

TAX 101

VIC Senior Curriculum Mathematics

Tax 101 - Activity 1: What is tax and why do we need it? Years 11-12 Task

Foundation Mathematics	<p>Outcome 1 use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts</p> <p>Area of Study 2. Patterns and number Key knowledge</p> <ul style="list-style-type: none">integers, decimals, fractions, ratios, proportions, percentages and rates <p>Key skills</p> <ul style="list-style-type: none">solve practical problems which require the use and application of a range of numerical computations involving integers, decimals, fractions, ratios, proportions, percentages, rates, powers and roots <p>Area of Study 3 Data Key skills</p> <ul style="list-style-type: none">accurately read and interpret diagrams, charts, tables and graphs <p>Outcome 2 apply mathematical procedures to solve practical problems in both familiar and new contexts, and communicate their results.</p> <p>Key knowledge</p> <ul style="list-style-type: none">the common uses and applications of mathematics in aspects of everyday lifethe common methods of presenting and communicating mathematics in everyday life, for example charts, graphs, maps, plans, tables, algebraic expressions and diagrams. <p>Key skills •</p> <ul style="list-style-type: none">identify and recognise how mathematics is used in everyday situations and contexts, making connections between mathematics and the real worldextract the mathematics embedded in everyday situations and contexts and formulate what mathematics can be used to solve practical problems in both familiar and new contexts
General Mathematics	<p>Outcome 1 define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures</p> <p>Area of Study 2 Arithmetic and number Computation and practical arithmetic Key knowledge</p> <ul style="list-style-type: none">concepts of ratio, proportion, percentage, percentage change and rate <p>Financial arithmetic Key skills</p> <ul style="list-style-type: none">apply ratio and proportion, and percentage and percentage change, to solve problems in a range of financial contexts <p>Area of Study 5 Graphs of linear and non-linear relations Linear graphs and models Key knowledge</p> <ul style="list-style-type: none">situations that can be modelled by piecewise linear (line-segment) graphs. <p>Key skills</p> <ul style="list-style-type: none">fit a linear model to data by finding a line fitted by eye and use piecewise linear (line-segment) graphs to model and analyse practical situations.

Tax 101 - Activity 2: Tax: who, what, how and why

Foundation Mathematics	<p>Outcome 1 use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts</p> <p>Area of Study 2. Patterns and number</p> <p>Key knowledge</p> <ul style="list-style-type: none">• integers, decimals, fractions, ratios, proportions, percentages and rates• numerals and symbols, number facts and operations and strategies for calculation <p>Key skills</p> <ul style="list-style-type: none">• use technology effectively for accurate, reliable and efficient calculation• solve practical problems which require the use and application of a range of numerical computations involving integers, decimals, fractions, ratios, proportions, percentages, rates, powers and roots• check for accuracy and reasonableness of results. <p>Area of Study 3 Data</p> <p>Key skills</p> <ul style="list-style-type: none">• accurately read and interpret diagrams, charts, tables and graphs
General Mathematics	<p>Outcome 1 define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures</p> <p>Area of Study 2 Arithmetic and number Computation and practical arithmetic</p> <p>Key knowledge</p> <ul style="list-style-type: none">• concepts of ratio, proportion, percentage, percentage change and rate <p>Financial arithmetic</p> <p>Key skills</p> <ul style="list-style-type: none">• apply ratio and proportion, and percentage and percentage change, to solve problems in a range of financial contexts <p>Area of Study 5 Graphs of linear and non-linear relations</p> <p>Linear graphs and models</p> <p>Key knowledge</p> <ul style="list-style-type: none">• situations that can be modelled by piecewise linear (line-segment) graphs. <p>Key skills</p> <ul style="list-style-type: none">• fit a linear model to data by finding a line fitted by eye and use piecewise linear (line-segment) graphs to model and analyse practical situations.

