

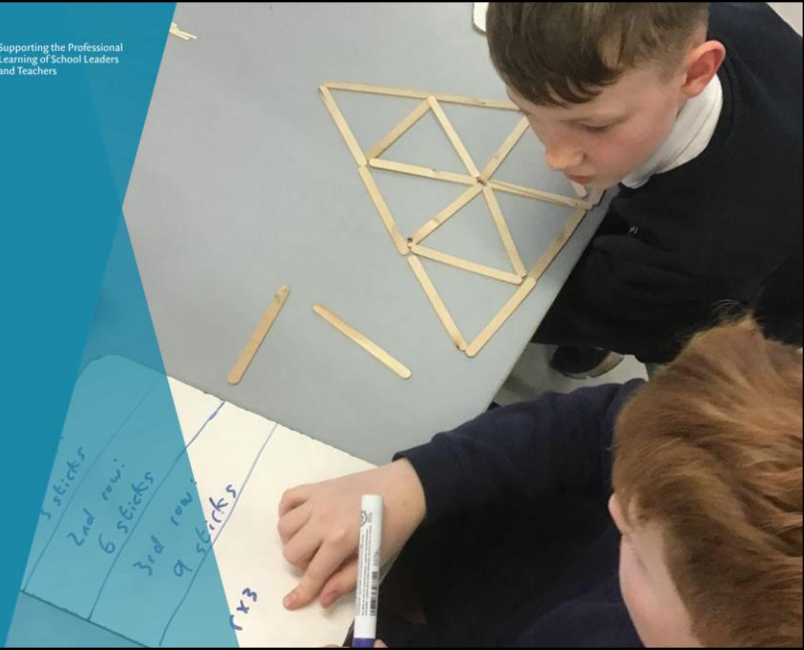


Oide

Tacú leis an bhFoghlaim  
Ghairmiúil i measc Ceannairí  
Scoile agus Múinteoirí

Supporting the Professional  
Learning of School Leaders  
and Teachers

# Muinín Stage1 Measures Money



## Purpose of slide:

Introduce the presentation and resources needed for facilitation.

## Notes for teachers:

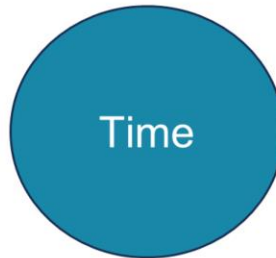
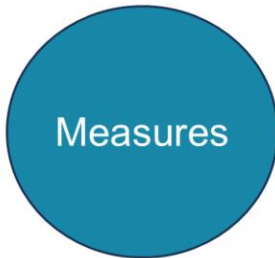
- Organise resources needed to facilitate the presentation
- This presentation will examine the strand unit Money in the context of stage 1 (junior & senior infants)

# Measures

## What's New?



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### **Purpose of slide:**

To highlight the strand unit of 'Money' in the PMC

### **Notes for teachers:**

- Open page 21 of the Primary Mathematics Curriculum.
- There are three strand units in the measures strand - Measures, Time and Money.
- Measurement connects mathematics to the real world
- It is directly applicable to and necessary for engagement in everyday experiences and is also a core practice in many workplaces

# Strand Unit: Money

## Progression Across the Stages



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Learning Outcomes for Measures Strand Unit			
Stage 1: Junior and senior infants	Stage 2: First and second classes	Stage 3: Third and fourth classes	Stage 4: Fifth and sixth classes
Through appropriately playful and engaging learning experiences, children should be able to			
develop an awareness of money and its uses.	recognise the value of money and use euro and cent in a range of meaningful contexts.	transfer knowledge of the base ten system in number to monetary contexts and use for purposes of calculation.	solve and pose practical tasks to investigate and make informed judgements about transactions and financial plans.



### Purpose of slide:

To explore the progression across the stages in the strand unit Money

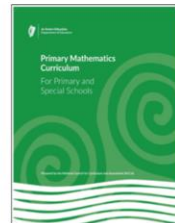
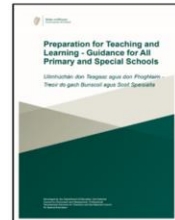
### Notes for teachers:

- Note the progression along the stages
- Note how language, knowledge and skills are developed from stages 1 to 4
- Knowledge of progression is necessary so that we can adapt and extend our teaching based on the knowledge we have of the pupils in front of us

## Learning Outcome: Recorded Preparation



*Through appropriately playful and engaging learning experiences, children should be able to develop an awareness of money and its uses*



### Purpose of slide:

To highlight the learning outcome as the starting point for preparation for teaching and learning.

