Intensive English Language / New Arrivals Program Mathematics and Numeracy: Teaching Learning Sequence

Strand	Number and algebra
Sub-strand	Money and financial mathematics
Levels	A B C Reception, Year 1, Year 2
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Year developed	2016

Use this units with your own student cohort

Teachers are invited to trial and modify this teaching learning sequences. Content may need to be modified to meet the particular learning needs of a student cohort.

Designers started with the same template, and while there was broad agreement on the use of the template – there may be some variations between this Teaching Learning Sequence and other Teaching Learning Sequences that were developed by DECD educators.

- differentiated activities may be found in either the activities column or the evidence and differentiation column
- generally, language elements were not repeated once they were recorded in an earlier activity
- cross curriculum priorities are included in some unites but not in others.

A feedback form is available at tiny.cc/IELP-NAP-TLS. Please forward feedback to Erika Vonaspern



Intensive English Language Program/New Arrivals Program Mathematics and Numeracy Teaching Learning Sequence

WHAT DO WE WANT STUDENTS TO LEARN?							
Strand: Number and Algebra Sub strand : Money and Financial Mathematics		Le	Learning Goals				
		Achievement Standards		Content Descriptions		Proficiencies	
Mathematics Levels: A B C	Time Line:	A		А		The student demonstrates the following proficiencies.	
(Year R, 1, 2)	4 WEEKS			L		UnderstandingUnderstands why and how	
Overarching Ideas Money is exchanged in return services.	verarching Ideas ney is exchanged in return for goods and vices.		B Students recognise Australian coins according to their value.		Recognise, describe and order Australian coins according to their value (ACMNA017)	 Makes connections between their calculating skills and the use of money. 	
Money comes in a variety of forms. Money can be saved to meet needs and wants. There are differences between needs and wants, and this affects budget choices.		6	Studente associate collections		Count and order small collections of Australian	 Fluency Recognises coins and notes automatically and use in context. 	
		C Students associate collections of Australian coins with their value.	coins and notes according to their value (ACMNA034)		 Uses a range of calculation strategies that allow them to work out the value of a collection. 		
						 Reasoning Explains what needs and wants are, and gives an example in their everyday life. 	

NATIONAL CONSUMER AND FINANCIAL LITERACY F In this Teaching and Learning Sequence, elements of	RAMEWORK (YEAR 2) the National Consumer And Financial Literacy Framewo	rk (Year 2) are indicated in blue.
Knowledge and understanding	Competence	Responsibility and enterprise
Students can:	Students can:	Students can:
• recognise Australian money includes notes and coins	recognise common symbols and terms used on a	• identify simple ways the consumer decisions of
 recognise that money is limited and comes from a variety of sources 	 variety of Australian notes and coins identify consumer and financial matters that are part of 	individuals may impact on themselves, their families, the broader community and/or the environment
 recognise that money can be saved to meet needs and wants 	daily life such as earning money, spending, saving, paying bills, making donations	• demonstrate awareness that family, community and socio-cultural values and customs can influence consumer behaviour and financial decision-making
 explain how money is exchanged in return for goods and services 		
 identify and describe the differences between needs and wants 		

WHAT DO WE WANT STUDENTS TO LEARN?					
Numeracy General Capability	Other General Capabilities	Cross Curriculum Priorities			
Estimating and calculating with whole numbers Level 1a Identify situations that involve the use of money Level 1b Recognise the different value of coins and notes in the Australian monetary system Level 2 Identify and use combinations of coins and notes for simple purchases	 Literacy The literacy capability of <i>Composing</i> <i>Texts</i> is guided by and reported in the sequence of the IELP Progress Report. In addition, the following aspects of the <i>Comprehending Texts</i> continuum are taught and assessed. Level 1e Listen and respond to brief questions Level 2 Listen to two or more step instructions for undertaking learning tasks Information and Communication Technology Level 2 Identify the impacts of ICT in society Intercultural Understandings Level 2 Explore and compare cultural knowledge, beliefs and practices Describe and compare the way they live with people in other places or times Critical and Creative Thinking Level 2 Use information from a previous experience to inform a new idea 	 Aboriginal and Torres Strait Islander histories and cultures Discuss the graphics and symbols of Australian culture. Asia and Australia's engagement with Asia The peoples and countries of Asia have contributed and continue to contribute to world history and human endeavour. 			

