ACTION RESEARCH REPORT 2024

ENCHANCING THE UNDERSTANDING OF GRAM AND KILOGRAM

AMONG 3'rd STUDENTS

RESEARCHER

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Submitted to

STATE COUNCIL OF EDUCATIONAL RESEARH AND TRAINING

CHENNAI-06

CERTIFICATE

This is to certify that M.RAMU Senior Lecturer District Institute of Education and Training, Tirur, Thiruvallur Distric. has done her action research on ENHANCHING THE UNDRSTANDING OF GRAM AND KILOGRAM AMONG 3rd STUDENTS .This topic was approved by the research committee Further the researcher has not done this research previously.

Principal

District Institute of Education and Training, Tirur, Thiruvallur District.

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INTRODUCTION

Mathematics offers children a powerful way of communicating. They learn to explore and explain their ideas using symbols, diagrams and spoken and written language.. Studying mathematics stimulates curiosity, fosters creativity and equips children with skill they need in life beyond school. Measurement of weight, volume, and length and time hasnow becomes part of our daily life. When we go to market to purchase vegetables, we normally buy vegetables on the basis of weight but not in numbers because it is easier to buy the vegetables by weighing it in gram or kilogram than counting their numbers. On the other hand, it is difficult to assess the volume of vegetables, because vegetables are different in size and shapes.

A gram (g) is used to measure the weight or mass of very light objects. A small kilogram (kg) is used to measure the weight of or mass of the heavier objects. A one little bottle of water weighs about a kilogram.

At early level, children should have experimented with using every day items as units of measure. They should have experienced investigating and comparing sizes and amounts in their environment.

At first level, they will build on this, estimating how long or how heavy an objects using appropriate instruments and units of measure.

Activity builds on this learning by introducing standard metric units of measure and relationship between grams and kilograms.

Identity the problem

As per the order of State Council of Education Research and Training, Chennai-6 and District Institute of Education and Training, Tirur, Thiruvallur District, school has been visited during the school visit of panchayat union primary school, poonamalle in poonamalle block in Thiruvallur District the Researcher feel students of this school has a problem in understanding of gram and kilogram and conversion, Hence the school has been taken for action Research.

Need of the Action Research

- To develop Measurement skills
- To understand and to explore grams and kilograms
- To explain how to use balance scale and compare weights
- To explore and measure the objects around them
- To help them get familiar with units of mass

Objective

- To drill children until they can able to measure objects using units of grams and kilograms.
- Student will be able to orally describe the relationship between grams and kilograms when solving one step word problem.
- To make the student to understand correct usage of grams and kilograms
- To convert gram into kilogram and kilogram into gram

Sample

15 students of Pups ,poonamalle in Tiruvallur district

Importance of Action Research

- Action research helps the teacher to turn from the traditional methods of teaching to those methods that are modern and effective, hence the ensuring the satisfaction of the needs of the students.
- It helps teachers develop new knowledge directly related to their classrooms
- It promotes reflective teaching and thinking
- It reinforces the link between practice and student achievement.

Probable causes

- Children do not have knowledge about grams and kilograms
- They do not have enough practice
- Lack of Interest and modification
- Inability to identity the correct units
- Lack of fluency in the mental visualization.
- Lack of skill and practice.

Probable Solution

- Children are provided many opportunities to measure objects in grams or kilograms
- Activities are provided to identity the correct units
- Making them to do simple problems
- Making the students to apply the measuring skills in daily life

Plan of Action

- Conducting pre-test
- make them to do plenty of hands on activities
- conducting post test
- Collection of data and analysis
- Evaluation

INTERVENTION

Grams

Gram is a unit of measurement used to measure very light objects. For example, a small metal paperclip has a mass of around 1 gram. Other objects with a mass of about 1 gram are a stick of gum and a dollar a bill. We can abbreviate the unit gram with the letter g.

Kilograms

Kilogram is a unit of a measurement used to measure much heavier objects. For example, a one - liter bottle of a soda has a mass about 1 kilogram. Fruits such as small watermelon and pineapples also a mass of around 1 kilogram. We can abbreviate the unit with the letters kg.