### Notes for teachers:

- This is the learning outcome for Measures Stage 1 Strand Unit – Money
- Note the language of the new sentence stem- e.g. 'playful', 'engaging'
- Learning outcomes are broad in nature. When working with learning outcomes it is useful to break down the learning outcome into areas of focus

# Learning Outcome

## Maths Concepts



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### Money

#### Stage 1 (Junior & Senior Infants)

Learning Outcomes	develop an awareness of money and its uses.
Mathematical concepts	Money comes in many forms.
	Money is used in the buying and selling of goods and services.
	Goods or services can be exchanged for a set amount of money (agreed price).
	The units of money used in Ireland are euro (€) and cent (c).
	Monetary transactions happen in a number of ways.



### Purpose of slide:

To draw attention to the Maths concepts for Stage 1 Money and awareness of the NCCA Maths toolkit

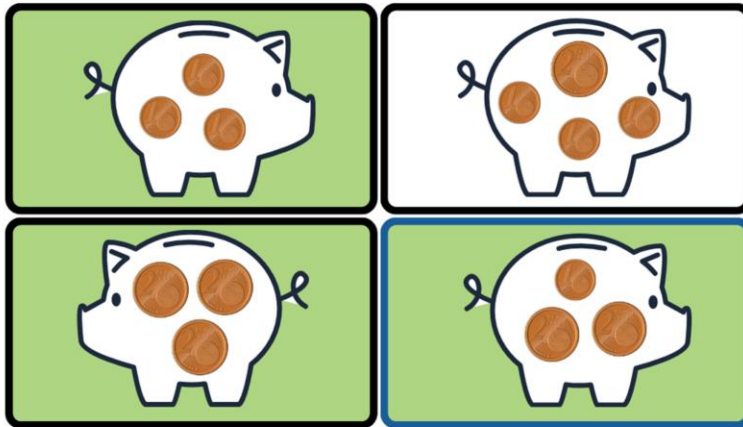
### Notes for teachers:

- Maths concepts are the key mathematical ideas that underpin each learning outcome
- Maths concepts are useful as an entry point/reference when preparing for teaching and learning
- Open the NCCA Maths toolkit on a separate tab (via QR code on slide)
- Take some time to find Learning Outcomes, Maths Concepts and Progression Continua

# Introductory Task



## Odd One Out



### Purpose of slide:

To introduce Odd One Out tasks

### Notes for teachers:

- Odd One Out activities ask learners to identify which picture, image or number doesn't belong. There is no right or wrong answer and success is based on the ability to justify their answer.
- By encouraging all learners to 'have a go' and 'valuing all contributions', odd one out activities develop the skills of reasoning and communicating.
- Odd One Out activities can be used to assess pre or prior knowledge/ maths language at the start or end of a unit of work. Odd One Out activities are suitable for all age groups

# Counting



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- Counting forwards
- Counting backwards
- From different starting points

## Purpose of slide:

To demonstrate counting as a foundation for developing maths strategies.

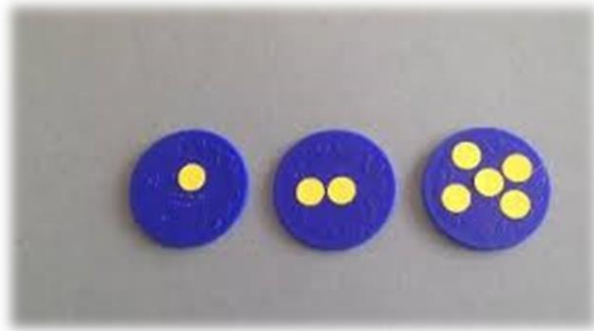
## Notes for teachers:

- Counting is the foundation of the development of number sense.
- It is important to develop pupils' flexibility with counting.
- It is the first step in mental calculation.
- Pupils can count using money.

## Pre-Money 'Tokens'



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Using tokens that are marked with dots can help develop the concept of value before moving on to coins

### Purpose of slide:

To develop concept of value before coins

### Notes for teachers:

- Pupils need to have mastered connecting numbers with the value they represent
- They need to understand that the value may be independent of physical properties e.g. size, weight etc...
- This emphasises the importance of experiential learning with money for young pupils
- Pre- money tokens marked with dots can help to develop the concept of monetary value
- It is important that the tokens and dots are the same size and colour
- 1cent, 2 cent and 5 cent coins are still legal tender so still an onus on teacher to provide learning experiences with coins
- Pre-money tokens is a great starter activity into introducing coins



# The Shop



How much does it cost?

Do I have enough money?

Will I get some change?

Can I buy this please?