HOW WILL WE KNOW IF THEY'VE LEARNT IT?					
Diagnostic Assessment: (What do the students bring?)	Assessment of Learning	Assessment as Learning	Assessment for Learning		
Through gathering prior knowledge, what did we find out about what students already know, their interest, misconceptions and what they want to learn?	QuestioningFeedback	Self and peer assessmentFeedback	Display know, do and understandFeedback		
See 'Gathering Prior Knowledge' under Sequenced Learning Activities.	 Observation Conferencing 		QuestioningObservation		
Use 'Explain everything app' or video recording for students to record what they are interested in and what they want to learn.	- work analysis Use 'Explain Everything app' for students to record 3 things that they have learnt.	Proving Cards for sorting, patterning and making collections	I know the difference between needs and wants. Use the sorting template.		
	Students order coins and notes from the least value to the most value.				

KEY

Content Descriptions: Plain font

Achievement Standards: Bold font

Numeracy Learning Continuum Description: Underlined font

Financial Literacy Framework: Blue font

	WHAT WILL WE DO TO GET THERE?	HOW WILL WE KNOW IF THEY'VE LEARNT IT?		
Mathematical Skills and Concepts	Sequenced learning activities	Language Elements	Resources	Evidence and Differentiation
Identify situations that involve the use of money. (1a) Identify consumer and financial matters that are part of daily life such as earning money, spending, saving, paying bills, making donations (Financial Literacy Framework)	Gathering Prior Knowledge Students are asked: What is money? What does money look like? How can you use money and where does money come from? Similarly, for older students you may also ask: What is money like in your home country? What does money look like in your home country? How do you use money in your home country and where does money come from in your home country? Use 'Explain Everything' app or video to record students' responses. Use student responses to develop more sophisticated language structures throughout the unit. Use this information to inform your teaching. What knowledge do the students bring? 1.1 Define Money Conversation Focus: What is money? Why do we need it? What would happen if we did not have money? Use 'Think, Pair, Share' to discuss How have you used money? What did you use it for? Record on paper using drawings or simple sentences (depending on language levels).	Participants: money, coin, note Plurals Money is a collective noun Money is Coins are Notes are Describers: Features of money, e.g. round, heavy, thin, thicker, silver, gold, paper, plastic. Tense: present and simple past Money comes from a bank. Dad worked on a farm. He got food for us, not money. Complex Sentences: e.g. If we didn't have money We need money because Processes: mental 'I think' action: 'I bought' relational: Money is'	Develop a class resource of the language structures that students produce, which form the basis for further elaboration and sophistication. eg. In Japan I use Yen. The currency in Japan is Yen. 100 Sen equals 1 Yen.	Engages in short spoken exchanges and shares likes/dislikes, recounts a shared experience that demonstrate an understanding of the purpose of money.

Explain how money is exchanged in return for goods and services. (Financial Literacy Framework)	Summarise the children's thoughts and introduce the definition "Money is used to exchange goods and services." Complete Level 1: Sorting Goods and Services on the ASIC Money Smart website. https://s3-ap-southeast-2.amazonaws.com/mst- resources/goods-and-services/index.html 1.2 History of Money Conversation Focus: Why was money invented? Who invented money? Watch YouTube clip: 'Story of Money' https://www.youtube.com/watch?v=ADaY6THOp3Y Earliest forms of money were based on exchanging and trading goods and services. Read the story book <i>DK Eyewitness Books: 'Money' by Joe Cribb</i> As you read the story identify currencies from different countries and mark their location on a world map. What services did people need? How has that changed?	Technical Language: exchange, trade, barter, goods and services, value, weight, perish Common vocabulary: e.g. not fair, too heavy, didn't last Circumstance of Time: years ago, a long time ago, these days Participants: names of coins and notes Tense: Present and Past Regular verbs, use/used, Irregular verbs, buy/bought pay/paid, costs/ cost	ASIC Money Smart website. Goods and Services. https://s3-ap-southeast- 2.amazonaws.com/mst- resources/goods-and- services/index.html YouTube Clip: 'Story of Money' https://www.youtube.com /watch?v=ADaY6THOp3 Y DK Eyewitness Books: 'Money' by Joe Cribb World Map Pictures of Australian money from the past. Real money if possible. Real Australian coins. Pictures of current Australian notes. Real	What is more valuable? Students are given 20 tokens that represent a unit of money. They place the tokens alongside a collection of objects to indicate the personal value they place on that object, e.g. Pokemon cards, a jacket, a soccer ball, a make-up kit, a loaf of bread, a cow. Students explain the reason for their choice. Now change the context. Which objects had greater value in your country? Which objects would your parents choose as having the greatest
	What services did people need? How has that changed?		Pictures of current Australian notes. Real money if possible.	Which objects would your parents choose as having the greatest value?