ACTIVITY 1

Grams and Kilograms

ACTIVITY 2

Measuring the liquid (oil)

Activity 3

Students are trained to feel the weights

ACTIVITY 4

Introducing iron grams and kilograms

ACTIVITIY 5

Students are trained to measure the vegetables in grams and kilo grams

ACTIVITIY 6

Students are trained to buy the vegetables

ACTIVITIY 7

Students are trained to convert the units

ACTIVIIY 8

Choose the suitable unit:

 gram / kilogram	 gram / kilogram	 gram / kilogram
 gram / kilogram	 gram / kilogram	 gram / kilogram
 gram / kilogram	 gram / kilogram	 gram / kilogram
 gram / kilogram	 gram / kilogram	 gram / kilogram

ACTIVITY 9

Students are trained to measure the items in grams and kilograms

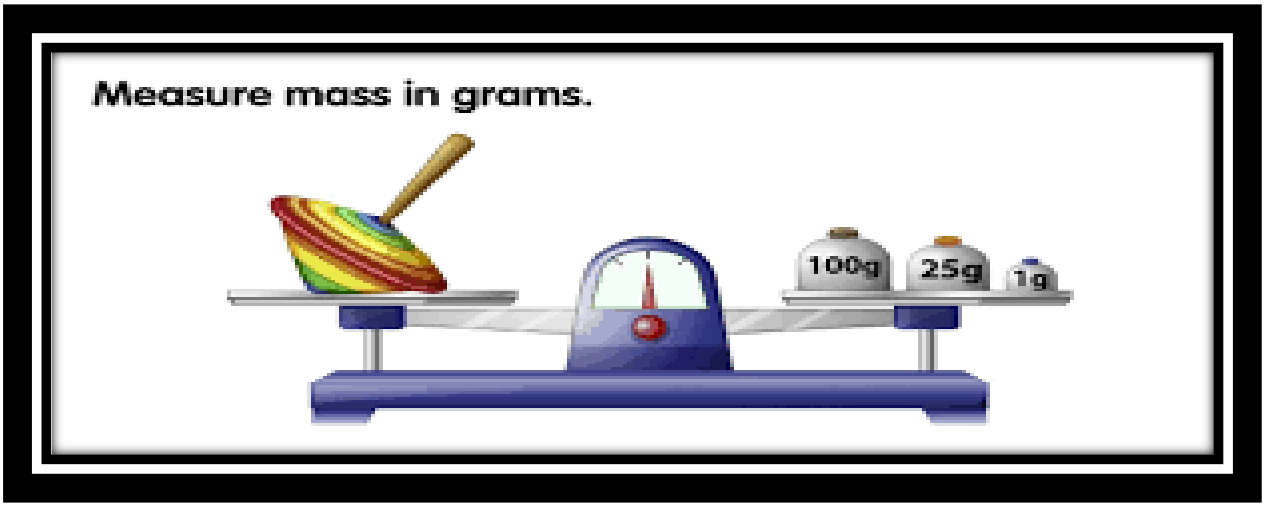
ACTIVITY 10

Let’s go for shopping

Students are trained to buy the items in grams and kilograms

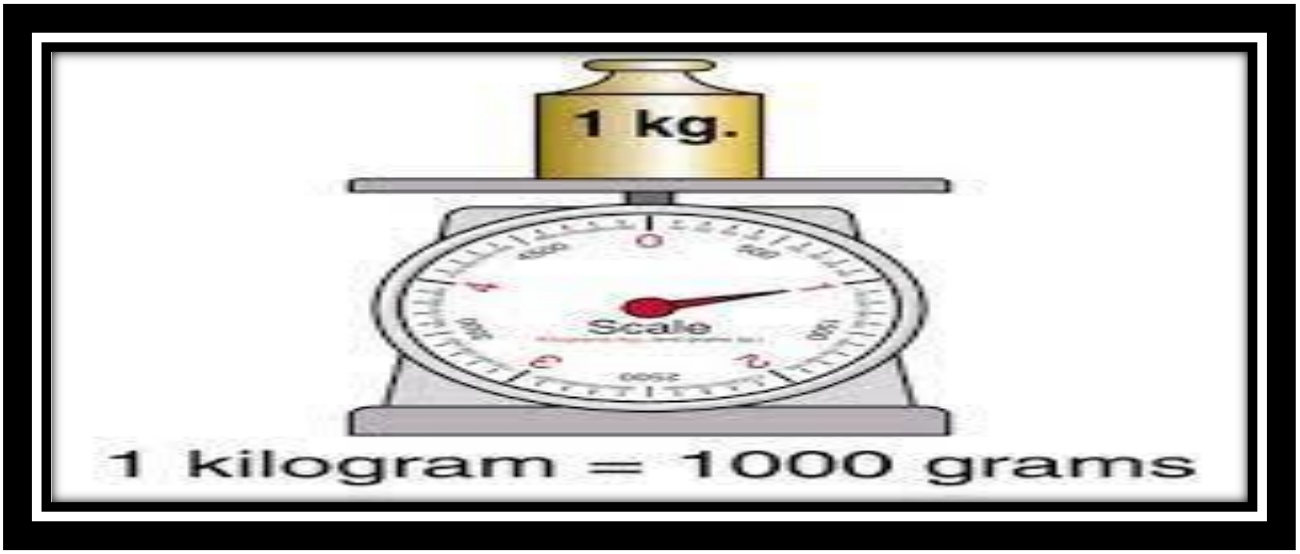
ACTIVITY 11

Measure mass in grams



