CODING & ROBOTICS
GRADE 2

LESSON PLANS

DEPARTMENT OF BASIC EDUCATION

CONTENTS

Contents

Annexure A – Learning Intentions and Success Criteria

Annexure B – Problem Statements – Grade 2
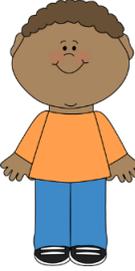
Annexure C – Assessment – Grade 2

Annexure D - Annual Teaching Plan

Annexure E – Competencies and Concepts Clarification

Notes to the teacher:

Annexures are provided as separate documents.

Grade 2 Term 1

<table>
<tr><td colspan="5">**GRADE 2 TERM 1 CODING & ROBOTICS WEEK 1**</td></tr>
<tr><td colspan="5">**2 x 30-minute lessons per week**</td></tr>
<tr><td>**TERM 1 WEEK 1**</td><td>**COMPETENCIES**</td><td colspan="2">**TEACHER GUIDELINES for PRACTICAL ACTIVITY**</td><td>**RETRIEVAL PRACTICE**</td></tr>
<tr><td rowspan="2">**Learning Intentions-**

Learners will learn to:

• Read and follow directional symbols (arrows)
• Identify directions (forward, backward, left, right)
• Work collaboratively
• Identify that technology includes tools and processes that help us do things better</td><td>**C3**</td><td colspan="2">**Problem Statement:**
Activity 1: The baby was playing in his room. He missed his brother, so he went to find him. Help the baby to find his brother. They played together, then the baby went back to his room.

Activity 2: Later, the baby was hungry and went to find his dad to get his bottle. Help the baby get to his father.

Instructions: Work in groups
• Start in the baby square on the grid.
• Follow a pre-given path to get the baby to his brother (3 options provided).
• Follow a pre-given path to get the baby to his father (3 options provided).</td><td rowspan="1">**Activity: The teacher will ask the learners to lift their Duplo block (six bricks) to show their emotions -**
Red – angry
Green – happy
Yellow – excited
Blue – sad, etc.</td></tr>
<tr><td>**COMPETENCIES**</td><td colspan="2">**TEACHER GUIDELINES for THEORY**</td><td></td></tr>
<tr><td></td><td>**D1 Outline the concept of technology and purpose of information technology (IT)**</td><td colspan="2">Explain to learners:
What is technology? Retrieval practice (What was done in grade1) and other examples.
What is technology?

Learners recall and expand their understanding of technology.

• Technology includes tools, techniques, and processes that help us do things better.
• Class discussion with real-life examples (e.g., pencil, scissors, microwave).</td><td>Whole class discussion
1. Show real-life examples (pencils, scissors, kettle)
2. Technology makes our life easier by making it easier to do things</td></tr>
<tr><td>**Success Criteria:**
I can…</td><td colspan="4">• Start at correct position and follow each arrow
• Name directions I moved
• End at correct location
• Explain errors if wrong
• Take turns in group
• Identify how technology helps us to do things better</td></tr>
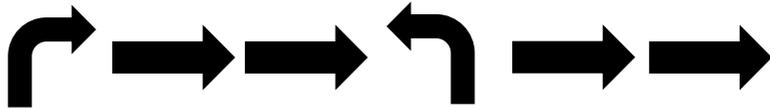</table>

1

Grade 2 Term 1

Activity 2: Give each group a different set of commands: Will the baby reach his brother?

Option 1:

➡️ ➡️ ⤴️ ➡️ ➡️
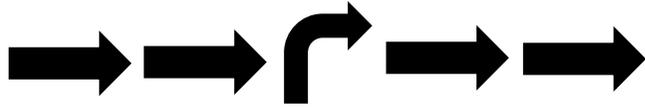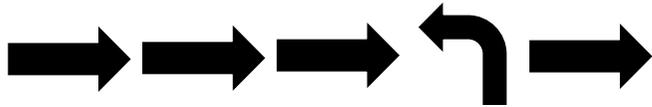
Option 2:

⤴️ ➡️ ➡️ ⤴️ ➡️ ➡️
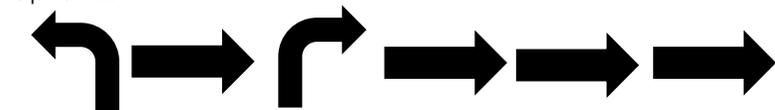
Option 3:

➡️ ⤴️ ➡️ ➡️ ⤴️ ➡️
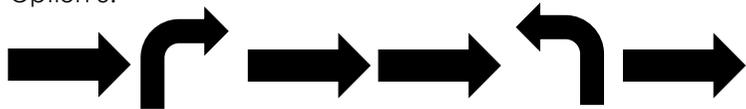
Activity 2: Give each group a different set of commands: Will the baby reach his father?

Option 1:

➡️ ➡️ ➡️ ⤴️ ➡️

Option 2:

⬅️ ➡️ ⤴️ ➡️ ➡️ ➡️

Option 3:

