Student Worksheet
"Project Based Learning (PjBL)

BIODIVERSITY

Biology - Phase E

Arranged by: Natasha A.

For X SMA/MA

LIVEWORKSHEETS

Student Worksheet

"Project Based Learning (PjBL)

BIODIVERSITY

Group Member :

1. ..... ( )
2. ..... ( )
3. ..... ( )
4. ..... ( )

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Time Allocation

Time allocation: 2 x 45 minute
Subject: Blodiversity

Learning Outcome

At the end of phase E, the students have the ability to create solutions to problems based on local, national or global issues related to understanding **the diversity of living things and their roles**, viruses and their roles, biological technological innovation, ecosystem components and interactions between components and environmental changes.

Learning Objective

Students are able to:

1. identify the advantage of species in biodiversity with understanding the concept of biodiversity;
2. create ideas for utilizing natural resources sustainably with project activities;
3. design project plan for utilizing natural resources sustainably with doing worksheets;
4. communicate the results of practical report on making product for utilizing natural resources with presentation activities and video project.

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Working Instruction

1. Start by praying according to your respective beliefs
2. Read and understand the instructions for each step of the learning activity carefully
3. Read and understand relevant reading sources (Handouts, Books, etc.)
4. Do the LKPD according to the instructions. If there are difficulties in working on the LKPD, you are welcome to ask the teacher
5. Collect the LKPD according to the teacher's directions

Student Profile Pancasila

Critical Thinking

Creative

Cooperative

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Read this Infografis!

MEET MORINGA

Nourisher-Beautician-Humanitarian

Native to the Himalayan Mountains, Moringa Oleifera is nature's "miracle tree." It's packed with 90+ vitamins, minerals, vital proteins, antioxidants, omega oils, and other benefits.

8 HEALTH BENEFITS OF MORINGA

01 | **PROMOTES** *natural anti-aging benefits*

02 | **DELIVERS** *anti-inflammatory support*

03 | **HELPS** *maintain normal blood sugar levels*

04 | **INCREASES** *energy*

05 | **PROVIDES** *mental clarity*

06 | **NOURISHES** *body's immune system*

07 | **PROMOTES** *healthy digestion*

08 | **HELPS** *maintain healthy circulation*

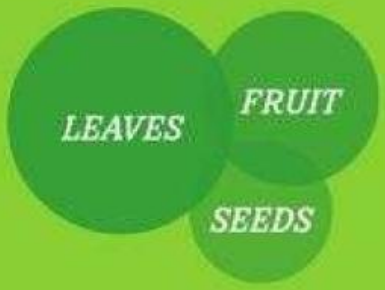
WHY CHOOSE ZIJA'S MORINGA?

Unlike other Moringa-based products on the market, Zija uses all of the most beneficial parts of the tree—the leaves, the fruit and the seeds—in our proprietary blends. The result is a truly valuable line of high-quality, nutritionally-charged products.

RAISED *without chemicals*

HARVESTED *carefully by hand*

SHADE DRIED *to ensure nutrients remain intact*



MORINGA CONTAINS:

ALL 9 ESSENTIAL AMINO ACIDS
Isoleucine, Leucine, Lysine, Methionine, Phenylalanine, Threonine, Tryptophan, Valine, Arginine

9 ADDITIONAL AMINO ACIDS
Alanine, Aspartic Acid, Cystine, Glutamine, Glycine, Histidine, Proline, Serine, Tyrosine

VITAMINS
Vitamin A (Alpha and Beta-Carotene), B, B1, B2, B3, B5, B6, B12, C, D, E, K, Folate (Folic Acid), Biotin, and more

MINERALS
Calcium, Chloride, Chromium, Copper, Fluorine, Iron, Manganese, Magnesium, Molybdenum, Phosphorus, Potassium, Sodium, Selenium, Sulfur, Zinc

OTHER BENEFICIAL INGREDIENTS
Chlorophyll, Carotenoids, Cytokinins, Flavonoids, Omega (3,6,9) oils, Plant Sterols, Polyphenols, Lutein, Xanthins, Rutin, and more

MORINGA: DID YOU KNOW?

- It is known by over 100 names in different languages around the world
- Ancient Indian writings as far back as 150 BC refer to Moringa
- It can be used to purify water
- It can be grown even in a drought
- All parts of the plant can be eaten

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Watch Video Bellow!

https://www.youtube.com/watch?v=_M_j83VqqbQ

After watch that video, you know that moringa can be processed and utilized into high-value products.

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Making Project

After watching the video above, write down the **tools** and **materials** for <u>making product</u> that has been discuss with your team

Tools	Materials

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Making Project

After watching write down the tools and materials for making product, now you have to design the project planning!

Name Product:
Based Ingredients:
Procedure:

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Results Table

Table 1. Project Schedule

No	Day/Date	Activites	Check
1.			
2.			
3.			
4.			

Table 2. Monitoring Project

No	Monitoring Time	Advice
1.		
2.		
3.		
4.		

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Evaluation

After doing project planning, you have to fill this question bellow to evaluate your learning experiences activity!

1. What competency that you have been gotten after doing project activity?
2. What difficulties that you have been gotten when doing project activity?
3. What solution that you have been done to solving the difficulties during project activity?

Answer

1.

2.

3.

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