

Unit Plan – Mathematics / Business and Economics– Year 5/6

Money Matters

Unit Background

Learning in this unit is aimed at developing students' ability to work with money. The students revise/refresh their knowledge of addition, subtraction, multiplication and division. Students explore everyday money matters such as shopping lists, bank statements and personal budgets. Learning progresses to incorporate fractions and decimal algorithms into financial mathematics by investigating and understanding General Sales Tax (GST) in everyday purchases.

The unit integrates learning from the Australian Curriculum Economics and Business curriculum. Students develop business knowledge and understanding. As students create and reflect on their financial business models, they identify alternate responses to the given scenarios. Therefore, students employ economic reasoning, decision-making and application as outlined in the E&B Curriculum.

Curriculum Links

Developing:

Use efficient mental and written strategies (ACMNA291).

Use efficient mental and written strategies and apply appropriate digital technologies to solve problems (ACMNA291)

Introducing

Create simple financial plans (ACMNA106)

Describe and interpret different data sets in context (ACMSP120)

Construct displays, pose questions, and collect categorical or numerical data (ACMSP118 and ACMSP119)

Business and Economics

The difference between needs and wants and why choices need to be made about resources (ACHEK001)

Influences on consumer choices and methods that can be used to help make informed personal consumer and financial choices (ACHEK003)

Previously acquired and developing maths skills:

- Students have understanding of add and carry, borrow and subtract
- Students have understanding of multiplication and division
- Students have learned basic fraction and decimal representations and their meanings
- Students have had exposure to basic banking structures

UNIT OVERVIEW

LESSON 1: Breaking Down the Docket

- Review previous learning of financial mathematics
- Class collaborates on the use/reasons/purpose of shopping lists
- Students create their own shopping list in maths books (include all details such as date, time, shop name, money given, GST, payment methods, and change).

LESSON 2: Grasping GST (using dockets from lesson 1).

- Refreshing simple percentage and fraction calculations
- Give background understanding of GST: why we have GST
- Demonstrate how to calculate GST
- Students are given posters from surf shop lesson and should work out GST for each item

LESSON 3: Basic Banking

- Review previous bank account learning (prior knowledge)
- Revise terminology associated with bank accounts.

Develop questions, gather data and information from observation (ACHES004)

Identify alternative responses to an issue or event, and consider the advantages and disadvantages (ACHES006)

General Capabilities:

Literacy: Students learn the vocabulary associated with mathematical concepts and processes: income, expenses, general sales tax, receipt, budget etc.

Numeracy: Students develop numeracy skills as they develop knowledge and skills across mathematics

Critical and Creative thinking: students learn to generate and evaluate knowledge, ideas and possibilities when seeking solutions.

ICT Capabilities: Use of ICT is incorporated into all lessons.

- What is involved in everyday banking?
- Benefits of bank accounts
- Analysing a bank statement

LESSON 4: Budget Benefits A

- Introducing Budgets or Financial Plans for personal use
- Brainstorm uses and give examples of budgets
- Work through components of a budget with the class
- Students then complete a personal monthly budget Worksheet

LESSON 5: Budget Benefits B

Students create a budget for business use

- Give students a selection of scenarios to work with
- Students take into consideration learning from lessons 1-3: income, expenses, and GST
- Students should complete a draft in their maths books
- Give students time to discuss and share their budgets ideas with each other
- Final budget should be well presented as a separate file or hard copy

LESSON 6: Budget Benefits (Extension)

Lesson 6 (and additional lessons) may be required for students to complete this assignment. Students that complete the budget ahead of time should plan an extension budget, incorporating ways to increase their income. This can be presented in a document and should be attached to the initial financial plan. Students will create a logo for their small business. Students will provide a sample tax invoice for the goods or service they provide.

Assessment	• Formative assessment: Ensure all students participate in class discussion, ask appropriate questions, and follow instructions • Peer assessment – encourage student to give creative and constructive feedback as students share their budgets with each others • Summative assessment: Financial Budgets will be handed in and marked by the teacher using Financial Plan Marking Rubric (aligned to Australian Curriculum Mathematics and Business and Economics Curriculum).	
Resources	• Students are to bring in their own shopping dockets for this lesson • L1 - Shopping list template (Printed on A4 Strip) • Laptop or desktop computer per students • L2 - Surf Shop Item Posters • Sample bank statement (attached)	• L3 – Bank Statement Details • L4 Budgeting Worksheet (Attached) • L5 – Selection of Scenarios (attached) • L5/6 – Monthly Financial Plan Template (attached) • L6 – Business Plan Assessment Rubric (attached)

LESSON 1: BREAKING DOWN THE DOCKET

(This lesson may be taught across two maths periods)

Learning Objectives

By the end of this lesson students will analyse a basic shopping docket and a tax invoice. Students will create their own shopping docket, showing all elements of a tax invoice as covered throughout this lesson.