➡️ ⤴️ ➡️ ➡️ ⤴️ ➡️ ➡️

Grade 2 Term 1

GRADE 2 TERM 1 CODING & ROBOTICS WEEK 2			
2 x 30-minute lessons per week			
TERM 1 WEEK 2	**COMPETENCIES**	**TEACHER GUIDELINES for PRACTICAL ACTIVITY**	**RETRIEVAL PRACTICE**
Learning Intentions **Learners will learn to:** • Break the journey into smaller steps (decomposition) • Find repeating patterns in movement • Interpret a pattern • Describe what robots are	**C1: Apply computational thinking skills to develop a set of logical instructions to solve a problem** **C6: Recognise and interpret patterns in symbolic sets of data or visualisations**	**Problem Statement:** The baby was building a tower with blocks, but he needed help. Part 1: He went to find his brother to help him. Help the baby find his brother. Part 2: After they were done building the tower, they went to find their father to show him. Help the baby and his brother find the father. **Instructions:** • Use the given 4x4 grid. Move block by block. • Start at the baby on the grid. Avoid the obstacles. • The baby must move to his brother. They go back to the starting point to build the tower and from there they both move to the father. **C6 Activity:** Use six bricks or Duplo or any tokens with different colours, to make different patterns (you can use your own examples other than the one below. Look at the pattern. Recognise and interpret it. **Example:** 	**Activity - Use the same grid from week 1** **Follow the Code and mark the spot:** Start at the baby. Follow the arrows. Where does the baby stop? Code: ⇨ ⇨ ⇧ ⇨ ⇧ ⇧ Mark the final spot on the grid with a pencil/Koki
	COMPETENCIES	**TEACHER GUIDELINES for THEORY**	
	R1 Explain what a robot is in simple terms	• **What is a robot?** Learners understand the basic definition of a robot. • A robot is a **machine** that follows instructions. • It **cannot think** for itself. • It does **specific jobs**. • **Activities:** • **Storytime**: "Thandi meets a robot helper." (Story below)	**Read the story to the learners** - **Class discussion**: What do you think a robot can do? - What can't it do? - Watch the video: https://www.youtube.com/watch?v=8wHJjLMnikU - Copy and paste link in browser
Success Criteria: **I can…**	• Break journey into smaller steps (decomposition) • Find repeating patterns in movement • Interpret a pattern • Describe what robots are		
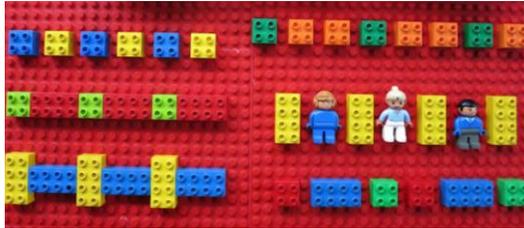
Here's a short story titled "Thandi Meets a Robot Helper" designed for young learners to support their understanding of what a robot is:

___

Thandi Meets a Robot Helper

One sunny morning, Thandi was helping her grandmother in the kitchen. They were making sandwiches for lunch, but there was so much to do! Thandi sighed, "I wish I had someone to help me."

Just then, she heard a soft beep. Beep beep! A small robot rolled into the kitchen. It had shiny wheels, blinking lights, and a friendly smile on its screen.

"Hello, Thandi," said the robot. "I am Robo-Helper. I follow instructions and do specific jobs. How can I help you today?"

Thandi's eyes lit up. "Can you help me make sandwiches?"

Robo-Helper beeped again. "Yes! Please tell me what to do."

Thandi gave clear instructions: "First, take two slices of bread. Then, spread butter. Next, add cheese and tomato. Finally, close the sandwich."

Robo-Helper followed every step carefully. It didn't make any mistakes, but it didn't do anything extra either.

Thandi giggled. "You're amazing, Robo-Helper! But... can you make a sandwich with peanut butter and banana?"

Robo-Helper paused. "I'm sorry, Thandi. I can only do what I'm told. Please give me new instructions."

Thandi smiled. "Now I understand! Robots don't think for themselves. They follow instructions and do special jobs."

Her grandmother laughed. "Looks like you've found a great helper!"

From that day on, Robo-Helper helped Thandi with many tasks—always waiting for instructions, always doing its job.

Grade 2 Term 1

<table>
<tr><td colspan="4" align="center">**GRADE 2 TERM 1 CODING & ROBOTICS WEEK 3**</td></tr>
<tr><td colspan="4" align="center">**2 x 30 minute lessons per week**</td></tr>
<tr><td>**TERM 1 WEEK 3**</td><td>**COMPETENCIES**</td><td>**TEACHER GUIDELINES for PRACTICAL ACTIVITY**</td><td>**RETRIEVAL PRACTICE**</td></tr>
<tr>
<td rowspan="2">**Learning Intentions**

Learners will learn to:

• Create simple code using arrows
• Interpret a turnaround command
• Use turnaround commands
• Test code by executing
• Learn about robot parts</td>
<td>C2

C3</td>
<td>**Problem Statement:** Molly wants to visit her uncle. Help her get to his house.

• Use a **5x5** grid
• Molly must **turn around** before she starts moving towards the uncle's house.
• The code should only have **7 steps** including the turnaround (instructions or actions) to get to the uncle's house (Note to teacher: turns are implied).
• Give **two more** alternative routes and add loops; the number of steps does not matter on the alternative routes.</td>
<td>Game: Match the family member to the pre-given code.

• Use a 4x4 grid
• Teacher: Pack out pictures of different family members on the grid.
• Learners receive a pre-given code to interpret and match the picture of the family member to the pre-given code.</td>
</tr>
<tr>
<td>**COMPETENCIES**</td>
<td>**TEACHER GUIDELINES for THEORY**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>**R2 Identify different types of robots**</td>
<td>Robots have different parts
Objective: Learners identify basic robot parts and their functions.

• **Brain** = computer
• **Eyes** = sensors
• **Arms/legs** = actuators

Group discussion: What do each part help the robot do?</td>
<td>**Watch the video about different types of robots:**

https://www.youtube.com/watch?v=8wHJjLMnikU

Group discussion: What parts do you think some of these robots in the video have that help them do their job?</td>
</tr>
<tr>
<td>**Success Criteria:**
I can…</td>
<td colspan="3">• Draw arrows showing a path
• Use turnaround symbol correctly
• Count and limit to 7 moves
• Test friend's code
• Name robot parts (brain, eyes, arms)</td>
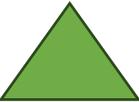</tr>
</table>

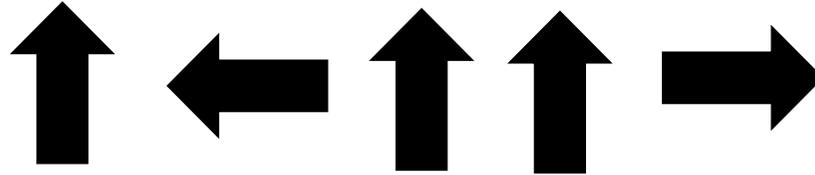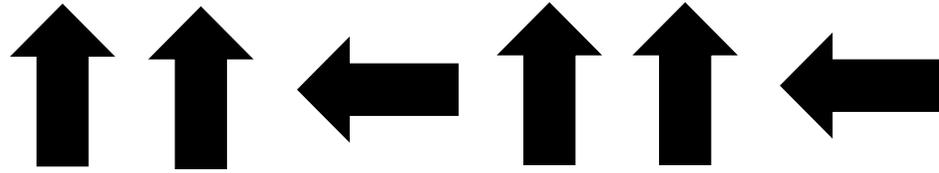|			

