

Moneysmart goals

Student workbook



Resource name:	Moneysmart goals		
Subject:	Financial literacy and sustainability education through goal setting		
Learning areas	Mathematics focus supported by Economics & Business		
Level:	Year 9-10	Lesson duration:	90 minutes

Lesson objectives:

Moneysmart goals provides a problem-based challenge where students apply mathematical concepts using online calculators to make real-life budgeting decisions.

Using a hypothetical scenario, students investigate the concepts of **earning** money, **taxation**, **budgeting**, **saving** and **compound interest**.

Students learn to understand the **value of money** in terms of **time**, to see how 'time' equates to 'money'. They also learn that sustainable choices can minimise household expenses.

Knowledge is embedded through quizzes and activities.

Learning outcomes:

Students will:

- calculate gross, net income and expenses
- link money and time by calculating how long it takes to earn the money we spend.
- use online calculators to achieve a financial goal
- creating a budget, understand where money is going.
- discover information about compound interest savings accounts.
- understand how choices affect our financial situation and the environment.

Delivery suggestions:

- The resource can be completed as a whole class, in small groups or individually with teacher direction.
- Recommend students save word document (minus resource & teacher notes) and type answers directly into worksheet. Print if required.
- It can be tailored to suit individual class needs and abilities as required.

Summary of sections and tasks:

1. Workbook introduction
2. Calculate your income (20 mins)
 - Activity: Calculate gross income (before tax)
 - Activity: Calculate net income (after tax)
 - Activity: Calculate expenses
 - Activity: Emergency fund
3. Calculate potential savings on household expenses (20 mins)
 - Quiz: Sustainable tips on appliance use
4. Calculate potential savings using compound interest (20 mins)
 - Activity: Compound interest
5. Bringing it all together (20 mins)
 - Activity: Did you reach your goal?
6. Reflection and discussion (10 mins)

Summary of teacher notes

- Solutions
- Useful resources
- Suggested marking rubric
- Curriculum alignment:
 - Learning area
 - Achievement standards
 - General Capabilities

Materials / equipment:

- Internet access to access online calculators
- This document contains student worksheets and teacher solutions

1. Workbook introduction



Moneysmart goals provides a problem-based challenge where you will use online calculators to make real-life budgeting decisions. Using a hypothetical scenario, you will explore concepts of **earning** money, **taxation**, **budgeting**, **saving** and **compound interest**.

HYPOTHETICAL SCENARIO: You are 21 years old with a part-time job. You live in a share house where you split the bills with flatmates.

You have a savings goal where **you need to save \$6,000** in a **12-month period**.

YOUR GOAL: To make this scenario more realistic, write below (or add a picture) of what you would like to save for that costs \$6,000 (does not need to be exact dollar amount).

YOUR TASK: Work through several online calculators and a quiz to help you calculate your savings goal and find potential savings opportunities. Will you reach your savings goal?

YOUR RUNNING TOTAL:

Your dollar savings progress will be captured as a **running total** along the way in [Activity 5.1](#). You will be prompted along the way with the following graphic:



STUDENT DETAILS:

Your name:	
Class:	
Date:	

2. Calculate your income



Start by looking at how much you earn from your part-time job, calculating your base income (income *minus* expenses).

Your income

Your part-time job as a sports assistant pays **\$19.50 per hour**. You work **30 hours per week**.

To get a better understanding of your current income, let's do some calculations.

Activity 2.1: Calculate gross income (before tax)

Student worksheet

Calculate how much your job will pay per **week**, **annually** and **monthly** *before tax*.

Record your answers below.

Calculate	Tip	Answer- Salary (before tax)
1. Weekly salary	<i>Multiply hourly rate by hours worked in a week.</i>	
2. Annual salary	<i>Multiply weekly salary by number of weeks in a year.</i>	
3. Monthly salary	<i>Divide annual salary by number of months in a year.</i>	

Now answer some questions about your savings goal. Write your answers in the table below.

Questions	Answers
4. How many hours do you need to work to save your goal of \$6,000? <i>Tip: Divide savings goal amount by hourly rate.</i>	
5. How many weeks do you need to work to save your goal of \$6,000? <i>Tip: Multiple ways to do this:</i> <ul style="list-style-type: none"> ▪ <i>Divide number of hours you need to work by number of hours you do work each week</i> ▪ <i>Divide your savings goal by your weekly wage</i> 	

Gross income, tax and net income

While looking at your earning, let's also learn the terminology commonly used with salaries.

