

Lesson Plan

MERGE CUBE LESSON PLAN

Australian Money

Learning Area	Mathematics	Kit	VR/AR Education Kit
Year Level	Year 1	Duration	1x 50 minute lesson

Introduction/Description

Money plays an important part in students' lives, particularly those in Junior Primary who engage with it in imaginative play. This lesson plan incorporates augmented reality to help students gain a deeper understanding of Australian coins.

Learning Intentions

In this lesson, students will describe each Australian coin and order them according to their value.

Task Summary

Students will view a Merge Cube using CoSpaces to learn about each Australian coin and its value. Students will then use play money to order coins according to their value and to describe their features.



Preparation

Students are expected to:

- Have previous experience using the CoSpaces app to view Merge Cubes.
 - If students have not viewed Merge Cubes using CoSpaces before, it is recommended to spend a lesson learning how to do this, or to allow extra time during this lesson for students to learn it.
- Have had previous experience using coins through play.
- Understand the meaning of 'least' and 'most' value.

Teachers should make sure that:

- A 'surprise box' has been prepared with various items for students to explore to introduce the lesson content e.g.:
 - Purse/wallet
 - Shopping bag
 - Price tag
 - Real coins
 - Photos of different shops
- They are familiar with accessing CoSpaces QR codes on the student devices.

- All hardware has been charged and sanitised.
- The  Australian Money Teaching Deck has been checked and the teacher has accessibility.
- The CoSpaces app is up to date.
- Students have been divided into pairs / groups depending on how many Merge Cubes are available.
- Play coins have been organised into small bags / baskets to ensure each student will have one of each coin for their task.
 - See 'Adaptations' on page 4 of this lesson plan for differentiation ideas.
- **OPTIONAL:** the following  Australian Money Word Wall Cards have been added to a word wall for students to refer to:
 - coins
 - money
 - value
 - dollars
 - cents
 - least
 - most
 - worth

Resources

Hardware

- Mobile Devices
- Merge Cubes
- Internet Access
- Smartboard/TV



Manipulatives

- Collection of play coins.
- 'Surprise Box' filled with objects listed in 'Preparation'

Applications

- [CoSpaces](#)
CoSpaces is a mixed reality web-based application that allows users to create and engage with interactive media content. CoSpaces affords students the ability to demonstrate their knowledge in new ways by building virtual interactive worlds, simple or complex, that are approachable for the uninitiated.

Tasks/Presentations

- [Australian Coins Merge Cube on CoSpaces](#)
-  Australian Money Teaching Deck
-  Australian Money Word Wall Cards

Videos

-  The Money Song | Australian Coins Song | Scratch Garden


Learning Sequence

Part 1

1

(10 mins)



Introduction

- Take out the 'surprise box' and tell students that there are clues inside which will help them figure out what today's lesson is about.
- Shake the box around and ask them 'Who wants to guess what might be inside?' Ask 2 or 3 students to share what they think.
- Take out each clue from the box (you may wish to ask individual students to do this) and have a discussion about what the items are telling them about today's lesson.
- Ask the students 'What do we use money for? Has anybody used money to buy something?' and invite them to think / pair / share with a partner.
- Watch the Australian Coins song on slide 3 of the  Australian Money Teaching Deck and encourage students to join in.

2

(35 mins)

Development

- Explain to students that they will be learning more about Australian coins using a Merge Cube. Then they will be showing what they have learnt by putting a collection of coins in the correct order.
- Play the video on slide 4 of the  Australian Money Teaching Deck to show students how to access the [CoSpaces](#) app and scan the QR code to view the [Australian Coins Merge Cube](#).
- Distribute the Merge Cubes to each student / pair / group and give time to explore. Display slide 5 of the  Australian Money Teaching Deck as a visual aid for students to follow.
- If students tap the picture of each coin, audio will play which explains the coin in more detail (e.g. its value, image, shape).
- Once students have had the opportunity to explore the [Australian Coins Merge Cube](#), invite them to collect a group of coins and spend time ordering them in the following ways:
 - from least to most value,
 - from most to least value,
- If SeeSaw / Class Dojo is used in your classroom, students can take a photo of their ordered coins and post it to their journal with an audio recording explaining their task.
 - [This link](#) takes you to a pre-made activity on SeeSaw that teachers can save and add to their class.
- If time permits, students can also find a partner and play a racing game to see who can successfully order their coins the fastest.
 - Players place 7-10 coins in a basket / cup
 - Say 'ready, set, go' to begin
 - Tip the coins out of the basket / cup and arrange them from least to most value
 - The player who completes this first wins the round

3

(5 mins)

Conclusion

- Display slide 7 on the **Australian Money Teaching Deck** and ask a student to put the coins in the correct order, and to explain their thinking as they go.
- Invite students to discuss the questions on slide 8 of the **Australian Money Teaching Deck** :
 - What did you do well?
 - What did you have trouble with?
 - What was your favourite part?

Modifications

Adaptations

- Ensure collections of coins have been differentiated according to student needs.
 - Low achievers: include only 3 familiar coins.
 - Middle achievers: include one of each coin.
 - High achievers: include multiples of each coin / leave one or two coins out / include notes.
- If limited Merge Cubes are available, students can play a game of 'Snap!' using printed photos of Australian coins while they wait to use the cube.

Extension Ideas

- If you have Year 1 students in your class, introduce notes and ask them to order them as well as the coins.
- *Visual Art*: students can design their own Australian coin to replace the existing 5 cent coin.
- *English*: students can practise their descriptive language by writing a short description of a chosen Australian coin using key vocabulary (e.g. silver, gold, large, small, round).
- *Australia's engagement with Asia*: explore examples of different coins in Asian countries i.e. Indonesia and compare them with Australian coins.
- *Play*: set up a shop where students can role-play purchasing products with money (e.g. fruit shop, ice-cream shop, pizza shop)

Curriculum Connections

Australian Curriculum	NSW Curriculum
<p>Year 1 - Mathematics</p> <p>Describe patterns with numbers and identify missing elements ACMNA035</p>	<p>Stage 1 - Mathematics</p> <p>describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols MA1-1WM</p> <p>uses objects, diagrams and technology to explore mathematical problems MA1-2WM</p>

Cross-Curriculum Priorities

Aboriginal and Torres Strait Islander Histories and Cultures
 Asia and Australia's Engagement with Asia
 Sustainability

Capabilities

Literacy
☒ Numeracy
☒ ICT Capability
 Critical and Creative Thinking
 Personal & Social Capability
 Ethical Understanding
 Intercultural Understanding