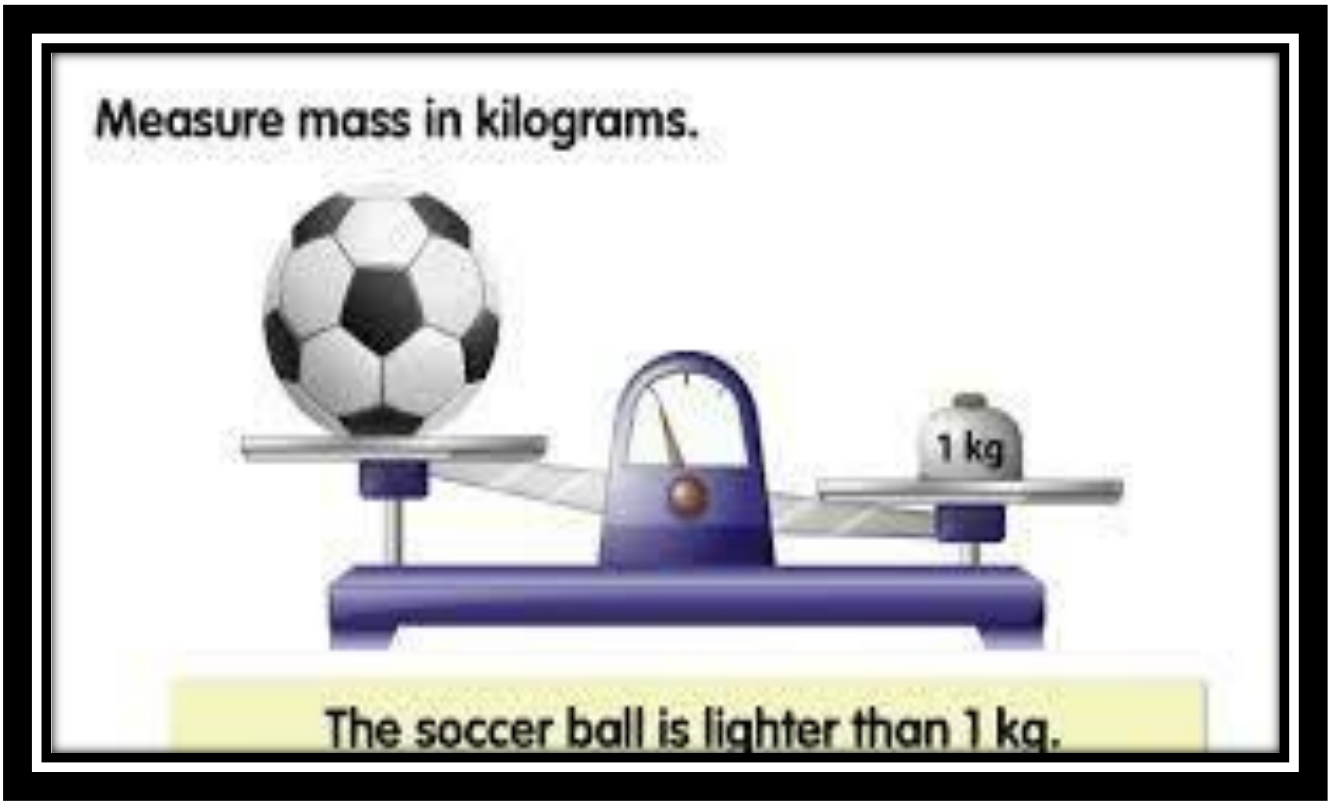
ACTIVITY 12

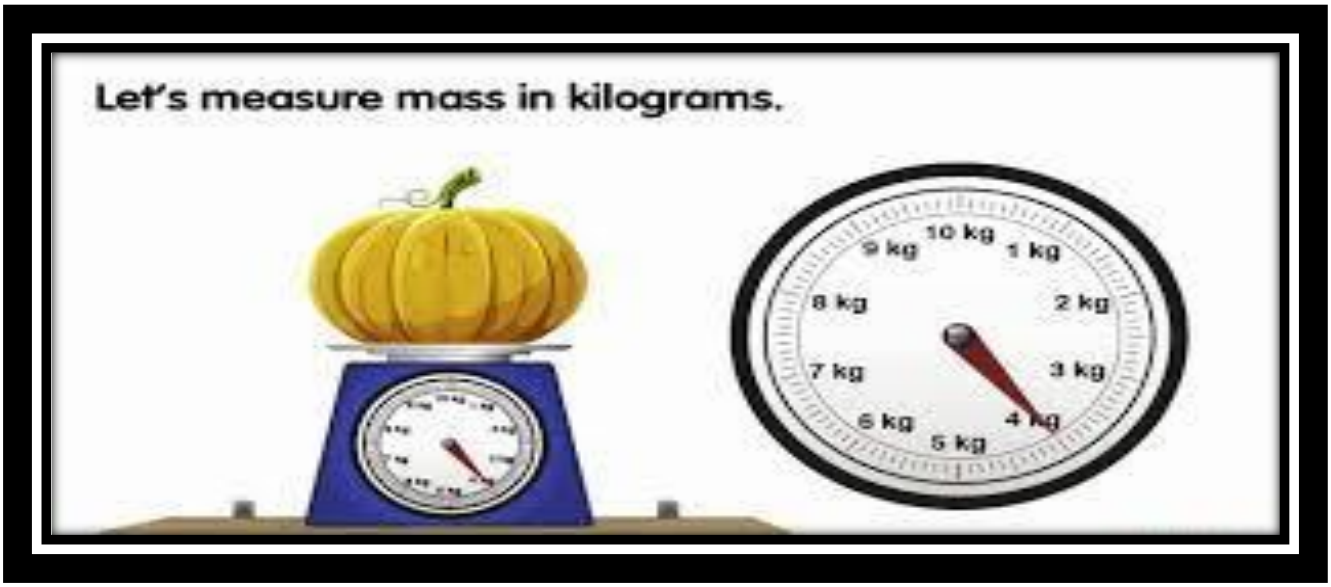
Measure in kilograms



ACTIVITY 13

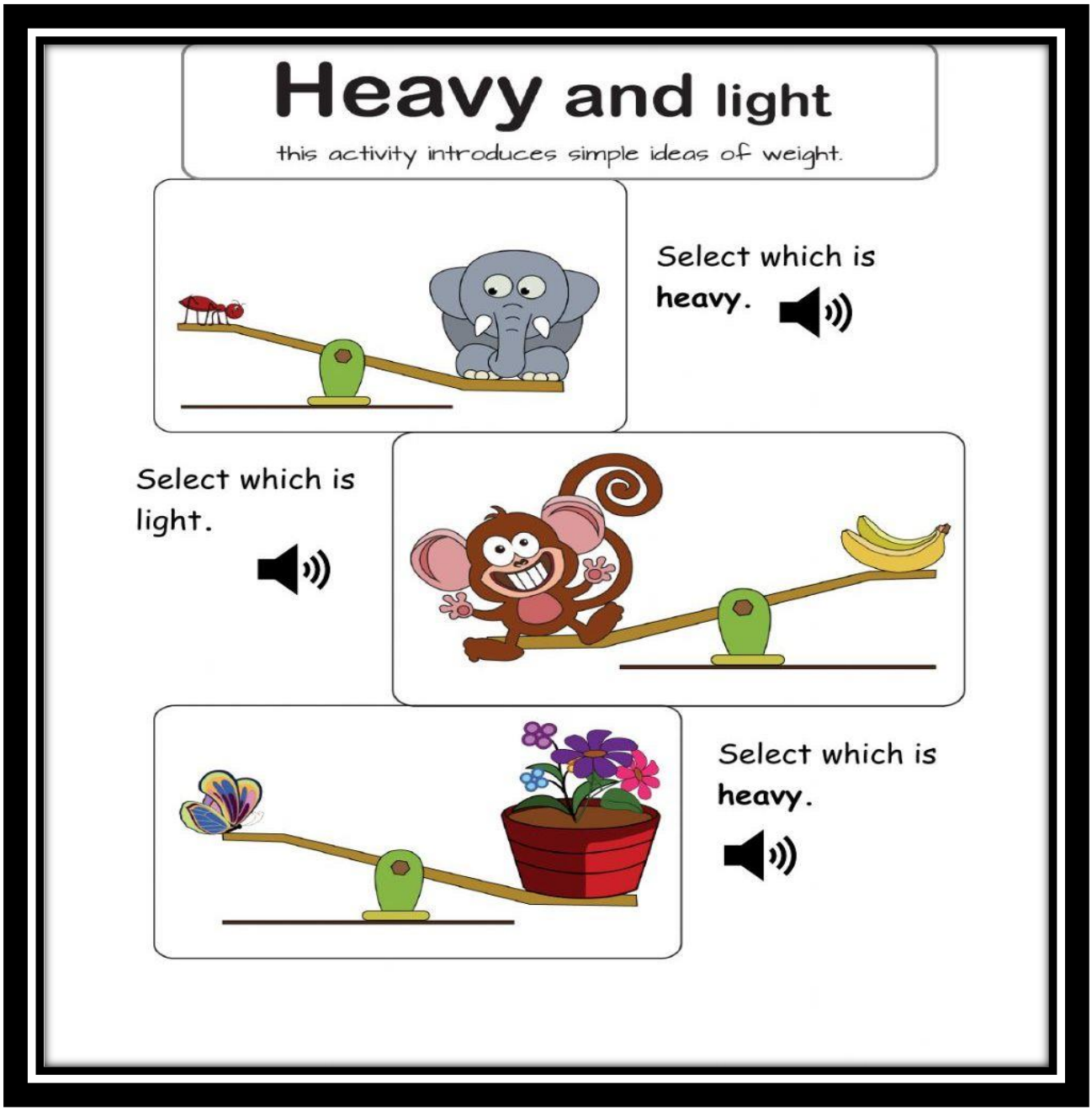
Measure mass in kilograms





ACTIVITY 14

Simple ideas of weights



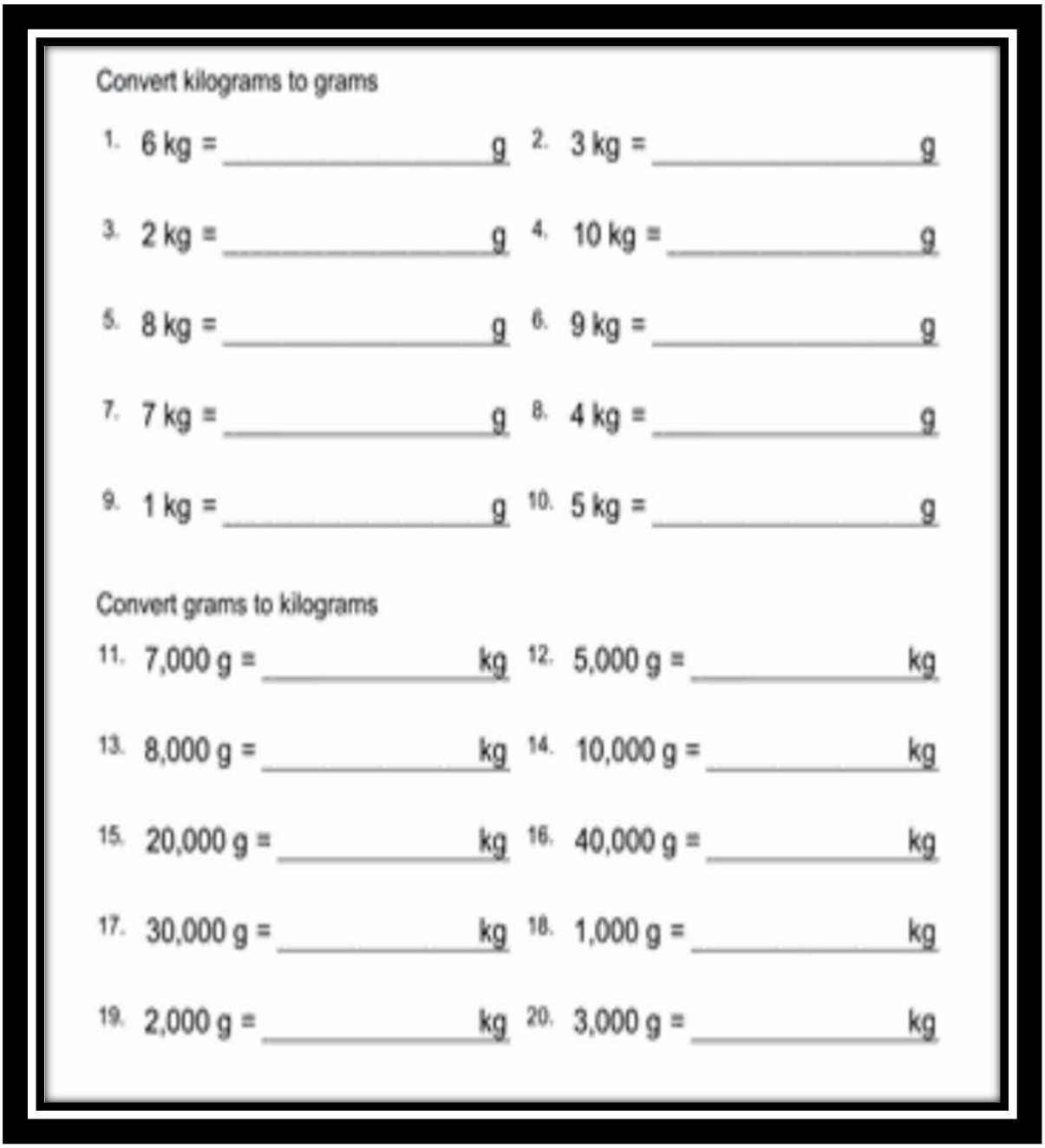
ACTIVITY 15

Converting kilograms into grams

1 kg	1,000 g
5 kg	5,000 g
0.5 kg	500 g
0.1 kg	100 g
0.001 kg	1 g
0.01 kg	10 g

ACTIVITY 16

Conversion



Convert kilograms to grams

