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MATHEMATICS

TERM 1

**Structured Pedagogy
Lesson Guides**



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Mathematics – Grade 1
Structured Pedagogy
Term 1
First Edition, 2026

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Mathematics

Term 1

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Term 1

Lesson 1:

Measurement and Geometry

Identify simple 2-dimensional shapes (triangle, rectangle, square) of different size and in different orientation.

I. Learning Objectives

At the end of the lesson, the learners must be able to:

1. identify simple 2-dimensional shapes (triangle, rectangle, square) of different sizes and in different orientations; and
2. recognize 2-dimensional shapes (triangle, rectangle, and square) in their surroundings.

II. Development of the Lesson

A. Motivation

1. Show the learners a short video presentation of the "Hugis Song" (**Hugis Song | Shapes Song | Filipino | Awiting Pambata** 🎵 | **Bb. Shelly Rosales**). https://www.youtube.com/watch?v=WLCuXzLxgBY&list=RDWLcuXzLxgBY&start_radio=1

Play the video again and encourage the learners to sing along while identifying the shapes mentioned in the song.

2. Ask the learners the following questions:
 - Ano-anong mga hugis ang nabanggit sa awit?
 - Batay sa awit, ano ang mga kagamitang kasinhugis ng tatsulok, parisukat, at parihaba?
 - Maliban sa mga bagay na nabanggit sa awit, maaari pa ba kayong magbigay ng mga kagamitang kasinhugis ng tatsulok, parisukat, at parihaba?

B. Discussion

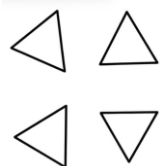
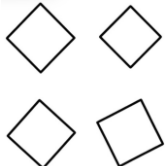
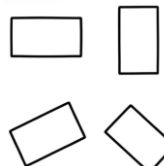
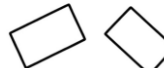
1. Prepare a large cardboard or paper cut-out of a triangle, rectangle, and square. Let the learners identify objects in the classroom that have the same shape as the cut-outs.
 - For each response, ask the learners to explain why the objects are similar to the given shape (number and length of sides, as well as number of corners).
 - Provide the learners with guide questions, such as:
 - Ano ang mga pagkain na hugis-tatsulok?
 - Ano ang gamit na pamunas na hugis-parisukat?
 - Ano ang bagay na hugis-parihaba na binubuksan upang makapasok sa isang silid?

- Discuss that shapes (triangles, squares, and rectangles) are found in our surroundings.
- Say "Ang mga hugis na ating pag-aaralan (tatsulok, parisukat, at parihaba) ay hindi lamang mga guhit sa papel. Matatagpuan ito sa ating paligid sapagkat binubuo ng mga ito ang ating mundo. Tingnan ninyo ang ating silid-aralan. Bakit kaya parihaba ang ating pisara? Para mas marami tayong maisulat mula kaliwa pakanan. Bakit tatsulok ang bubong? Para ang ulan ay mabilis na dumaloy pababa."

2. Prepare paper cut-outs of triangles, rectangles, and squares in different sizes.
 - Show the paper cut-outs to the learners in random order and in different sizes. Ask them to observe the shapes carefully and identify what shapes they are.
 - Invite a few learners to sort and classify the cut-outs into three groups: triangles, rectangles, and squares.
 - Ask the learners the following questions:
 - Magkakasinglaki ba ang mga hugis?
 - Maliban sa laki o sukat nito, mayroon bang nagbago sa mga hugis?
 - Kapag lumaki o lumiit ang isang hugis, nagiging ibang hugis na ba ito?

3. Prepare a chart showcasing triangles, squares, and rectangles in different orientations and sizes.

Use the chart below as a guide:

TRIANGLE	SQUARE	RECTANGLE
		
		

- Prepare one figure for each shape (triangles, squares, and

- rectangles). Cover the rest of the shapes with pieces of paper.
- Reveal the figures one at a time by removing the paper covering each shape.
- Ask the learners to identify and name each shape.
- Emphasize that each shape remains the same even when it is rotated or turned.

C. Practice

1. Play "Shape Scavenger Hunt" by instructing the learners to find objects in the classroom that are shaped like triangles, squares, and rectangles.
 - Divide the class into three groups, depending on the number of learners.
 - Provide each learner with a piece of paper corresponding to the shape assigned to the group.
 - Give the learners at least five minutes to look for objects inside the classroom that have the same shape as their assigned shape.
 - Each member of the group must stick their piece of paper on their chosen objects.
 - Once all groups are done, ask each group to report the objects they have found or chosen.
 - After each report, ask the learners to list their chosen objects from smallest to biggest.
2. Invite a few learners or volunteers to identify the triangles, squares, and rectangles in the chart below.



- Have one learner identify one shape.
- Ask the learner to discuss what shape the object represents.
- Once all the triangles, squares, and rectangles have been chosen, ask the learners to guess what the other shapes are.

D. Reflection

Ask the learners the following questions:

- What did we learn today?
- Can shapes be small and/or big?
- If the shapes become bigger or smaller, do they become a different shape?
- If the shapes are rotated, do they become a different shape?
- What do you call this shape (show a triangle, a square, a circle...)?
- How do you identify simple shapes?

III. Homework

Ask the learners to identify and list objects in their homes that are shaped as triangles, squares, and rectangles. Instruct the learners to list and draw three objects of each shape in their notebooks.

Term 1

Lesson 2:

Measurement and Geometry

Compare and distinguish 2-dimensional shapes according to features such as sides and corners.

I. Learning Objectives

At the end of the lesson, the learners must be able to:

1. compare and distinguish 2-dimensional shapes according to features such as sides and corners; and
2. differentiate triangles from rectangles and squares.

II. Development of the Lesson

A. Motivation

1. Show the learners a short video presentation of "Mga Hugis" (**KinderTV Sing-along!**) "**Mga Hugis**" | **SMES KinderTV**).

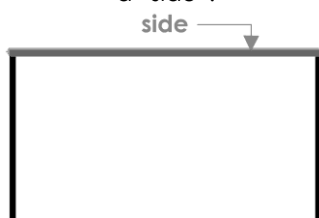
https://www.youtube.com/watch?v=zAS9hWrdVvM&list=RDzAS9hWrdVvM&start_radio=1

Play the video again and encourage the learners to sing along while identifying the shapes mentioned in the song.

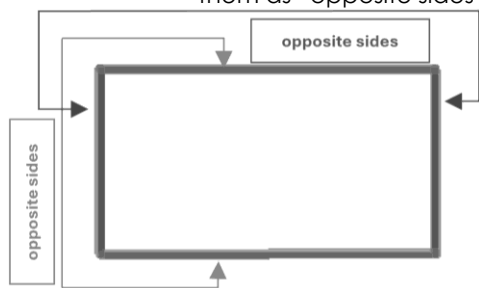
2. Ask the learners the following questions:
 - *Ano-anong mga hugis ang nabanggit sa awit?*
 - *Batay sa awit, ilan ang sulok at gilid ng tatsulok? Paano naman ang parisukat? At ng parihaba?*

B. Discussion

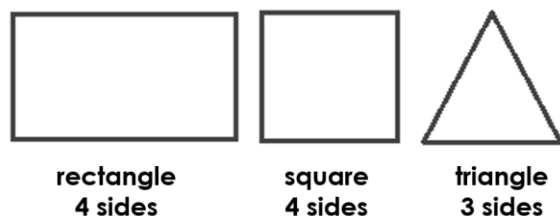
1. Show the learners cardboard or paper cut-outs of a rectangle, square, and triangle. Discuss the sides of each shape.
 - Highlight or trace one side of the rectangle and label it as a "side".



- Ask the learners what a side is. Process their answers.
- Discuss and define what a side is (i.e., a straight line, boundary, or border of a shape).
- Ask the learners to point out all the sides of the rectangle. Then choose two learners to highlight the sides that have the same length and label them as "opposite sides".



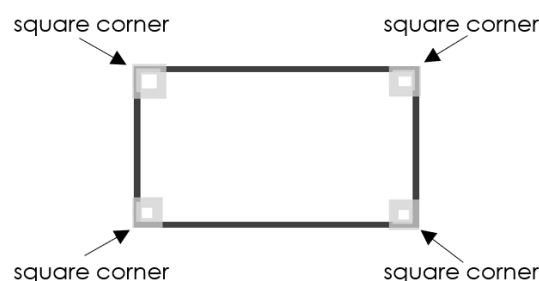
- Describe and define what an opposite side is. Say that opposite sides are sides across from each other and do not share a common endpoint.
- Ask them how many sides a rectangle, square, and triangle have. Emphasize the difference between a rectangle and a square by highlighting their opposite sides.



2. Using cardboard or paper cut-outs of a rectangle, square, and triangle, discuss their corners.
 - Point to one corner of the square or rectangle and label it as a "corner".
 - Ask the learners what a corner is. Process their answers.
 - Discuss and define what a corner is. Explain that a corner is the point where two sides of a shape meet. Show the learners how two sides connect at a corner.
 - Call a few learners and ask them to point to the corners of the rectangle and the square. Have them label all corners of both shapes.



- Fit small paper cut-outs of squares on the corners of the rectangle and introduce them as "square corners".



- Ask the learners to point to the corners of the triangle. Ask whether they think the corners of the triangle are square. Process their answers.

3. Review and discuss the number of sides, corners, and square corners of the rectangle, square, and triangle.
 - A rectangle has four sides and four square corners.
 - A square has four equal sides and four square corners.
 - A triangle has three sides and three corners.

