



Crazy Mixed Up Numbers

Stage	Strand	Strand Unit
1	Number	Place Value

Learning Outcomes	Maths Concepts
Through appropriately engaging learning experiences, children should be able to develop a sense of ten as the foundation for place value and counting.	- The base of our number system is ten. - Numbers can be distinguished according to their quantitative value.

Learning Maths

This learning experience helps learners to develop a sense of ten. To begin, all learners make a group of ten using a variety of tools, e.g. ten counters on a ten frame, beads on a rekenrek, unifix cubes, links, pegs and pegboard etc. The teacher calls out a random number between zero and ten. Learners change their group of ten to represent the number called and explain what they will add or remove before completing the task, e.g. the teacher calls three and learners say “I will remove seven”. The learning experience can then be completed as a small group activity.

Understanding and Connecting	Communicating	Reasoning	Applying and Problem Solving
<i>The learner</i>			
Explores the relationship between numbers 1-9 and also their relationship to 10.	Expresses their ideas and shares their thinking with others orally, concretely, pictorially and abstractly.	Explores various arrangements for (example – on number frames) of manipulatives to prompt different mental images of numbers up to 10, while developing a sense of each number.	Interpret and evaluate solutions to find the most efficient way to make the new number.



Teaching Maths	
Fostering Productive Disposition	Encouraging Playfulness with Mathematics
Facilitate learners to find patterns and make connections, e.g. 8 is 2 less than 10. Celebrate children's individual and collaborative successes	Provide opportunities for learners to explore and experiment with mathematical ideas by exploring various ways to combine numbers to make 10. Allow a safe space for spontaneity, creativity and imaginative play with Mathematics.
	Emphasising Mathematical Modeling Celebrate diversity and creativity in working with mathematical models by making available a variety of tools.
Using Cognitively Challenging Tasks	Promoting Maths Talk
Provide opportunities for deep and sustained engagement with mathematical content and processes through the use of tasks by encouraging learners to transfer their knowledge to a range of tools.	Provide a safe environment for learners to share and exchange thinking and ideas Revoice learners' mathematical thinking and ideas using prompts such as • "So, you're saying that..." • "It sounds like you're saying... is that correct?"
Assessing Maths	
• Observe how learners make the new number. Do they start again from zero or can they adjust the number by adding on or subtracting what is required? • Can learners relate numbers to 10? • Can learners represent and share their thinking concretely, pictorially and abstractly?	
Source	
Adapted from Van de Walle, Karp, Bay-Williams (2014) <i>Elementary and Middle School Mathematics Teaching Developmentally</i> , 8th Edition page 146	