Coding and Robotics Foundation Phase Lesson Plans

1.	School Name						
	Topic	Pattern recognition and problem solving		Grade R		Term 2, Week 1 Lesson 1	

2	Specific Aims	Aesthetic, creative skills and cognitive development, knowledge through engaging in dance, music, drama and visual art activities	✓	Knowledge of digital and ICT skills supported by the technological process and computational thinking skills	✓	Understanding of the relationship between people and the environment, awareness of social relationships, and elementary science. Physical, social, personal and emotional development	✓
		• Identify different patterns • Pattern Recognition - patterns repeating up to 2 times. • Complete a Pattern • Minimum of 2 repetitions. • Movement as a Pattern.					

	Computational Thinking	Pattern recognition 2.5.2	✓	Algorithm Design 2.5.2	✓	Abstraction 2.5.2	✓	Decomposition 2.5.2	✓
	Technological process	Investigate	✓	Design	✓	Make	✓	Evaluate		Communicate	✓

3	Learning Objectives	Learners will be able to identify what a pattern is and predict what should come next in patterns. Learners will be able to create an AABB pattern
	Resources	Policy Document page 34

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		counters https://www.education.com/lesson-plan/its-pattern-time/
	EAC / New Words	Pattern, repeat
	Pre-Knowledge /Integration	Connect with learner's prior knowledge by displaying images of everyday patterns they are familiar with (e.g., trees, flowers, blocks, clothing designs, etc.).
4	**Educator Activity (Period 1 = 60min)**	**Policy Document** **Term2, Week1: The following Concepts for Pattern Recognition and Problem Solving are introduced:** **The following Concepts for Pattern Recognition and Problem Solving are revised:** • Identify different Patterns • The following Concepts for Pattern Recognition and Problem Solving are introduced: • Movement as a Pattern. **Examples that can be used in class** • Learners as a group have to participate in an activity led by the teacher leading them with physical movements creating a pattern. --- **Lesson 1: Activity 1** **Introduction:** **MAKE 1** – Book 3 - Blue book **Page: 12 - 15** **Activity:** • Let's sing- To the flower garden. **Whole Class Activity** • Let's think- There are bees flying around in search of a garden. • Let's make- Let's make beautiful flowers and bees with the computer.
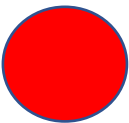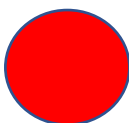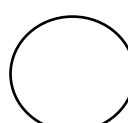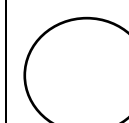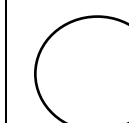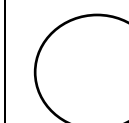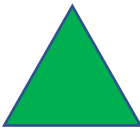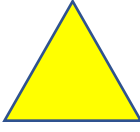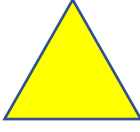
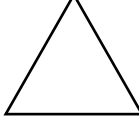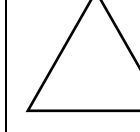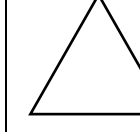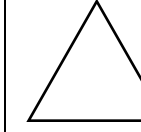|			
		Activity 2 • Concrete using 3-D objects. • During the MATHEMATICS circle discussion provide counters using two colours. Work together with learners to make an AABB pattern e.g. red, red, blue, blue, red, red, blue, blue, • - Let the learners copy an object pattern • Explain that the pattern has 2 parts, the A and the B.	
	Learners Activity	• Learners will use counters to learn how to construct their patterns. (exemplar activity) • Learners will use two colours to create a pattern of the petals of a flower.	
	Assessment	• Class activity, recording sheet • Check that pattern is completed correctly • Learners will be assessed on the creation of their sequencing of the colours.	Informal: Observation, checklist,
5	**Lesson Reflection**	What went well? What did not go well? What would you change?	**Date of Completion** **Educator Signature**

Name _____

Complete the patterns using your crayons.

🔵	🔵	🔴	🔴	🔵	🔵	⚪	⚪	⚪	⚪
🔺(green)	🔺(green)	🔺(yellow)	🔺(yellow)	🔺(green)	🔺(green)	△	△	△	△

Make your own pattern using counters.

Make your own pattern using threading beads.