Tax 101 - Activity 4: The Budget: taxes and spending
Years 11-12 Task

<p>Foundation Mathematics</p>	<p>Outcome 1 use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts</p> <p>Area of Study 3 Data Key knowledge</p> <ul style="list-style-type: none"> • the key terminology, features and conventions of diagrams, charts, tables and graphs • the terminology for comparison and analysis of data sets, graphs and summary statistics. <p>Key skills</p> <ul style="list-style-type: none"> • accurately read and interpret diagrams, charts, tables and graphs • describe, compare and analyse data sets and any limitations. <p>Outcome 2 apply mathematical procedures to solve practical problems in both familiar and new contexts, and communicate their results.</p> <p>Key knowledge</p> <ul style="list-style-type: none"> • the common uses and applications of mathematics in aspects of everyday life • the common methods of presenting and communicating mathematics in everyday life, for example charts, graphs, maps, plans, tables, algebraic expressions and diagrams. <p>Key skills •</p> <ul style="list-style-type: none"> • identify and recognise how mathematics is used in everyday situations and contexts, making connections between mathematics and the real world • extract the mathematics embedded in everyday situations and contexts and formulate what mathematics can be used to solve practical problems in both familiar and new contexts
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Tax 101 - Interactive: You make the decision
Years 11-12 Task

<p>Foundation Mathematics</p>	<p>Outcome 1 use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts</p> <p>Area of Study 2. Patterns and number Key knowledge</p> <ul style="list-style-type: none"> • numerals and symbols, number facts and operations and strategies for calculation <p>Key skills</p> <ul style="list-style-type: none"> • use technology effectively for accurate, reliable and efficient calculation • solve practical problems which require the use and application of a range of numerical computations involving integers, decimals, fractions, ratios, proportions, percentages, rates, powers and roots
<p>General Mathematics</p>	<p>Outcome 1 define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures</p> <p>Area of Study 2 Arithmetic and number Computation and practical arithmetic Key skills</p> <ul style="list-style-type: none"> • use efficient mental and by-hand estimation and computation use technology effectively for computation

YOUR TAX

VIC Senior Curriculum Mathematics

Your Tax - Activity 1: Income and income tax Years 11-12 Task

<p>Foundation Mathematics</p>	<p>Outcome 1 use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts</p> <p>Area of Study 2. Patterns and number Key knowledge</p> <ul style="list-style-type: none"> integers, decimals, fractions, ratios, proportions, percentages and rates numerals and symbols, number facts and operations and strategies for calculation <p>Key skills</p> <ul style="list-style-type: none"> use technology effectively for accurate, reliable and efficient calculation solve practical problems which require the use and application of a range of numerical computations involving integers, decimals, fractions, ratios, proportions, percentages, rates, powers and roots <p>Outcome 2 apply mathematical procedures to solve practical problems in both familiar and new contexts, and communicate their results.</p> <p>Key knowledge</p> <ul style="list-style-type: none"> the common uses and applications of mathematics in aspects of everyday life <p>Key skills</p> <ul style="list-style-type: none"> identify and recognise how mathematics is used in everyday situations and contexts, making connections between mathematics and the real world undertake a range of mathematical tasks, applications and processes to solve practical problems, such as drawing, measuring, counting, estimating, calculating, generalising and modelling
<p>General Mathematics</p>	<p>Outcome 1 define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures</p> <p>Area of Study 2: Arithmetic and number Computation and practical arithmetic Key skills</p> <ul style="list-style-type: none"> use efficient mental and by-hand estimation and computation use technology effectively for computation solve practical problems involving the use of ratios, proportions, percentages, percentage change, rates and the unitary method. <p>Financial arithmetic Key skills</p> <ul style="list-style-type: none"> apply ratio and proportion, and percentage and percentage change, to solve problems in a range of financial contexts

Your Tax - Activity 2: Working and paying tax

Foundation Mathematics

Outcome 1

use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts

Area of Study 2. Patterns and number

Key knowledge

- integers, decimals, fractions, ratios, proportions, percentages and rates
- numerals and symbols, number facts and operations and strategies for calculation

Key skills

- use technology effectively for accurate, reliable and efficient calculation
- solve practical problems which require the use and application of a range of numerical computations involving integers, decimals, fractions, ratios, proportions, percentages, rates, powers and roots
- check for accuracy and reasonableness of results.

Outcome 2

- apply mathematical procedures to solve practical problems in both familiar and new contexts, and communicate their results.

Key knowledge

- the common uses and applications of mathematics in aspects of everyday life

Key skills •

- identify and recognise how mathematics is used in everyday situations and contexts, making connections between mathematics and the real world
- undertake a range of mathematical tasks, applications and processes to solve practical problems, such as drawing, measuring, counting, estimating, calculating, generalising and modelling

Outcome 3

select and use technology to solve problems in practical contexts.

Key knowledge

- the conditions and settings for effective application of a given technology and its functionality.

