Lesson 8: Recyclable materials in making useful products

Duration: 5 days

I. Objectives:

1. Identify local materials that can be recycled.
2. Classify materials that can be reduce, reuse and recycle

II. A. Materials:

Plastic drinking bottle	tissues
Juice wrappers	paper towels
Old newspapers/magazines	Styrofoam
Soft drinks cans	plastic bags
Scrap papers	pesticides

B. References:

Curriculum Guide Grade Five S5MT-Ih-i-4

https://ocrra.org

C. Process Skills: Observing, Identifying, Classifying, Investigating

D. Values Integration: Solid Waste Management

III. Learning Tasks:

A. Engagement:

1. Motivation/Review:
   a. Collect solid wastes from the pupils into a corner of a room.
   b. Seat the pupils around the pile of solid waste
   c. Call 3 pupils to sort the materials from the pile of waste.
   d. Which of these materials are still useful to us? Which of these are cannot be reused?
   e. How are you going to dispose these materials?
   f. Why do we need to recycle?
   g. What are some other things we can do apart from recycling?
2. Present the new lesson
   Waste management is an important part of a wider goal to improve the way we look after our environment.
   For today's lesson, you will think of some ways by which we can identify materials and classify them if it can be reduce, reuse and recycle.

B. Exploration:

1. Split the class into 2 teams.
2. Prepare the materials needed for the activity.

3. Set standards to follow while doing the activity.
4. Provide each group the materials needed.
5. Remind the pupils on how to handle the materials properly.
6. Have each group perform Lesson 8: LM Activity 1-“How will you classify materials that can be reduce, reuse and recycle?”
7. Go about the room and oversee the work of the pupils.

C. Explanation

1. When time is up, ask the pupils to answer the following guide questions:
    - How do you find the activity?
    - What materials did you use in the activity?
    - What did you do with the materials?
    - How did you sort the different items given?
    - What are their characteristics?
    - What are the properties of each kind of materials?
    - Which of the materials can be reduce? Reuse? Recycled?
    - What are the ways of disposing waste materials?
    - What did you learn in this activity?

D. Elaboration:

Background information for teachers:

- Waste management is the precise name for collection, disposal or recycling of wastes.
- Proper segregation of waste materials should be observed.
- Classifying materials is important to know whether the materials is to be reduce, reuse or recycle in making useful products.

E. Evaluation:

Given are some of the waste materials in our surroundings.
Classify each materials in their proper column.

Plastic bottle	Tissue papers
Candy wrappers	Plastic bags
Old magazines	Styrofoam
Tin cans	Paper plates
Card boards	Insecticides
Aerosol sprays	Glass bottle

Reduce	Reuse	Recycle

IV. Assignment:

Go to public market in your place. Identify some recyclable materials that can be made into useful products.

Lesson 9: Product out of local recyclable solid materials

Duration: 5 Days

I. Objectives:

1. Identify local recyclable solid materials that can be used in making useful product
2. Explain ways in making useful materials and products
3. Design a product out of local recyclable solid materials

II. A. Materials:

Tin cans
Plastic drink bottles
Cardboard/boxes
Old newspapers/magazines
Juice wrappers/candy wrappers
Glue
Scissors
Paint
Paint brush

B. References:

Curriculum Guide Grade Five S5MT-Ih-i-4
https://educators.brainpop.com/lesson

C. Process Skills: Observing, Identifying, Inferring, Investigating

D. Values Integration: Proper management of materials to avoid wastage

III. Learning Tasks:

A. Engagement:

1. Motivation/Review:

1. Have the pupils go around the classroom.
2. Have them list down at least ten materials they see in the classroom
3. Ask: What materials in your list are solids?
   Are these materials can be made into useful products?

2. Presentation of new lesson

For today's lesson you will think of some ways by which you could make a product out of recyclable solid local materials.

B. Exploration:

1. Divide the pupils into five groups.
2. Provide the materials equally to every group.
3. Set the standards to be followed while doing the activity.
4. Ask each group to dream up a product that consist only of recyclable materials.
5. Have them begin by brainstorming ideas and draw detailed diagrams of the product.
6. Make your own product out of the local materials that you have
7. Remind each group that they will be presenting their output in class after the activity.

C. Explanation:

1. Ask each group to present their data and answer the following guide questions:

Ask:

a. What are the recyclable materials did you use?
b. What are the materials made up of?
c. Where can you find these materials?
d. What materials did you add to make a useful product?
e. Explain the improvement done on materials.

D. Elaboration:

Have the pupils construct and express their own understanding. Pupils should be able to understand that:

- Recycle is to make something new from something that has been used before.
- Recyclable solid local materials can be made into useful products.
  Example: plastic drinking bottles can be made into flower vase or pots
  Juice wrappers can be made into bags
  Old newspaper and magazines can be made into pencil holder

E. Evaluation:

Recyclable materials can be made into useful products.
Identify some waste materials that can be found at home, classrooms, and offices that can also be made into useful products.

Home	Classroom	Office

IV. Assignment:

Identify one material at home that can be recycled and make your own product out of the recycled materials.

F. Exploration:
(Recycling Relay)

1. Set 3 bins and label each bin with reduce, reuse and recycle.
2. Split the class into 2 teams.
3. Scatter the items in front of the start line.
4. Remind the pupils on how to handle the materials properly.
5. One at a time, the team must pick up an item that is in their team and put it in one of the 3 bins.
6. Only give a certain amount of time.