1. 6 kg = _____ g
2. 3 kg = _____ g
3. 2 kg = _____ g
4. 10 kg = _____ g
5. 8 kg = _____ g
6. 9 kg = _____ g
7. 7 kg = _____ g
8. 4 kg = _____ g
9. 1 kg = _____ g
10. 5 kg = _____ g

Convert grams to kilograms

11. 7,000 g = _____ kg
12. 5,000 g = _____ kg
13. 8,000 g = _____ kg
14. 10,000 g = _____ kg
15. 20,000 g = _____ kg
16. 40,000 g = _____ kg
17. 30,000 g = _____ kg
18. 1,000 g = _____ kg
19. 2,000 g = _____ kg
20. 3,000 g = _____ kg

Pre test and post test mark of student of Municipal primary school, Poonamallee,Thiruvallur district

S.NO	NAME OF THE STUDENT	PRE-TEST	POST-TEST
1	S.KAVINSAI	10	16
2	K.BALAKUMAR	12	18
3	M.KAVIRAM KUMARAN	11	17
4	A.DESESH	13	20
5	K.DILSAN MANSARI	10	18
6	R.SANDY	8	15
7	B.SEYON	9	16
8	S.HARIHARAN SUDHAN	11	17
9	B.ANGUSH KUMAR	12	20
10	S.SATHYA	8	14
11	B.SASVI NI	13	20
12	E.THASNEEM	7	13
13	S.S.MAHALAKSHMI	9	16
14	A.NITTHIKA	12	18
15	B.SUBHA SREE	14	20
	TOTAL	159	258

