Detailed Lesson Plan in Grade 8 Science

Content standards: The learners demonstrate understanding of protecting and conserving of endangered and economically important species.

Performance standards: The learners should be able toreport on the activities that communities engage in to protect and conserve endangered and economically important species.

Learning competency: explain the advantages of high biodiversity in maintaining the stability of an ecosystem. (S8LT-IVh-21)

I. Objectives: At the end of the lesson, learners will be able to:

a. differentiate high and low biodiversity;

b. describe ecosystem with high and low biodiversity; and

c. predict what will happen to an ecosystem with low biodiversity.

II. Subject Matter: High and Low Biodiversity

Reference: Science Learners Module 8 Pp.266-269, Science

Technology II Textbook,bio-diversity_biomes_(2), Web Designing with HTML and CSS

Materials: Marker, Cartolina, Tape, Photos of Ecosystem,

Illustration board.

Strategy: Inquiry, Collaborative, Inductive

Time frame: 1 Hour

Values integration: Awareness/Value the importance of

Biodiversity

III. Learning Procedures

Teachers' Activity students' activity

A. Preparatory Activity

a.) Prayer

Christian, kindly lead the prayer. The Lord’s prayer.

Good morning class? Good morning sir floredie

Take your seats.

b.) Checking of attendance

Class monitor, kindly check the

attendance. Who are absent for today? All are present Sir.

c.) Setting of standards

Class, if the teacher is talking here in

Front what will you do? Sir?

Yes, Marry del? Listen and participate

That’s right.

Can I expect that from you class? Yes, sir.

Very good.

d.) Review

Class we will have a game. If the statement is true you will remain sitting and clap your hands 5x and if the statement is false you will stand and tell your seatmate false.

Am I clear class? Yes, sir.

Q1. Kingdom animalia consist of two big groups, vertebrates and invertebrates. TRUE

Q2. Phylum chordate has four characteristics these are notochord, dorsal hollow nerve cord, gills and post anal tail. TRUE

Q3. Fishes are vertebrates that found in land, salt, fresh, Cold and even hot water. FALSE

Q4. Amphibians can only live in water. FALSE

Q5. Reptiles are animals that exhibit more adaptation for living in land. TRUE

Very good. I am glad that you understand our last topic.

Any clarification class? None Sir

B. Developmental Activities

a.) Motivation

Class, we will have another game. This game entitled “Cabbage Relay”. All you have to do isto sing a song “May Tatlong Bebe”. While singing the song you will pass the cabbage one by one and if I will say “stop” the person who holds the cabbage will remove one and read what is written inside and give your opinion about the words.

Am I clear class? Yes, sir

Q1. #endangered species It means having a low number of species that can

affect the balance of ecosystem.

Q2. #over population

Means there is an over number of species within an area that can also affect the balance of ecosystem due to scarcity of food.

Q3. #balance ecosystem

There is an equal living of organism of specific area and they live harmoniously.

Q4. #scarcity

This is what happen when an over population occurred. The tendency that the supply of food is not enough for everyone.

Q5. #competition

Is were organism compete each other for their survival.

Class, based on our game.

What do you think is our topic

For today?

Sir?

Yes, charlotte?

I think our topic for today is all about High and Low biodiversity.

Very good.

Class, our lesson for today is

all about High and Low biodiversity.

And for us to be guided we have our

objectives. Everybody read.

Objectives: At the end of the lesson learners, will be able to:

a. differentiate high and low biodiversity;

b. describe ecosystem with high and low biodiversity; and

c. predict what will happen to an ecosystem with low biodiversity.

b.)Lesson Proper

a.) Activity

This time class, we will have an activity. This activity entitled “What is the importance of biodiversity?”

In this activity we have our goal to be achieved.

Objectives: After performing this activity, you should be able to:

a. differentiate High and Low Biodiversity;

b. give advantages of high over low biodiversity; and

c identify ecosystem with high and low biodiversity

Materials:

Photos of different ecosystem

Marker and Cartolina

Procedures:

1. The class will be divided into four groups.
2. The teacher will distribute the materials needed.
3. Together with your group mates answer the following questions.

