

TAX 101

Australian Senior Curriculum Mathematics

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

Essential Mathematics	Unit 1 - Topic 4: Graphs <ul style="list-style-type: none">interpret information presented in graphs, such as conversion graphs, line graphs, step graphs, column graphs and picture graphs (ACMEM037)discuss and interpret graphs found in the media and in factual texts. (ACMEM039)determine which type of graph is best used to display a dataset (ACMEM040)use spreadsheets to tabulate and graph data (ACMEM041) Unit 2 - Topic 2: Percentages <ul style="list-style-type: none">review calculating a percentage of a given amount (ACMEM061)review one amount expressed as a percentage of another (ACMEM062)
General Mathematics	Unit 1 - Topic 1: Consumer arithmetic <ul style="list-style-type: none">review rates and percentages (ACMGM001)calculate payments based on government allowances and pensions (ACMGM003) Unit 2 - Topic 3: Linear equations and their graphs <ul style="list-style-type: none">interpret piece-wise linear and step graphs used to model practical situations; for example, the tax paid as income increases (ACMGM047)

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

Essential Mathematics	Unit 1 - Topic 1: Calculations, percentages and rates <ul style="list-style-type: none">solve practical problems requiring basic number operations (ACMEM001)ascertain the reasonableness of answers to arithmetic calculations (ACMEM003)use a calculator for multi-step calculations (ACMEM005)calculate a percentage of a given amount (ACMEM011)determine one amount expressed as a percentage of another (ACMEM012)apply percentage increases and decreases in situations; for example, mark-ups, discounts and GST. (ACMEM013) Topic 4: Graphs <ul style="list-style-type: none">interpret information presented in two-way tables (ACMEM038)
General Mathematics	Unit 2 - Topic 3: Linear equations and their graphs <ul style="list-style-type: none">interpret piece-wise linear and step graphs used to model practical situations; for example, the tax paid as income increases, (ACMGM047)

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

**Essential
Mathematics**

Unit 1 - Topic 4: Graphs

- interpret information presented in graphs, such as conversion graphs, line graphs, step graphs, column graphs and picture graphs **(ACMEM037)**
- discuss and interpret graphs found in the media and in factual texts. **(ACMEM039)**

Unit 2 - Topic 1: Representing and comparing data

- display numerical data as frequency distributions, dot plots, stem and leaf plots, and histograms **(ACMEM046)**

Tax 101 - Interactive: You make the decision

**Essential
Mathematics**

Unit 1 - Topic 1: Calculations, percentages and rates

- solve practical problems requiring basic number operations **(ACMEM001)**
- use a calculator for multi-step calculations **(ACMEM005)**

YOUR TAX

Australian Senior Curriculum Mathematics

Your Tax - Activity 1: Income and income tax

Essential Mathematics	Unit 1 - Topic 4: Graphs <ul style="list-style-type: none"> interpret information presented in two-way tables (ACMEM038)
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Your Tax - Activity 1: Income and income tax

Essential Mathematics	Unit 1 - Topic 1: Calculations, percentages and rates <ul style="list-style-type: none"> solve practical problems requiring basic number operations (ACMEM001) use a calculator for multi-step calculations (ACMEM005) Unit 2 - Topic 2: Percentages Subtopic: Percentage calculations <ul style="list-style-type: none"> review calculating a percentage of a given amount (ACMEM061) review one amount expressed as a percentage of another (ACMEM062)
General Mathematics	Unit 1 - Topic 1: Consumer arithmetic <ul style="list-style-type: none"> review rates and percentages (ACMGM001) calculate the dividend paid on a portfolio of shares, given the percentage dividend or dividend paid per share, for each share; and compare share values by calculating a price-to-earnings ratio. (ACMGM008)