C. Practice

1. Ask the learners to copy the table below into their notebooks. Fill in the table with the correct numbers.

Shape	Draw it	Sides	Corners	Square corners
rectangle				
square				
triangle				

2. Play "Building Sticks" by instructing the learners to copy the shape of any object using popsicle sticks, incorporating squares, rectangles, and triangles.
 - Divide the class into three groups. Give each group a set of popsicle sticks.
 - Allow each group to have at least 5 to 10 minutes to create or copy a shape (i.e., house, barn, boat, rocket ship, truck, etc.)

D. Reflection

Ask the learners the following questions:

- What did we learn today?
- How can you tell the difference between a square and a rectangle?
- Do all shapes have "square corners"?

III. Homework

Ask the learners to draw a "Shape Monster" or "Shape Robot" using only squares, rectangles, and triangles. Below the drawing, have them write the amount of each shape they used.

Drawing:

I used ____ rectangles, ____ squares, and ____ triangles.

Term 1

Lesson 3:

Measurement and Geometry

Compose and decompose triangles, squares, and rectangles.

I. Learning Objectives

At the end of the lesson, the learners must be able to:

1. compose and decompose triangles, squares, and rectangles.

II. Development of the Lesson

A. Motivation

Play "The Great Shape Escape" by having the learners decompose squares, rectangles, and triangles using pieces of yarn or string.

- Prepare 4 pieces of string in the shape of a big rectangle, and have all the learners stand inside the shape.
- Say: "Mga bata, nakakulong tayo sa lupain ng malalaking hugis! Upang makatakas, kailangan nating hatiin ang mga hugis na ito sa iba't ibang maliliit na hugis. Ngunit tandaan ninyo na hindi puwedeng galawin ang mga piraso ng tali (yarn) na nariyan na; maaari lamang kayong magdagdag ng mga panghati o "dividers." Naiipit tayo sa isang malaking pariha; kailangan nating hatiin ito upang maging dalawang parisukat at makalaya na ang sampu sa inyo"
- Let the learners figure out where to place the string to split the rectangle into two squares.
- Allow 10 or more learners to form the shape. For those left out, help them fit inside the shape so they are "stuck" inside it.

- Say "Malapit na tayong makalaya! Mayroon tayong dalawang parisukat, ngunit kailangan natin ng apat na tatsulok upang tuluyang makawala! Saan natin ilalagay ang tali upang hatiin ang mga ito?"
- Let the learners figure out where to place the string to split each square into two triangles (four in total).
- Once the learners have figured it out, say "Mahusay! Nakalaya na tayo! Ngunit ang alam ko, may dalawang diyamante matapos ang ating paglalakbay. Gamit ang apat na tatsulok, paano natin matatagpuan ang mga diyamante?"
- Guide the learners in combining the triangles to form two diamond shapes.

B. Discussion

1. Discuss decomposition by drawing three rectangles on the board and asking the learners to divide them into two smaller rectangles, or into two squares, or into two triangles.
 - Choose a few learners to decompose the shape.
 - Ask the rest of the learners what shapes they see. Ask them why they think those are squares, rectangles, and triangles.
 - Provide each learner with two big rectangles and ask them to do the following in order:

- Cut one rectangle into two smaller rectangles. Cut the other rectangle into two smaller rectangles.



- Cut the other rectangle into two squares.
- Cut one of the squares into two triangles.



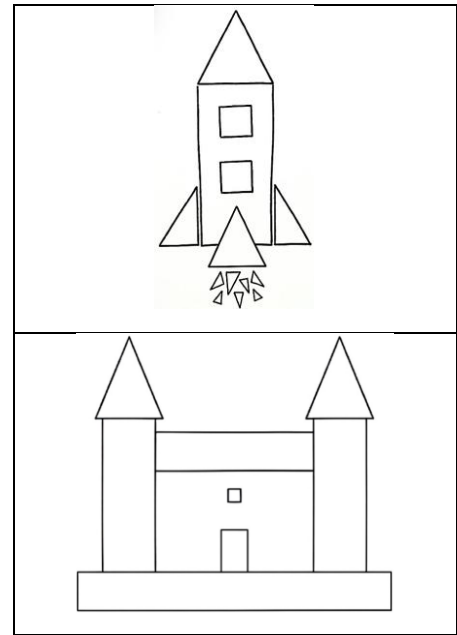
- Explain to the learners that a rectangle can be split into two or more smaller shapes in many different ways.
 - Say "Ang paraan ng paghihiwalay ng isang hugis sa dalawa o higit pang maliliit na bahagi ay tinatawag na pagde-decompose ng hugis o "decomposing shapes."
2. Ask the learners to create a rectangle using the two triangles and two small rectangles they have. An example is shown below:



- Explain to the learners that different shapes can create other shapes or even figures.
- Say "Ang proseso ng pagsasama-sama ng mga hugis upang makabuo ng isang bagong hugis ay tinatawag na pag-compose ng hugis o 'composing a shape'."

C. Practice

1. Ask the learners to decompose figures by having them figure out the shapes that were used in each drawing.
 - Show various figures composed of triangles, squares, and rectangles. Instruct the learners to use pieces of paper or draw the figures on the board. Examples are shown below:



- Show at least three to five figures. For each figure, ask the following questions:
 - Ano-anong mga hugis ang inyong nakita?
 - Paano ninyo nasabi na ang mga ito ay tatsulok, parisukat, at parihaba?
 - Ilan ang ginamit na tatsulok, parisukat, at parihaba?
2. Have the class create their own "masterpieces" by composing figures using paper cut-out pieces of triangles, squares, and rectangles.
- Divide the class into three or four groups, depending on the class size.
 - Provide each group with several paper pieces of triangles, squares, and rectangles in various sizes.
 - Ask each group to compose any figure using the pieces that they have.
 - After all the groups have composed their figure, let each group present and explain their work.
 - Ask them the following questions:
 - Ano ang inyong nabuo?
 - Bakit ito ang napili ninyong buuin? May kahulugan ba ito para sa inyo?
 - Maaari niyo bang ituro kung saan at paano niyo ginamit ang mga tatsulok, parihaba, at parisukat?

D. Reflection

Ask the learners the following questions:

- What did we learn today?
- What does “decomposing shapes” mean?
- What does “composing shapes” mean?

III. Homework

Ask the learners to go on a “Shape Hunt” at home. Instruct them to find at least three objects that are made of smaller shapes “hiding” inside them (i.e., window, cabinet, remote, etc.).

Ask the learners to draw their answers in their notebooks and have them label the shapes.

Term 1

Number and Algebra

Lesson 4:

Count up to 100 (includes counting up or down from a given number and identifying a number that is 1 more or 1 less than a given number).

I. Learning Objectives

At the end of the lesson, the learners must be able to:

1. count up to 100;
2. count up or down from any given number within 100; and
3. identify the number that is 1 more or 1 less than any given number up to 100.

II. Development of the Lesson

A. Motivation

Play “100 Clap-Snap” by having all the learners clap and snap from 1 to 100.

- Ask all the learners to stand up and start a rhythmic clap-snap pattern from 1 to 100.
- Start with the learner at the far left. The learner should say the number 1 and clap at the same time.
- Ask the succeeding learners to say the next numbers, while alternating between clapping and snapping. For example: learner 1: one (clap); learner 2: two (snap); learner 3: three (clap), and so on.
- Suddenly stop at random numbers and ask, “*Ano ang bilang bago kay (learner name)? Ano naman ang numero matapos kay (learner name)?*”
- If all the learners have taken their turn, start with the first learner again. Repeat the cycle until the learners reach 100.

B. Discussion

1. Prepare a big 1 to 100 chart, or write the numbers on the board. An example is shown below:

1 to 100									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

- Have the learners count from 1 to 10 as you point to the numbers on the chart.
- Tell them that they can use the numbers 1 to 10 as a guide for counting down.
- Ask the learners to count down from 10 to 1 as you point to the numbers on the chart.
- Repeat the process for 11 to 20, 21 to 30, 31 to 40, and so on until the class has reached 100.

2. Cover a few numbers from the chart and have the learners identify the missing number. An example is shown below:

1 to 100									
1	2	3		5	6	7	8		10
11	12	13	14	15		17	18	19	20
21		23	24	25	26		28	29	30
31	32	33	34		36	37	38	39	40
41	42		44	45	46	47		49	50
51	52	53	54	55	56		58		60
61	62	63	64		66	67	68	69	70
71		73		75	76	77	78	79	
81	82	83	84	85	86	87		89	
91	92	93	94	95		97	98	99	100

- Cover a few numbers from the chart. Pick learners or ask for volunteers to identify the missing numbers.
- Ask the chosen learners the following questions:

- o *Ano ang nawawalang bilang?*
- o *Ano ang bilang bago ang numerong iyong sagot?*
- o *Ano ang bilang matapos ang numero ng iyong sagot?*

- Repeat the process for every covered number.
- Once all the covered numbers have been answered, ask all the learners to read the chart from 1 to 100 without a guide.

C. Practice

1. Have learners identify the number that is 1 more or 1 less than a given number up to 100 through a draw-lots activity.
 - Prepare a bowl containing small pieces of paper, each with a number from 1 to 100.
 - Have each learner pick one piece of paper from the bowl.
 - Ask the learner to state the number they picked, as well as the numbers that come before and after it. They should state the numbers in ascending order. (e.g., If the learner picked 56, the learner should say "55, 56, and 57.")
 - Check their paper and confirm their answer. Have them return the paper inside the bowl.
 - Repeat until all learners have taken their turn.
2. Divide the class into three or four groups, with a minimum of 10 members in each group.
 - Using the number cards from the previous activity, make three sets of number cards:

21 to 30, 51 to 60, and 81 to 90.