	Homework Task: Ask parents if money has changed in your country? Is money the same now as it was for your parents/grandparents? What types of things did your parents/grandparents used to pay for and what types of things do they pay for now? Discuss how money has changed in Australia over the years i.e. Paper to plastic, deletion of 1c and 2c coins, 50c coin was once round, the new 'tactile' \$5 note. Why did these changes occur?			
Identify situations that involve the use of money. (1a)	 2.1 Forms of money Conversation Focus: What are all the forms that money can come in? Use visuals (including cash, PayPal, bank transfer, gift cards, ATM, credit card, cheque) ask children if they think they are all forms of money? Task: Use a print out of Appendix 1 to sort which forms they think are classified as money? Task: Children to identify and pick out one of the forms of money that they or their families have used. Watch YouTube: buy/paying with your mobile phone, commonwealth bank clip https://www.youtube.com/watch?v=y_TbWtbSf3o Watch BTN: Cashless Society http://www.abc.net.au/btn/story/s3556547.htm Conversation Focus: Can you spend money that you don't have? Why would people use this form of payment? 	Technical Language: cash, PayPal, bank transfer, gift cards, ATM, visa card, debit card, cheque and money order, PIN (Personal Identification Number), deposit, withdrawal, credit Complex Sentences: This is a form of money because This is not money because Processes: sort, identify, pick out	Forms of money document, see Appendix 1	

Recognise Australian money includes notes and coins. (Financial Literacy Framework) <u>Recognises the different value of</u> <u>coins and notes in the Australian</u> <u>monetary system. (1b)</u>	 2.2 What does our currency look like? Task: Give children a bucket of coins and notes to sort using their own criteria. Children share their criteria for sorting and teacher records on a list. Children identify two criteria that they haven't tried yet and use them to sort their money accordingly eg. colour, size, shape, value, dollars, cents, features on the notes and coins such as the different animals. Watch YouTube: Australian Notes and Coins - Skwirk, Stage 1 https://www.youtube.com/watch?v=rMy7WDt2Hr4&list=PL6 	Participants: Names of coins and notes being sorted, <i>e.g. 5c coins</i> , 10 <i>c</i> <i>coins</i> , <i>value</i> , <i>dollar</i> , <i>cent</i> , <i>kangaroo</i> , <i>emu</i> , <i>echidna</i> , <i>platypus</i> , <i>aboriginal elder</i> Describers: <i>round</i> , <i>silver</i> , <i>big</i> , <i>small</i> Processes: <i>sort</i> , <i>group</i> , <i>match</i> , <i>do it another way</i> Commands: <i>Make groups</i> , <i>sort by</i> (criteria)	Bucket of Australian coins, approximately \$60 worth of coins is a suitable amount. YouTube: Australian Notes and Coins - Skwirk, Stage 1 <u>https://www.youtube.com</u> /watch?v=rMy7WDt2Hr4 &list=PL610or7-2- 545MUiMFHbf2IL0cjxNF JbO&index=5	
Identify situations that involve the use of money. (1a) Recognise that money is limited and comes from a variety of sources. (Financial Literacy Framework)	 3.1 How do you earn money? Conversation Focus: How do we earn money, how do we 'get' it? What does 'earn' mean? Task: In pairs (advanced language learner with early language learner) draw where they and their family get money from? Each pair shares one finding with class. Teacher makes a shared class list. Task: Use role play cards in Appendix 2 to act out how people can earn money. For example, my dad works for his boss, his boss gives him money called 'a wage', some of this money goes to the Government and this is called 'tax'. The Government uses this tax to give to schools, the sick, elderly, unemployed etc. Other scenarios to role play: pocket money, gifts, employment etc. 	Technical Language: earn Non-finite clauses: My parents earn money by going to work. The government taxes people to help the poor or sick or elderly. Technical Language: government, boss, unemployed, employed, wage, tax Speech Functions: Responds to a range of 'wh' questions.	Role play cards, see Appendix 2	