Key skills

- use technology to carry out computations and analysis, and produce diagrams, tables, charts and graphs which model situations and solve practical problems interpret, evaluate and discuss the outputs of technology

General Mathematics

Outcome 1

define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures

Area of Study 2: Arithmetic and number

Topic: Computation and practical arithmetic

Key skills

- effective use of technology for computation
- use of ratios and proportions, and percentages and percentage change to solve practical problems

Financial arithmetic

Key skills

- apply ratio and proportion, and percentage and percentage change, to solve problems in a range of financial contexts

Your Tax - Activity 4: Calculating tax due

<p>Foundation Mathematics</p>	<p>Outcome 1 use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts</p> <p>Area of Study 2. Patterns and number Key knowledge</p> <ul style="list-style-type: none"> integers, decimals, fractions, ratios, proportions, percentages and rates numerals and symbols, number facts and operations and strategies for calculation <p>Key skills</p> <ul style="list-style-type: none"> use technology effectively for accurate, reliable and efficient calculation solve practical problems which require the use and application of a range of numerical computations involving integers, decimals, fractions, ratios, proportions, percentages, rates, powers and roots check for accuracy and reasonableness of results. <p>Area of Study 3 Data Key knowledge</p> <ul style="list-style-type: none"> the common measures of central tendency (averages) and spread <p>Key skills</p> <ul style="list-style-type: none"> summarise statistical data and calculate commonly used measures of central tendency and spread <p>Outcome 2 apply mathematical procedures to solve practical problems in both familiar and new contexts, and communicate their results.</p> <p>Key knowledge</p> <ul style="list-style-type: none"> the common uses and applications of mathematics in aspects of everyday life <p>Key skills</p> <ul style="list-style-type: none"> identify and recognise how mathematics is used in everyday situations and contexts, making connections between mathematics and the real world undertake a range of mathematical tasks, applications and processes to solve practical problems, such as drawing, measuring, counting, estimating, calculating, generalising and modelling <p>Outcome 3 select and use technology to solve problems in practical contexts.</p> <p>Key knowledge</p> <ul style="list-style-type: none"> the conditions and settings for effective application of a given technology and its functionality. <p>Key skills</p> <ul style="list-style-type: none"> use technology to carry out computations and analysis, and produce diagrams, tables, charts and graphs which model situations and solve practical problems interpret, evaluate and discuss the outputs of technology
<p>General Mathematics</p>	<p>Outcome 1 define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures</p> <p>Area of Study 2: Arithmetic and number Computation and practical arithmetic Key skills</p> <ul style="list-style-type: none"> effective use of technology for computation use of ratios and proportions, and percentages and percentage change to solve practical problems

**Your Tax - Activity 5: What other taxes do I have to pay?
Years 11-12 Task**

<p>Foundation Mathematics</p>	<p>Outcome 1 use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts</p> <p>Area of Study 2. Patterns and number Key knowledge</p> <ul style="list-style-type: none"> integers, decimals, fractions, ratios, proportions, percentages and rates numerals and symbols, number facts and operations and strategies for calculation <p>Key skills</p> <ul style="list-style-type: none"> use technology effectively for accurate, reliable and efficient calculation solve practical problems which require the use and application of a range of numerical computations involving integers, decimals, fractions, ratios, proportions, percentages, rates, powers and roots check for accuracy and reasonableness of results. <p>Outcome 2</p> <ul style="list-style-type: none"> apply mathematical procedures to solve practical problems in both familiar and new contexts, and communicate their results. <p>Key knowledge</p> <ul style="list-style-type: none"> the common uses and applications of mathematics in aspects of everyday life <p>Key skills •</p> <ul style="list-style-type: none"> identify and recognise how mathematics is used in everyday situations and contexts, making connections between mathematics and the real world undertake a range of mathematical tasks, applications and processes to solve practical problems, such as drawing, measuring, counting, estimating, calculating, generalising and modelling
<p>General Mathematics</p>	<p>Outcome 1 define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures</p> <p>Area of Study 2: Arithmetic and number Computation and practical arithmetic Key skills</p> <ul style="list-style-type: none"> effective use of technology for computation use of ratios and proportions, and percentages and percentage change to solve practical problems <p>Financial arithmetic Key skills</p> <ul style="list-style-type: none"> apply ratio and proportion, and percentage and percentage change, to solve problems in a range of financial contexts

