



ACTIVITY: Create a Currency

ACTIVITY OVERVIEW

Students will show their understanding of Australia's money system by creating their own currency to be used on the planet Mars. It is important for students to understand transactions involving small and large amounts, the value of items, and to think about how money is used in our lives.

This activity puts creativity into the 'Money and financial mathematics' part of the curriculum, while still allowing students to make calculations involving money.

SYNOPSIS

Students will show their understanding of Australia's money system by creating their own currency to be used on the planet Mars. It is important for students to understand transactions involving small and large amounts, the value of items, and to think about how money is used in our lives. This activity puts creativity into the 'Money and financial mathematics' part of the curriculum, while still allowing students to make calculations involving money.

Foundation – Year 2

- F: Represent simple, everyday financial situations involving money. (VCMNA075)
- Y1: Recognise, describe, and order Australian coins according to their value. (VCMNA092)
- Y2: Count and order small collections of Australian coins and notes according to their value. (VCMNA111)

Year 3 – 4

- Y3: Represent money values in multiple ways and count the change required for simple transactions to the nearest five cents. (VCMNA137)
- Y4: Solve problems involving purchases and the calculation of change to the nearest five cents with and without digital technologies. (VCMNA160)

Year 5 – 6

- Y5: Create simple financial plans. (VCMNA191)
- Y6: Investigate and calculate percentage discounts of 10 per cent, 25 per cent and 50 per cent on sale items, with and without digital technologies. (VCMNA218)

ACTIVITY, MATERIALS AND INSTRUCTIONS

Activity

Create a currency for the new colony on Mars, allowing space settlers to buy and sell items on this planet.

Materials for class of 30 students

- Pencils/pens
- Paper
- Pencils/markers
- Scissors

Instructions

1. Help prepare for life in a new space colony by creating a currency for use on the planet Mars. A currency is a system of money used in a particular country (or planet!). We cannot use any existing currency from Earth because we want people from all countries to feel welcome in the new settlement.

Your currency must include:

- four small amounts (similar to 20 cents, 50 cents, \$1 and \$2 from Australian currency) for purchasing food
- four large amounts (similar to \$10, \$20, \$50, \$100 from Australian currency) for purchasing other items (e.g. clothes, entertainment, furniture)

In Australia, the currency (system of money) that we use is the Australian dollar. Dollars can be broken up into 100 cents. We have both metal coins and plastic notes as our money. You must name your new currency. Will we be using money called dollars, moons, or rockets?

2. What materials will you make your currency from? Will it be metal coins, plastic notes, or different materials? Why? Optional – use recycled materials (e.g. milk bottle lids, cardboard) to actually make your currency.
3. Write a lunch order to use at school on Mars (you may like to do this on a paper bag). How much of your new money will you need to pay for your favourite food items?
4. Write a shopping list for your new bedroom on Mars. What will you need to purchase and how much will it cost in your currency?

HOW TO USE THIS ACTIVITY WITH YOUR STUDENTS

Foundation – Year 2

Use this activity with Foundation – two students to reinforce their understanding of Australian currency. To create a new currency, you must have knowledge about our existing currency.

Students should be introduced to Australian coins and notes before completing this activity. This is especially important because of the declining use of cash in our lives, as there may be some students who do not see the actual coins and notes regularly in their homes.

When students are developing their currency, encourage them to list (or lay out if they have made model money) their money in order from smallest to largest.

Can the smallest amount of money buy one banana or one potato?
Does the largest amount of your money pay for shoes? A car? A house?

Bring in a few catalogues (e.g. supermarket, toys/homewares) to give students assistance with understanding the value of items.

When writing the lunch orders, it would be helpful to list popular items from your school canteen or lunch order provider and discuss the relative costs of these items, as a class. For example, I can buy two icy poles for the price of one slice of pizza, or pasta costs twice as much as a sausage roll with sauce.

Years 3/4

It is assumed that year three and four students are familiar with all Australian coins and notes. However, as people are using less cash in their daily lives, it is possible that students do not regularly see actual coins and notes and may need a reminder. When creating a new currency, students will naturally compare their own currencies to our Australian currency, as they make sure that they have four small and four large amounts of money included.

This group of students needs to learn about financial transactions that involve giving change. Extend the lunch order activity by having students require change for their purchases. You now only have the four large amounts of your money to spend. How much change will you be given when you make your lunch order?

