



Technological University of the Philippines – Taguig
Km. 14 East Service Road, Western Bicutan Taguig City

VISION: The Technological University of the Philippines shall be a premiere state university with recognized excellence in engineering and technology education at par with the leading universities in the ASEAN region.

- I. Objective:**
At the end of this lesson students should be able to:
1. Explain the types of recycling, the advantages of recycling, and five common recyclable materials.
 2. Create a functional object (e.g., a pencil holder, planter, or decor) using recycled materials.
 3. Share at least two personal commitments to reduce waste and support recycling as a sign of valuing environmental responsibility.

- II. Subject Matter:**
Creating Projects from Recycled Materials
Grade 7 and Grade 8

- III. Materials:**
1. Laptop
 2. Projector
 3. PowerPoint Presentation
 4. Printed Materials

IV. Procedures

Teachers' Activity	Student's Activity
<p>A. Preparation</p> <p>a. Prayer Before we start, please stand up for a prayer. May I ask _____ to lead the prayer.</p> <p>b. Greetings and Introduction Good Afternoon class! Good afternoon once again! My name is Jonalyn Elumbra, you can call me Ma'am Jo for short, and I will be your teacher for today's lesson.</p> <p>c. Classroom management Alright class, before you settle, please take a look around your area. If you see any pieces of paper or trash, kindly pick them up. Also, make sure your chairs are properly aligned. Once you're ready, please take your seat.</p> <p>d. Checking attendance Okay class let's check your attendance class secretary, kindly check the attendance and report who is absent today</p> <p>e. Classroom rules R – Respect everyone U – Understand instructions L – Listen carefully</p>	<p>Student 1 leads the prayer</p> <p>Good Afternoon, ma'am Jo! It's nice to see you again.</p> <p>Yes, ma'am Jo. Thank you, ma'am Jo,</p> <p>Ma'am I have checked the attendance, and no one is absent today.</p>

<p>E – Engage fully S – Stay focused Are we all clear?</p>	<p>Yes Ma’am.</p>
<p>A. Motivation</p> <p>Before we dive into today’s topic, let’s play a fun game called “Guess the Picture: Recyclable or Reusable Edition” to get our minds warmed up!</p> <p>I’ll show you the pictures of everyday items you might find in the classroom, at home, or outdoors but only part of the picture at first. You have to guess what the item is. Then, decide: Is this item recyclable? Or can it be reused?</p> <p>After your guesses, I’ll reveal the full picture and explain why the item can be recycled or reused and Why?</p> <p>Let’s review, what have you learned about the previous topic?</p>	
<p>B. Lesson Proper</p> <p>Before we start our lesson today, I’d like to ask you something personal. Who here has done anything recently to reduce waste or help the environment?</p> <p>That’s a wonderful commitment! You’re helping reduce single-use plastic. Anyone else?</p> <p>Very good! That’s an important step in managing waste responsibly. Anyone else want to share?</p> <p>Anyone who has the Idea what Recycling is?</p> <p>There are 2 Types of Recycling, Internal recycling and External recycling, what is Internal recycling? Can you give an example?</p> <p>Yes, very good. How about External recycling anyone can define and give examples of External recycling?</p> <p>That’s Correct! Very good answer, now that we already know the difference between Internal and External recycling, what do you think are the advantages of recycling?</p>	<p>Student 1: Ma’am, I started bringing my own tumbler to school so I don’t buy plastic bottles anymore.</p> <p>Student 2: Ma’am, at home, we separate our trash. We have a separate bin for recyclables like bottles and cans.</p> <p>Student 3: Ma’am, I reuse old clothes for cleaning rags instead of throwing them away.</p> <p>It is a process of transforming an item which has already served its original purpose but is still durable into something that can still be used for another purpose</p> <p>Internal recycling involves the use of materials that are waste products of a manufacturing process. An example of this is the processing of spent grain mash, a waste product of distillation, into cattle feeds.</p> <p>Ma’am, External recycling is the reclaiming of materials from a product that has been worn out due to constant use. A good example of this type is the conversion of old newspapers and magazines into other paper products.</p> <p>Ma’am the Advantages of Recycling are:</p> <ol style="list-style-type: none">1. Decrease pollution and ease the garbage pollution2. Conserve resources3. Enhance creativity and resourcefulness4. Potential in making a profitable business5. Makes people environmentally aware6. Promotes scientific advancements in recyclable and biodegradable materials