Your Tax - Activity 2: Working and paying tax

Essential Mathematics	Unit 1 - Topic 1: Calculations, percentages and rates <ul style="list-style-type: none"> solve practical problems requiring basic number operations (ACMEM001) ascertain the reasonableness of answers to arithmetic calculations (ACMEM003) use a calculator for multi-step calculations (ACMEM005) calculate a percentage of a given amount (ACMEM011)
General Mathematics	Unit 1 - Topic 1: Consumer arithmetic <ul style="list-style-type: none"> review rates and percentages (ACMGM001)

Your Tax - Activity 4: Calculating tax due

Essential Mathematics	Unit 1 - Topic 1: Calculations, percentages and rates <ul style="list-style-type: none">• solve practical problems requiring basic number operations (ACMEM001)• use a calculator for multi-step calculations (ACMEM005)• calculate a percentage of a given amount (ACMEM011)
General Mathematics	Unit 1 - Topic 1: Consumer arithmetic <ul style="list-style-type: none">• review rates and percentages (ACMGM001)

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

Essential Mathematics	Unit 1 - Topic 1: Calculations, percentages and rates <ul style="list-style-type: none">• calculate a percentage of a given amount (ACMEM011)• determine one amount expressed as a percentage of another (ACMEM012)• apply percentage increases and decreases in situations; for example, mark-ups, discounts and GST. (ACMEM013) Unit 2 - Topic 1: Representing and comparing data <ul style="list-style-type: none">• calculate measures of central tendency, the arithmetic mean and the median (ACMEM050) Topic 2: Percentages <ul style="list-style-type: none">• calculate simple interest for different rates and periods. (ACMEM064)
General Mathematics	Unit 1 - Topic 1: Consumer arithmetic <ul style="list-style-type: none">• review rates and percentages (ACMGM001)• apply percentage increase or decrease in various contexts; for example, determining the impact of inflation on costs and wages over time, calculating percentage mark-ups and discounts, calculating GST, calculating profit or loss in absolute and percentage terms, and calculating simple and compound interest (ACMGM006)

Your Tax - Activity 6: Fixing a tax problem

Essential Mathematics	Unit 2 - Topic 2: Percentages <ul style="list-style-type: none">• calculate simple interest for different rates and periods. (ACMEM064)
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BUSINESS TAX

Australian Senior Curriculum
Mathematics

Business Tax - Activity 2: Business structures Years 11-12 Task

Essential Mathematics

Unit 1 - Topic 1: Calculations, percentages and rates

- solve practical problems requiring basic number operations (**ACMEM001**)
- ascertain the reasonableness of answers to arithmetic calculations (**ACMEM003**)
- use a calculator for multi-step calculations (**ACMEM005**)
- calculate a percentage of a given amount (**ACMEM011**)

Business Tax - Activity 4: Explaining business taxes

Essential Mathematics

Unit 1 - Topic 1: Calculations, percentages and rates

- determine one amount expressed as a percentage of another (**ACMEM012**)
- apply percentage increases and decreases in situations; for example, mark-ups, discounts and GST. (**ACMEM013**)

Topic 4: Graphs

- interpret information presented in graphs, such as conversion graphs, line graphs, step graphs, column graphs and picture graphs (**ACMEM037**)
- interpret information presented in two-way tables (**ACMEM038**)
- use spreadsheets to tabulate and graph data (**ACMEM041**)

General Mathematics

Unit 1 - Topic 1: Consumer arithmetic

- apply percentage increase or decrease in various contexts; for example, determining the impact of inflation on costs and wages over time, calculating percentage mark-ups and discounts, calculating GST, calculating profit or loss in absolute and percentage terms, and calculating simple and compound interest (**ACMGM006**)