Your Tax - Activity 6: Fixing a tax problem

Foundation Mathematics	Outcome 1 use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts Area of Study 2. Patterns and number Key knowledge <ul style="list-style-type: none">• integers, decimals, fractions, ratios, proportions, percentages and rates• numerals and symbols, number facts and operations and strategies for calculation Key skills <ul style="list-style-type: none">• solve practical problems which require the use and application of a range of numerical computations involving integers, decimals, fractions, ratios, proportions, percentages, rates, powers and roots
General Mathematics	Outcome 1 define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures Area of Study 2: Arithmetic and number Computation and practical arithmetic Key skills <ul style="list-style-type: none">• use of ratios and proportions, and percentages and percentage change to solve practical problems Financial arithmetic Key skills <ul style="list-style-type: none">• apply ratio and proportion, and percentage and percentage change, to solve problems in a range of financial contexts

BUSINESS TAX

VIC Senior Curriculum Mathematics

Business Tax - Activity 2: Business structures

Foundation Mathematics	Outcome 1 use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts Area of Study 2. Patterns and number Key knowledge <ul style="list-style-type: none">numerals and symbols, number facts and operations and strategies for calculation Key skills <ul style="list-style-type: none">use technology effectively for accurate, reliable and efficient calculationsolve practical problems which require the use and application of a range of numerical computations involving integers, decimals, fractions, ratios, proportions, percentages, rates, powers and rootscheck for accuracy and reasonableness of results.
General Mathematics	Outcome 1 define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures Area of Study 2: Arithmetic and number Computation and practical arithmetic Key skills <ul style="list-style-type: none">effective use of technology for computationuse of ratios and proportions, and percentages and percentage change to solve practical problems Financial arithmetic Key skills <ul style="list-style-type: none">apply ratio and proportion, and percentage and percentage change, to solve problems in a range of financial contexts

Business Tax - Activity 4: Explaining business taxes

Foundation Mathematics	<p>Outcome 1 use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts</p> <p>Area of Study 2. Patterns and number Key knowledge</p> <ul style="list-style-type: none">• integers, decimals, fractions, ratios, proportions, percentages and rates• numerals and symbols, number facts and operations and strategies for calculation <p>Key skills</p> <ul style="list-style-type: none">• solve practical problems which require the use and application of a range of numerical computations involving integers, decimals, fractions, ratios, proportions, percentages, rates, powers and roots <p>Area of Study 3 Data Key knowledge</p> <ul style="list-style-type: none">• the key terminology, features and conventions of diagrams, charts, tables and graphs <p>Key skills</p> <ul style="list-style-type: none">• accurately read and interpret diagrams, charts, tables and graphs
General Mathematics	<p>Outcome 1 define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures</p> <p>Area of Study 2: Arithmetic and number Computation and practical arithmetic Key skills</p> <ul style="list-style-type: none">• effective use of technology for computation• use of ratios and proportions, and percentages and percentage change to solve practical problems <p>Financial arithmetic Key skills</p> <ul style="list-style-type: none">• apply ratio and proportion, and percentage and percentage change, to solve problems in a range of financial contexts

Business Tax - Activity 5: The goods and services tax (GST)

Foundation Mathematics	<p>Outcome 1 use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts</p> <p>Area of Study 2. Patterns and number</p> <p>Key knowledge</p> <ul style="list-style-type: none">• integers, decimals, fractions, ratios, proportions, percentages and rates• numerals and symbols, number facts and operations and strategies for calculation <p>Key skills</p> <ul style="list-style-type: none">• use technology effectively for accurate, reliable and efficient calculation• solve practical problems which require the use and application of a range of numerical computations involving integers, decimals, fractions, ratios, proportions, percentages, rates, powers and roots• check for accuracy and reasonableness of results. <p>Outcome 2 apply mathematical procedures to solve practical problems in both familiar and new contexts, and communicate their results.</p> <p>Key knowledge</p> <ul style="list-style-type: none">• the common uses and applications of mathematics in aspects of everyday life <p>Key skills •</p> <ul style="list-style-type: none">• identify and recognise how mathematics is used in everyday situations and contexts, making connections between mathematics and the real world• undertake a range of mathematical tasks, applications and processes to solve practical problems, such as drawing, measuring, counting, estimating, calculating, generalising and modelling
General Mathematics	<p>Outcome 1 define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures</p> <p>Area of Study 2: Arithmetic and number</p> <p>Computation and practical arithmetic</p> <p>Key skills</p> <ul style="list-style-type: none">• effective use of technology for computation• use of ratios and proportions, and percentages and percentage change to solve practical problems <p>Financial arithmetic</p> <p>Key skills</p> <ul style="list-style-type: none">• apply ratio and proportion, and percentage and percentage change, to solve problems in a range of financial contexts

