

**GUYANA  
MINISTRY OF EDUCATION  
NATIONAL GRADE NINE ASSESSMENT  
2015**

**SCIENCE**

**PROJECT**

**Project 1                      Food Storage Organs**

**Objectives**

1. To classify food storage organs found in plants.
2. To draw sketches of storage organs showing structural details used to identify class.
3. To compare growth of buds and young plants from each class of storage organs.

**Materials**

Four (4) samples of storage organs  
Notepads  
Sketchpads  
Potting soil  
Four (4) Containers

**Procedure**

1. Collect samples of four (4) types of storage organs.
2. Sketch, label and describe samples.
3. Prepare a picture chart with written descriptions.
4. From each sample select parts with buds to be used for planting.
5. Prepare containers with potting soil.
6. Plant the selected materials.
7. Record the date of planting and date of sprouting of buds or young plants.
8. Observe growth every three (3) days for twenty-one (21) days.
9. Record information / observations in a table.

## Discussion

1. Use the table below to name and describe **four (4)** types of Food Storage Organs.

No.	Storage organ	Part of plant	Similar Example	Food nutrient
1.				
2.				
3.				
4.				

2.
  - (a) Define vegetative reproduction.
  - (b) State the type of vegetative reproduction that occurs in each of the four (4) samples selected.

## Things to submit

A project report / journal which includes:

- (a) picture chart
- (b) record showing growth of plants over a three (3) week period
- (c) labelled drawings of storage organs
- (d) a conclusion

**END OF PROJECT**

## **Project 2                    Recycling / Reusing household materials**

### **Objectives**

1. To identify household materials that can be recycled / reused.
2. To classify and calculate percentage (%) of materials identified.
3. To draw a pie chart to represent the number of materials that can be recycled / reused.
4. To create **two (2)** household items from materials identified.

### **Materials**

1. Discarded household materials / items
  - household plastics e.g. bags, containers, etc
  - cardboard boxes, rolls, etc
  - wooden items – popsicle sticks, toothpicks, matchsticks etc
  - metal - cans, corks/ caps etc.
  - paper – newspaper, magazines
  - glass – bottles, etc
2. Paste
3. Cutting instrument / scissors
4. Colouring materials e.g. markers, paint, crayons , pastels
5. Geometry set

### **Procedure**

1. Collect household recyclable / reusable materials over a **one (1)** month period.
2. Tabulate the percentage of each material.
3. Represent the tabulated information on a pie chart.
4. Create **two (2)** useful household items from any of the materials identified

## Discussion

1. Based on the findings from your investigation;
  - (a) which household materials is mostly used for recycling / reusing?
  - (b) which household material is the least useful for recycling / reusing?
  - (c) which is the most common household material discarded by your family that could be recycled / reused?
2. Explain the usefulness of **two (2)** household items you have created.

## Things to submit

A project report / journal which includes:

- a list of collected household recyclable / reusable materials
- a table with type, amount and percentage of each material collected.
- a constructed pie chart representing data in the table.
- two (2) created household items.
- a conclusion.

**END OF PROJECT**