Business Tax - Activity 5: The goods and services tax (GST)	
Essential Mathematics	<p>Unit 1 - Topic 1: Calculations, percentages and rates</p> <ul style="list-style-type: none"> • solve practical problems requiring basic number operations (ACMEM001) • ascertain the reasonableness of answers to arithmetic calculations (ACMEM003) • use a calculator for multi-step calculations (ACMEM005) • calculate a percentage of a given amount (ACMEM011) • determine one amount expressed as a percentage of another (ACMEM012) • apply percentage increases and decreases in situations; for example, mark-ups, discounts and GST. (ACMEM013)
General Mathematics	<p>Unit 1 - Topic 1: Consumer arithmetic</p> <ul style="list-style-type: none"> • apply percentage increase or decrease in various contexts; for example, determining the impact of inflation on costs and wages over time, calculating percentage mark-ups and discounts, calculating GST, calculating profit or loss in absolute and percentage terms, and calculating simple and compound interest (ACMGM006)

Business Tax - Activity 5: The goods and services tax (GST) Years 11-12 Task	
Essential Mathematics	<p>Unit 1 - Topic 1: Calculations, percentages and rates</p> <ul style="list-style-type: none"> • solve practical problems requiring basic number operations (ACMEM001) • ascertain the reasonableness of answers to arithmetic calculations (ACMEM003) • use a calculator for multi-step calculations (ACMEM005) • calculate a percentage of a given amount (ACMEM011) • apply percentage increases and decreases in situations; for example, mark-ups, discounts and GST. (ACMEM013) <p>Topic 2: Measurement</p> <ul style="list-style-type: none"> • calculate areas of rectangles and triangles. (ACMEM024)
General Mathematics	<p>Unit 1 - Topic 1: Consumer arithmetic</p> <ul style="list-style-type: none"> • apply percentage increase or decrease in various contexts; for example, determining the impact of inflation on costs and wages over time, calculating percentage mark-ups and discounts, calculating GST, calculating profit or loss in absolute and percentage terms, and calculating simple and compound interest (ACMGM006)

SUPER

Australian Senior Curriculum Mathematics

Super - Activity 1: What is superannuation?

Essential Mathematics	Unit 1 - Topic 4: Graphs <ul style="list-style-type: none">interpret information presented in graphs, such as conversion graphs, line graphs, step graphs, column graphs and picture graphs (ACMEM037)interpret information presented in two-way tables (ACMEM038)
General Mathematics	Unit 4 - Topic 1: Time series analysis <ul style="list-style-type: none">describe time series plots by identifying features such as trend (long term direction), seasonality (systematic, calendar-related movements), and irregular fluctuations (unsystematic, short term fluctuations), and recognise when there are outliers; for example, one-off unanticipated events. (ACMGM088)

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

Essential Mathematics	Unit 1 - Topic 1: Calculations, percentages and rates <ul style="list-style-type: none">solve practical problems requiring basic number operations (ACMEM001)ascertain the reasonableness of answers to arithmetic calculations (ACMEM003)use a calculator for multi-step calculations (ACMEM005)calculate a percentage of a given amount (ACMEM011)
General Mathematics	Unit 1 - Topic 1: Consumer arithmetic <ul style="list-style-type: none">calculate weekly or monthly wage from an annual salary, wages from an hourly rate including situations involving overtime and other allowances and earnings based on commission or piecework (ACMGM002)

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

<p>Essential Mathematics</p>	<p>Unit 1 - Topic 1: Calculations, percentages and rates</p> <ul style="list-style-type: none"> • solve practical problems requiring basic number operations (ACMEM001) • use a calculator for multi-step calculations (ACMEM005) • calculate a percentage of a given amount (ACMEM011) <p>Topic 3: Algebra</p> <ul style="list-style-type: none"> • substitute given values for the other pronumerals in a mathematical formula to find the value of the subject of the formula. (ACMEM0362) <p>Unit 2 - Topic 2: Percentages</p> <ul style="list-style-type: none"> • calculate simple interest for different rates and periods. (ACMEM064) <p>Unit 4 - Topic 3: Loans and compound interest</p> <ul style="list-style-type: none"> • understand the concept of compound interest as a recurrence relation (ACMEM169) • use technology to calculate the future value of a compound interest loan or investment and the total interest paid or earned (ACMEM171) • use technology to compare, numerically and graphically, the growth of simple interest and compound interest loans and investments (ACMEM172)
<p>General Mathematics</p>	<p>Unit 1 - Topic 1: Consumer arithmetic</p> <ul style="list-style-type: none"> • apply percentage increase or decrease in various contexts; for example, determining the impact of inflation on costs and wages over time, calculating percentage mark-ups and discounts, calculating GST, calculating profit or loss in absolute and percentage terms, and calculating simple and compound interest (ACMGM006) <p>Unit 4 - Topic 2: Loans, investments and annuities</p> <ul style="list-style-type: none"> • use a recurrence relation to model an annuity, and investigate (numerically or graphically) the effect of the amount invested, the interest rate, and the payment amount on the duration of the annuity (ACMGM099)