- Assign one set of number cards to each group and have every member pick a card.
- Instruct the learners to arrange themselves in ascending order from left to right. (i.e., 21, 22, 23, 24, 25, 26, 27, 28, 29, 30).
- Once all groups have correctly arranged themselves, ask them to rearrange themselves in descending order.

D. Reflection

Ask the learners the following questions:

- What did we learn today?
- Why is it important to know how to count?
- How can you figure out what the missing number is in a set of orderly numbers?

III. Homework

Ask the learners to count how many of the following objects they have at home. Then have them write the numbers before and after it. Follow the example given below:

Bilangin ang mga sumusunod na bagay sa inyong bahay. Isulat ang bilang na bago at pagkatapos ng bawat isa.

Halimbawa:
tinidor – 12 piraso
11, 12, 13

1) kutsara - ____ piraso
2) ____, ____, ____

3) upuan - ____ piraso
4) ____, ____, ____

5) baso - ____ piraso
6) ____, ____, ____

Term 1 Lesson 5:

Number and Algebra Read and write numerals up to 100.

I. Learning Objectives

At the end of the lesson, the learners must be able to:

1. read and write numerals up to 100.

II. Development of the Lesson

A. Motivation

Play "Numeral Bingo" by having them cross out the number you call out or write.

- Provide each learner with a blank 3x3 grid. Ask them to draw a 3x3 grid in their notebooks. Instruct them to

write nine different numbers from 1 to 100, one number in each box. Explain that this will serve as their bingo card.

- Ask the learners to write any random number between 1 and 100 for each cell. An example is shown below:

BINGO		
40	68	12
77	39	52
26	51	99

- The instructor calls out the number in words or writes it on the board (i.e., calls out "52" or writes "twelve" on the board).
- Instruct the learners that if they have that number, they may cross it out on their bingo cards.
- A learner shouts "Bingo!" when they have crossed out three numbers in a row horizontally, vertically, or diagonally. Check the learner's answers.
- End the game when 3 learners have won.

B. Discussion

1. Using the 100-chart from the previous lesson, discuss the following:

- Have the learners look at the chart and observe that the numbers in each column end with the same digit (i.e., 11, 21, 31, 41, and so on).
- Have the learners observe that the first digit in each row stays the same, except for the last one (e.g., 21, 22, 23, 24, 25, 26, 27, 28, 29, and 30).
- Remind the learners that the order in which we read numerals (tens and ones) changes the value of the number entirely (e.g., "17" and "71").
- Practice reading numbers in unison. Instruct the learners to point at random numbers on the chart and have the class recite them together.

2. Write one to twenty in word form on the board. Have the learners copy this into their notebooks.

- Call on one learner and ask them to write the word form

and numeral of 21 on the board.

- Call on the next learner and ask them to write the word form and numeral of the next number.
- Guide the learners in writing and spelling the numeral assigned to them.
- Repeat the process until all the learners have taken their turn.

C. Practice

Play "Flash Writing" by having the learners write the word form of the numeral that the instructor will call out.

- Ask the learners to bring a whiteboard and a whiteboard marker for this activity, or have them write their answers on a paper pad.
- Call out a number (i.e., "30") and instruct the learners to write the word form and numeral (i.e., 30 – thirty) on their paper or blackboard.
- The first learner to raise their board with the correct answer earns a point.
- Make sure to only call out the numbers that they have not yet written from the discussion activity (If the class ended at 55 during discussion, only call out numbers from 56 to 100).

D. Reflection

Ask the learners the following questions:

- What did we learn today?
- Why is it important to know how to properly write the word form of numbers?
- Where outside of school do you see numbers written as words instead of just numerals?
- What happens to a number when we put 0 after it? What happens when we put the 0 before it?

III. Homework

Gawin ang "Household Numeral Hunt"

Humanap ng tatlong bagay sa inyong bahay na may dalawang-digit na numero (halimbawa: petsa sa kalendaryo, presyo sa label, balot ng pagkain, atbp.). Sa inyong kuwaderno, isulat ang mga sumusunod para sa bawat bagay:

1. Iguhit ang bagay.
2. Isulat ang numerong nakita mo.
3. Isulat ang numero sa anyong salita.

Term 1**Lesson 6:****Number and Algebra**

Recognize and represent numbers up to 100 using a variety of concrete and pictorial models (e.g., number line, block or bar models, and numerals).

I. Learning Objectives

At the end of the lesson, the learners must be able to:

1. recognize and represent numbers up to 100 using a variety of concrete and pictorial models (e.g., number line, block or bar models, and numerals);
2. identify numbers up to 100 by looking at different visual representations; and
3. translate a given numeral into a pictorial model to visually demonstrate its value.

II. Development of the Lesson**A. Motivation**

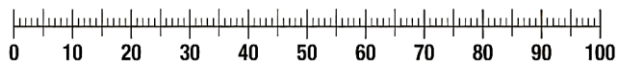
Play "Mystery Blueprint" by hiding pieces of paper around the classroom, each of which represents the same number in a different form. These blueprints will help unlock the "mystery box."

- Hide random pieces of paper around the classroom and call them "blueprints."
- Each blueprint shall contain the same number, but written in different forms. An example is given below:
 - Blueprint A: Drawing of 4 long bars and 6 units.
 - Blueprint B: A number line with an arrow pointing to 46.
 - Blueprint C: A picture of 4 bundles of 10 flowers and 6 loose flowers.
- Once the learners have located the blueprints, give each group a blueprint to examine and identify the number represented in it.
- Ask the learners to share what the number is and have them explain their answers.
- Process and analyze the learners' answers.
- Once all the learners who found the blueprints have shared their answers, reveal the number to the class and open the "mystery box".
- The content of the mystery box should reveal the lesson to be discussed.

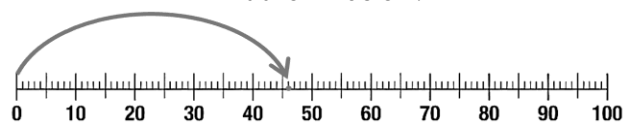
- Explain that numbers can be represented and drawn in many different ways.

B. Discussion

1. Draw or paste a number line on the board and explain its use to the learners. An example is provided below:



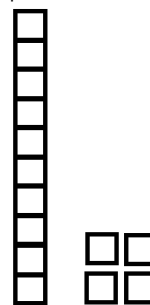
- Provide an example numeral and draw an arrow from 0 to the designated number on the number line. An example is shown below:



- Call a few learners or ask for volunteers, provide them with a numeral, and have them plot it on the number line.
- After the learners have drawn their answer, ask them to explain.
- Process their answers.

2. Teach "Number Blocks" by drawing one block or square on the board. Tell the learners that its value is 1.

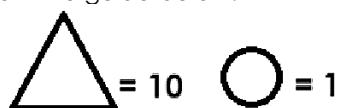
- Ask the learners again what the value of the block is.
- Draw two more single blocks and ask the learners what the value of the blocks are at this point.
- Beside the single blocks, draw a 10-value long block. The blocks should look like the sample below:



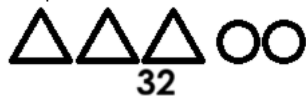
- Ask the learners what they think the total of all the blocks are at this point.

- Choose a few learners to explain their answer.
- Provide more examples and ask the learners what the value is.
- Once the learners have understood how to read the values of the number blocks, provide the learners with a numeral.
- For each numeral provided by the instructor, choose a learner or call on a volunteer to draw its respective number of blocks on the board.
- Ask the class to confirm the learners' answers.
- Discuss that number blocks are important as they aid the learners in visualizing quantities as concrete sets of tens and ones, whilst still being able to count all cubes.

3. Draw a circle on the board and say that its value is one. Beside it, draw a triangle and say that its value is ten. Follow the guide below:



- Draw one triangle and one circle beside each other. Ask the learners what the value of the shapes should be.
- Draw more triangles and circles, ensuring that the total value of the shapes will be between 1 and 100. An example is shown below:



- Provide more examples and have the learners identify what the total value of the shapes are.
- Once they have understood this process, provide numerical values.
- Choose a few learners or ask for volunteers to draw the shapes on the board according to their corresponding values.
- Ask the class to confirm the learners' answers.
- Discuss that shapes are also important as they aid the learners in counting by tens (i.e., 3 triangles are equal to 30), whilst visualizing

quantities into concrete sets of tens and ones, without having to count in ones.

C. Practice

1. Play "Human Number Line" by having the learners stand on the correct point.
 - Prepare a manila paper with a number line from 1 to 100 and place it on the floor. The instructor may also draw the number line on the board and have the learners stand in front of the correct point instead.
 - Have the learners line up one by one beside the number line.
 - For each learner, give a number between 1 and 100. Have them stand on or in front of the correct point on the number line based on the number assigned to them.

2. Play a game by assigning the tens and ones values for two objects in the classroom (i.e., Notebook = 10, Pencil = 1).

- Divide the class into three or four groups, depending on the class size.
- For each group, assign one object each for the tens and ones values. Follow the guide below:
 - Group 1: Notebook = 10, Pencil = 1
 - Group 2: Book = 10, Crayon = 1
 - Group 3: Bag = 10, Eraser = 1

- Provide each group with three numbers.
- Give the learners a minimum of 10 minutes to gather the objects to represent the numbers assigned to them.
- Have each group discuss and explain their work to the class.

D. Reflection

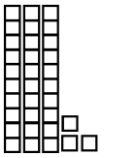
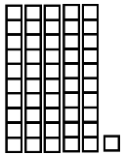
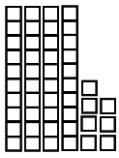
Ask the learners the following questions:

- What did we learn today?
- What is your favorite way of representing numbers?

