

**GUYANA
MINISTRY OF EDUCATION
NATIONAL GRADE NINE ASSESSMENT
2014**

**SCIENCE
PROJECTS**

PROJECT 1: OBSERVING DIFFERENCES

25 marks

Objectives

1. To collect data
2. To record data in an appropriate format
3. To analyze and interpret data

Materials

- 15 students
- Notepads
- Geometry Set
- Tape measure
- Pen/pencil

Names	Height	Shoe Size	Hair Length	Weight	Left/Right Handed

Procedure

1. Select 15 students in your class
2. Observe 5 physical differences stated in table.
3. Record your data in the table shown.
4. Represent 3 physical differences in the following manner.
weight – pie chart
height – pictograph
shoe size – bar chart

Discussions

1. What is meant by the term data?
2. State which student has similar physical features as you and why?
3. Describe student no. 7.

PROJECT 2: CALCULATING THE COST OF THE ELECTRICAL ENERGY USED IN YOUR HOME.

25 MARKS

Objectives

1. To become aware that different electrical appliances use different amounts of energy.
2. To calculate the amount of energy used by each electrical appliance.
3. To calculate and compare the cost of using different electrical appliances.

Materials

- (1) Light bulbs,
- (2) Electrical iron
- (3) Electric fan
- (4) Refrigerator
- (5) Television

Or any other electrical appliance found in the home.

Theory: **The amount of electrical energy used depends on the time for which the appliance works and the power of the appliance.**

Procedure

1. Select any 5 household electrical appliances.
2. Check each appliance for its power rating and record data on a table.
3. Note and record the number of hours each appliance is used per week.

Electrical Appliances	Power Rating (Kilowatts/Kw)	Time hours/h	Electrical Energy used KW/h

4. Create a bar chart for the appliances investigated against their power rating.

Discussions

1. What does the power rating of an electrical appliance mean?
2. Using the information on the bar chart you created, state which appliance:
 - (i) used the most electrical energy.
 - (ii) Used the least electrical energy.
3. Which appliance is more expensive to operate? Justify your choice.
4. Make a conclusive statement based on your interpretation of the information in your bar chart.