Business Tax - Activity 5: The goods and services tax (GST)
Years 11-12 Task

<p>Foundation Mathematics</p>	<p>Outcome 1 use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts</p> <p>Area of Study 2. Patterns and number Key knowledge</p> <ul style="list-style-type: none"> • integers, decimals, fractions, ratios, proportions, percentages and rates • numerals and symbols, number facts and operations and strategies for calculation <p>Key skills</p> <ul style="list-style-type: none"> • use technology effectively for accurate, reliable and efficient calculation • solve practical problems which require the use and application of a range of numerical computations involving integers, decimals, fractions, ratios, proportions, percentages, rates, powers and roots • check for accuracy and reasonableness of results. <p>Area of Study 4 Geometry, measurement and trigonometry Shape and measurement Key knowledge •</p> <ul style="list-style-type: none"> • the measures of length, area, volume and capacity and their units of measurement <p>Key skills</p> <ul style="list-style-type: none"> • calculate the perimeter and areas of triangles, quadrilaterals, circles and composites in practical situations
<p>General Mathematics</p>	<p>Outcome 1 define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures</p> <p>Area of Study 2: Arithmetic and number Computation and practical arithmetic Key skills</p> <ul style="list-style-type: none"> • effective use of technology for computation • use of ratios and proportions, and percentages and percentage change to solve practical problems <p>Financial arithmetic Key skills</p> <ul style="list-style-type: none"> • apply ratio and proportion, and percentage and percentage change, to solve problems in a range of financial contexts

Note: Superannuation is not addressed in Foundation Mathematics units.

Super - Activity 1: What is superannuation?

<p>Foundation Mathematics</p>	<p>Outcome 1 use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts</p> <p>Area of Study 3 Data Key skills</p> <ul style="list-style-type: none"> accurately read and interpret diagrams, charts, tables and graphs <p>Outcome 2</p> <ul style="list-style-type: none"> apply mathematical procedures to solve practical problems in both familiar and new contexts, and communicate their results. <p>Key knowledge</p> <ul style="list-style-type: none"> the common uses and applications of mathematics in aspects of everyday life <p>Key skills</p> <ul style="list-style-type: none"> identify and recognise how mathematics is used in everyday situations and contexts, making connections between mathematics and the real world undertake a range of mathematical tasks, applications and processes to solve practical problems, such as drawing, measuring, counting, estimating, calculating, generalising and modelling
<p>General Mathematics</p>	<p>Outcome 1 define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures</p> <p>Area of Study 5: Linear equations and their graphs Linear graphs and models Key knowledge</p> <ul style="list-style-type: none"> situations that can be modelled by piecewise linear (line-segment) graphs. <p>Key skills</p> <ul style="list-style-type: none"> fit a linear model to data by finding a line fitted by eye and use piecewise linear (line-segment) graphs to model and analyse practical situations.

Super - Activity 2: Where does super money come from?

<p>Foundation Mathematics</p>	<p>Outcome 1 use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts</p> <p>Area of Study 2. Patterns and number</p> <p>Key knowledge</p> <ul style="list-style-type: none"> • integers, decimals, fractions, ratios, proportions, percentages and rates • numerals and symbols, number facts and operations and strategies for calculation <p>Key skills</p> <ul style="list-style-type: none"> • use technology effectively for accurate, reliable and efficient calculation • solve practical problems which require the use and application of a range of numerical computations involving integers, decimals, fractions, ratios, proportions, percentages, rates, powers and roots • check for accuracy and reasonableness of results. <p>Outcome 2</p> <ul style="list-style-type: none"> • apply mathematical procedures to solve practical problems in both familiar and new contexts, and communicate their results. <p>Key knowledge</p> <ul style="list-style-type: none"> • the common uses and applications of mathematics in aspects of everyday life <p>Key skills •</p> <ul style="list-style-type: none"> • identify and recognise how mathematics is used in everyday situations and contexts, making connections between mathematics and the real world • undertake a range of mathematical tasks, applications and processes to solve practical problems, such as drawing, measuring, counting, estimating, calculating, generalising and modelling
<p>General Mathematics</p>	<p>Outcome 1 define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures</p> <p>Area of Study 2: Arithmetic and number</p> <p>Computation and practical arithmetic</p> <p>Key skills</p> <ul style="list-style-type: none"> • effective use of technology for computation • use of ratios and proportions, and percentages and percentage change to solve practical problems <p>Financial arithmetic</p> <p>Key skills</p> <ul style="list-style-type: none"> • apply ratio and proportion, and percentage and percentage change, to solve problems in a range of financial contexts

Super - Activity 3: What do I need to do about super?