III. Homework

Ask the learners to copy the table below in their notebooks and fill it in with the correct answers.

Isulat ang halaga ng sampuan at isahan batay sa mga bloke ng numero.

 _____ tens _____ ones	 _____ tens _____ ones	 _____ tens _____ ones
---	---	---

Isulat ang kabuuang halaga ng mga hugis sa ibaba. Gamitin ang gabay na ibinigay.

 = 10  = 1
      Total = _____
           Total = _____

Term 1

Lesson 7:

Number and Algebra

Compare two numbers up to 20.

I. Learning Objectives

At the end of the lesson, the learners must be able to:

1. compare two numbers up to 20.

II. Development of the Lesson

A. Motivation

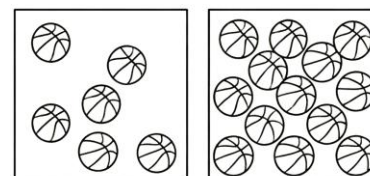
Prepare a list of objects that the learners can choose from. Count which object was chosen by more learners and which one was chosen by fewer.

- Prepare a list of items that the learners can choose from. The instructor may provide pictures of the items or draw on the board as well. A few examples are provided below:
 - apple or banana
 - crayons or colored pencils
 - playing at home or playing outside
 - sunny day or rainy day
 - red or blue
- For each comparison, assign a side of the classroom where the learners can stand (i.e., apple is the left side, blue is the right side). The instructor may also use pictures or write on the board to distinguish which side the learners should stand on to make their choice.
- Once all the learners have made their decision for each round, ask each group to count themselves.

- When both groups are done counting, ask the learners which group has more learners.
- Process and confirm their answer by having them compare the numbers (i.e., "Mas marami ang pumili ng saging kaysa sa mansanas dahil ang 10 ay mas malaki kaysa sa 7").
- Guide them in using terms such as *mas kaunti*, *mas marami*, less than, more than, greater than, equal, as many as, lesser, and fewer.
- If the learners answer in the format "mas marami", prompt the learners to restate it in the format of "mas kaunti".

B. Discussion

1. Prepare or draw the illustration below on the box.



- Ask the learners how many basketballs are in each box. Write the correct answer below its corresponding box.
- Ask the learners which box contains more and which box contains less.

- Draw the basketballs on the board and ensure that they are all aligned. A guide is provided below:

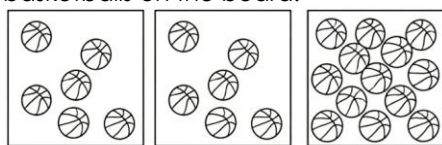


- Have the learners count each ball for both groups while you point at them one by one.
- Write their answer on the board ("Ang 13 ay mas marami kaysa sa 6").
- Ask how many balls have a pair (in this case, 6 basketballs match). Draw a line to connect the matching basketballs.
- Box the basketballs that do not have a pair. Ask the learners how many basketballs do not have a pair.



- Say "Sa halimbawa na ito, masasabi natin na ang 13 na bola ay mas marami kaysa sa 6 na basketball dahil ang 13 ay mas marami ng 7 kaysa sa 6. Maaari rin nating sabihin na ang 6 na basketball ay mas kaunti ng 7 kaysa sa 13 na basketball."

2. Draw another box containing 6 basketballs on the board.



A **B** **C**

- Ask the learners to count the basketballs in Box A and Box B.
- Draw the balls on the board and ensure that they are all aligned.



- Ask the learners how many pairs there are, then ask how many do not have pairs.
- Ask which box between A and B has more basketballs.
- Say "Sa halimbawa na ito, masasabi natin na ang Box A at Box B ay naglalaman ng

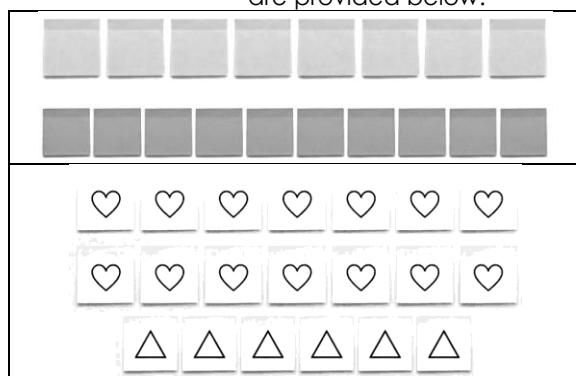
parehong bilang ng bola. Ang bilang ng bola sa Box A ay magkasinraming sa bilang ng bola sa Box B."

3. Discuss comparative terms and explain their purpose.
 - For those with higher values: *mas marami*, more than, greater than
 - For those with lower values: *mas kaunti*, less than, lesser, fewer
 - For equal values: *magkasingrami*, equal, as many as

C. Practice

Divide the class into three groups and have them distribute papers into two groups to show more than, less than, and equal.

- Prepare two types of paper; they may be either in different colors or have different symbols. Examples are provided below:



- Divide the class into three groups. Assign either less than, greater than, or equal to for each group.
- Ask each group to distribute their papers into two groups based on the comparison assigned to them.

D. Reflection

Ask the learners the following questions:

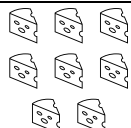
- What did we learn today?
- Why is it important to be able to compare numbers or values?
- When do we use "mas kaunti" and "mas marami"? Can you provide examples?

III. Homework

Ask the learners to copy the items below in their notebooks. Write "mas marami" or "mas kaunti" between Hanay A and Hanay B.

Hanay A	Mas marami o mas kaunti?	Hanay B
---------	-----------------------------	---------

4		8
19		15
7		7
		

Term 1

Lesson 8:

Number and Algebra

Order numbers up to 20 from smallest to largest, and vice versa.

I. Learning Objectives

At the end of the lesson, the learners must be able to:

1. order numbers up to 20 from smallest to largest (increasing); and
2. order numbers up to 20 from largest to smallest (decreasing).

II. Development of the Lesson

A. Motivation

Ask the learners to find the numbers 1 to 20 around the classroom and arrange them in increasing and decreasing order.

- Prepare numbers from 1 to 20 on small pieces of paper. Hide them around the classroom (i.e., under the chairs, corners of the classroom, inside cabinets, etc.).
- Draw 20 boxes on the board where the learners can paste the pieces of paper they have found.
- Once the learners have found all the numbers from 1 to 20, ask them to paste all the numbers on the board.
- Guide them in arranging numbers 1 to 10 in increasing order by asking questions such as “*ano ang mas malaki, 1 o 2?*” and so on.
- Guide the learners to arrange 11 to 20 on their own.
- Choose a few learners or ask for volunteers to explain whether the arrangement from 11 to 20 is correct.
- Process their answers and briefly define ordering numbers from smallest to largest (increasing).
- Have the learners “reverse” the order of arrangement.
- Ask the learners what they have observed about the new order or arrangement of the numbers.
- Process their answers and briefly define ordering

numbers from largest to smallest (decreasing).

B. Discussion

1. Discuss ordering numbers in increasing order: smallest to largest.

- Write numbers 1 to 10 in increasing order on the board from left to right.
- Ask the learners what they have observed from the arrangement.
- Emphasize that the numbers are written in increasing order by asking them, “*Ano ang mas malaki / mas mataas ang halaga: 1 o 2? 2 o 3?*” and so on.
- Explain that in increasing order, the number on the right is always greater than the number or value on the left.
- Write random numbers between 1 and 20 on the board in increasing order, leaving some gaps in between (e.g., 1, 6, 8, 11, 14, 16, 19, 20).
- Repeat the process by asking the learners what they have observed.
- Emphasize that increasing orders do not necessarily have to be consecutive numbers.

2. Discuss ordering numbers in decreasing order: largest to smallest.

- Using the examples (consecutive 1 to 10) from the previous lesson, ask the learners, “*Ano ang mas malaki / mas mataas ang halaga? 10 o 9? 9 o 8?*” and so on.
- Write their answers on the board from left to right in decreasing order.
- Ask the learners what they have observed in the new order of the numbers.

- Explain that in decreasing order, the number on the right is always smaller than the number on the left.
- Choose a few learners or ask for volunteers to rearrange the non-consecutive sample in decreasing order (i.e., 20, 19, 16, 14, 11, 8, 6, 1).
- Ask the learners to explain their answers. Process their answers.

C. Practice

Play "Stop Dance" where the learners must arrange themselves in increasing or decreasing order when the song stops.

- Before the game begins, ask the learners to count from 1 to 20, then 20 to 1.
- Briefly discuss counting up and counting down.
 - Counting from 1 to 20 means that they counted in increasing order: from smallest to largest.
 - Counting from 20 to 1 means that they counted in decreasing order: from largest to smallest.
- Divide the class into 2 to 4 groups, ensuring that each group has no more than 20 learners.
- Prepare a bowl containing numbers 1 to 20, and have the learners pick one number at random.
- Ask the learners to attach or stick a piece of paper on the upper left side of their chest, indicating the number they picked.
- Play upbeat music and have each group dance and walk around the classroom.
- Instruct the learners that when the music plays, you will say either "increasing" or "decreasing". They should arrange themselves in a line in increasing or decreasing order.

- Increasing: The first learner at the front of the line must be number 1, while the last learner in the line at the back must be number 20.
- Decreasing: The first learner at the front of the line must be number 20, while the last learner in the line must be number 1.