<p>Very good idea!</p> <p>What do you think are the common materials used in recycling? And Why?</p> <p>Very Good Answer, You have additional 2 points for our quiz.</p> <p>Another hand?</p> <p>Yes correct, Additional 2 points for quiz.</p> <p>I need other hands.</p> <p>Yes correct, Additional 2 points for quiz.</p> <p>Another What materials are commonly recycled, and why are they useful?</p> <p>That's right, Additional 2 points for the quiz.</p> <p>Another hand?</p> <p>Yes correct, Additional 2 points for quiz.</p> <p>Another hand? Last 1 for 2 points.</p> <p>Very good answer class, Thank you class for sharing your thoughtful answers. Your insights clearly show how different materials can be creatively recycled into useful and artistic items, helping to promote environmental awareness and sustainability. Let's give a round of applause to everyone.</p>	<p>Ma'am, Paper Why? Because you can make many useful things like paper bags, gift wrappers, paper sculptures, and even baskets. It's easy to reuse and turn into art or packaging.</p> <p>Ma'am, Plastic containers Why? Because they can be turned into planters, organizers, or decorations. It helps reduce plastic waste and gives new use to old containers.</p> <p>Ma'am, Glass bottles Why? They are strong and reusable. You can make terrariums, storage items, or even cut and bend them into decorative tiles and art pieces.</p> <p>Ma'am Fabric scrap Why? Because leftover cloth can be used for quilting, making rugs, toys, and accessories. It's a creative way to avoid wasting fabric.</p> <p>Ma'am Yarn wastes Why? You can use them to make things like rugs, dolls, or embroidery. It's a fun way to make crafts and decorations using leftover yarn.</p> <p>Ma'am Tin cans Why? They're great for making storage bins, planters, candle holders, and even lamps. It's a smart way to recycle metal and avoid throwing it away.</p> <p>"Students are Clapping"</p>
<p>C. Generalization</p> <p>Who can explain the difference between internal and external recycling, and give an example of each?</p>	<p>Internal recycling is when waste materials from a factory or manufacturing process are reused to make something else. For example, a factory might use leftover grain from making alcohol to feed animals. External recycling is when people recycle things they no longer need, like old newspapers or plastic bottles, to make new products. For example, old newspapers can be turned into new paper products.</p>
<p>D. Application</p> <p>For your Group Activity, here's the instruction: listen carefully. Let's form groups by counting 1 to 9. All students with the same number will be in the same group."Show that you learned something by making a recycled item!</p> <p>Activity: Recycled Craft Challenge</p> <p>Goal:</p> <p>Show what you've learned about recycling by creating a useful or decorative item made from recyclable materials!</p>	

Examples:

- Basket made from old newspapers
- Plastic bottle turned into a flower vase
- Tin can used as a pencil holder
- Coin purse made from scrap fabric
- Any other creative recycled item you can think of!

Guidelines:

- You will work in a group of 3 students.
- Use only recyclable or reused materials.
- You will have 25 minutes to complete your recycled item.
- Be creative, work as a team, and manage your time wisely.

Criteria	Excellent (25 pts)	Satisfactory (15 pts)	Needs Improvement (5 pts)
Creativity	Very original and creative idea	Some creativity shown	Lacks originality or copied idea
Material Use	Recyclable item used effectively and wisely	Material used properly but basic	Poor or improper use of material
Teamwork	All 3 members actively contributed	Only 2 members participated	Only 1 member worked
Usefulness/Design	Product is useful and nicely designed	Product is somewhat useful or decorative	No clear purpose or design
Time Management	Completed fully within 25 minutes	Slightly over time or missing minor details	Incomplete within the time limit

V. Evaluation

Choose the letter of the correct answer.

1. What is recycling?
A. Throwing waste into the ocean
B. Burning trash to reduce space
C. Reusing materials to create something new
D. Burying garbage in landfills
2. What type of recycling uses waste materials from manufacturing?
A. External recycling
B. Thermal recycling
C. Biodegradable recycling
D. Internal recycling
3. Which of the following is an example of internal recycling?
A. Turning plastic bottles into planters
B. Melting old glass into new jars
C. Using spent grain mash as cattle feed
D. Donating old clothes
4. External recycling is done by:
A. Throwing items away properly
B. Using scraps inside a factory
C. Reclaiming materials from used products
D. Burning old materials

5. Which of these is NOT a recyclable material?
- A. Newspaper
 - B. Plastic bottle
 - C. Banana peel
 - D. Glass jar
6. What is one advantage of recycling?
- A. Increases pollution
 - B. Conserves resources
 - C. Destroys ecosystems
 - D. Makes garbage disappear
7. Which material can be recycled into a basket or paper sculpture?
- A. Fabric
 - B. Plastic
 - C. Paper
 - D. Tin cans
8. Turning a tin can into a pencil holder is an example of:
- A. Internal recycling
 - B. External recycling
 - C. Upcycling
 - D. Composting
9. Why is plastic commonly recycled?
- A. It is cheap to burn
 - B. It decomposes quickly
 - C. It can be reused in many ways
 - D. It is organic
10. Which of the following promotes recycling?
- A. Using single-use plastics daily
 - B. Throwing bottles in rivers
 - C. Creating art from waste
 - D. Burning trash in your backyard

ANSWER KEY:

- 1. C
- 2. D
- 3. C
- 4. C
- 5. C
- 6. B
- 7. C
- 8. B
- 9. C
- 10. C

VI. Assignment / Agreement

Create a useful or decorative item using recycled materials.

- 1. Build: Design your item. Examples: pencil holder, planter, mobile, storage container.
- 2. Describe (50-75 words): Take a photo included in a document and write a short paragraph explaining **what you made** and **what recycled materials you used**.
- 3. Bring your Recycled Masterpiece next meeting together with the printed document.

Prepared by: Jonalyn Elumbra	Submitted To: Krystal May R. Alvarado
---------------------------------	--