<p>Foundation Mathematics</p>	<p>Outcome 1 use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts</p> <p>Area of Study 2. Patterns and number</p> <p>Key knowledge</p> <ul style="list-style-type: none"> integers, decimals, fractions, ratios, proportions, percentages and rates numerals and symbols, number facts and operations and strategies for calculation <p>Key skills</p> <ul style="list-style-type: none"> use technology effectively for accurate, reliable and efficient calculation solve practical problems which require the use and application of a range of numerical computations involving integers, decimals, fractions, ratios, proportions, percentages, rates, powers and roots solve practical problems using constants, variables, formulas and algebra <p>Outcome 2</p> <ul style="list-style-type: none"> apply mathematical procedures to solve practical problems in both familiar and new contexts, and communicate their results. <p>Key knowledge</p> <ul style="list-style-type: none"> the common uses and applications of mathematics in aspects of everyday life <p>Key skills •</p> <ul style="list-style-type: none"> identify and recognise how mathematics is used in everyday situations and contexts, making connections between mathematics and the real world undertake a range of mathematical tasks, applications and processes to solve practical problems, such as drawing, measuring, counting, estimating, calculating, generalising and modelling
<p>General Mathematics</p>	<p>Outcome 1 define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures</p> <p>Area of Study 2: Arithmetic and number</p> <p>Computation and practical arithmetic</p> <p>Key skills</p> <ul style="list-style-type: none"> effective use of technology for computation use of ratios and proportions, and percentages and percentage change to solve practical problems <p>Financial arithmetic</p> <p>Key knowledge</p> <ul style="list-style-type: none"> concepts of simple and compound interest and their application compound interest investments and debts. <p>Key skills</p> <ul style="list-style-type: none"> apply ratio and proportion, and percentage and percentage change, to solve problems in a range of financial contexts apply compound interest to solve problems involving compound interest investments and loans

(continued from previous page) Super - Activity 3: What do I need to do about super?

Further Mathematics	Unit 3 Outcome 1 define and explain key concepts and apply related mathematical techniques and models as specified in Area of Study 1 in routine contexts. Area of Study 1: Unit 3 Recursion and financial modelling <ul style="list-style-type: none">• review of the concepts of simple and compound interest• use of a recurrence relation to model and analyse (numerically and graphically) a compound interest investment or loan, including the use of a recurrence relation to determine the value of the compound interest loan or investment after n compounding periods, including from first principles for $n \leq 5$• rule for the future value of a compound interest investment or loan after n compounding periods and its use to solve practical problems Key knowledge <ul style="list-style-type: none">• uses of first-order linear recurrence relations to model growth and decay problems in financial contexts• the concepts of financial mathematics including simple and compound interest, nominal and effective interest rates, the present and future value of an investment, loan or asset, amortisation of a reducing balance loan or annuity and amortisation tables Key skills <ul style="list-style-type: none">• use a rule for the future value of a compound interest investment or loan, or a depreciating asset, to solve practical problems• with the aid of technology with financial mathematics capabilities, solve practical problems associated with compound interest investments and loans, reducing balance loans, annuities and perpetuities, and annuity investments.
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Super - Activity 3: What do I need to do about super?
Years 11-12 Task

Foundation Mathematics	Outcome 1 use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts Area of Study 2. Patterns and number Key knowledge <ul style="list-style-type: none">• integers, decimals, fractions, ratios, proportions, percentages and rates• numerals and symbols, number facts and operations and strategies for calculation Key skills <ul style="list-style-type: none">• solve practical problems which require the use and application of a range of numerical computations involving integers, decimals, fractions, ratios, proportions, percentages, rates, powers and roots Outcome 2 <ul style="list-style-type: none">• apply mathematical procedures to solve practical problems in both familiar and new contexts, and communicate their results. Key knowledge <ul style="list-style-type: none">• the common uses and applications of mathematics in aspects of everyday life Key skills <ul style="list-style-type: none">• identify and recognise how mathematics is used in everyday situations and contexts, making connections between mathematics and the real world• undertake a range of mathematical tasks, applications and processes to solve practical problems, such as drawing, measuring, counting, estimating, calculating, generalising and modelling
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**(continued from previous page) Super - Activity 3: What do I need to do about super?
Years 11-12 Task**