## Purpose of slide:

To develop concept of value before coins with different tasks (shop & story)

## Notes for teachers:

- Setting up a shop in the classroom provides a natural way to use money vocabulary such as 'how much', 'change' 'buy
- When creating price tags, pupils can first use dots of equal size to represent a number.
- When pupils have some experience of this, it might be useful to use price tags which have both dots and numbers on them, before progressing to using actual coins when this activity has been well established. Price items up to 5 cents. Give their child a purse with some coins and talk about what you could buy. Which coin is worth the most? The least? What can you buy with 5 cents?
- Words like 'coin' and 'change' are rarely used or understood by young pupils.

Books about money and shopping are a great way to generate initial discussion and to introduce the correct vocabulary in context. Some

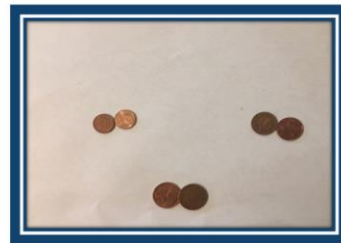
recommended books include:

1. 'The Berenstain Bears' Trouble with Money' by Stan and Jan Berenstain's
2. 'Don't forget the Bacon' by Pat Hutchins
3. Nancy Shaw's 'Sheep in a Shop' by Nancy Shaw
4. Sa leabhar 'Ag siopadóireacht le Mam' téann Róisín go dtí an ollmhargadh le Mamaí.

# Buried Treasure!



Oide



## Purpose of slide:

To help pupils become familiar with coins through a fun and playful learning experience

## Notes for teachers:

- Pupils dig for coins in a small tub of sand, rice, lentils, pasta etc.
- They observe and describe the coins they find, they could sort them.
- Discussion about the most/least e.g. we found 5c coins the most/ 10 cent coins the least, pupils may be able to order the coins like a number line
- Multisensory approach – use of sand, rice, lentils.

## Money Monsters



Pupils make coin rubbings using 1 cent 2 cent, 5 cent and 10 cent coins.  
Encourage them to make 'coin creatures' or 'money monsters'.



How much is your money monster worth?  
Is that less or more than your partner's monster?  
Can you make a money monster worth more/ less?



### Purpose of slide:

To show teachers Open Ended Tasks for the Money strand

### Notes for teachers:

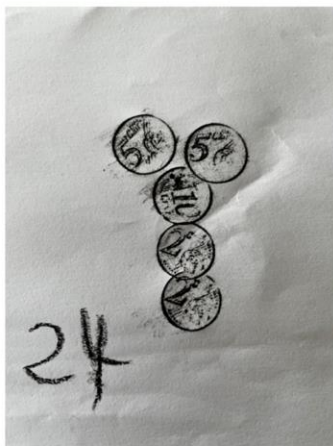
- Open ended tasks like this incorporate elements and pedagogical practices.
- An open-ended task is one where there is a range of 'correct' solutions and/or a range of ways to achieve one or more solutions.
- Using open-ended tasks is one way to encourage playfulness in mathematics.
- Pupils would begin by examining/ observing coins with the teacher highlighting the different numbers on each coin. Example- the buried treasure activity
- Pupils could then make rubbings of the different coins, and should be encouraged *to draw dots to show the value of the coins e.g. 5 dots on the 5c coin*
- This is the first step in the concrete, pictorial, abstract approach as pupils are given the time to handle, observe and make rubbings of the coins.

- A key aspect of pupils engaging in open-ended tasks is the follow-up discussions that take place either in a small group or a whole class setting.

# Money Monsters



Oide



## Purpose of slide:

To demonstrate some examples of what pupils may produce

## Notes for teachers:

- Pupil samples of the previous Open-Ended Task
- Some pupils will name the coins
- Some pupils will give you the total, Who has more /less?

## Extension activity:

- Target Total: Can you make a monster with a total of 21c?
- Turn to your partner- which money monster is worth more/less

# Coins in my Wallet



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I have 24 cent in my wallet.  
What coins might I have?



[mathsbot.com/manipulatives/coins](https://mathsbot.com/manipulatives/coins)

## Purpose of slide:

To show an open-ended task where the pupils can use different addition strategies

## Notes for teachers:

- This activity could be done using concrete/ pictorial or virtual (QR code link) representation
- Encourage pupils to record the different ways they made 24 cent
- Open-ended tasks, like this task are playful and provide opportunities for *exploration, investigation, challenge, creativity, choice and independence*.
- Other examples of open-ended tasks will be shared with participants
- A key aspect of pupils engaging in open-ended tasks is the follow-up discussions that take place either in a small group or a whole class setting.
- If the emphasis is placed on the generation of different ideas, all pupils feel that they have something to contribute, and, moreover, learn from the ideas and strategies of their peers.
- Open-ended tasks are also one way of providing for cognitively

challenging tasks in maths.