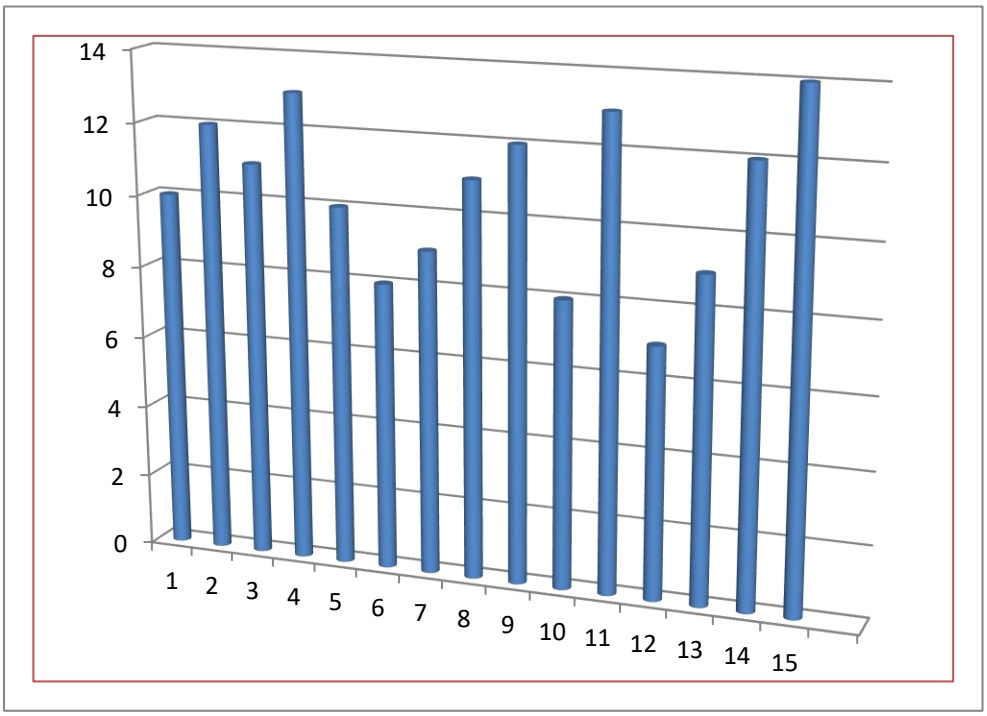
Average of pre test mark is 10.6

Average of post test mark is 17.2

Percentage of pre test - 53%

Percentage of post test - 86%

PRE-TEST MARK

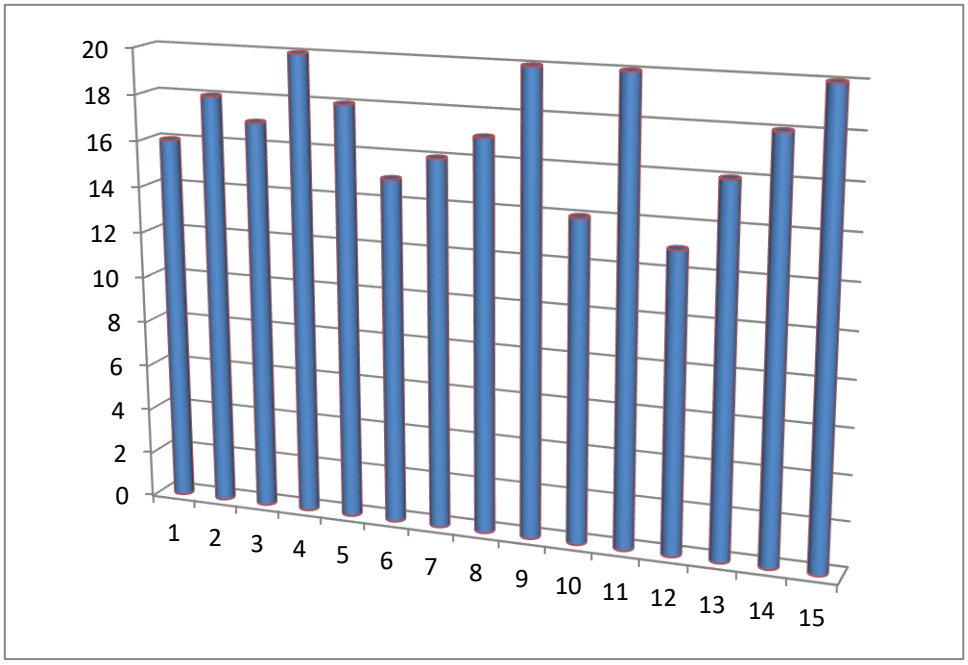


Mark

Number of students

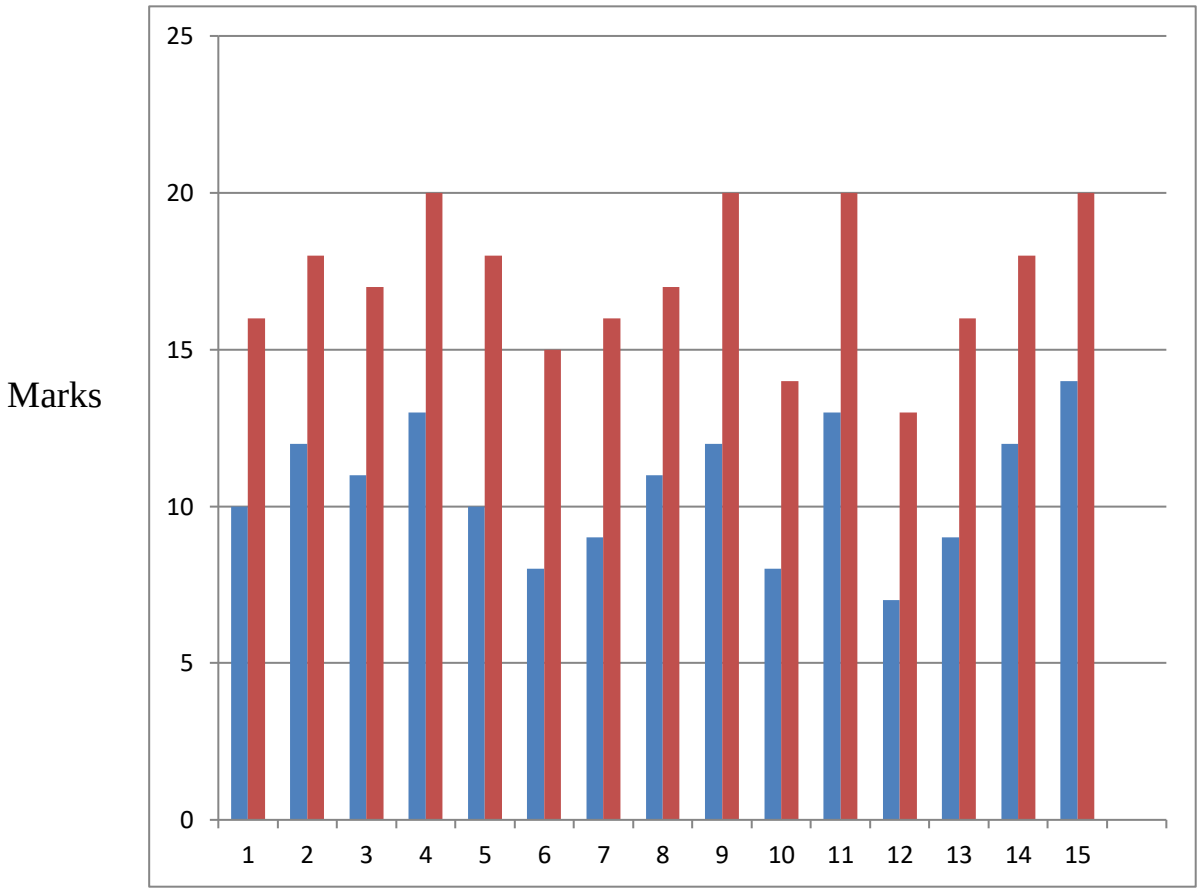
POST-TEST MARK

Mark



Number of Students

COMPARISION OF PRE-TEST & POST-TEST



FINDINGS:

From the calculation it is found that the drill and practice is more effective in doing problems based on activities given. The scores scored by the students in the post test higher than the scores in the pre test

Average Marks of pre-test - 10.6

Percentage of pre test - 53%

Average Marks of post-test - 17.2

Percentage of post test - 86%

Conclusion

Children are provided many opportunities by the teacher to measure objects in grams or kilograms and providing many activities to identify the correct units and making them to do simple problems and making the students to apply the measuring skills in daily life would enhance their learning and understanding skill. Good teachers should always teach children and students to do problems independently. The primary role of a teacher is to delivery classroom instructions that helps students learn

Panchayat union primary school poonamallee Tiruvallur district-602025

Pre Test /Post Test **Time: 1 hour**

Class: III **Mark: 20**

I. **Answer all the questions**. 5X1=5

Which is heavier?

1. Pen or wooden scale

2. Scooter or cycle

3. Book or pencil

4. Chalk piece or Duster

5. Television or cell phone.

II. **Choose the suitable unit** 5X1 = 5

6. Pen. Gram /Kilogram

7. Watermelons Gram /Kilogram

8. Eraser Gram /Kilogram

9. Cat. Gram/Kilogram

10. Pumpkin Gram /Kilogram

III. Convert Kilogram into Gram. 5X2 =10

11. 5Kg =

12. 9Kg =

13.10Kg =

Convert Gram into kilogram

14.500 Gram =

15.295 Gram =

Photo gallery

Teacher expalins to the students how to weigh the things

Student practice

Researcher explains about light weight and hard weight

Weight measuring activity

Researcher teaching conversion method

Weight measuring activity