Job ads usually tell people the '**gross income**' that will be paid (hourly, weekly, monthly or annually).

- **Gross income** is the amount you get paid **before tax** and any other deductions are taken out.
- **Income tax payable** is **money paid to the government** from what you earn. Taxes are used to pay for a range of things including roads, police and schools, health, fire and emergency services.
- **Net income** is the amount you are paid **after tax & Medicare levy**.

Net income (after tax)

In activity 2.1 you calculated your **gross income**. Now let's calculate your **net income**.

Activity 2.2: Calculate net income

Student worksheet

Use Moneysmart's [income tax calculator](#) to work out your **annual income** (net).

Calculator input: In the '**Employment income**' input field on the calculator, enter your **annual salary** (gross) from Activity 2.1. This amount will also answer Question 1 below.

Questions	Answers
1. What is your annual salary (also known as taxable income)? <i>Tip: You calculated this in Activity 2.1</i>	
2. What is your income tax payable for this financial year?	
3. What is your Medicare levy payable for this financial year? <i>Tip: The Medicare levy helps fund some of the costs of Australia's public health system known as Medicare. The Medicare levy is 2% of your taxable income, in addition to the tax you pay on your taxable income.</i>	
4. What is your income after tax & Medicare levy ?	1

1 Record this amount in the student worksheet for **Activity 5.1** under 'Running total'.

1 Annual net income	2 Total expenses	3 Emergency fund	4 Savings around household	5 Savings from compound interest
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We have now established your **net income (after tax)**, the next step is to calculate your **net income minus expenses**.

Activity 2.3: Calculate expenses

Student worksheet

Use Moneysmart's [budget planner](#) to work out your **annual expenses**. The amounts below are estimates of split bills from your group house.

Expand the following tabs:	Enter the following amounts:
Income	Take-home pay (refer to 1 in your 'Running total').
Home & utilities	Mortgage and rent: \$250 per week (rent) Electricity: \$100 per quarter Internet: \$25 per month Mobile: \$50 per month
Insurance & financial	Savings: \$100 fortnightly
Groceries	Supermarket: \$80 per week
Personal or medical	Clothing & shoes: \$100 per month
Transport & auto	Bus & train & ferry & car: \$30 per week

Questions	Answers
1. What are your total annual expenses?	2
2. What is your remaining annual income?	

2 Record this amount in the student worksheet for **Activity 5.1** under 'Running total'.

1 Annual net income	2 Total expenses	3 Emergency fund	4 Savings around household	5 Savings from compound interest
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Emergency fund

You could put the **remaining annual income** (calculated above) towards your savings goal, but it is important to put some money aside in case of an emergency.

An **emergency fund** is money you set aside to cover urgent or unexpected costs. It provides a financial 'safety net' so you don't have to borrow money if something happens to you.

Activity 2.4: Emergency fund

Student worksheet

You decide to put \$20 a week aside for a year.

Questions	Answer
How much will you have in your emergency fund after 12 months?	3
List <i>five</i> emergency situations that could arise in your lifetime.	1. 2. 3. 4. 5.

3 Record this amount in the student worksheet for [Activity 5.1](#) under 'Running total'.

1

Annual net income

2

Total expenses

3

Emergency fund

4

Savings around household

5

Savings from compound interest

3. Calculate potential savings on household expenses



Now let's look at your household expenses to find opportunities to save money through utility bills.

What are utility bills?

Utilities include items such as electricity, water, heating and sewage that we use on a daily basis in the home.

Below are four reasons why looking at water and electricity is a good place to start finding savings.

1. Households have lots of different bills, but often the biggest ones are utility bills.
2. Utility bills such as electricity/gas and water vary depending on how much we use. If we consume less, these utility bills will be lower.
3. There are some simple energy and water saving options that can make a difference.
4. Not only will we save money, it will be good for the environment too.

Activity 3.1: Sustainable tips on appliance-use quiz

Households (in Victoria for example) spend on average \$2,500 on energy bills every year. Clean and clever energy choices will help save energy and may reduce energy bills.

Let's look at things you can do now to reduce your energy bills through a short quiz.

For more information on energy efficient appliances, visit the sustainability.vic.gov.au website.

Write your answers in the 'answers' column.