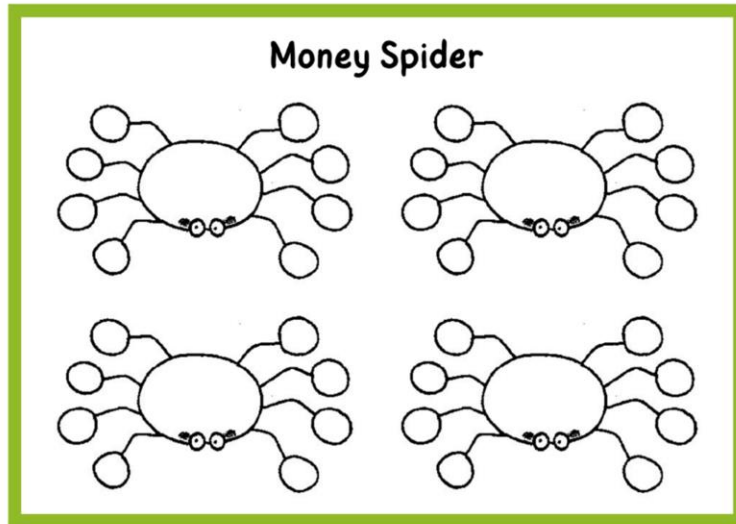
- When selecting an open-ended task, as with selecting any task, it is important to keep in mind the mathematical point.



# Coins in my Wallet



Oide



## Purpose of slide:

To scaffold the concept of using different varieties of coins to make up a given amount

## Notes for teachers:

- Example: How many ways can you show me 12 cent?
- 12 cent could be written in the centre of the spiders and the different combinations of coins can be recorded on his feet. It is okay for some feet to be left blank!

# Buying Items

Using cash & cashless methods



Oide



I have 10 cent on my card:

- If I tap my card to buy the chocolate bar, how much will be left on my card?



## Purpose of slide:

To introduce pupils to cashless methods of payments

## Notes for teachers:

- A lot of pupils will be familiar with the idea of 'tapping a card' or 'buying online' but will not understand the concept
- Use whiteboards/laminated card to write the balance with whiteboard markers and **decrease** balances as you spend.
- Pupils could design their own revolut card, laminate them. Optional: Put a tens frame on the card to scaffold with partitioning.
- Pupils in older classes have rev cards that parents top up and can monitor what they are spending their money on.
- In the role play area a card machine with a contactless symbol can be used and get the pupils to beep when they are making a transaction.
- Use a marker to write the amount on the card and once beeped wipe off dots on ten frame or reduce number to show balance on the card.

## Closing Task

### Money Splat



12c

The total amount of money is 12 cent



#### Purpose of slide:

To highlight splat as a learning experience that helps develop number sense

#### Notes for teachers:

- This is a take on Steve Wyborneys splat activities
- There are lots of splat activities that build in difficulty level available to download for free on his website
- Some of the coins are hidden under the splat. The total number amount of money is 12c
- Some questions you may ask include: How much money can you see? How much money is beneath the splat? What coins might they be? Tell me how you seen them? Can you find all the possibilities? How do you know you have found them all?

#### Resource:

<https://steviewyborney.com/2017/02/splat/>

# Money Splat



Oide

The total amount of money is 12 cent

**SPLAT!**

12c



How much money do you see?

How much money do you think is underneath the splat?

What coins do you think might be underneath the splat?

## Purpose of slide:

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# NCCA Maths Toolkit

Money suggestions for key language.

The vocabulary is not specific to any particular stage.

There are blank blocks/bricks for teachers to add more vocabulary.  
e.g. tap, loan etc.



Oide



## Purpose of slide:

To show some NCCA Supports available

## Notes for teachers:

- Money suggestions for key language from NCCA maths toolkit support materials
- The vocabulary is not specific to any particular stage.
- There are blank blocks/bricks for teachers to add more vocabulary, e.g. tap, loan etc

# Maths Journal



Oide

How many ways can you make 12 cent?



## Take Note

- Maths journals are for all learners, of all ages.
- Maths journals can be represented and recorded in multiple ways.
- Maths journals give the learner an authentic voice in their mathematical learning.

### **Purpose of slide:**

To provide reflective prompts for participants to use in their own class.

### **Notes for teachers:**

- Journals are useful for both teachers and learners to assess attitudes, knowledge and skills.
- Pupils can keep track of their thinking and understanding in the journal.
- Journals can contain general observations about Maths or can be more specific and focus on a particular concept.