Extend the bedroom purchasing activity in the same way. How much change will you receive from your bedroom purchases if you can only pay using your largest amount of money?

Years 5/6

Creating a currency will be a fun, but relatively simple, activity for your year five and six students. However, this activity can easily be extended to cover the curriculum for these year levels.

On Mars, all your lunches must be ordered through the lunch order system (the one that your school uses now). Put together a menu and budget for your school lunches for the week. You must eat at least three different meals. How much of your money will it cost to have lunch at school each week?

Students display their work in a ruled-up table in their books or using a digital spreadsheet. You may like to format the cells of the spreadsheet so that they are displayed as currency (but this only recognises known currencies, so it may be difficult to match up with students' new currencies).

If using the digital spreadsheet, students use the =SUM function to create totals for money spent each day and then for the whole week.

Good news! There is a sale on lunches every Monday and Friday.

On Mondays, food items will be discounted by 10 per cent. On Fridays, food items will be discounted by 25 per cent.

Recalculate the total amount of money you will spend each day and the weekly total. This can be done by hand, in your book, or by creating new columns and using the spreadsheet.

To subtract 10 per cent or 25 per cent, students use their understanding of the relationship between percentages and decimals and multiply the existing column value by 0.90 or 0.75.

Students will become very familiar with their new currencies after completing these calculations.

DISCUSSION SECTION AND KEY THEMES

KEY THEMES

Australian currency

The Royal Australian Mint makes Australia's coins.

You can learn more about coins here:

- About our coins (5 cents, 10 cents, 20 cents, 50 cents, \$1, \$2)
<https://www.ramint.gov.au/sites/default/files/About%20our%20coins.pdf>
- Australian coins - history
https://www.ramint.gov.au/sites/default/files/australian_coins_-_a_fascinating_history_fact_sheet.pdf
- Australian pre-decimal currency (before 14 February 1966)
<https://www.ramint.gov.au/sites/default/files/Before%20decimal%20currency.pdf>

The Reserve Bank of Australia makes Australia's notes at a factory in Craigieburn, Victoria.

You can learn more about banknotes here:

- Where and how Australia's banknotes are made
<https://banknotes.rba.gov.au/production-and-distribution/production/>
- Australia's banknotes
<https://banknotes.rba.gov.au/australias-banknotes/>

Other currencies

Here are some other currencies from around the world that you may have come across.

- USA - Dollar (USD)
- Many European countries - Euro (EUR)
- Great Britain - British Pound (GBP)
- Canada - Dollar (CAD)
- India - Rupee (INR)
- New Zealand - Dollar (NZD)
- Switzerland - Franc (CHF)
- South Africa - Rand (ZAR)
- Russia - Ruble (RUB)
- Bulgaria - Lev (BGN)
- Singapore - Dollar (SGD)
- Hong Kong - Dollar (HKD)
- Sweden - Krona (SEK)
- Thailand - Baht (THB)
- Hungary - Forint (HUF)
- China - Yuan Renminbi (CNY)
- Malaysia - Ringgit (MYR)
- South Korea - Won (KRW)
- Poland - Zloty (PLN)

Mars

The orbit of Mars is located between Earth and the asteroid belt. A rocky planet with a very thin atmosphere, Mars is much colder than Earth. Located on Mars are the tallest volcano (Olympus Mons) and largest canyon (Valles Marineris) in our Solar System. Several rovers and explorer robots have been sent to Mars and scientists are currently working on plans to send people to Mars in the future.

QUESTIONS AND ANSWERS

Why do we have money?

People used to trade goods and services by swapping items that they agreed were of equal value. However, as people travelled more widely and populations grew, it became more complicated to keep track of these trades. Different countries started creating their own currencies and we have continued with this system until the present day. Each country is responsible for making its own coins and notes.

Do all countries use metal coins and plastic notes like

Australia?

No - not all countries use metal coins and plastic banknotes. Many countries still use paper banknotes. Some countries mainly use notes because their coins are worth very little these days.

Are we going to eventually stop using cash and just use online payments?

Maybe, but cash is likely to be around for a while longer. To become cashless, all businesses would need reliable access to the internet, to complete online payments. This is currently not the case for all areas of Australia.

All people - including elderly, disabled, new migrants and children - would have to be able to easily pay by cards or smart devices. We cannot take away cash without having a reliable backup system for use during power failures caused by storms, bushfires, and floods.