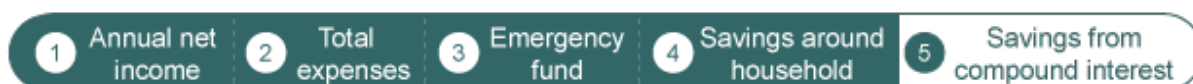
Student worksheet	
Question	Answers
<p>1 When replacing a globe in your desk lamp, which option could save you money?</p> <p>a) A 12-volt LED globe</p> <p>b) A 12-volt halogen globe</p> <p>Tip:</p> <ul style="list-style-type: none">• LED (Light Emitting Diode) use around 75% less energy than halogen lights	

<p>2 Replacing a shower head in your bathroom, what option could save you money?</p> <p>a) Get one with a high flow rate of more than 18 litres per minute. b) Get one with a low flow rate of less than 10 litres per minute. c) Get one that displays a WELS rating of 2.</p> <p><i>Glossary:</i></p> <ul style="list-style-type: none"> • WELS: Australia's Water Efficiency Labelling Scheme (scale 1-6 stars) allows consumers to compare the water efficiency of different models when buying products such as showers, toilets and washing machines. 	
<p>3 To save money on energy use around the house, what tip could you consider?</p> <p>a) Appliances use less energy in stand-by mode than in off mode. b) Appliances use more energy in stand-by mode than in off mode. c) Appliances on stand-by and off modes use the same amount of energy.</p> <p><i>Tip:</i></p> <ul style="list-style-type: none"> • Stand-by mode: sometimes also called sleep mode, refers to a low power mode for electronic devices such as computers and televisions. 	
<p>4 When using the washing machine, what is the smartest option?</p> <p>a) Use biodegradable washing powder in a hot machine wash. b) Use biodegradable washing powder in a cold machine wash. c) Use non-biodegradable washing powder in cold machine wash.</p> <p><i>Tip:</i></p> <ul style="list-style-type: none"> • Biodegradable: able to be decomposed by bacteria or other living organisms and thereby avoiding pollution 	
<p>5 When using the fridge, what smart tip could save you money?</p> <p>a) Allow food to cool before putting into the fridge. b) It costs the same to run one large fridge/freezer as it does two small ones. c) Place your fridge close to the oven and/or direct sunlight.</p>	

You can see there are many things you could introduce at home to reduce energy usage in day-to-day life. You will spend less money on bills and have more money for what's important to you.

Let's assume you implemented the above changes, giving you **\$300 saving over the next year.** **4**

4 Record this amount in the student worksheet for **Activity 5.1** under 'Running total'.



Activity 3.2: Opportunity costs

Before we move on, let's think about the true cost of buying something. Watch this ABC video: [My five cents: What is opportunity cost?](#) (1:53) to learn about opportunity cost - what it is, why it's a helpful tool and when to use it. It's more than just money.

Can you think of ONE example where you wanted to buy two products and/or services and had to compromise? What did you do?

4. Calculate potential saving using compound interest



Another option to explore in order to save money could be through compound interest. Before we do that, let's find out more about **interest**.

What is interest?

Putting money into a bank account earns interest, so the money grows over time. Interest is extra money the bank pays into your account. Key points:

- Interest is worked out as a percentage of the money in the account at a particular time.
- The percentage used to calculate the interest is called the interest rate.
- Depending on your account, interest might be paid monthly, quarterly or annually.
- The interval at which interest is paid is called the 'period'.
- Different accounts have different interest rates and ways of calculating interest, different conditions, etc.

There are two main types of interest, that apply to the majority of people; simple and compound interest. (Source: savings.com.au)

What is simple interest?

Simple interest, also known as nominal interest, is interest that can only be earned on the money you have deposited into an account (principal), not on the money you're earning (interest). Alternatively, when you've borrowed money, you always repay the interest first, and then the required principal. (Source: savings.com.au)

What is compound interest?

Compound interest is interest paid on the initial *principal*, as well as the accumulated interest on money that you've borrowed or invested. You earn interest on your deposit and interest on your interest. It's the hygienic financial version of double-dipping. (Source: savings.com.au)

More information on [compound interest](#) can be found on Moneysmart.

Activity 4.1: Simple vs compound interest

To support work on compound interest, use the savings.com.au website to explore and compare simple and compound interest and their formulas.

Activity 4.2: Calculate compound interest

Let's explore this savings idea a bit more.