Australian Curriculum Descriptors:

ACMNA291: Use efficient mental and written strategies

ACMSP121: Describe and interpret different data sets in context

Business and Economics

ACHEK003: The influences on consumer choices and methods that can be used to help make informed personal consumer and financial choices

ACHES004: Develop questions, gather data and information from observation (ACHES004)

Resources

- Students are to bring in their own shopping dockets for this lesson
- Shopping list template (Printed on A4 Strip)
- Laptop or desktop computer per students
- Tax Invoice for Services Example and Template (Using a Word Template))
- Teacher brings in a shopping docket

Lesson Steps

Introduction: Teacher brings in a BIG shopping list. Collaboratively discuss the uses of shopping dockets. Consider aspects such as:

- Personal budgeting
- Rates/specials/savings
- Dates
- Shop location
- Assistant's name
- Total of items

Teacher uses the Tax Invoices sample (can also be found at <https://www.ato.gov.au/Business/Bus/How-to-set-out-tax-invoices-and-invoices/?page=4#>) to show elements of a tax invoice provided for services. Note the 10 points on the sample. Teach students the importance and reasons for including these 10 elements.

Lesson Body

Student activities:

- 1) Students will use their receipts to create a shopping list using the shopping list template. Students will calculate the totals, provide payment method, calculate change (if needed). All details to be present.
- 2) Students complete a Tax Invoice for Services using a Word Tax Invoice Template

Closing: Ask students to share their work. Provide individual feedback. Ensure all elements of a shopping docket have been discussed.

Extension: Allow students to use a Word (or similar) template to create a mock Tax invoice.

Assessment

Summative Assessment: Students submit their docket and tax invoice for marking.

LESSON 2: GRASPING GST

Learning Objectives: *By the end of this lesson students will understand why and which items include a Goods and Services Tax. Students will explore the background of Australia's GST system. Students will apply percentage calculations to sample goods to calculate GST.*

Australian Curriculum Descriptors:

- Use efficient mental and written strategies (ACMNA291).
- Describe and interpret different data sets in context (ACMSP120)
- Construct displays, pose questions, and collect categorical or numerical data (ACMSP118 and ACMSP119)

Business and Economics

- The difference between needs and wants and why choices need to be made about resources (ACHEK001)
- Influences on consumer choices and methods that can be used to help make informed personal consumer and financial choices (ACHEK003)
- Develop questions, gather data and information from observation (ACHES004)

Students' Prior Knowledge: Students have covered basic fractions and percentage.

Materials | Resources

- Surf Shop Item Posters (attached)
- Receipts from previous lesson
- Access to BTN GST Changes (<http://www.abc.net.au/btn/story/s4117206.htm>)
- A Brief History of Australia's GST system
http://archive.treasury.gov.au/documents/1156/HTML/docshell.asp?URL=01_Brief_History.asp (Scroll down to GST paragraph) or
<http://taxes.net.au/gst-good-services-tax.htm>

Lesson Steps

Introduction: Refresh percentage.

- Ask students to share what they understand a percentage to be (a rate/ proportion/ part of 100 etc.)
- Ask students if they have heard of GST. What does it stand for?
- Collaboratively, on the whiteboard, illustrate some basic percentage calculations that we might encounter in everyday life. For example: Sports shirt 50% off...
 - o Students work individually to mentally calculate percentages of the Surf Shop Items (posters attached).

Body: Exploring Australia's GST system. Read one (or both) GST history paragraphs to the class. Discuss. Allow students to ask questions. View the BTN link. Discuss why GST is needed. What was/is the Government's purpose in introducing a GST? Now encourage students to look at the receipts (shopping dockets from last lesson). Which items included a GST? What was the total of GST charged in that transaction? Students task:

- Students are seated on the floor and teacher explains GST
 - o Give background of John Howard (tax was previously charged in great quantities and to certain producers – until July 2000 etc...)
 - o Now most things are taxed by 10% (there are two ways of looking at this: a) add 10% to a price or b) 10% of a total price is the GST. The GST is paid directly to the government)
 - a) $\$24 \times 1.1$
 - b) $\$24 / 11$
- Display remaining posters on the board for all students to see. Students calculate 10% of the surf-shop items and record these in their Maths books.

Assessment: Summative Assessment: Students submit their work. Teacher gives grade. Note students that have difficulty with this task and provide follow-on lesson if needed.

LESSON 3: BASIC BANKING

(An additional lesson may be required to complete this learning activity)

Learning Objectives:

By the end of this lesson students will be explore and analyse basic bank statements and the language associated with banking.