It is quite likely that most transactions will be cashless in years to come, but there is still a place for cash in Australian society now.

How do people from Australia spend money in other countries?

Each country has its own currency. When you travel to another country, you can exchange your money for the currency of the country you are visiting. The current exchange rate will tell you how much of the new currency you will get for one Australian dollar. For example, 1 AUD = 54.35 INR (one Australian dollar is worth the same as 54.35 Indian Rupees). 1 AUD = 0.69 USD (one Australian dollar is worth the same as 69 US cents). Sometimes in Australia we make purchases from overseas companies and our bank converts our Australian money into the necessary currency. You can convert currencies at www.xe.com.

What is cryptocurrency?

A cryptocurrency is a digital or virtual currency, not made up of actual coins or notes. You may have heard of the major cryptocurrencies Bitcoin and Ether. Cryptocurrency requires many computers solving codes and passing messages through a network to keep transactions secure. The Royal Bank of Australia (RBA) does not recognise cryptocurrency as money. To be classed as money, it has to be widely accepted as a method of payment, must not have large fluctuations in value over time, and must be commonly used to value items. At present, cryptocurrencies do not meet these criteria.

Where do people get money from?

Most adults earn money by going to work and getting paid to do a job. People's salaries vary greatly, depending on the type of work they do. The minimum wage in Australia (from 1 July 2022) is \$21.38 per hour. This is the minimum amount that workers over the age of 21 can be paid (sorry kids, workers under 21 can be paid less than this!). When you are paid for work, the government takes part of your salary out as tax. Tax money is used to pay for health, education, defence, roads, railways, and support payments.

How old do I have to be to get a job?

When you are 15 years old, you are legally able to work in any kind of job – as long as you are qualified to do it and it doesn't break any laws related to young people (e.g. serving alcohol, driving).

- If you are under 15, you can do light work that doesn't stop you from going to school. Your employer must have a Child Employment Permit, unless you are working for your family. There are rules about the number of hours you can work and the timing of work hours and breaks.
- If you are 11 or 12 years old, you can deliver newspapers, advertising materials or pharmacy goods.
- If you are 13 or 14 years old, you can do delivery jobs, plus you can work in retail or hospitality.

What do people spend most of their money on?

In Australia, the biggest expenses for an average family with school-aged children are housing, food and drink, and transport.

Other expenses (in decreasing order) include recreation, medical and health, clothing, fuel, and power.

Our spending patterns change during different stages of our lives, according to the Australian government's Moneysmart website.

Would our expenses change if we lived on Mars? We will still need housing, food and drink, and transport to get there. It is hard to predict what life on Mars would be like, but we would still need to pay for things!

Who has the most money in the world?

In June 2022, the richest people in the world are:

1. Elon Musk (Tesla, space exploration, Twitter), worth US\$224 billion
2. Jeff Bezos (Amazon), worth US\$144 billion
3. Bernard Arnault (Christian Dior), worth US\$136 billion
4. Bill Gates (Microsoft), worth US\$123 billion
5. Warren Buffett (Berkshire Hathaway), worth US\$114 billion
6. Larry Page (Google, YouTube), worth US\$103 billion

How much is that doggie in the window?

This song was written in the 1950s and has been sung by many children since then.

Dogs are not cheap!

Pure-bred puppies from breeders can cost thousands of dollars.

According to Pet Insurance Australia, the most expensive puppies in Australia in 2022 are:

1. Tibetan Mastiff (one sold for over \$2 million to a property developer in China!)
2. French Bulldog (sell for up to \$20,000)
3. Lowchens (more than \$10,000)
4. Samoyed (more than \$10,000)
5. English/British Bulldog (more than \$10,000)

OUTSIDE OR SUPPLEMENTARY READING

Royal Australian Mint

<https://www.ramint.gov.au/>

Reserve Bank of Australia

<https://www.rba.gov.au/education/>

(Most of their education material is for older students).

Currency converter

www.xe.com

NASA Science Mars Exploration Program

<https://mars.nasa.gov/>

Cryptocurrencies

<https://www.rba.gov.au/education/resources/explainers/cryptocurrencies.html>

TOPIC WORDS

- Currency
- Coin
- Note
- Buy
- Purchase
- Sell
- Dollar
- Cent
- Cash



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