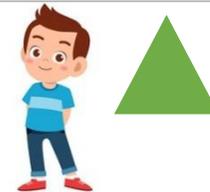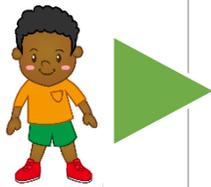## Retrieval Activity Grade 1 Term 1 Week 3

Grade 2 Term 1

Pictures are packed out on the grid. Learners receive the code. Execute the code and identify the family member.
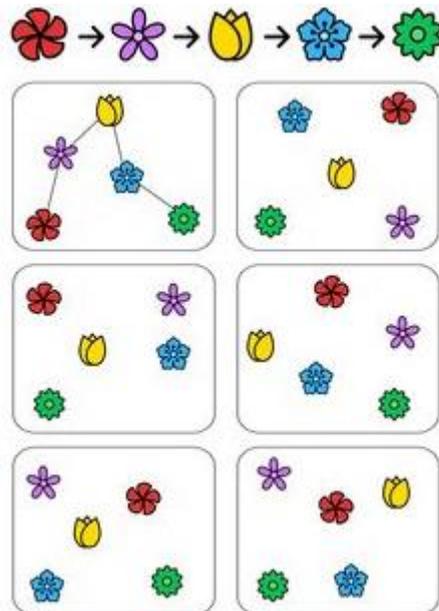
 ↑ ↑ ← ↑ ↑ ←

 ↑ ← ↑ ↑ →

 ↑ ← ← ← ↑ ↑

 ↑ ← ↑ ↑ ← ↓

Grade 2 Term 1

		GRADE 2 TERM 1 CODING & ROBOTICS WEEK 4	
		2 x 30 minute lessons per week	
TERM 1 WEEK 4	**COMPETENCIES**	**TEACHER GUIDELINES for PRACTICAL ACTIVITY**	**RETRIEVAL PRACTICE**
Learning Intentions **Learners will learn to:** • Break big problems into parts • Solve parts separately • Understand digital citizenship • Identify safe/unsafe information	C1: Decomposition	**Problem Statement:** Lucky, Sihle and Maison are three friends packing their bags for a vacation. The 3 boys must each collect 3 items on the grid. They must collaborate and decide which 3 items each will collect. Help them pick up all the bags and take them to the van. **Activity 1** Each boy only has 7 moves to collect his items. If an item was not collected by the 3 boys- they must collaborate and adjust their routes to solve the problem. **Activity 2**: Decomposition Learners complete the activities for decomposition as shown below.	**Activity: 3** Use the same grid that is used in the problem. • Use the given 5x5 grid • Let learners rewrite their path using loops and/or alternative routes • Let learners exchange the codes to interpret and execute
	COMPETENCIES	**TEACHER GUIDELINES for THEORY**	
	D2	I am a digital citizen Learners understand that they are part of a digital world. • A digital citizen uses technology responsibly and safely. • Learners discuss what not to share when using technology (e.g., tablet, phone, computer).	Discuss what is and what is not personal information. • Street address • School name • Name and surname • Routine • Cellphone number
Success Criteria: **I can…**	• Plan each friend's path separately • Stay within 7 moves per friend • Adjust paths collaboratively • List 3 unsafe things to share online • Explain digital citizen behavior		

Grade 2 Term 1

Color the 3D shapes that create each figure.

Grade 2 Term 1

<table>
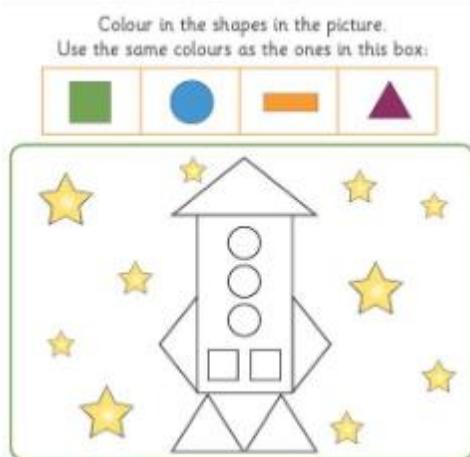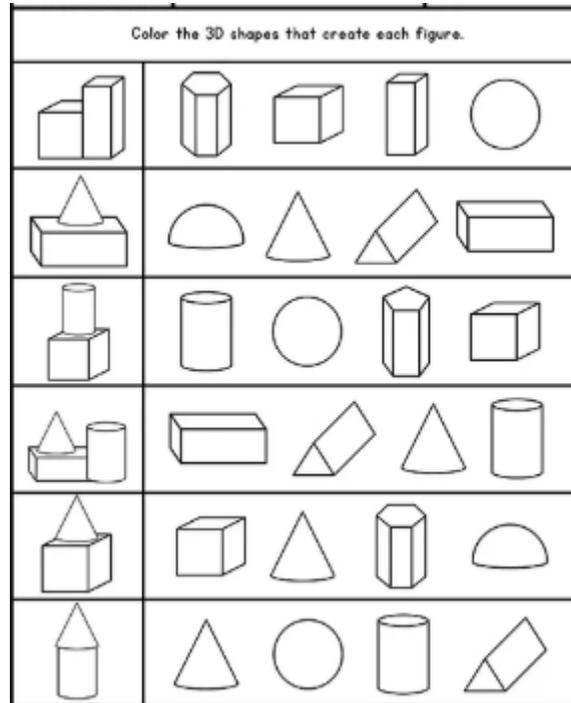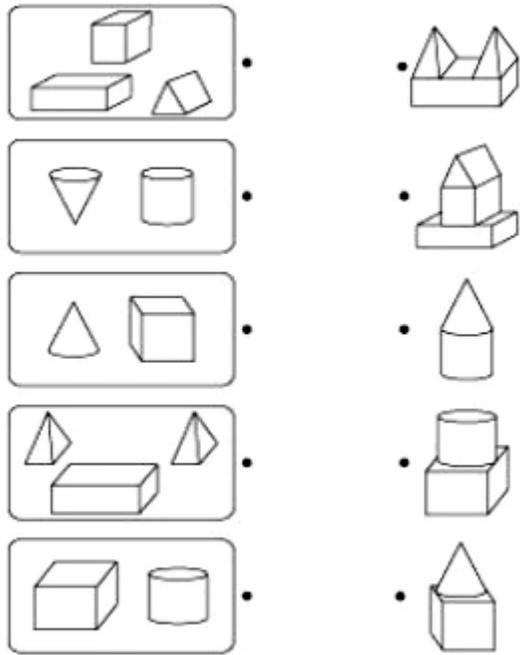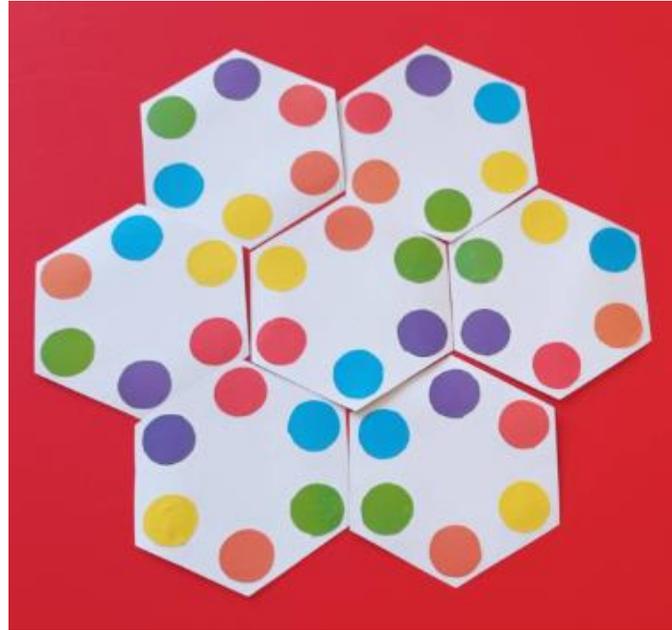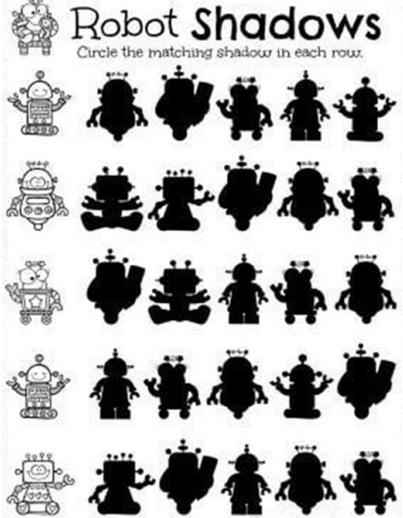<tr>
<td colspan="5" align="center">**GRADE 2 TERM 1 CODING & ROBOTICS WEEK 5**</td>
</tr>
<tr>
<td colspan="5" align="center">**2 x 30 minute lessons per week**</td>
</tr>
<tr>
<td>**TERM 1 WEEK 5**</td>
<td>**COMPETENCIES**</td>
<td colspan="2">**TEACHER GUIDELINES for PRACTICAL ACTIVITY**</td>
<td>**RETRIEVAL PRACTICE**</td>
</tr>
<tr>
<td>**Learning Intentions**