- When the music stops, shout "freeze!" to indicate that the learners must stop arranging themselves.
- Check if the arrangement of each group is correct.
- The first group to get 3 points wins

D. Reflection

Ask the learners the following questions:

- What did we learn today?
- What items or objects have numbers that are in increasing order? How about decreasing order?
- What if you have two cards that both say 7? Can one be 'bigger' than the other?

III. Homework

Ask the learners to copy the items below into their notebooks and rearrange the numbers accordingly.

Ayusin ang mga numero batay sa increasing order.

- 1) 5, 3, 4, 1, 2 - _____
- 2) 20, 17, 15, 16, 8 - _____
- 3) 1, 9, 3, 8, 5 - _____
- 4) 17, 18, 9, 10, 4 - _____
- 5) 20, 1, 6, 16, 2 - _____

Ayusin ang mga numero batay sa decreasing order.

- 6) 10, 11, 12, 13, 14 - _____
- 7) 20, 11, 14, 18, 19 - _____
- 8) 9, 4, 6, 10, 1 - _____
- 9) 5, 15, 6, 2, 4 - _____
- 10) 20, 1, 19, 2, 16 - _____

I. Learning Objectives

At the end of the lesson, the learners must be able to:

1. describe the position of objects using ordinal numbers: 1st, 2nd, 3rd, up to 10th.

II. Development of the Lesson

A. Motivation

Play "Human Train," where the designated learner must perform the action instructed by the teacher.

- Divide the class into 2 to 4 groups, depending on the class size. Ensure that each group has only 10 members. The remaining learners can serve as the "watchers".
- Have all the members of each group stand in a horizontal line. Assign them from 1 to 10 (first to tenth).
- Call out an action and assign it based on the learner's ordinal arrangement. Some examples are provided below:
 - *Una, talon nang mataas*
 - *Ikalawa, hawakan ang iyong ilong*
 - *Ikatlo, pumalampak nang dalawang beses*
 - *Ikawalo, isigaw ang iyong pangalan*
 - *Ikasampu, sabihin ang "Oink! Oink!"*
- Repeat the process and gradually increase the speed of the game after each round.
- Have the watchers check whether the other learners are doing the actions correctly. If one group is wrong, encourage the watchers to say "*Ang ikalawang miyembro mula sa unang grupo ay nagkamali.*"
- Each group only has two chances to make a mistake. If a group receives two warnings from the watchers, they are out of the game.
- Continue the activity until only one group remains.

B. Discussion

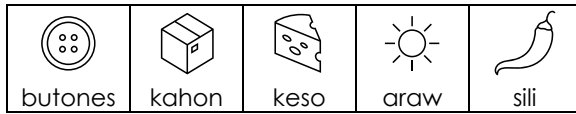
Prepare a chart containing a list of ordinal numbers and an empty row. An example is provided below:

ORDINAL NUMBERS		
1 st	first	
2 nd	second	
3 rd	third	
4 th	fourth	
5 th	fifth	
6 th	sixth	
7 th	seventh	
8 th	eighth	
9 th	ninth	
10 th	tenth	

- Ask the learners to read the ordinal numbers from top to bottom. Point to each number while they read. If necessary, ask the learners to read the chart twice or thrice.
- Explain and define what ordinal numbers are. Say "*Ang mga ordinal number ay mga numerong nagsasaad ng posisyon o pagkakasunod-sunod ng isang bagay sa isang listahan.*"
- Ask the learners to assign an object or item for each number. Encourage them to say it in this format: "*Lapis sa ikaanim.*"
- Once the list is complete, ask the learners to repeat the list from first to last in this format: "*Una ang libro, ikalawa ang chalk, ikatlo ang pisara, ...*" and so on.
- Cover or remove the chart. Rewrite or draw the items from the third column in one row from left to right.
- Ask the learners questions in the following format:
 - *Ano ang una?*
 - *Pang-ilang posisyon ang _____ (item)?*

C. Practice

1. Prepare a horizontal chart with 10* objects or animals arranged from left to right. An example is provided below:



* Add more items to make it ten (10)

Ask the learners to copy the sentences below in their notebooks and fill in the blanks. Add more items.

- Ang _____ ang ikalawang bagay.
- Ang _____ ang ikalimang bagay.
- Ang butones ang _____ bagay.
- Ang keso ang _____ bagay.
- Ang araw ang _____ bagay.

D. Reflection

Ask the learners the following questions:

- What did we learn today?
- Why is it important to learn the position of objects?
- Why are ordinal numbers important? Can we just use "Number 1", "Number 2", and so on?
- When do we use ordinal numbers?

III. Homework

Maglista ng 5 hanggang 10 miyembro ng pamilya, kasama ang iyong sarili, sa inyong kuwaderno. Sa tabi ng bawat pangalan, isulat ang edad ng bawat isa. Pagkatapos, sa pangalawang talahanayan, ayusin ang mga miyembro ng pamilya mula sa pinakamatanda hanggang sa pinakabata.

Family/Pamilya	Age/Edad
HALIMBAWA: Lola Nena	82

Una	HALIMBAWA: Lola Nena
Pangalawa	
Pangatlo	

Term 1

Lesson 10:

Number and Algebra

Compose and decompose numbers up to 10 using concrete materials (e.g., 5 is 5 and 0; 4 and 1; 3 and 2; 2 and 3; 1 and 4; 0 and 5).

I. Learning Objectives

At the end of the lesson, the learners must be able to:

1. compose and decompose numbers up to 10 using concrete materials (e.g., 5 is 5 and 0; 4 and 1; 3 and 2; 2 and 3; 1 and 4; 0 and 5).

II. Development of the Lesson

A. Motivation

Play "Tao-Tao" by having a group of learners come to the front of the class and divide themselves into two separate groups.

- Divide the class into three groups. One group should have a maximum of 10 members, while the other groups may have 5-9 members each, depending on the class size.
- Ask the first group (the group with the fewest members) to come to the front.
- Have the rest of the class count the number of members aloud (i.e., "Isa,

dalawa, tatlo, apat, lima, anim, pito!").

- Instruct the group in front that when you clap your hands twice, they must split into two smaller groups as fast as they can. The number of learners per group is their decision, as long as they do not repeat the combination.
- Once the group has split, ask them to freeze.
- Ask the rest of the learners the following questions:
 - *Ilan ang miyembro sa grupo sa kaliwa?*
 - *Ilan ang miyembro sa grupo sa kanan?*
 - *Kung pagsasama-samahin ang dalawang grupo, magiging ilan na ulit sila?*
- Repeat the process until the group has exhausted all

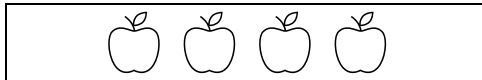
possible combinations. An example is provided below:

PITO (7)	
0	7
1	6
2	5
3	4
4	3
5	2
6	1
7	0

- Repeat the process for all groups.

B. Discussion

1. Take note of the remaining numbers that were not used in the motivation activity. Discuss the remaining numbers (If the three groups had 6, 8, and 10 members respectively, only discuss 4, 5, 7, 9, and 10).
2. Show the learners a picture or a drawing of a certain number of objects. An example is provided below:



- Ask the learners to count the number of objects. In this case, there are four apples.
- Give a scenario to the learners, for example: "Mayroon akong apat na mansanas. Gusto kong ibigay ang mga ito sa aking mga kaibigan na sina Andrei at Lara."
- Provide prompts and ask the learners to illustrate. For example: "Kung bibigyan ko si Andrei ng isa, ilan ang matitira para kay Lara?"

Total Apples	
	

	?
Andrei	Lara

- Choose a learner or ask for a volunteer to complete the illustration.
- Call other learners and challenge them to come up with the other pairs.

- After all pairs have been illustrated, compile them into a table. An example is provided below:

APAT (4)	
0	4
1	3
2	2
3	1
4	0

- Ask the learners what they have observed about the table. Process and discuss their answers. A few observations are provided below:
 - The column on the left increases, while the column on the right decreases.
 - If added, each pair of numbers has a sum of 4.
 - The number 4 was decomposed into 5 pairs of numbers.
 - There are similar pairs of numbers, but in a different order.
- Repeat the process with other numbers.

3. Discuss and define decomposing numbers. Say "Ang pagde-decompose ng mga numero ay isang proseso ng paghahati ng isang bilang sa dalawa o higit pang maliliit na bilang. Masasabi rin na ito ay ang proseso ng paghahati ng isang numero sa dalawang mas mabababang pares ng numero. Halimbawa, ang bilang 5 ay maaaring hatiin sa 2 at 3. Ang prosesong ito ay tinatawag na pagde-decompose ng numero."
4. Discuss and define composing numbers. Say "Ang pagco-compose ng mga numero ay isang proseso ng pagsasama ng dalawang numero upang makabuo ng mas malaking numero."

C. Practice

Divide the class into 4 groups and play "Color Divide".

- For each group, prepare one paper cup and 10 double-sided objects (i.e., coins, stones with different colors for each side, teks, pogs, etc.).

- Divide the class into 4 to 5 groups and provide them with their materials.
- Assign each group two numbers each, not exceeding 10. An example is provided below:
 - Group 1: 10 & 3
 - Group 2: 9 & 4
 - Group 3: 8 & 5
 - Group 4: 7 & 6
- Instruct the learners to shake the cup and spill the objects on the floor. Have them count how many landed on Side A and how many on Side B.
- Ask all groups to record their results for both numbers assigned to them. Results must be presented in one table* for each assigned number and written in their notebooks. Follow the format below:

Group #:		
Members:		
Assigned numbers:		
TOTAL	Side A	Side B

* There must be one table for each assigned number, a total of 2 tables

- Ask all groups to report their results.
- Process and discuss their answers.

