



The Three Bears

Stage	Strand	Strand Unit
1	Measures	Measuring

Learning Outcomes	Maths Concepts
Through appropriately playful learning experiences, children should be able to demonstrate an awareness that attributes such as length, weight, capacity and area can be measured and compared.	- One of the purposes of measurement is to compare. - We can compare and order things by how much of a particular attribute (physical quantity) they have relative to each other.

Learning Maths

In this learning experience, learners develop an awareness of capacity through play and exploration, using the story 'Goldilocks and the Three Bears'. Learners are shown three different sized bowls and asked which one belongs to Father Bear, Mother Bear and Baby Bear. Learners demonstrate their ideas for determining which bowl holds the most porridge, e.g. pouring from one bowl to another and justify their reasoning. In pairs, learners then choose 3 cups for the bears from a collection of plastic glasses and cups and put them in order for Father, Mother and Baby Bear. They explore the volumes of the cups using different liquids, to consolidate learning. Learners represent and share their thinking, using a variety of tools.

Understanding and Connecting	Communicating	Reasoning	Applying and Problem Solving
<i>The learner</i>			
Handles and explores everyday objects and items to explore capacity (bowls, cups etc.).	Understands and uses appropriate, descriptive, comparative and superlative language associated with a range of measurable attributes (<i>big, bigger, biggest</i> etc.)	Predicts how measurable attributes of objects will compare to each other e.g. make conjectures about the capacity of items and then checks by direct comparison.	Solves simple measurement problems in play and real-life situations e.g., explores which container holds more/less when engaging in sand and water play.



Teaching Maths			
Fostering Productive Disposition	Encouraging Playfulness with Mathematics		
Demonstrate enthusiasm for mathematics.	Make a selection of liquids and various containers available to learners to experiment and explore capacity.		
	<table><tr><th>Emphasising Mathematical Modeling</th></tr><tr><td>Encourage learners to record their representations in their maths journal and discuss these with each other.</td></tr></table>	Emphasising Mathematical Modeling	Encourage learners to record their representations in their maths journal and discuss these with each other.
Emphasising Mathematical Modeling			
Encourage learners to record their representations in their maths journal and discuss these with each other.			
Using Cognitively Challenging Tasks	Promoting Maths Talk		
Modify the task to appropriately stretch and deepen learner’s understanding by providing different sized spoons (5ml, 15 ml etc.) and encourage learners to estimate how many of each are needed to fill the containers.	Use strategic, skilful questioning to encourage learners to share their thinking and elicit the language of capacity in pairs. • How would you prove Daddy Bear’s bowl holds the most? • Do you think the shape of a container affects its capacity? Explain • How many cups of water will fill the bucket?		
Assessing Maths			
• Can the learner compare and order containers in terms of capacity? • Does the learner relate capacity to real world experiences? • Can the learner explain and justify solution pathways?			
Source			
PDST Measures Handbook page 173			