Identify consumer and financial matters that are part of daily life such as earning money, spending, saving, paying bills, making donations. Recognise that money can be saved to meet needs and wants.	 3.2 How do you use money? Conversation Focus: What do we use money for? Task: Children brainstorm all the things they use money for ie. Buy food, pay bills, buy a car, catch a bus, give as a gift. Teacher scribes and creates a list around the outside of the smartboard. Introduce the three headings 'Spend, Save, Donate'. 	 Processes: buy, shop, pay, save, spend, donate, give, lend, payback Participants: everyday nouns, e.g. food, clothes, toys, piggy bank, Technical Language: donate, interest 	Smartboard / IWB	
Identify and describe the differences between needs and wants. (Financial Literacy Framework)	Clarify each of the three headings Children sort and drag their ideas under the correct heading. <u>Save:</u> What does 'save' mean? Why would you save? Have you ever saved and how? Can you buy it immediately or will you need to save for it? i.e. piggy bank, bank	Modality: Use a limited range of comparatives, eg. more, less, better, worse, worst. Technical Language: needs and wants	Piggybanks , money boxes to show	
	Donate: What does 'donate' mean? Why would you donate? View online <i>The Australia Charity Guide</i> <u>http://www.australiancharityguide.com</u> look at different charities and discuss ones that are familiar to them? Donating is giving without any expectation of getting anything back. E.g. In our school we have many children from Nepal and we raised money and donated it after the Nepal earthquake. Have you/your family donated and how? (This question is an excellent opportunity to look at religious practices, such as the donations made by Muslims during Ramadan.)	Modality: must have = need don't need= want Evaluative Language: Expresses simple opinions based on personal likes/dislikes, e.g. 'I think' 'We need" Complex Sentence: because, so that, if	Pictures or flyers from charity organizations	

Demonstrate awareness that family, community and socio- cultural values and customs can influence consumer behaviour and financial decision-making. (Financial Literacy Framework) Identify simple ways the	Look at the book 'IF' by David J. Smith and discuss how countries of the world have more/less money.	Participants: bedroom furniture, eg bed, table, toys, television	Book: "IF" by David J.Smith	I know the difference between needs and wants. Gather information from the completed sorting activities.
(Financial Literacy Framework)	Where Children Sleep' by James Mollison <u>https://www.youtube.com/watch?v=t-Fg2CMsDvc</u> Task : Children to draw on a template 10 things that people in your household buy. Ask students to sort into needs and wants.		10 things people in your household buy. See Appendix 3	
	Task: Using laminated pictures from shopping catalogues, sort items into needs and wants. Put only the items we need into the shopping bag.		Laminated pictures of items from shopping catalogues Shopping bags	