D. Reflection

Ask the learners the following questions:

- What did we learn today?
- Why is it important to learn how to decompose numbers? How about composing numbers?
- When do we use composing and decomposing numbers?
- Does the order of the 'parts' or 'pairs' change the whole number?
- When we decompose numbers, should the pairs be equal? Or can one be bigger than the other? Why do you think so?

III. Homework

Ask the learners to answer the following items in their notebooks:

Pagsamahin ang mga numero para bumuo ng bilang.

- 1) Ang 5 at 5 ay bilang _____.
- 2) Ang 3 at 2 ay bilang _____.
- 3) Ang 6 at 4 ay bilang _____.
- 4) Ang 3 at 6 ay bilang _____.
- 5) Ang 4 at 2 ay bilang _____.
- 6) Ang 2 at 7 ay bilang _____.
- 7) Ang 1 at 3 ay bilang _____.
- 8) Ang 8 at 0 ay bilang _____.
- 9) Ang 9 at 1 ay bilang _____.
- 10) Ang 10 at 0 ay bilang _____.

Term 1

Number and Algebra

Lesson 11:

Illustrate addition of numbers with sums up to 20 using a variety of concrete and pictorial models and describes addition as "counting up," and "putting together."

I. Learning Objectives

At the end of the lesson, the learners must be able to:

1. illustrate addition of numbers with sums up to 20 using a variety of concrete and pictorial models; and
2. describe addition as "counting up" and "putting together."

II. Development of the Lesson

A. Motivation

Play a different version of "The Boat is Sinking".

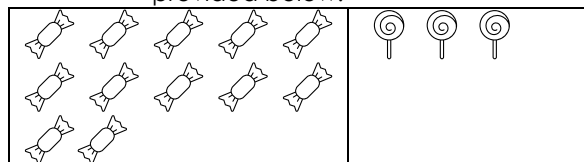
- Divide the class into two groups.
- Prepare two large circles on the classroom floor. The circles may be drawn on manila paper and placed on the floor, or drawn directly on the floor using chalk.
- Choose a few learners from each group to stand in the

middle of their respective circles.

- Shout a number (i.e., "Magdagdag ng apat!")
- The group that gives the correct total number of learners inside the circle wins the round.
- Ask the learners to explain their answer. Write the equation on the board.
- Repeat the process for as many rounds as necessary.

B. Discussion

1. Prepare or draw two sets of shapes or objects on the board. An example is provided below:



- Ask the learners to count the candies on the left and the lollipops on the right.
- Instruct the learners to add all the candies. Ask a few volunteers to explain how they arrived at their answers. Possible solutions include:
 - Combining everything and counting them all together.
 - Counting on / up, starting with the group with the higher amount, until all candies are counted.
 - Writing the number sentence.
- Write the correct answer on the board (i.e., " $12 + 3 = 19$ ").

2. Discuss and define "putting together". Say, "*Ito ang proseso ng pagsasama ng dalawa o higit pang hiwalay na pangkat ng mga bagay o numero upang mahanap ang kanilang kabuuan (sum).*"

3. Show the learners an illustration of a number line. They may be able to recall this from Lesson 6. Ask the learners to plot the previous sample on the number line. An example is provided below:

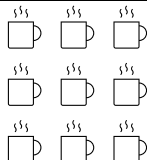


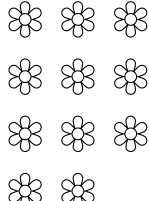
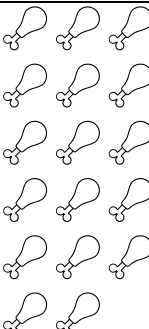
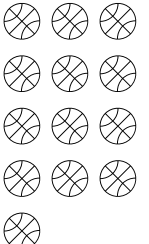
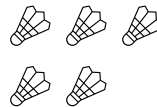
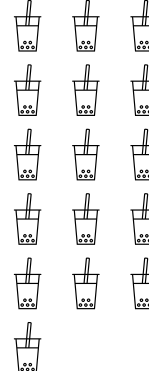
4. Discuss and define "counting up". Say "*Ito ay pagbibilang pataas mula sa mas malaking numero at pagpapatuloy ng pagbibilang batay sa ikalawang numero upang makuha ang kabuuang bilang.*"

5. Repeat the process using different sets of numbers, amounting to 20 in total.

C. Practice

Ask the learners to answer the following in their notebooks:

		$8 + 9 = \underline{\quad}$
---	---	-----------------------------

		$11 + 6 = \underline{\quad}$
		$17 + 3 = \underline{\quad}$
		$13 + 5 = \underline{\quad}$
		$16 + 4 = \underline{\quad}$

D. Reflection

Ask the learners the following questions:

- What did we learn today?
- How does "putting together" pictorial models help in getting the total or sum of objects?
- When we 'put together' two groups of objects (and neither is zero), is the new total always bigger than the two groups we started with? Why?

III. Homework

Ask the learners to draw and solve the following items in their notebooks.

Draw and solve the following:

- 9 spoons + 8 forks = $\underline{\quad}$
- 6 flowers + 2 sun = $\underline{\quad}$
- 12 smiley faces + 4 sad faces = $\underline{\quad}$

Illustrate by applying the following properties of addition, using sums up to 20: (a) The sum of zero and any number is equal to the number, and (b) Changing the order of the addends does not change the sum.

I. Learning Objectives

At the end of the lesson, the learners must be able to:

- illustrate by applying the following properties of addition, using sums up to 20:
 - the sum of zero and any number is equal to the number; and
 - changing the order of the addends does not change the sum.

II. Development of the Lesson

A. Motivation

- Instruct the learners to group themselves into pairs. Each pair shall represent an addend.
 - Divide the pairs into two groups: "switch pair" and "zero pair".
 - For each switch pair, prepare the same objects with a total of 20 items (e.g., paper, pebbles, sticks, etc.).
 - Write an equation on the board (i.e., $11 + 3 = \underline{\quad}$).
 - Instruct the learners to copy the number sentence by holding the same number of items represented by the addends.
 - Ask the learners what they think the answer or total is. Choose a few pairs to explain their answer.
 - Write the answer to the previous equation (i.e., $11 + 3 = 14$).
 - Instruct the learners to switch items with their pair.
 - Write the new equation on the board, below the first equation (i.e., $3 + 11 = \underline{\quad}$).
 - Ask the learners what they think the new sum is. Confirm whether the answer has changed.
 - Choose another set of pairs to explain their answer.
 - Write the total of the new equation (i.e., $3 + 11 = 14$).
 - Repeat the process as necessary.
- Distribute the items or objects from the switch-pair activity to the zero pairs.
 - Write an equation on the board (i.e., $13 + 0 = \underline{\quad}$).
 - Instruct the learners to copy the number sentence by holding the same number of items as the addends.
 - Ask the learners what they think the answer or total is. Choose a few pairs to explain their answer.
 - Write the answer to the previous equation (i.e., $13 + 0 = 13$).

- Repeat the process as necessary.

B. Discussion

- Discuss and define the zero property or identity property of addition.
 - Say "*Ang kabuuan ng zero at ng kahit anong numero ay katumbas din ng numerong iyon.*"
 - Define it simply for learners. Explain that when you add 0 to any number, the number does not change — it stays exactly the same, because you are not adding anything new to it.
 - Provide examples. Discuss it with the class.

$5 + 0 = 5$	Adding zero means adding nothing, so 5 stays 5
$0 + 12 = 12$	The same rule applies even if zero comes first
$17 + 0 = 17$	The number keeps its value

- Use a visual or hands-on demonstration.
 - Show a plate with 5 candies. Say: "If I add 0 more candies, how many candies do I have now?" (Still 5.)
 - Use counters, blocks, or drawings to reinforce that adding zero doesn't increase or decrease the total.
- Ask guide questions.
 - "What happens to a number when you add zero to it?"
 - "Does the order matter when adding zero? Why or why not?"
- Discuss and define the commutative property of addition.
 - Say "*Kahit pagbaliktarin o pagpalit-palitin ang pagkakasunod-sunod ng mga numero (addends), ang kabuuan (sum) nito ay hindi pa rin magbabago.*"
 - Define it simply for learners. Explain that when adding two numbers, it does not matter which number comes first — the total (sum) will always be the same.

C. Practice

Ask the learners to answer the following in their notebooks:

- 1) $0 + 17 = \underline{\hspace{2cm}}$
- 2) $17 + 0 = \underline{\hspace{2cm}}$
- 3) $9 + 8 = \underline{\hspace{2cm}}$
- 4) $8 + 9 = \underline{\hspace{2cm}}$
- 5) $12 + 0 = \underline{\hspace{2cm}}$
- 6) $0 + 12 = \underline{\hspace{2cm}}$
- 7) $16 + 3 = \underline{\hspace{2cm}}$
- 8) $3 + 16 = \underline{\hspace{2cm}}$
- 9) $20 + 0 = \underline{\hspace{2cm}}$
- 10) $0 + 20 = \underline{\hspace{2cm}}$

D. Reflection

Ask the learners the following questions:

- What did we learn today?
- If you have a very large number and a very small number (like $18 + 2$), does it feel 'shorter' to start counting from 18 or from 2?
- Why does adding 'nothing' (zero) feel different from adding 'one'?

III. Homework

Ask the learners to draw and illustrate the following items in their notebooks.

Draw and illustrate the following:

- 1) $6 + 9$ and $9 + 6$
- 2) $0 + 16$ and $16 + 0$
- 3) $8 + 11$ and $11 + 8$
- 4) $17 + 0$ and $0 + 17$
- 5) $18 + 2$ and $2 + 18$

Term 1

Lesson 13:

Number and Algebra

Solve problems (given orally or in pictures) involving addition with sums up to 20.