Student worksheet

In this activity, you are going to invest **\$100 per fortnight** you already set aside as savings (in **Activity 2.4: Calculate expenses** (using the Budget planner)).

Use Moneysmart's [compound interest calculator](#) to see how much you could save **over one year** if you were to put these savings into a high-interest savings account.

Calculator inputs:

- Under **Your strategy** input **Initial deposit** of **\$100**.
- Input **Regular deposit** of **\$100 per fortnight**.
- Make sure the **compound frequency** is **monthly** over **1 year**
- Keep default **annual interest rate** at **5.00%**

Questions	Answers
How much interest will you receive?	
How much total savings will you receive over one year?	5
How much total savings could you have if you extended to two years?	

5 Record this amount in the student worksheet for **Activity 5.1** under 'Running total'.

1 Annual net income 2 Total expenses 3 Emergency fund 4 Savings around household 5 Savings from compound interest

Note: The above calculations demonstrate how compound interest is a long-term investment. You could reconsider the timing of your goal if you wanted more savings.

5. Bringing it all together



Activity 5.1: Did you reach your goal?

Student worksheet

Part 1: Running total

Use the table below to add amounts when prompted. Once completed, calculate the **total savings**.

- | | | | | |
|---------------------|------------------|------------------|----------------------------|----------------------------------|
| 1 Annual net income | 2 Total expenses | 3 Emergency fund | 4 Savings around household | 5 Savings from compound interest |
|---------------------|------------------|------------------|----------------------------|----------------------------------|

Description/workings <i>per annum</i>	Running total (\$ +/-)
1 Annual net income	
2 Total expenses	
3 Emergency fund	
4 Savings around household	
5 Savings from compound interest	
TOTAL SAVINGS	

Part 2: Your goal

Now that you have completed your running total, it's time to see if you reached your goal.

Questions	Answer
Referring to the 'total savings' in the table above, how many dollars are were <i>under</i> or <i>over</i> your goal of \$6,000.	
List <i>four</i> other ways you could make additional savings in future.	
1.	
2.	
3.	
4.	

6. Reflection & discussion



It is important to reflect on your learning. Think about the following points and write down some notes you can use in a group discussion.

6.1 What is your savings goal in the next one & five years?

6.2 How can keeping a budget help you make better financial decisions?

6.3 What does the government do with the money it receives from our taxes?

6.4 In your household, suggest ways you could save money using sustainable options.

6.5 What is compound interest and how can you benefit from it?

Teacher notes

Solutions

Solutions to activity 2.1: Calculate gross income (before tax)

Calculate	Tips	Answer- Salary (before tax)
1. Weekly salary	Multiply hourly rate by hours worked in a week.	\$585
2. Annual salary	Multiply weekly salary by number of weeks in a year.	\$30,420
3. Monthly salary	Divide annual salary by number of months in a year.	\$2,535

Questions	Answers
4. How many hours do you need to work to earn \$6,000? <i>Tip: Divide savings goal amount by hourly rate ($6000 \div 19.50$)</i>	308 hours (rounded up to the nearest hour)
5. Approximately, how many weeks do you need to work to earn \$6,000? <i>Tip: Divide your savings goal by your weekly wage ($\\$6000 \div \\585)</i>	Approx. 10 weeks

Solutions to activity 2.2: Calculate net income

Questions	Answers
1. What is your annual salary (also known as taxable income)? <i>Tip: You calculated this in Activity 2.1</i>	\$30,420
2. What is your income tax payable for this financial year?	\$2,322
3. What is your Medicare levy payable for this financial year? <i>Tip: The Medicare levy helps fund some of the costs of Australia's public health system known as Medicare. The Medicare levy is 2% of your taxable income, in addition to the tax you pay on your taxable income.</i>	\$608
3. What is the income after tax & Medicare levy ?	\$27,490 1

Teacher tip: Go to Moneysmart's [Income tax](#) page to create further learning opportunities around taxable income, tax rates and Medicare levy and surcharge.