Learners will learn to:

• Focus on important information (abstraction)
• Ignore distractions
• Identify computing devices
• Explain what a computing device is in own words</td>
<td>C1 (Abstraction)</td>
<td colspan="2">**Problem Statement:**
Karen has an earache! The doctor needs to check her LEFT ear, but there are so many distractions in the way - toys, games, other body parts. The doctor needs to focus!

Activity 1:
Work in small groups or pairs.
Develop a code to reach the left ear (C2 implied).
Avoid the distractions.

Activity 2:
What cup must be placed in the bottom right corner? Explain your thinking.
Look at the cups and saucers. Match the cups and saucers. Explain your thoughts. Why did you match them together? What made you decide on those specific matches.</td>
<td>**Activity**

Use the grid from week 4
Learners develop their own code. Swop your code with a peer to test, interpret and execute your code to see if they get to the van (C2 and C3).</td>
</tr>
<tr>
<td></td>
<td>**COMPETENCIES**</td>
<td colspan="2">**TEACHER GUIDELINES for THEORY**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>**D3 Demonstrate an understanding of the concept of a computing device**</td>
<td colspan="2">What is a computing device:
Learners recall and expand on the concept of computing devices.

• A computing device is a machine that helps us work with information.
• Show pictures (or the real items) of phones, tablets, and computers. Learners identify and name them.</td>
<td>Using Duplo (lego bricks) learners will show green if they understood, red if they did not understand, orange if they are unsure. Ask:
1. Do you know what a computing device is?
2. Can you explain what a computing device is? Let one or two learners with a green duplo up explain.
3. Do you know what this picture is?</td>
</tr>
<tr>
<td>**Success Criteria:**
I can…</td>
<td colspan="4">• Identify goal and obstacles
• Create path avoiding distractions
• Explain path choices
• Name 3 computing devices
• Explain why it is computing devices</td>
</tr>
</table>

Grade 2 Term 1

<table>
<tr><td colspan="4" align="center">**GRADE 2 TERM 1 CODING & ROBOTICS WEEK 6**</td></tr>
<tr><td colspan="4" align="center">**2 x 30 minute lessons per week**</td></tr>
<tr><td>**TERM 1 WEEK 6**</td><td>**COMPETENCIES**</td><td>**TEACHER GUIDELINES for PRACTICAL ACTIVITY**</td><td>**RETRIEVAL PRACTICE**</td></tr>
<tr>
<td>**Learning Intentions**

Learners will learn to:

• Create own code independently
• Use turnarounds strategically
• Test code thoroughly
• Understand robots follow exact instructions</td>
<td>**C1 Apply computational thinking skills to develop a set of logical instructions to solve a problem**

C2 Present a simple coding solution using symbolic or written statements representing sequences of commands, single repetition, and conditional constructs

C3 Interpret and execute a given symbolic or written set of commands</td>
<td>**Problem Statement:**
John was riding his bike on a nice path. But disaster! A big tree fell and blocked the path. John can't go forward anymore, and he can't move the tree. His mom is waiting at the start of the path in the car.

Work in small groups or pairs.
• Plan the route for John to get back to his mom waiting in the car.
• Create a simple coding solution to help John move from the starting point to his mom. You might need to use a turn around. Use arrows to move one step at a time and only move left, right, up or down.
• Avoid the distractions.

Then:
• Swop the code you created with your peer for interpretation and execution.</td>
<td>**Activity**
Complete the robot shadow activity.
</td>
</tr>
<tr>
<td></td>
<td>**COMPETENCIES**</td>
<td>**TEACHER GUIDELINES for THEORY**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>**R1**

R2</td>
<td>**Robots follow instructions**
Learners understand that robots need instructions to work.