I. Learning Objectives

At the end of the lesson, the learners must be able to:

1. solve problems (given orally or in pictures) involving addition with sums up to 20.

II. Development of the Lesson

A. Motivation

Play "Ang Mahiwagang Puno" by adding small pictures of animals, flowers, fruits, and the like on a big illustration of a tree.

- Show the learners a big illustration of a simple tree. This may either be drawn on a manila paper or on the board.
- Prepare two envelopes (A and B) or boxes containing a set of pictures to be used as counters (i.e., 9 apples and 6 oranges).
- Set the scene and say "Mga bata, ito ang ating mahiwagang puno. Sa simula, wala pang naninirahan dito."
- Show envelope A and shake it. Ask one learner to open the envelope and count how many apples are inside.
- Provide a prompt. Say "Mayroong 9 na mansanas mula sa ating mahiwagang puno. Ilagay natin ang mga ito."

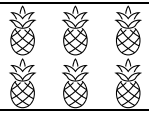
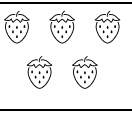
- Paste the counters on the illustration of the tree.
- Ask the rest of the class to confirm the learner's answer. Guide them by pointing at each counter/picture while they count.
- Show envelope B and shake it. Ask one learner to open the envelope and count how many oranges are inside.
- Provide another prompt. Say "Mayroong 6 na orange mula sa ating mahiwagang puno. Ilagay natin ang mga ito."
- Paste the counters on the illustration of the tree.
- Ask the rest of the class to confirm the learner's answer. Guide them by pointing at each counter/picture while they count.
- After adding envelopes A and B, ask the question "Ilan na ang kabuuang bilang ng mga prutas sa ating mahiwagang puno?"
- Instead of counting one by one, say "Alam na natin na may 9 na mansanas". Then point to each orange one by one and lead the class to count up from 9: "Sampu, labing-isa, labindalawa,

labintatlo, labing-apat, labinlima! (9..., 10, 11, 12, 13, 14, 15)".

- Repeat the process for another round using different counters and quantities. Some examples are given below:
 - Animals: 7 birds, 4 monkeys
 - Flowers: 11 gumamela, 5 roses
 - Children playing: 10 girls and 8 boys

B. Discussion

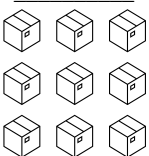
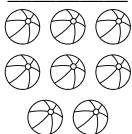
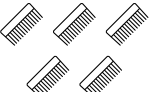
- Explain that sometimes, situations involving addition can be similar to telling a story.
 - Provide an example, such as "Mayroong 12 na ibon sa sanga ng isang puno. May 5 pang ibon na dumapo sa kabilang sanga. Ilan na ang mga ibon sa puno?"
 - Ask the learners what the answer is. Have them explain and illustrate their answers on the board using a number sentence.
 - Provide more examples and discuss them with the class.
- State that there are different words and phrases commonly used in word problems to indicate addition. Some examples are:
 - In English: Plus, in all, total, altogether, combined
 - In Tagalog: pagsamahin, dagdagan, lahat-lahat, kabuuan
- Ask the learners to provide simple word problems using the previously discussed words.
 - Create an illustration for their word problem (i.e., "Mayroong 6 na pinya si Leila. Binigyan siya ng 5 na strawberry ng kaniyang ina. Ilan na lahat ng prutas ni Leila?")

	+		= 11
6		5	

- Provide more examples. Let the learners answer and illustrate the word problems.
- Discuss and process their answers with the class.

C. Practice

Ask the learners to answer the following items in their notebooks:

	+		= _____
	+		= _____
	+		= _____

Si Allan ay may 12 na asul na banderitas. Si Sofia ay may 7 na dilaw na banderitas. Ilan lahat-lahat ang kanilang mga banderitas?

Iguhit ito sa ibaba.

D. Reflection

Ask the learners the following questions:

- What did we learn today?
- Why is it important to understand how to solve word problems?
- When do you solve word problems in your everyday life?
- How do word problems make addition easier?

III. Homework

Sumulat ng 2 word problem sa inyong kuwaderno. Iguhit at sagutan ang inyong mga word problem.

Term 1 Lesson 14:

Measurement and Geometry

Measure the length of an object and the distance between two objects using non-standard units.

I. Learning Objectives

At the end of the lesson, the learners must be able to:

- measure the length of an object and the distance between two objects using non-standard units.

II. Development of the Lesson

A. Motivation

1. Play a different version of "Bring Me" where the learners must bring objects based on the measurement given by the instructor.

- Give the learners a prompt. Some examples are provided below:
 - "Magdala ng isang bagay na dalawang dangkal ang laki."
 - "Maghanap ng isang bagay na kasinghaba ng 3 pambura."
 - "Anong dalawang bagay sa silid na ito ang may 3 hakbang ang pagitan?"

- The first three learners to come to the front with their items will be asked to explain their answers. They should also measure their items in front of the class.
- Compare the learners' answers. Are all three items the same length?
- Discuss and process the learners' answers and explanations with the class.
- Conduct as many rounds as necessary. Repeat the process.

B. Discussion

1. Discuss and define non-standard units.

- Explain and say "Ito ay mga pangkaraniwang bagay o bahagi ng ating katawan na maaari nating gamitin bilang pangsuikat kapalit ng isang ruler."
- Provide examples of objects, such as: paperclip, pencil, crayons, ropes, eggs, fruits, etc.
- Provide examples of body parts, such as: thumb, palms (palad), footsteps (tapak o hakbang), handspans (dangkal), arms-length (dipa), etc.

2. Explain how to measure correctly using non-standard units.

- There should be no gaps between the units. The units must be placed beside each other.

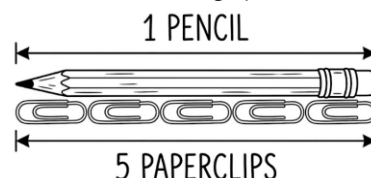
- There should be no overlaps between the units. The non-standard units must not be placed on top of one another.
- Measuring should be done in a straight line, starting from one end of the object and continuing to the other end.

3. Explain height and width to the learners.

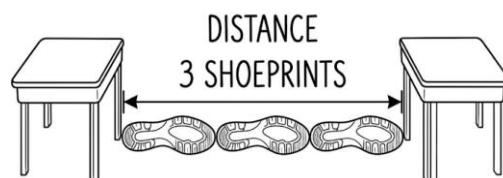
- Height (Taas): Karaniwang ginagamit kung ang sinusukat ay patayo o pataas (vertical).
- Width (Lapad): Karaniwang ginagamit kung ang sinusukat ay pahalang (horizontal).

4. Explain lengths and distances, with examples and illustrations.

- Length (Haba): Ito ang sukat ng haba ng isang bagay.



- Distance (Layo): Ito ang sukat sa pagitan ng dalawang bagay o dalawang lugar.



C. Practice

1. Divide the class into pairs and have them find objects inside the classroom to measure using non-standard units of measurement.
2. Ask the pairs to find items inside the classroom that are the same length as the following:
 - 2 sharpened pencils long
 - 6 crayons long
 - 12 erasers long
 - 2 books long
 - 1 shoe long
3. Instruct the learners to find the distance of the following using footsteps with no gaps:
 - Their tables

- Window and door
 - Trash bin and blackboard
 - Teacher's table to the back of the classroom
 - Left and right sides of the classroom
4. Choose a few pairs or ask for volunteers to discuss and explain their answers with the class.
 5. Process the learners' answers and explanations.
- D. Reflection
- Ask the learners the following questions:
- What did we learn today?
 - Why is it important to learn how to measure with non-standard units?
 - Can you give an example where you measured with a non-standard unit? Where else can you use this type of measurement?
 - If I want to measure the distance from the school gate to our classroom, should I use paperclips or my footsteps? Why?
 - Why is it important to use the same size of non-standard units (i.e., same size of paperclips) when measuring one object?
 - What will happen if there are gaps between our units when measuring?

III. Homework

Ask the learners to copy the items below in their notebooks and answer the following questions.

1. *Sukatín ang haba ng iyong kama gamít ang iyong mga unan. Ilang unan ang haba ng iyong kama?*
 - *Kama = _____ na unan ang haba*
2. *Alamin ang layo o distansya sa pagitan ng inyong lutuan o kusina at ng lababo.*
 - *Ang distansya sa pagitan ng lutuan at lababo ay _____ na dangkal.*
3. *Sukatín ang haba ng inyong hapag-kainan (dining table) gamít ang kutsara. Ilang kutsara ang haba ng inyong hapag-kainan?*
 - *Hapag-kainan = _____ na kutsara ang haba*
4. *Alamin ang layo o distansya sa pagitan ng inyong pinto sa bahay at ng inyong banyo.*
 - *Ang distansya sa pagitan ng pinto at banyo ay _____ na hakbang.*
5. *Sukatín ang haba ng iyong sipilyo gamít ang piso.*
 - *Ang aking sipilyo ay kasinhaba ng _____ piraso ng piso.*

Term 1

Lesson 15:

Measurement and Geometry

Compare lengths and distances using non-standard units.

I. Learning Objectives

At the end of the lesson, the learners must be able to:

1. compare lengths and distances using non-standard units.

II. Development of the Lesson

A. Motivation

1. Play "Zigzag Race" by having one learner move along a straight path and another learner move along a zigzag path.
 - Prepare two paths on the floor using chalk or masking tape: one straight path and one zigzag path.
 - Divide the class into two groups: straight path and zigzag path.
 - Have the learners walk along the paths using heel-to-toe footsteps.
 - Ask the learners to count how many footsteps they take to

cross from one end to the other.

