


PRACTICAL WORKSHEET

Group members : 1.
2.
3.
4.
5.

Learning Materials : Biology
Main Topic : Environmental Change
Grade/Level : X/ IG
Time Allocation : 45 minutes
Learning Objectives : 1. Describe the effect of untreated water pollution
2. Formulate solution for untreated water pollution



Instructions

- Copy this sheet to you own canva
 - Rename the sheet with this format: "Leader_Class"
 - Carefully read and thoroughly follow every guideline provided in the worksheet.
 - Complete the tasks in the worksheet as a group and write the discussion results in the designated section.
 - Follow the steps carefully and consult with your teacher
 - Use learning resources from various sources, such as books, journals, or articles, to answer the questions.
 - Present your work results in front of the class.
 - Ask the teacher if you encounter any difficulties in completing the worksheet.
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Pollution

Read the following news and answer the questions!



Oil Polluted River



Surabaya residents' practice of dumping household liquid waste into rivers has caused environmental damage. On August 2, thick white foam appeared in streams like the Damen River and Bozem Kalidami. Environmental Agency Head Hebi Djuniantoro stated the foam comes from fats, cooking oil, and laundry water discharged into rivers.

To address this, Unitomo students, guided by Dr. Vieta Cornelis, Head of the Center for Pancasila Studies, Constitution, and Indonesian Civilization (Puspakopi), created Eco-enzyme by fermenting fruit and vegetable waste for three months. Vieta explained this natural solution effectively breaks down oil and grease pollutants, dissolving clumps of fat and oil in river water.

Although Eco-enzyme can degrade oil in water, factors such as the concentration of eco-enzyme can affect its oil degradation ability. Several tests may need to be conducted to determine the effect of concentration on the oil degradation capability and to identify the optimal concentration that can be used..



Question :

Formulate a problem statement related to information above

Develop a temporary hypothesis that aligns with the problem statement you have created.

PRACTICAL INVESTIGATION

Write down your material and procedure for your investigation

TOOLS & MATERIALS

PROCEDURE

Write down variables for your investigation

VARIVABLES

OBSERVATION TABLE

Complete the following observation table based on your findings

Eco enzyme ingredient	Translucent spot level	Size

Translucent spot level: give (-) if there's nothing, and (+) if there are any up to (+++) for the most translucent


ANALYSIS OF RESULT

Based on your data, how is the translucent spot in each eco enzyme test? which one with the most and the least

What does the translucent spot mean? why its important to take notes of it? (use reliable scientific sources to help you answer this)

Based on your research and data, which eco enzyme concentration is the best? why can it happen? use your data and reliable sources to answer!

CONCLUSION



What conclusion can you draw based on your research and data



Present the results of your project and product in front of the class!