

LESSON PLAN

SCHOOL: SEETA HIGH SCHOOL

TEACHER: Ms .Caroline

CLASS:

DATE: 29th /01/2020

TIME: 3.30pm-4.00pm

DURATION: 30 min

Number of pupils:

Boys...4

Girls...4

SUBJECT: Mathematics

Theme: Data and Probability

TOPIC: SET Theory

Learning outcomes: Learners should be able to describe a set and identify elements of a set (K, U, S, V)

In this lesson, the following will be acquired as learners learn how to describe a set.

- i) Values (creativity and innovation, hard work for self-reliance, honesty, uphold and defend the truth at all times)
- ii) Generic skills (CTPS, communication, cooperation and self -directed learning)
- iii) KLO (self-assured individuals, lifelong learner, positive contributors in society)
- iv) Cross cutting issues (mixed ability and involvement, health awareness)

RATIONALE

In this lesson learners will use the knowledge of sorting and grouping items that are the same to understand the meaning of sets. Through guided discovery, individual work and group work learners will sort items that are the same and pile them together. They will then pack them in the improvised shelves to bring out the meaning of sets. By learning sets, learners will appreciate the value of sorting and grouping items with the same characteristics and how this brings about identification of different items and neatness. The knowledge of sets is used in many areas of life such as piling of items of the same characteristics in the market and priced differently, library arrangements, supermarket stalls, drug shops, chemical arrangements in the laboratories etc. This is the first lesson out of a series of 15 lessons in set theory.

Pre- Requisite Knowledge

Pupils already have knowledge on sorting, grouping homogenous items together, from S.1.

Teaching learning materials:

Cups, plates, markers and empty boxes, Rwenzori water bottles.


Reference:




Lower Secondary Curriculum, Mathematics Syllabus NCDC 2019 Pg 41




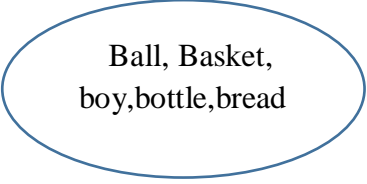
Learners Text book

Teachers' guide book

Time/ Stage	Teacher Activity	Learners' Activity	Indicators to learning/ assessment
10 minutes Introduction stage	<p>Scenario</p> <p>Mr. Baale went to do shopping for his family and bought the following items. plates, cups, mineral water. and markers He handed over to his family members who were to keep the items.</p> <p>Task</p> <p>What would you do to neatly keep the items? <i>(Teacher moves around the class to see how learners are working with a purpose of checking on those with misconceptions)</i></p>	<p>Learners are doing in groups</p> <p>Expected answer</p> <p>Alternative 1</p> <ol style="list-style-type: none"> 1. We would first remove the items from the bags 2. Then <u>sort</u> them out according to their likeness 3. Pack the same item in one shelf <p>Alternative 2</p> <ol style="list-style-type: none"> 1. Others will just pick the items direct from the bags straight to the shelves but being mindful that they have <u>sorted</u> them to their respective groups <p>Alternative 3</p> <ol style="list-style-type: none"> 1. Others may just simply pack the items without <u>sorting</u> them according to their likeness. <p><i>(Probe to find out why they chose to pack items the way they have done. Learners will explain why. The teacher uses other learners to explain why items must be sorted according to their likeness)</i></p>	<p>Check learner's ability to;</p> <ul style="list-style-type: none"> ✓ Observe and describe objects ✓ Sort homogenous objects ✓ Creatively group objects in different boxes ✓ Share ideas in group through discussion ✓ Collaborate and take roles in the groups





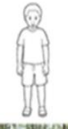




<p>15 Minutes Lesson development stage</p>	<p>KEY QUESTION</p> <p><u>How can we identify and describe a set?</u></p> <p><i>(Teacher allows the learners to think in groups and discover this on their own).</i></p> <p>(Think : Group share strategy)</p> <p>A teacher uses the items bought by Mr. Baale.</p> <p>Task</p> <p>1. Describe the items packed in the shelves</p>	<p>Anticipated responses</p> <ul style="list-style-type: none"> ✓ By looking at the items that form that set ✓ By looking at what common characteristic relates the items <p><u>Anticipated responses</u></p> <p>Alternative response 1</p> <ul style="list-style-type: none"> • Some learners will say ; <p>A set of cups A set of mineral water bottles A set of Plates A set of markers</p> <p>Alternative response 2</p> <p>While others may say;</p> <ul style="list-style-type: none"> • Others are likely to draw the items and name the set <div data-bbox="913 1034 1167 1206">  </div> <p>A set of cups/ A group of cups</p> <p>A set of mineral water bottles</p>	<p>Check learner's ability to;</p> <ul style="list-style-type: none"> ✓ Identify the grouped items in the boxes as different sets (by sorting and grouping) ✓ Describe a set as a well-defined collection of distinct objects (by labeling the different boxes) ✓ Handle the objects with care while grouping them ✓ Confidently communicate as they share their ideas to the rest of the class <p>Learners will share their ideas before the class to bring out the identification and description of a set.</p>
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	<p>2. Why have you packed the items in that order?</p> <p>How would you describe the following collection of items</p>  <p><i>(Teacher emphasizes what to consider when describing a set)</i></p>	 <p>set of markers</p>  <p>A set of plates</p> <p>Alternative response 2 Some learners will realise that one shelf does not have any items placed in it. And therefore teacher will probe to find out if the empty box describes a</p> <p>Anticipated responses</p> <ul style="list-style-type: none">➤ Because they resemble➤ Because they are the same <p>Anticipated responses Set cannot be distinctively described because the items in it are mixed.</p>	<p>Check learner's ability to;</p> <ul style="list-style-type: none">✓ Describe the elements of a set✓ Learners ability to name and label the sets correctly✓ Describe the empty shelf to represent an empty set
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<p>10 Minutes Evaluation (Exercise to check on attainment of learning)</p>	<p>Describe the following sets</p> <p>i) </p> <p>ii) </p> <p>iii) </p> <p>iv) </p>	<p>Learning points</p> <p>i) A set of books</p> <p>ii) A set of coloured flowers</p> <p>iii) A set of leaves</p> <p>iv) A set of words with 1st letter as B</p>	<p>Check whether learners are able to use the knowledge, understanding and skills to respond to the exercise</p>
<p>5 Minutes Conclusion stage</p>	<p>Recap: How can we describe elements of a set?</p> <p>Of what economic value is learning sets?</p>	<p>Learners should be able to respond by saying;</p> <p>✓ A set is a collection of well-defined members or elements</p> <p>I will use the knowledge of describing sets to pack items in a shop of same size with same price market, foods in a restaurant are arranged and labelled ,packing items in boxes etc.</p>	<p>Check whether learners were able to describe a set and identify elements of a set</p>

WORK SHEET FOR LEARNERS

In your groups, discuss and fill in the table

ITEMS	DESCRIPTION OF ITEMS	ITEM	DESCRIPTION OF ITEMS
			
		<div style="border: 1px solid black; border-radius: 50%; padding: 10px; text-align: center;"> Ball, Basket, boy, bottle, bread </div>	
		<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center;">    </div> <div style="text-align: center;">   </div> </div>	
1. Of what economic importance is this competency of describing sets?			

WORK SHEETS

Mr. Baale went to do shopping for his family and bought the following items. plates, cups, mineral water and markers He handed over to his family members who were to keep the items.

Task

What would you do to neatly keep the items?