Key Concepts:
• Robots follow **programs** or **commands**.
• They do **only what they are told**.</td>
<td>**Teacher plays with the learners**
• **Simon Says game**: Learners act like robots following commands.
• **Role-play**: One learner gives instructions and another acts like a robot.
• Role-play: Learners act as robots following commands.</td>
</tr>
<tr>
<td>**Success Criteria:**
I can…</td>
<td colspan="3">• Identify need for turnaround
• Draw complete path with arrows
• Avoid all obstacles
• Test by acting out
• Give helpful feedback to peers
• Explain robot precision</td>
</tr>
<tr><td colspan="4"></td></tr>
</table>

Grade 2 Term 1

		2 x 30 minute lessons per week	
TERM 1 WEEK 7	**COMPETENCIES**	**TEACHER GUIDELINES for PRACTICAL ACTIVITY**	**RETRIEVAL PRACTICE**
Learning Intentions **Learners will learn to:** • Sequence steps in correct order • Recognize importance of order • Interpret and execute a given code • Identify the purpose of technology • Identify respectful communication online and off-line • Compare devices and list similarities and differences	C1 C3	**Problem Statement:** Andile wants to brush her teeth, but all the instruction cards got mixed up! She needs to do it in the RIGHT ORDER, or her teeth won't be clean. **Instructions: Part 1** • Give the learners mixed sentence strips with instructions on how to brush their teeth. • Learners should arrange the sentence strips in the correct order. Take note – it's not about the learner's reading ability. The importance is the sequencing of the correct order. **Learners work on the floor grid: Part 2** • Work on a 5x5 grid on the floor. • The teacher places pictures in the grid of items we **use** and **do not** use when we brush our teeth. • Learners interpret and follow a set of pre-given coding solutions to find the items **not used** for brushing teeth on the grid.	**Activity: Part 3** Work on a 5x5 grid (can use the same grid as part 1 and part 2 or use empty grids with different starting points for differentiation) Learners will work in pairs / groups. Teacher places pictures on the grids to ensure differentiation. The teacher provides incomplete coding solution, and the learners fill in the missing codes to collect specific items. Teacher can also provide the learners with various coding solutions. Learners need to execute the provided codes and choose the coding solution that is correct or best.
	COMPETENCIES	**TEACHER GUIDELINES for THEORY**	
	D1 D2 D3	**Learners explore the different purposes of technology.** • Technology helps us work, learn, communicate, and have fun. • Learners match tools to their uses (e.g., broom – cleaning, phone – calling). Respecting others online **Learners understand that there are real people behind screens**. • Treat others online the way you want to be treated. **Comparing computing devices:** Learners compare devices by size, shape, and features. • Devices look different but do similar things. • Learners sort images by size and shape. Discuss similarities and differences.	Show learners a tool or a picture of a tool. They say what it is used for or match pictures of actions to tools How do you feel when people are unkind? How will you feel when you get an unkind message online? Will it be any different? Discuss respecting others online and online bullying/cyber bullying - posting pictures of others to make fun of them, insulting and swearing at others online. Explain how to stand up for others - do not reshare pictures of others. Discuss similarities and differences between phones, laptop, tablet, computer
Success Criteria: **I can…**	• Order steps correctly • Explain why order matters • Execute grid code accurately		• Identify the purpose of technology • Distinguish between respectful and disrespectful behaviour • Identify similarities and differences in different devices

Part 1: Activity strips to unjumble and order in the correct sequence.