Australian Curriculum Descriptors:

- Use efficient mental and written strategies (ACMNA291).
- Describe and interpret different data sets in context (ACMSP120)
- Construct displays, pose questions, and collect categorical or numerical data (ACMSP118 and ACMSP119)

Business and Economics

- The difference between needs and wants and why choices need to be made about resources (ACHEK001)
- Influences on consumer choices and methods that can be used to help make informed personal consumer and financial choices (ACHEK003)
- Develop questions, gather data and information from observation (ACHES004)

Materials | Resources

Sample bank statement pdf (attached)

L3 – Bank Statement Details

Lesson Steps

Introduction

- Revise elements of a tax invoice and a shopping receipt
- Revise GST – where, why, when...
- Discuss/introduce bank statements
- Ask students to brainstorm what they are for and why they are used

Body: Project the sample bank statement of the whiteboard. Locate key features and discuss key terminology. Consider the following elements:

- Account type
- Deposit
- Withdraw
- Bank type / benefits of certain banks
- Debit / credit / balance

Give students a copy of “List of transactions”. Students will create their own bank account statements. Students are to include all elements of a bank statement. Students will calculate interest, total deposits, total debits, and the month’s balance as per the given list of transactions (attached).

Leave the sample statement of the board for students to view and refer to throughout the activity. Encourage students to create a draft copy first. Students are each given a copy of the bank statement details. This sheet provides a checklist for students to ensure all elements are met.

Extension Work: Create a logo for your bank. Decide what benefits your bank will offer to its customers. Decide on a slogan to accompany future advertising.

Assessment

Formative Assessment: Ensure all students participate in discussion. Ask questions directly to students to ensure they are following. Students are each given a copy of the bank statement details. This sheet provides a checklist for students to ensure all elements are met.

Summative Assessment: Students submit their worksheet for marking.

LESSON 4: BUDGET BENEFITS (Part A)

(An additional lesson may be required to complete this learning activity)

Learning Objectives:

By the end of this lesson students will investigate budgets and financial plans. Students will brainstorm the reasons, critically analysing the purpose of budgeting and reasons for creating and adhering to financial plans.

Australian Curriculum Descriptors:

- Describe and interpret different data sets in context (ACMSP120)
- Construct displays, pose questions, and collect categorical or numerical data (ACMSP118 and ACMSP119)

Business and Economics

- The difference between needs and wants and why choices need to be made about resources (ACHEK001)
- Influences on consumer choices and methods that can be used to help make informed personal consumer and financial choices (ACHEK003)
- Develop questions, gather data and information from observation (ACHES004)

Materials | Resources: L4 Budgeting Worksheet (Attached)

Lesson Steps

Introduction

- o Revise; What is a budget?
- o When would we need a budget or financial plan. Discuss everyday needs such as living within means to larger projects (such as the building of a State Hospital)

Body: Teach -

- Budgets or Financial Plans can be created for personal use
- Brainstorm uses and give examples of budgets
- Work through components of a budget with the class (link to last lesson)
- Students then complete a personal monthly budget Worksheet

Key learning activity

Students create their own budget for the month of November. Use L4 budgeting worksheet to guide instruction / elements of a personal budget. Students will complete this individually. Task will be assessed at completion.

Assessment

Formative Assessment: Ensure all students participate in discussion. Ask questions directly to students to ensure they are following. Students are each given a copy of the bank statement details. This sheet provides a checklist for students to ensure all elements are met.

Summative Assessment: Students submit their worksheet for marking.

LESSON 5/6: BUDGET BENEFITS (Part B)

(Learning activity will require 3-4 maths periods)

Learning Objectives:

By the end of this lesson students will create a six month budget for business purposes. Students will experiment with the manipulation of budgets, to explore the relationship between expenses, income and profits over a six-month period.

Australian Curriculum Descriptors:

- Use efficient mental and written strategies (ACMNA291).
- Describe and interpret different data sets in context (ACMSP120)
- Construct displays, pose questions, and collect categorical or numerical data (ACMSP118 and ACMSP119)

Business and Economics

- The difference between needs and wants and why choices need to be made about resources (ACHEK001)
- Influences on consumer choices and methods that can be used to help make informed personal consumer and financial choices (ACHEK003)
- Develop questions, gather data and information from observation (ACHES004)

Materials | Resources

L5 – Selection of Scenarios (attached)

L5/6 – Monthly Financial Plan Template (attached)

L6 – Business Plan Assessment Rubric (attached)

Lesson Steps

Introduction

- Refresh terminology associated with budgeting
- Brainstorm with students: Expenses, Income, Profit, and Loss

Introduce Project:

- Students a given two business scenarios (attached). Students will choose one on which they will model a financial plan
- Give students clear outline of elements of the financial plan (can be done by following the marking rubric for this assessment).
- A draft financial plan is to be prepared. Teacher will provide feedback during the preparation time and before the final copy is prepared.
- The final copy of the financial plan will include a Tax Invoice (as covered in lesson 1)
- *Differentiation:* Allow students to adapt the business model if they would like to.

Extension activities: Students may create a company logo for their business as well as other advertising materials. Remember to add the cost to the budget.

Assessment

Formative Assessment: Ensure all students are accurately following a business model. Provide ongoing feedback on this during lessons and prior to students beginning their final copy.

Summative Assessment: Students submit their business financial plan for assessment against the Business Plan Assessment Rubric.