- Take note of the number of footsteps each learner takes for both groups.
- When half of the class has already crossed, ask the straight-path group to slow down their walking pace.
- Continue taking notes of the number of their footsteps.

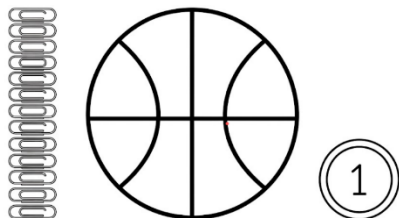
2. Ask the learners the following questions:

- *Anong grupo ang naglakad ng mas mahabang distansya? Anong grupo naman ang naglakad ng mas maikling distansya?*
- *Bakit mas marami ang hakbang ng zigzag path?*
- *Noong bumagal ang lakad sa straight path, dumami ba ang bilang ng kanilang mga hakbang?*

- *Bakit mas marami pa rin ang mga hakbang ng zigzag path kahlit mabagal na ang lakad ng straight path?*

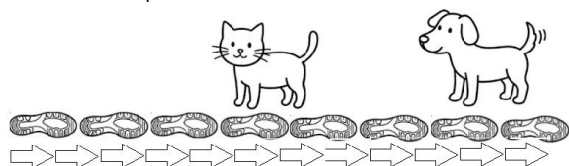
B. Discussion

1. Show the learners pictures of two objects: one big and one small. An example is provided below:



- Ask the learners what they can observe from the two objects.
 - *Mas maliit ang barya.*
 - *Mas malaki ang bola.*
 - *Ang bola ay kasinglaki ng 13 na paperclip.*
 - *Ang barya ay kasinglaki ng 5 na paperclip.*
 - *Mas maraming paperclips ang katumbas ng basketball kaya't mas malaki ito.*
- Discuss the learners' answers and observations.
- Compare two items inside the classroom (i.e., pencil and blackboard).
- Ask the learners what they can observe from the two objects. Discuss the learners' answers.
- Ask the learners to provide two more objects to compare with one another. Discuss and compare the examples provided by the learners.

2. Show the learners a picture of two items at two different distances from the starting point. An example is provided below:



- Ask the learners what they can observe from the two objects.
 - *Mas malapit ang pusa.*

- *Mas malayo ang narating ng aso.*
- *Ang layo ng pusa ay 4 na hakbang.*
- *Ang layo ng aso ay 7 na hakbang.*
- *Mas malayo ang aso ng 3 hakbang kaysa sa pusa.*

- Discuss the learners' answers and observations.
- Compare the distance of two items from a specific starting point (i.e., learner's table and blackboard, from the class door).
- Ask the learners what they can observe from the distance between the two objects. Discuss the learners' answers.
- Ask the learners to provide two more distances to compare with one another. Discuss and compare the examples provided by the learners.

3. Explain that non-standard units allow us to easily compare lengths and distances. Say "*Kapag mas marami ang bilang ng isang bagay o distansya, mas mahaba o mas malayo ito.*"

C. Practice

Ask the learners to complete the table below.

Find the length	Unit	Rank from shortest to longest (1 to 10)
width of chalkboard	___ books long	
width of the teacher's desk	___ handspans	
width of window	___ pencils long	
height of a book	___ erasers long	
pencil	___ thumbs long	
eraser	___ thumbs long	
width of your desk	___ crayons long	
height of chair	___ handspans	
crayon	___ thumbs long	
height of a classmate	___ is ___ books long	

D. Reflection

Ask the learners the following questions:

- What did we learn today?
- When do we use comparison of lengths and distances? Can you give examples?
- Why is it important to learn how to compare lengths and distances?

- Can I compare my footsteps to your footsteps to see who lives farther from school? Why is that not fair?

III. Homework

Ask the learners to copy the items below in their notebooks and fill in the blanks.

Sukatin ang haba ng tinidor at kutsilyo gamit ang 25 centavos.

- Ang tinidor ay kasinghaba ng _____ piraso ng 25 centavo.
- Ang sipilyo ay kasinghaba ng _____ piraso ng 25 centavo.
- Ang _____ ay mas mahaba sa _____.

Magsimula sa paanan ng iyong kama. Sukatin ang distansya mula sa iyong kama papunta sa pinto ng iyong kwarto.

Magsimula sa paanan ng iyong kama. Sukatin ang distansya mula sa iyong kama papunta sa banyo.

- Ang distansya mula sa aking kama hanggang sa pintuan ng kwarto ay _____ hakbang.
- Ang distansya mula sa aking kama hanggang sa banyo ay _____ hakbang.
- Mas malayo ang _____ sa aking kama kaysa sa _____.

Term 1

Measurement and Geometry

Lesson 16:

Solve problems involving lengths and distances using non-standard units.

I. Learning Objectives

At the end of the lesson, the learners must be able to:

1. solve problems involving lengths and distances using non-standard units.

II. Development of the Lesson

A. Motivation

1. Tell the story of "Ang Buwaya na si Alfonso" and relate it to math problems about lengths and distances using non-standard units.
 - Say "Ang Buwaya na si Alfonso ang pinaka-masungit at pinaka-gutom na hayop sa kagubatan. Mahilig siyang kumain, kaya't kinakagat niya ang mga nagkakamali sa math! Kung mali ang sagot niyo, kakainin niya ang mga puntos niyo!"
2. Play "Huwag Gisingin ang Buwaya," where the learners have to quietly solve a word problem using their shoes as a non-standard unit.
 - Draw a long line with chalk or lay a long line of masking tape on the floor to represent the guide of a "bridge".
 - Say "Nasa dulo ng tulay si Alfonso. Ang haba ng tulay ay 20 na mabahong sapatos. Maglagay ng 11 na mabahong sapatos."
 - Ask the learners to put 11 shoes in the line. Those who are able to put one of their shoes on the line will receive a point.

- Say "Naku! Nakatulog si Alfonso. Huwag kayong maingay. Kapag kayo ay nag-ingay o gumawa ng ingay, magigising si Alfonso at kakagatin kayo! Ngayon, kailangan ninyong kumpletuhin ang tulay nang tahimik."
- Pretend to be Alfonso the Alligator and sleep at the end of the 'bridge'.
- If a learner makes a noise, laughs, or talks loudly, pretend to wake up and ask the learner to do 3 jumping jacks.
- Give the learners 10 minutes to complete the bridge.
- After 10 minutes, pretend that Alfonso the Alligator has finally woken up. Walk beside the 'bridge' and count the shoes as you walk.

B. Discussion

Post a problem on the board: "Si Mico ay naglalakad sa hallway. Sa unang bahagi, humakbang siya nang 10 beses at nakarating sa silid-aklatan. Pagkatapos, humakbang pa siya nang 8 beses para makarating sa pinto ng kanilang silid-aralan. Gaano kalayo ang lahat ng nilakad ni Mico gamit ang yunit na hakbang?"

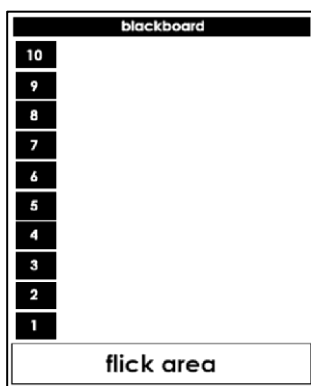
- Ask the learners the following questions:
 - Ilan ang mga hakbang ni Mico

- upang makarating sa silid-aklatan?
 - o Ilan naman ang idinagdag na hakbang upang makarating sa pintuan ng kanilang silid-aralan?
 - o Ilan ang kabuuang hinakbang ni Mico?
- Give prompts or "what if" scenarios, such as "Kung ang isang hakbang ni Mico ay kasinhaba ng dalawang ID, ilang ID ang haba ng nilakad niya?"
- Ask the learners to answer the question and explain their answers.
- Process and discuss the learners' answers.

C. Practice

Play "Eraser Flick", where the learners receive points based on how far they have flicked their eraser.

- Prepare a 10-unit system on the floor of the classroom to measure the distance of the 'flicks'.



- Align chairs before the 10-unit measurement system and have that as the "flick area".
- Group the learners into pairs and have them work

together to achieve higher points.

- The learners must flick their erasers only on the 'flick areas'.
- They will score points based on how far their erasers reach in the 10-unit system.
- Ask the learners to write their scores on the table below.

	Round 1	Round 2	Points
Student 1			=
Student 2			=
TOTAL POINTS:			

D. Reflection

Ask the learners the following questions:

- What did we learn today?
- How do non-standard units help in solving problems?
- Can you compare the lengths of two objects using different non-standard units of measurement?

III. Homework

Ask the learners to answer the following items.

1. Gusto ni Johan na tumawid sa isang kanal. Ang kanal ay may haba na 15 na lapis. Mayroon siyang dalawang pirasong kahoy. Ang unang kahoy ay 7 na lapis ang haba, at ang ikalawa naman ay 9 na lapis ang haba.

Kapag pinagdugtong ang dalawang kahoy, sapat na ba ito para makatawid si Johan? Bakit?

2. Naglakad si Miel mula sa bakuran papunta sa sala. Bago siya makarating sa sala, 12 na malalaking hakbang ang kaniyang nagawa. Pabalik sa bakuran, gumamit siya ng maliliit na hakbang kaya nakagawa siya ng 20 na hakbang.

Bakit magkaiba ang bilang ng hakbang ni Miel kahit pareho lang naman ang distansyang nilakad niya?