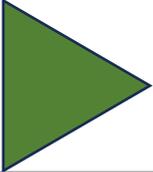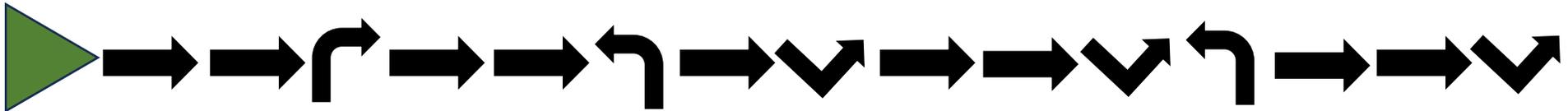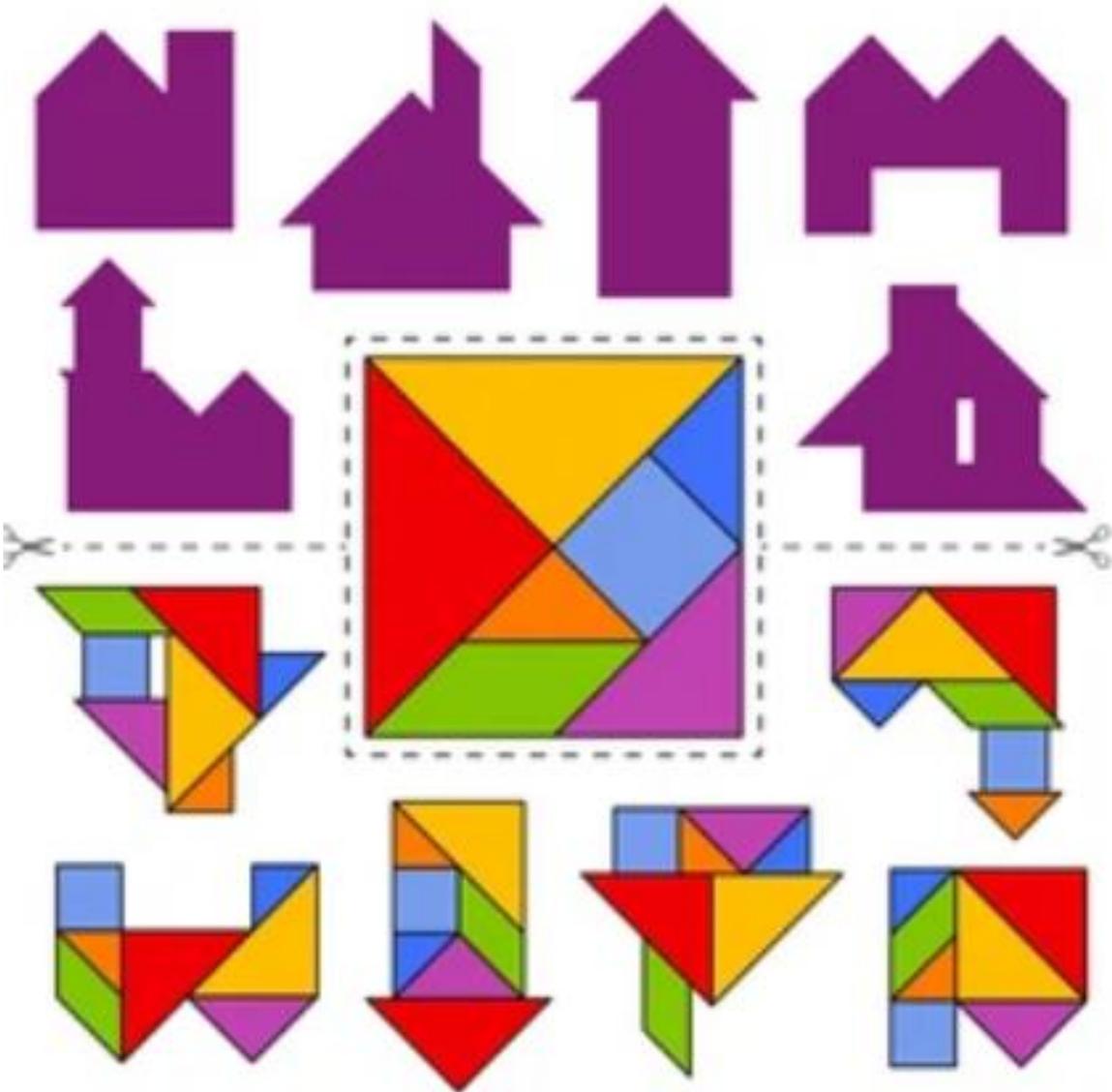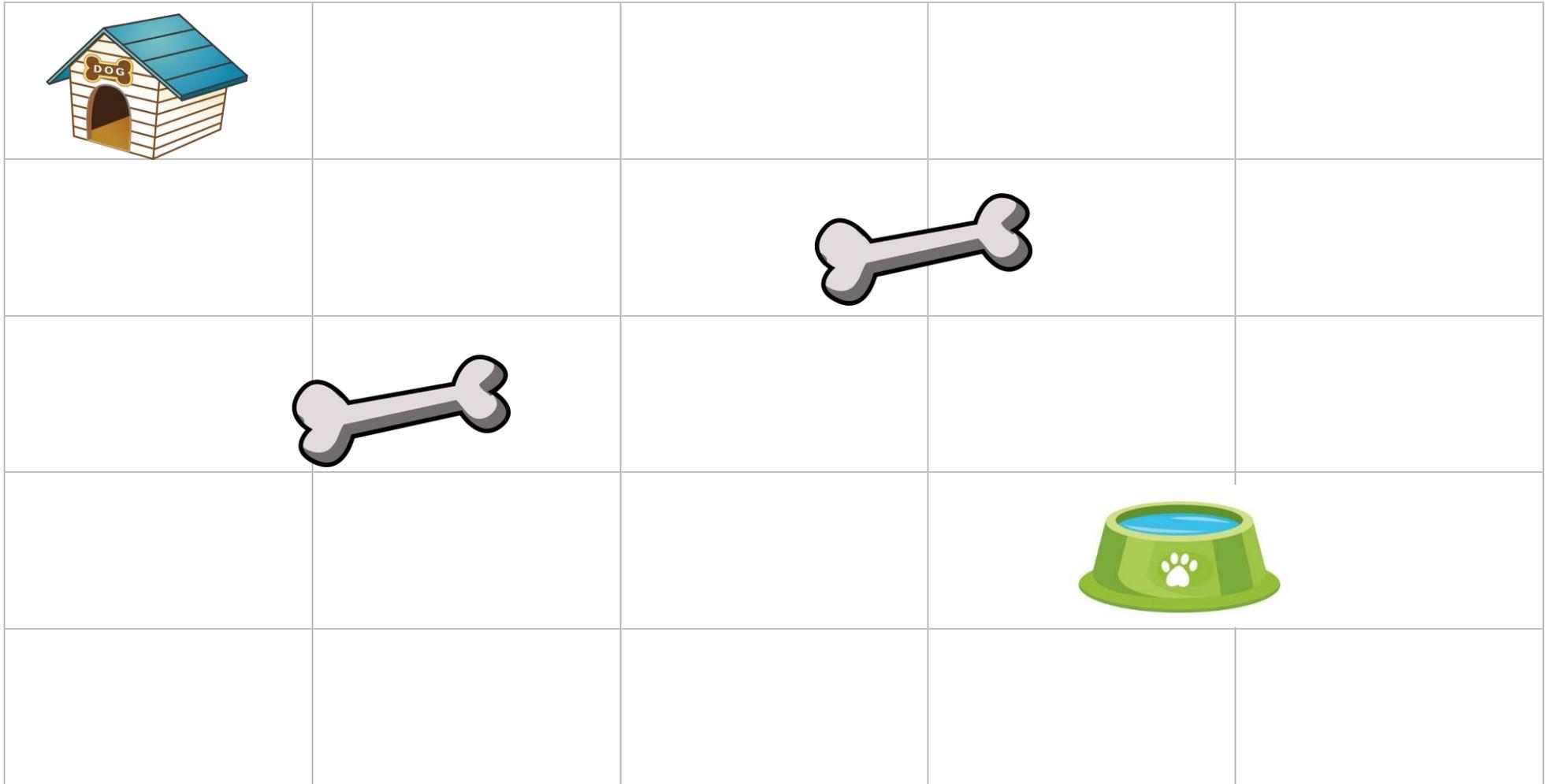| |
|---|
| Wet the toothbrush. |
| Rinse your mouth. |
| Fetch your toothbrush and toothpaste. |
| Wipe your face with a cloth. |
| Put some toothpaste on the toothbrush. |
| Brush your teeth. |