**Super - Activity 3: What do I need to do about super?
Years 11-12 Task**

<p>Essential Mathematics</p>	<p>Unit 1 - Topic 1: Calculations, percentages and rates</p> <ul style="list-style-type: none"> • solve practical problems requiring basic number operations (ACMEM001) • calculate a percentage of a given amount (ACMEM011)
<p>General Mathematics</p>	<p>Unit 1 - Topic 1: Consumer arithmetic</p> <ul style="list-style-type: none"> • calculate weekly or monthly wage from an annual salary, wages from an hourly rate including situations involving overtime and other allowances and earnings based on commission or piecework (ACMGM002)

Super - Activity 4: How do I choose a super fund?

<p>Essential Mathematics</p>	<p>Unit 1 - Topic 4: Graphs</p> <ul style="list-style-type: none"> • interpret information presented in two-way tables (ACMEM038)
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Super - Activity 4: How do I choose a super fund?
Years 11-12 Task

<p>Essential Mathematics</p>	<p>Unit 1 - Topic 1: Calculations, percentages and rates</p> <p>Topic 3: Algebra</p> <ul style="list-style-type: none"> • substitute given values for the other pronumerals in a mathematical formula to find the value of the subject of the formula. (ACMEM0362) <p>Topic 4: Graphs</p> <ul style="list-style-type: none"> • interpret information presented in graphs, such as conversion graphs, line graphs, step graphs, column graphs and picture graphs (ACMEM037) • draw a line graph to represent any data that demonstrate a continuous change, such as hourly temperature. (ACMEM042) <p>Unit 2 - Topic 1: Representing and comparing data</p> <ul style="list-style-type: none"> • calculate measures of central tendency, the arithmetic mean and the median (ACMEM050) <p>Unit 4 - Topic 3: Loans and compound interest</p> <ul style="list-style-type: none"> • understand the concept of compound interest as a recurrence relation (ACMEM169) • use technology to calculate the future value of a compound interest loan or investment and the total interest paid or earned (ACMEM171) • use technology to compare, numerically and graphically, the growth of simple interest and compound interest loans and investments (ACMEM172) • use technology and a recurrence relation to model a reducing balance loan (ACMEM174)
<p>General Mathematics</p>	<p>Unit 3 - Topic: Growth and decay in sequences</p> <ul style="list-style-type: none"> • use geometric sequences to model and analyse (numerically, or graphically only) practical problems involving geometric growth and decay (ACMGM074) <p>Unit 4 - Topic 2: Loans, investments and annuities</p> <ul style="list-style-type: none"> • use a recurrence relation to model an annuity, and investigate (numerically or graphically) the effect of the amount invested, the interest rate, and the payment amount on the duration of the annuity (ACMGM099) • with the aid of a financial calculator or computer-based financial software, solve problems involving annuities (including perpetuities as a special case (ACMGM100)
<p>Mathematical Methods</p>	<p>Unit 2 - Topic 2: Arithmetic and geometric sequences and series</p> <ul style="list-style-type: none"> • Establish and use the formula for the sum of the first n terms of a geometric sequence (ACMMM075) • use geometric sequences in contexts involving geometric growth and decay, such as compound interest (ACMMM076)