calculations and visual displays linked to investment and deposits/withdrawals to a superannuation account and its importance to personal finance.  Superannuation in the community will be investigated and consideration given to its importance in society.  A5: Credit cards versus personal loans (Outcomes 1, 2 and 3) (2 weeks)  Covers the concepts mentioned in the title as well as providing an introduction to the Relationships AOS, specifically algebra.  A detailed budget will be examined, across a period of time, to investigate living costs, loan repayments and savings options.  A6: Introduction to Excel (Outcomes 1 and 3) (1 week)  Covers the concepts mentioned in the title and the development of formula (coding and algebra) to help calculate depreciation and appreciation. | **P1: Constructing a business project (Outcomes 1, 2 and 3) (throughout)**  Project should be introduced at the beginning of this Numeracy context, with specific content being introduced and taught as the project unfolds. The project should focus on running a business involving personal and business finances.  Students will be required to:   * make several financial decisions relative to the set-up and the running of the business * problem-solve and develop solution options linked to responsible financial decision-making * use the concepts linked to the Number, Relationships and Data areas of study to help formulate the mathematics linked to this project * use formulas and make use of algebraic expressions to assist in structuring appropriate mathematics * include extensive information linked to: * business loans * mobile phone plans * costs and earnings of the business * superannuation.   The presentation format for the chosen business model and findings will be negotiated between student and teacher. |
| **Numeracy context 2:** Personal numeracy  **Supporting area of study 1:** Dimension and direction (AOS3)  **Supporting area of study 2 (optional):** Systematics (AOS8) | | |
| **Anticipated teaching time allocation:** Term 1 Week 9 – Term 2 Week 2 | | |
| The Dimension and direction area of study will cover the following key knowledge:   * location and direction in relation to everyday, familiar objects and landmarks * location and direction in relation to everyday, familiar maps and technologies * everyday, familiar oral and written instructions for moving to specified locations * everyday angles such as 45, 90, 180 and 360 degrees   and the key skills:   * find and locate places of interest on maps and describe location in relation to other objects and landmarks using appropriate maps or technology * determine and give or follow everyday straightforward instructions to move between familiar locations * identify everyday compass directions such as N, S, W, E, NE, SE * identify and demonstrate an understanding of everyday angles such as 45, 90, 180 and 360 degrees * understand where an object is in space using one-, two- and three-dimensions and everyday familiar language such as up, down, left, right, in front, behind to describe position and location in space.   The Systematics area of study will cover the following key knowledge:   * common and familiar information and data inputs and outputs * common and familiar computational data collection tools and applications * collating, organising, categorising, planning, scheduling and table creation of common and familiar information and data using technology   and the key skills:   * the use of technology (such as spreadsheets, software, mobile technologies, and apps) to: * create tables to collate, organise and input or record common and familiar data and information * arrange and sort simple and familiar data and information * use systems to plan and schedule common and familiar actions * read inputs and interpret outputs such as from interactive maps, public transport timetabling, online calculators/applications/planners * adjust variables of inputs to optimise outputs and solutions for common and familiar situations and contexts. | **A7: Introduction to dimension and direction (Outcomes 1 and 3) (1 week)**  Covers the concepts mentioned in the title and an introduction to the use of maps, symbols, directional language, true and compass bearings, and angles.  A8: A trip to the supermarket (Outcomes 1, 2 and 3) (1 week)  Covers directional language and oral instructions that provide a shopper with information to find a random selection of items found in the supermarket.  A9: An *Amazing Race*–style race (Outcomes 1, 2 and 3) (1 week)  This task requires a number of places of interest to be found based on a series of written directional instructions. A variety of directional language must be used and cover all the common options. The number of places to be included can be negotiated and can be community-based.  A10: Class party (Outcomes 1, 2 and 3) (1 week)  Small groups will work on organising a class party, focusing on the logistics of the event.  Students will be required to:   * design maps, use directional language and provide instructions for guests, and create a schedule for the day’s events * perform calculations relative to the costing and time of the party and show evidence of calculations * present the information in a visually appealing manner. | **P2: Overseas holiday project (Outcomes 1, 2 and 3) (throughout)**  Students will be asked to plan their own overseas holiday. The destination can be student choice or selected from a specific list.  Students will be required to:   * utilise websites and software packages when possible * choose a mode of transport * research the best prices for flights and compare pricing from in-store and online * create a detailed travel itinerary that includes all aspects of the journey * research different hotels and include a series of activities that will be part of the holiday * complete a detailed sightseeing itinerary * include a detailed budget covering all aspects of the holiday.   Students will choose a presentation format and be assessed on the above components. |
| **Numeracy context 3: Vocational numeracy**  **Supporting area of study 1:** Quantity and measures (AOS5)  **Supporting area of study 2 (optional):** Relationships (AOS6) | | |
| **Anticipated teaching time allocation:** Term 2 Week 3 – Term 2 Week 5 | | |
| The Quantity and measures area of study will cover the following key knowledge:   * common and familiar measures of distance, perimeter, area, volume and capacity (for simple rectangular-based shapes only) * common and familiar metric units of measurement and conversion between metric units * common units of time and temperature * common measurement estimation strategies * common measurement tools * appropriate accuracy in measurements   and the key skills:   * estimate and measure familiar objects and distances by using measurement tools * undertake common calculations to determine measurements of distance, perimeter, area, volume and capacity, related to common two- and three-dimensional objects, using common units of measurement * convert with one-step calculations between common units of metric measurement such as millimetres, centimetres, metres, kilometres, grams, kilograms, millilitres, litres and degrees Celsius * read and interpret units of analogue and digital time and temperature * perform simple calculations using units of time, including calendar months, weeks, days, hours, minutes and seconds. | **A11: Introduction to quantity and measures (Outcomes 1 and 3) (1 week)**  Covers the concepts mentioned in the title and revises units, conversions and estimation of units regarding distance, mass, time and temperature. Formula linked to perimeter, area and volume will be examined.  A12: Cooking for a party (Outcomes 1, 2 and 3) (1 week)  A selected number of recipes will be used to create a banquet style menu for the guests. Once a recipe is chosen, the ingredients must be recalibrated so the quantities will cater for the number of guests. This must then be converted into packets of ingredients that must be purchased and then a total cost for the recipe to be made should be calculated.  A13: Designing a clothing item (Outcomes 1, 2 and 3) (1 week)  Research an item of clothing that can be created from an available pattern and plan to produce 10 copies of the item. Research a material that would be suitable for the item and the quantity of material that would be needed to produce several copies. Attempt to minimise wastage of the material by determining the layout of the pattern on the material. Part of your report should include the quantity of material that would need to be purchased, the area of material that would be used in creating the several copies, the percentage wasted and the total cost. | **P3: Chemical spill project (Outcomes 1, 2 and 3) (throughout)**  Students are required to look at a chemical spill in a work environment and perform calculations relative to rates of exposure, distance and speed of travel.  Students will be required to:   * measure distances and organise an emergency evacuation, drawing on maps and analysing workplace health and safety (WHS) charts to meet a set of criteria for an effective evacuation. |