Example code for part 2

Grade 2 Term 1

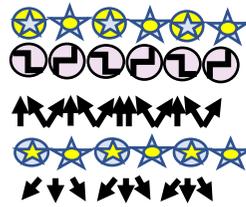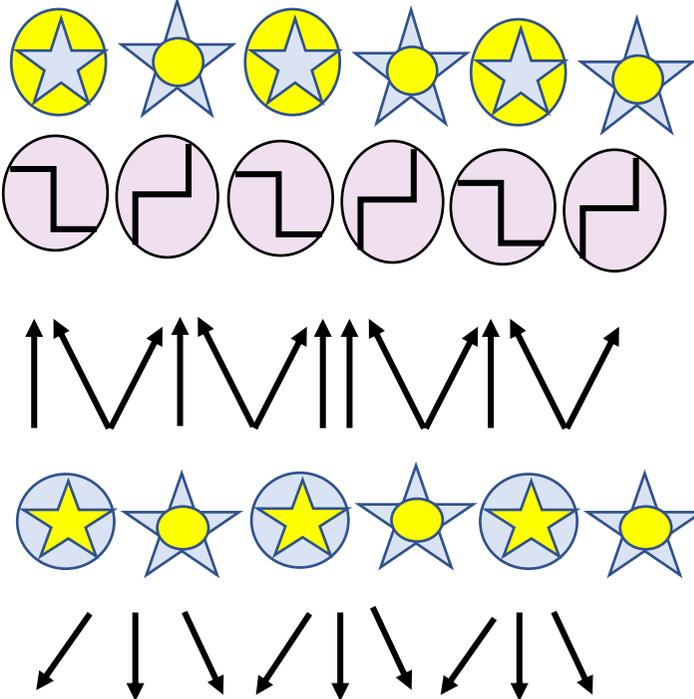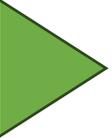| GRADE 2 TERM 1 CODING & ROBOTICS WEEK 8			
2 x 30 minute lessons per week			
TERM 1 WEEK 8	**COMPETENCIES**	**TEACHER GUIDELINES for PRACTICAL ACTIVITY**	**RETRIEVAL PRACTICE**
Learning Intentions **Learners will learn to:** • Design before building • Follow building steps • Act like robots following commands • Create sequence of steps.	**R5 Design a simple artefact based on a set of design specifications** **R6 Mimic the operations of a robot**	**Problem statement:** The teacher's dog is getting big! He's chewing the furniture inside the house. The dog needs a new home outside - a kennel! **Activity 1:** • Learners use paper, pencils, recycled boxes, or 2D drawings and crayons to design the kennel. • Learners design a simple kennel using the basic materials or blocks • They use words like first, then, next, and finally to describe the steps to build the kennel. Classroom management: The teacher can discuss the process with the learners: • What shapes will we use? • What colours will we use? **Activity 2:** Now learners can create the sequence of steps to build the kennel: • First, collect the blocks, boxes or shapes • Then, build the floor. • Next, build the walls • After that, add the roof • Finally, put the dog in the kennel.	**Activity 3:** Code the "dog" on a grid to his kennel. Learners can act as the dog, or they can use a cut out picture/plastic dog to code it to its kennel. • Use a 5x5 grid. • Follow the algorithm and direct the dog to its kennel. • Avoid obstacles (bones and water).
	COMPETENCIES	**TEACHER GUIDELINES for THEORY**	
		None	
Success Criteria: **I can…**	• Plan a design before building • Use sequence words (first, then, next) • Build following own plan • Follow algorithm on grid • Act like robot with precision		

Activity 3 template (example)

Follow the algorithm to code the dog to its kennel

Grade 2 Term 1

<table>
<tr><td colspan="5" align="center">**GRADE 2 TERM 1 CODING & ROBOTICS WEEK 9**</td></tr>
<tr><td colspan="5" align="center">**2 x 30 minute lessons per week**</td></tr>
<tr><td>**TERM 1 WEEK 9**</td><td>**COMPETENCIES**</td><td colspan="2">**TEACHER GUIDELINES for PRACTICAL ACTIVITY**</td><td>**RETRIEVAL PRACTICE**</td></tr>
<tr>
<td>**Learning Intentions**

Learners will learn to:

• Categorize items (safe/unsafe) (abstraction)
• Identify and explain patterns
• Understand that robots cannot think or choose
• Identify robots and why they are useful or not</td>
<td>**C1 Apply computational thinking skills to develop a set of logical instructions to solve a problem (Abstraction)**

C6 Recognise and interpret patterns in symbolic sets of data or visualizations</td>
<td colspan="2">**C1 - Problem statement:**
You're babysitting your little sister. Your house has many items - some are safe for kids to play with, and some are dangerous without adult help. Find the unsafe items and pack them away so that you can play safely in the house.

Activity 1: Instructions
• Follow the code to find and pick up only the items you **cannot** play with.

C6 – Problem statement:
Mommy decorated her house with different patterns, below are some of the patterns she used. Can you identify and interpret the patterns she used?

Activity 2: Instructions:
1. Identify the pattern.
2. Explain if it is a pattern and why?
3. If it is not a pattern, explain why.

Teacher note: These are example patterns. Other patterns can be used including shapes/numbers/letters etc. Remember: This is not mathematics patterns</td>
<td>**Activity3: Revise C1/C2/C3**

• Use the same grid as Activity 1
• Learners work in pairs/groups
• Learners write their own code to pick up any **3 safe items** to play with
• Learners will take turns to act as the coder and the robot.</td>
</tr>
<tr>
<td></td>
<td>**COMPETENCIES**</td>
<td colspan="2">**TEACHER GUIDELINES for THEORY**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>**R1 Explain what a robot is in simple terms**

R2 Identify different types of robots</td>
<td colspan="2">Robots cannot make decisions
Learners understand that robots do not think or choose.

• Robots do **not have feelings** or **opinions**.
• They do **exactly what they are told**.

Example: **assembly line robot** (builds cars)

These robots do **repetitive tasks** quickly and safely.</td>
<td>**Scenario cards**: "Can a robot choose what to eat?"
Group discussion: What happens if a robot gets no instructions?