Solution to activity 2.3: Calculate expenses

Expand the following tabs:	Enter the following amounts:
Income	1. Take-home pay (refer to 1 in your worksheet) \$27,490
Questions	Answers
1. What is your total annual expenses?	\$23,820 2
2. What is your remaining annual income?	\$3,670

Solution to activity 2.4: Emergency fund

Questions	Answers
You decide to put \$20 a week aside for a year. How much will you have in your emergency fund after 12 months?	\$1,040 3 (eg. \$20 x 52)
List <i>five</i> emergency situations that could arise in your lifetime.	<ol style="list-style-type: none"> 1. Car repairs 2. Job loss 3. Major health expense 4. Major dental expense 5. Emergency pet care 6. Home repairs 7. Bigger-than-expected tax bill 8. Unanticipated travel.

Solutions to activity 3.1: Sustainable tips on appliance use quiz

Note: You may wish to share these tips with students as you work through the quiz or in discussions.

(Quiz questions sourced from: sustainability.vic.gov.au)

Correct answer	Teacher & student tips
Q1 a) A 12-volt LED globe	<ul style="list-style-type: none"> • Student tip: LED (Light Emitting Diode) use around 75% less energy than halogen lights • Teacher tip: Different types of globes produce light by different means. This option means you could use up to 75% less energy.
Q2 b) Get one with a low flow rate of less than 10 litres per minute.	<ul style="list-style-type: none"> • Student tip: WELS: Australia's Water Efficiency Labelling Scheme (scale 1-6 stars) allows consumers to compare the water efficiency of different models when buying products such as showers, toilets and washing machines. • Teacher tip: A smart option is to install a shower head with a reduced flow rate as this reduces how quickly the water flows out. You can also encourage others to take shorter showers.
Q3 c) Appliances on stand-by and off modes use the same amount of energy.	<ul style="list-style-type: none"> • Student tip: Stand-by mode: sometimes also called sleep mode, refers to a low power mode for electronic devices such as computers and televisions. • Teacher tip: Appliances in stand-by mode use a lot less energy than when you are watching a program, but they still use more energy in stand-by than in off mode. They can comprise as much as 10% to your energy bill. Unplugging appliances ensure no energy is used.
Q4 b) Use biodegradable washing powder in a cold machine wash.	<ul style="list-style-type: none"> • Student tip: Biodegradable: able to be decomposed by bacteria or other living organisms and thereby avoiding pollution • Teacher tip: Washing machines use water and electricity when they are operating but using cold water can reduce energy use by up to 80%.
Q5 a) Allow food to cool before putting into the fridge	<ul style="list-style-type: none"> • Teacher tip: Fridges should be set at between 4 and 5 degrees Celsius. See link from the Food Safety Information Council: https://foodsafety.asn.au/topic/fridge-freezer-foodsafety/

Solutions to activity 3.2: Opportunity costs

Students watch ABC video: [My five cents: What is opportunity cost?](#) (1:53) and think of ONE example where they wanted to buy two products and/or services and had to compromise? On the ABC website, expand the tab 'Things to think about' to find questions to discuss with students'.

Solutions to activity 4.2: Calculate compound interest

Questions	Answers
How much interest will you receive?	\$66
How much total savings will you receive per annum?	\$2,766 5
How much total savings could you have if you extended to two years?	\$5,567

Solutions to activity 5.1: Did you reach your goal?

Part 1: Running total

Description/workings per annum	Running total \$
1 Annual net income	+ \$27,490
2 Total expenses	- \$23,820
3 Emergency fund	- \$1,040
4 Savings around household	+ \$300
5 Savings from compound interest	+ \$2,766
TOTAL SAVINGS	\$5,696 (\$304 short of goal)

Part 2: Your goal

Questions	Answers
Referring to the 'total savings' in the table above, how many dollars are were <i>under</i> or <i>over</i> your goal of \$6,000.	\$304 under goal
List <i>four</i> other ways you could consider making additional savings in future.	<p><i>Other possible ways to save money include:</i></p> <ol style="list-style-type: none"> 1. <i>Increasing your work hours to earn more</i> 2. <i>Finding other ways to earn money (e.g. garage sale, etc).</i> 3. <i>Find other savings via household expenses</i> 4. <i>Changing the timeframe for your savings goal to increase your investment savings</i>

Suggested marking rubric

Below is the suggested marking rubric. Depending on the depth and scope of research conducted by students, teachers may identify additional alignments.