<p>General Mathematics</p>	<p>Outcome 1 define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures</p> <p>Area of Study 2: Arithmetic and number Computation and practical arithmetic Key skills</p> <ul style="list-style-type: none"> • effective use of technology for computation • use of ratios and proportions, and percentages and percentage change to solve practical problems <p>Financial arithmetic Key knowledge Key skills</p> <ul style="list-style-type: none"> • apply ratio and proportion, and percentage and percentage change, to solve problems in a range of financial contexts
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Super - Activity 4: How do I choose a super fund?

<p>Foundation Mathematics</p>	<p>Outcome 1 use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts</p> <p>Area of Study 3 Data Key skills</p> <ul style="list-style-type: none"> • accurately read and interpret diagrams, charts, tables and graphs <p>Outcome 2</p> <ul style="list-style-type: none"> • apply mathematical procedures to solve practical problems in both familiar and new contexts, and communicate their results. <p>Key knowledge</p> <ul style="list-style-type: none"> • the common uses and applications of mathematics in aspects of everyday life <p>Key skills •</p> <ul style="list-style-type: none"> • identify and recognise how mathematics is used in everyday situations and contexts, making connections between mathematics and the real world
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Super - Activity 4: How do I choose a super fund?
Years 11-12 Task

<p>Foundation Mathematics</p>	<p>Outcome 1 use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts</p> <p>Area of Study 2. Patterns and number Key skills</p> <ul style="list-style-type: none"> • solve practical problems using constants, variables, formulas and algebra <p>Area of Study 3 Data Key knowledge</p> <ul style="list-style-type: none"> • the key terminology, features and conventions of diagrams, charts, tables and graphs • the common measures of central tendency (averages) and spread <p>Key skills</p> <ul style="list-style-type: none"> • accurately read and interpret diagrams, charts, tables and graphs • summarise statistical data and calculate commonly used measures of central tendency and spread <p>Outcome 2</p> <ul style="list-style-type: none"> • apply mathematical procedures to solve practical problems in both familiar and new contexts, and communicate their results. <p>Key knowledge</p> <ul style="list-style-type: none"> • the common uses and applications of mathematics in aspects of everyday life <p>Key skills •</p> <ul style="list-style-type: none"> • identify and recognise how mathematics is used in everyday situations and contexts, making connections between mathematics and the real world • undertake a range of mathematical tasks, applications and processes to solve practical problems, such as drawing, measuring, counting, estimating, calculating, generalising and modelling
<p>General Mathematics</p>	<p>Outcome 1 define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures.</p> <p>Area of Study 2: Arithmetic and number Financial arithmetic Key knowledge</p> <ul style="list-style-type: none"> • concepts of simple and compound interest and their application compound interest investments and debts. <p>Key skills</p> <ul style="list-style-type: none"> • apply compound interest to solve problems involving compound interest investments and loans <p>Area of Study 3: Discrete mathematics Number patterns and recursion Key knowledge</p> <ul style="list-style-type: none"> • the concept of sequence as a function and its recursive specification • the use of a first-order linear recurrence relation to model geometric growth and decay, including the use of the rule for evaluating the term after n periods of geometric growth or decay <p>Key skills</p> <ul style="list-style-type: none"> • use a recurrence relation to model and analyse practical situations involving discrete linear and geometric growth or decay

**Further
Mathematics**

Unit 3

Outcome 1

define and explain key concepts and apply related mathematical techniques and models

Area of Study 1: Recursion and financial modelling

Annuities and perpetuities (compound interest investments with periodic payments made from the investment), including:

Key skills

- use of a first-order linear recurrence relation to model and analyse (numerically and graphically) the amortisation of an annuity, including the use of a recurrence relation to determine the value of the annuity after n payments, including from first principles for $n \leq 5$
- use of technology to solve problems involving annuities including determining the amount to be invested in an annuity to provide a regular income paid, for example, monthly, quarterly