Activity 4
Choose a robot from the list below. Are they useful? Why?</td>
</tr>
<tr>
<td>**Success Criteria:**
I can…</td>
<td colspan="4">• Follow code to find items
• Classify items correctly with reasoning
• Identify pattern repetition
• Name features of a robot
• Name 3 robot types
• Why are they useful or not?</td>
</tr>
</table>

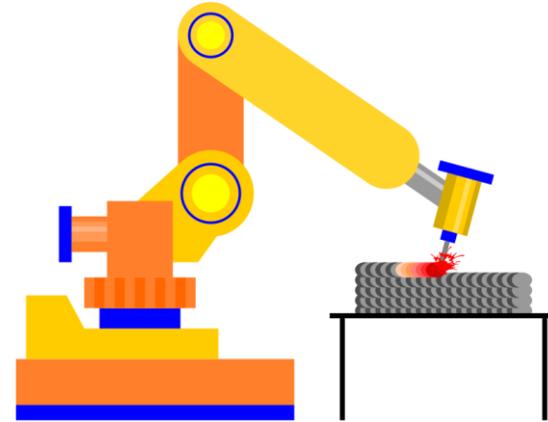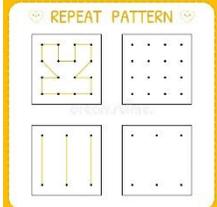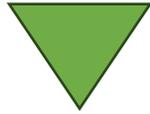**Activity 4: Write the name of the robot. Choose from the list below.**

Medical robot   **Assembly line robot**   **Agricultural robot**   **Welding robot**

Grade 2 Term 1

<table>
<tr><td colspan="4" align="center">**GRADE 2 TERM 1 CODING & ROBOTICS WEEK 10**</td></tr>
<tr><td colspan="4" align="center">**2 x 30 minute lessons per week**</td></tr>
<tr><td>**TERM 1 WEEK 10**</td><td>**COMPETENCIES**</td><td>**TEACHER GUIDELINES for PRACTICAL ACTIVITY**</td><td>**RETRIEVAL PRACTICE**</td></tr>
<tr>
<td>

Learning Intentions

Learners will learn to:

- Apply computational skills to recreate the pattern
- Present a coding solution to solve a problem
- Interpret and execute given coding solutions
- Distinguish between tools and processes
- Identify what personal information is

</td>
<td>

C1 Apply computational thinking skills to develop a set of logical instructions to solve a problem

C2 Present a simple coding solution

C3 Interpret and execute a given symbolic or written set of commands

</td>
<td>

Problem statement:
Our class is visiting a farm to pick vegetables for soup. But the farm is huge! We need to follow instructions carefully to collect the right vegetables.

Activity 1:
Instructions:
- Work in Groups.
- Use the fruit and vegetable grid provided.
- Follow your group's veggie list - Each group has a special list of vegetables to pick:

Group 1: Potato, onion, cabbage, carrot and potato
Group 2: Onion, cabbage, carrot, potato and potato
Group 3: Potato, carrot, onion, potato and cabbage
Group 4: Potato, cabbage, onion, potato and carrot
Group 5: Cabbage, potato, onion, carrot and potato

- Walk through each row.
- Pick only the vegetables on your list – If it's not on your list, just walk past it.
- Swap lists among groups.

</td>
<td>

Activity 2:
Drawing Game – Recreate the picture
Work in Pairs
1. Get into pairs.
2. One learner gets the picture.
3. The other learner gets an empty grid.
4. Start from the bottom left dot.
5. The learner with the picture gives clear, simple instructions (for example: "Go up two squares. Draw a line to the right.").
6. The learner with the empty grid follows the instructions and draws.
7. When the picture is finished, show each other the drawings.
8. Swap roles and do the activity again!

</td>
</tr>
<tr><td></td><td>**COMPETENCIEs**</td><td>**TEACHER GUIDELINES for THEORY**</td><td></td></tr>
<tr>
<td></td>
<td>

D1 technology & information technology (IT)
D2 digital citizenship
D3 what is a computing device

</td>
<td>

Types of technology
Learners identify and classify technology into tools and processes.
- Technology can be physical tools or systems.
- **Activity:** Group sorting activity with images of various technologies.

What is personal information:
Learners identify personal information and why it's important to protect it.
- Personal information includes your full name, address, phone number, school, and password.

Drawing and explaining computing devices
Learners draw and describe a computing device they use.
- Devices have parts like screens, buttons, and speakers.

</td>
<td>

Sorting game – "Share or Don't Share" cards.
Make cards with information on it and learners must sort it into "share" or "don't share".

Learners draw their favourite device and explain its parts and uses.
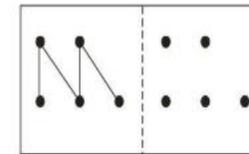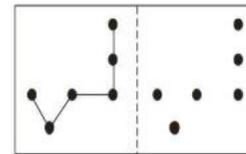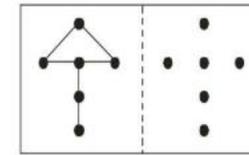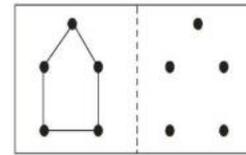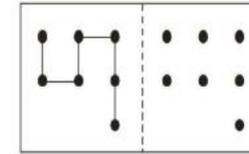
</td>
</tr>
</table>

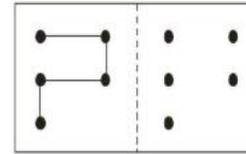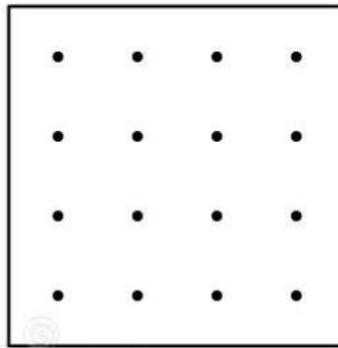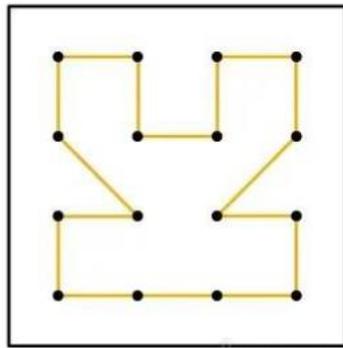**Grade 2 Term 1**

Success Criteria: I can…	• Recreate patterns from instructions • Follow shopping list exactly • Navigate grid systematically • Collect only specified items • Give clear step-by-step instructions • Sort technology types • Distinguish between personal information and nonpersonal information

Activity 1 (week 10 – term 1):

potato	green apple	carrot	strawberry
cabbage	potato	green apple	carrot
pear	cabbage	banana	cabbage
banana	pear	potato	pear
onion	strawberry	onion	potato
carrot	pear	cabbage	carrot

Activity 2 (Term 1 week 10) - Drawing Game: Recreate the patterns