Content description (Year 9)

Mathematics (Year 9)		
Content description: Solve problems involving simple interest (ACMNA211)		
Activity 4: Students investigate simple interest to see its relationship with compound interest using digital technology and engage with the Moneysmart compound interest calculator.		
Competent Students independently investigate simple interest and can articulate in detail the difference between simple and compound interest, making a judgment on the preferred option.	Developing at level Students investigate simple interest with support, articulating the difference between simple and compound interest, making a judgment on the preferred option.	Needs further development Students can justify the preferred option when presented with simple and compound interest examples.
Economics & Business (Year 9)		
Content description: Why and how people manage financial risks and rewards in the current Australian and global financial landscape (ACHEK040)		
Activity 2 & 3: Students consider factors that influence spending by working out their annual expenses.		
Competent Students can articulate the factors that influence their and choices in spending explaining the risks and rewards of their decisions.	Developing at level Students can articulate some factors that influence their expending, explain some short- and long-term consequences of their decisions.	Needs further development Students can identify some factors that influence their spending and can explain the reasons for some their choices.
Content description: Apply economics and business knowledge, skills and concepts in familiar, new and hypothetical situations (ACHES047)		
Activity 5: Students apply knowledge and skills to determine if they have reached their goals.		
Competent Students independently calculate total savings and explain where further efficiencies can be found.	Developing at level Students calculate total savings with support and explain where further efficiencies can be found.	Needs further development Students calculate total savings with support.
Content description: Reflect on the intended and unintended consequences of economic and business decisions (ACHES049)		
Activity 6: Students determine if their earlier decisions have helped them reach their goals, documenting their reflection on the outcome.		
Competent Students independently decide if their budget and planning enabled them to reach their goals with their total savings and write a detailed reflection on how they might approach the task differently in the future.	Developing at level Students decide with support if their budget and planning enabled them to reach their goals with their total savings and write a reflection on how they might approach the task differently in the future.	Needs further development Students decide with support if they reached their and write a reflection when presented with some ideas to guide their thinking.

Content description (Year 10)

Mathematics (Year 10)		
<p>Content description: Connect the compound interest formula to repeated applications of simple interest using appropriate digital technologies (ACMNA229)</p> <p>Activity 4: Students investigate compound interest accounts using digital technology and engage with the Moneysmart compound interest calculator.</p>		
<p>Competent Students independently investigate compound interest accounts and can articulate in detail why this account is the best choice.</p>	<p>Developing at level Students investigate compound interest accounts with support and can articulate why this account is the best choice.</p>	<p>Needs further development Students can articulate which account is the best choice when presented with pre-investigated choices.</p>
<p>Content description: Investigate and describe bivariate data where the independent variable is time. (ACMSP252)</p> <p>Activity 2.4: Students engage with savings over a period of time and discover that as time increases, the rate their money grows increases.</p>		
<p>Competent Students can explain that over time their savings increase. They can see and explain why the rate of growth increases as more time passes, that is, they recognise the effect of the compounding interest.</p>	<p>Developing at level Students can see that over time their savings increase. They make the link between simple and compound interest.</p>	<p>Needs further development Students can explain that over time their savings increase.</p>
Economics & Business (Year 10)		
<p>Content description: Factors that influence major consumer and financial decisions and the short- and long-term consequences of these decisions (ACHEK053)</p> <p>Activity 2 & 3: Students consider factors that influence spending by working out their annual expenses.</p>		
<p>Competent Students can articulate the factors that influence their and choices in spending explain the short and long-term consequences of their decisions.</p>	<p>Developing at level Students can articulate the factors that influence their expending explain the short and long-term consequences of their decisions.</p>	<p>Needs further development Students can see that there are factors that influence their expending and can explain the reasons for their choices.</p>
<p>Content description: Apply economics and business knowledge, skills and concepts in familiar, new and hypothetical situations (ACHES059)</p> <p>Activity 5: Students apply knowledge and skills to determine if they have reached their goals.</p>		
<p>Competent Students independently calculate total savings and explain where further efficiencies can be found.</p>	<p>Developing at level Students calculate total savings with support and explain where further efficiencies can be found.</p>	<p>Needs further development Students calculate total savings with support.</p>
<p>Content description: Reflect on the intended and unintended consequences of economic and business decisions (ACHES061)</p> <p>Activity 6: Students determine if their earlier decisions have helped them reach their goals and reflect on the outcome. They write speaking points to use in a group discussion.</p>		
<p>Competent Students independently decide if their budget and planning enabled them to reach their goals with their total savings and write a reflection on how</p>	<p>Developing at level Students decide and reflect with support if their budgeting and planning enabled them to reach their goals and list some consequences of their choices.</p>	<p>Needs further development Students decide with support if they reached their goals and reflect when prompted, what other savings they could make.</p>

they might approach the task differently in the future.		
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Curriculum alignment

The **content descriptions** and **general capabilities** that align with this workbook can be found on the Moneysmart website – [Moneysmart goals](#).