 B Recognise Australian coins according to their value. B Recognise, describe and order Australian coins according to their value (ACMNA017) 	 <u>4.1 How does our money work?</u> Conversation Focus: What do you need to know to be able to use money? Task: Sort Money Sort money using different criteria (revision of task 2.2) 	Speech Functions: Responds to a range of wh' questions. Participants: Names of coins and notes being sorted, 5c coins, 10c, dollar, cents, kangaroo, echidna, emu, platypus,	Bucket of real Australian coins Plastic Money –	Proving cards: Sorting money When children think they are able to sort money using different
Australian coins with their value.	Task: Place coins on a hundreds number line to show value. Similarly, use MAB blocks to represent value of coins and notes.	Sentence Structure: Similies	Australian coins and notes Number Line from 0 to	criteria, they demonstrate it to the teacher who then stamps and dates card. Student must demonstrate in three
C Count and order small collections of Australian coins and notes according to their value. (ACMNA034)	Watch the following clip. In Australia, money size and value do not always correlate. <u>http://splash.abc.net.au/home#!/media/1566328/funny-</u> money	<i>the same value as one</i> 10c coin Processes: count, sort, group, match, do it another	100 MAB Blocks	different ways.
A Recognises the different value of coins and notes in the Australian monetary system. (1b)	Task: Use Australian coins and notes and order from the least value to the most value.	way Commands: Make groups, sort by (criteria)	Splash ABC. http://splash.abc.net.au/h ome#!/media/1566328/fu	Order coins and notes from the least value to the most value.
<u>C Identify and use combinations</u> of coins and notes for simple purchases. (2) Recognise common symbols and	Task: Pattern with Money What is your repeating unit? E.g. 20c & 5c coins What is the VALUE of your repeating unit? 25c Can you make me another pattern that has the same value?	Technical Language: number line, value, repeating units Processes: continue a pattern, copy a pattern, create/construct a pattern, recreate/reconstruct a	ппу-попеу	
terms used on a variety of Australian notes and coins. (Financial Literacy Framework)		different pattern, describe a pattern Visuals in Multimodal Texts: Discusses the meaning of symbols on Australian coins and notes.		Proving cards: Patterning with Money When children think they are able to create a money pattern, they demonstrate it to the teacher who then stamps and dates card.

Compare the cost of similar items (Financial Literacy Framework)	 Task: Value Match Match items on cards with a reasonable money value. Task: Value Match II Teacher holds up a coin or a note, and students find something in a catalogue that they could buy with that amount. Question: Select three items that students have found for \$2. What item is the best value for money? Use food, toy and clothing catalogues. 	Comparative Language: Bread costs \$2 at IGA. It costs more than \$2 at Woolworths.	Matching Value cards, see Appendix 4	
	Task: Representing Money Values Using the template in Appendix 5, place a value in the middle box. Students use coins to show four different ways of making that value. \$2.00 \$2.00 Task: Banker Game	Modality: Two dollars can be made with a \$2 coin, 4x 50 cent coins, 40x5 cent coins and 2 \$1 coins.	Representing Money Value, see Appendix 5	



Assessment t "Explain Every Everything	Assessment task: Use an app from iTunes Store called "Explain Everything Interactive Whiteboard" By Explain Everything		'Explain Everything' App on iPad	Use 'Explain Everything app' for students to record three things that they have learnt.
Ask each stude learnt. See sa	dent to record three things that they have ample in Appendix 7.			

Overview of language and examples used in the teaching, learning and assessing program

A summary of the language mostly pertaining to this substrand as used in the following teaching, learning and assessing program.

Oral	Visual and Written Text	Text Knowledge	Grammar Knowledge	Word Knowledge
 Spoken Texts Listens and responds to spoken exchanges Participates in simple group activities involving spoken language accompanying action games and maths activities Verbal elements Pronounces most frequently used words and phrases comprehensibly Speech Functions Responds to a range of 'wh' questions What is money? Responds to basic questions with short responses e.g. If we didn't have money We need money because Social Exchanges Uses common key words and appropriate social language 	Visual Literacy Recognises symbols relating to money e.g. \$, c, decimal place Draws or selects pictures to convey knowledge about money	Written Text Names and labels coins and notes Organises visual and written information in logical order Structure of Learning Area Texts Response: Describe two or three things about a visual prompt Answer simple questions about money in financial literacy	Simple sentences This is a five cent coin. Compound sentences: Links ideas with linking conjunction: and or but Complex sentences: If we didn't have moneywe wouldn't be able to buy food. Highly spoken non-finite clauses using 'to+verb' The government taxes people to help the poor or sick or elderly. Circumstances Time a long time ago, these days Place; in my country Contingency: For \$10, : Participants everyday nouns Noun groups to describe features of money e.g. a silver coin, a round coin Modality Must have = need Don't need = wants Processes: relational: Money is action: I bought mental : I think	Topic Vocabulary related to money and financial maths. <i>e.g. dollars, cents,</i> <i>coins, notes, cash,</i> <i>bank, goods and</i> <i>services, value,</i> <i>spend, earn, needs</i> <i>and wants</i>