The **achievement standards** that align with this workbook are below:

Achievement standards

Mathematics (Year 9)

By the end of Year 9, students solve problems involving simple interest. They interpret ratio and scale factors in similar figures. Students explain similarity of triangles. They recognise the connections between similarity and the trigonometric ratios. Students compare techniques for collecting data from primary and secondary sources. They make sense of the position of the mean and median in skewed, symmetric and bi-modal displays to describe and interpret data.

Students apply the index laws to numbers and express numbers in scientific notation. They expand binomial expressions. They find the distance between two points on the Cartesian plane and the gradient and midpoint of a line segment. They sketch linear and non-linear relations. Students calculate areas of shapes and the volume and surface area of right prisms and cylinders. They use Pythagoras' Theorem and trigonometry to find unknown sides of right-angled triangles. Students calculate relative frequencies to estimate probabilities, list outcomes for two-step experiments and assign probabilities for those outcomes. They construct histograms and back-to-back stem-and-leaf plots.

Economics and business (Year 9)

By the end of Year 9, students explain the role of the Australian economy in allocating and distributing resources and analyse the interdependence of participants in the global economy. They **explain the importance of managing financial risks and rewards and analyse the different strategies that may be used.** They explain why businesses seek to create a competitive advantage, including through innovation, and evaluate the strategies that may be used. Students analyse the roles and responsibilities of participants in the workplace.

When researching, students develop questions and simple hypotheses to frame an investigation of an economic or business issue. **They gather and analyse relevant data and information from different sources to answer questions,** identify trends and explain relationships. **Students** generate alternative responses to an issue and **use cost-benefit analysis and appropriate criteria to propose a course of action. They apply economics and business knowledge, skills and concepts to familiar, unfamiliar and hypothetical problems. Students develop and present evidence-based conclusions and reasoned arguments using appropriate texts, subject-specific language and concepts. They analyse the effects of economic and business decisions** and the potential consequences of alternative actions.

Mathematics (Year 10)

By the end of Year 10, students recognise the connection between simple and compound interest. They solve problems involving linear equations and inequalities. They make the connections between algebraic and graphical representations of relations. Students solve surface area and volume problems relating to composite solids. They recognise the relationships between parallel and perpendicular lines. Students apply deductive reasoning to proofs and numerical exercises involving plane shapes. They compare data sets by referring to the shapes of the various data displays. **They describe bivariate data where the independent variable is time. Students describe statistical relationships between two continuous variables. They evaluate statistical reports.**

Students expand binomial expressions and factorise monic quadratic expressions. **They find unknown values after substitution into formulas.** They perform the four operations with simple algebraic fractions. Students solve simple quadratic equations and pairs of simultaneous equations. They use triangle and angle properties to prove congruence and similarity. Students use trigonometry to calculate unknown angles in right-angled triangles. Students list outcomes for multi-step chance

experiments and assign probabilities for these experiments. They calculate quartiles and inter-quartile ranges.

Economics and business (Year 10)

By the end of Year 10, students explain why and how governments manage economic performance to improve living standards. They give explanations for variations in economic performance and standards of living within and between economies. They **analyse factors that influence major consumer and financial decisions and explain the short- and long-term effects of these decisions**. They explain how businesses respond to changing economic conditions and improve productivity. Students evaluate the effect of organisational and workforce management on business performance.

When researching, students develop questions and formulate hypotheses to frame an investigation of an economic or business issue or event. **They** gather and **analyse reliable data and information from different sources** to identify trends, explain relationships and make predictions. Students generate alternative responses to an issue, taking into account multiple perspectives. They use cost benefit analysis and appropriate criteria to propose and justify a course of action. **They apply economics and business knowledge, skills and concepts to familiar, unfamiliar and complex hypothetical problems**. Students develop and present evidence-based conclusions and reasoned arguments incorporating different points of view. They use appropriate texts, subject-specific language, conventions and concepts. They analyse the intended and unintended effects of economic and business decisions and the potential consequences of alternative actions.