4. All groups were given 5 minutes to do the tasks,

after 5 min. Reporting will follows.

6. Each group will choose representatives to present

Their output

7. The group will be graded using a rubric.

Criteria	20	15	10
Mastery	The reporters demonstrates total mastery of the contents	The reporters demonstrate knowledge of the important contents of their report	The reporters demonstrate knowledge of some contents of their report
Delivery	The group delivers a very creative presentation of the topic	The group delivers a creative presentation of the topic	The group delivers the topic orally with visual aid.
Instructional materials	The instructional materials used are very innovative	The instructional materials used are innovative	The instructional materials used are not extraordinary
Cooperation	All members participate actively	One or two members become in active in the preparation and presentation	Three members become in active in the preparation and presentation

Source: *This reporting rubric is developed by Marlon L. Lalaguna*

Is there any question class? None sir.

Your 5 minutes starts now.

Time’s up! Post your output on the board.

Class, the first who present is the group 1

and followed by the group 2. Let’s start.

Group 1

Q1. Does it have a high or low biodiversity?

Answer: Low biodiversity

Q2. What will happen if a pest attacks the corn plant?

Answer: Many corn plants will damage and destroy.

Q3. How will this affect the helpers and owners of this corn plant?

Answer: Their income will lessen and the owners will lose their profit.

Very good. Give Regine clap.

Class, this picture of is an example of monocropping. Monocropping is the agricultural practice of growing a single crop year after year on the same land, in the absence of rotation through

other crop on the same land.

Let us proceed to group 2.

Group 2.

Q1. Does it have a high or low biodiversity?

Answer: High Biodiversity

Q2. What biotic component is present in this ecosystem?

Answer: There are corals, fishes, sponges, algae, mollusc, sea star ant etc.

Q3. Describe some relationship and interactions that occur among this biotic ecosystem?

Answer: fishes come to coral reef to bread, molluscs eat the algae present, and sponges will feed on the floating algae near the reef.

Expectecular! Give Araneta clap.

b.) Analysis

Class, what is the importance of biodiversity to ecosystem?

Sir!

Yes, Ruvelyn?

Biodiversity boosts ecosystem productively where each species, no matter how small, all have an important role to play. For example, a larger number of plant species means greater variety diversity ensures natural sustainability for all life forms.

Very good idea.

Class, which is more advantageous high biodiversity or low biodiversity?

High	Low

Sir!

Yes Panlie?

High biodiversity Sir.

Why? Support your answer.

With high biodiversity, the risk of damage from pest infestation is minimized leading to better income or profit, low input of pesticide because different pests feed on different plants, various soil nutrients will be available to different plants.

Very good.

Class, what will happen to an ecosystem with low biodiversity?

Sir

Yes princess?

Loss of biodiversity appears to impact ecosystem as much as climate change, pollution and other major forms of environmental stress. Also there is food shortage or scarcity of food supply in an ecosystem.

Very good.

Class, imagine that you’re living without trees and animals? What do you think will happen?

Sir

Yes, Ande?

Humans will suffer and maybe we will die because we don’t have any supply of food. Also many calamities will occur that destroy many living things. Lastly, life could not exist on earth without tress because they produce most of the oxygen

that humans and wildlife breathe.

Very good.

Class, what is the impact of high biodiversity to the society?

Sir

Yes, Mary del?

There is no competition happen because the supply of food is enough to cater all organisms present in an ecosystem.

Very good.

c.) Abstraction

Class, what is biodiversity?

Sir.

Yes,Gim

Biodiversity is a measure of how many different species live in an ecosystem.

Very good.

Who can differentiate low and high biodiversity?

Sir

Yes,Chrizelle?

An ecosystem with high biodiversity has many different species or organisms while ecosystem with low biodiversity does not have many different species of organisms.

Very good.

d.) Application

Class, we will have another activity, with the same group you are going to complete the statement that is written in the illustration board. I will give you 45seconds to do the task and after that choose your representative to present your output in front.

#ichooseHighbiodiversity
because
_____
_____
_
_____
_
_____
_

Class, as a student, what are your contributions in protecting and conserving biodiversity?

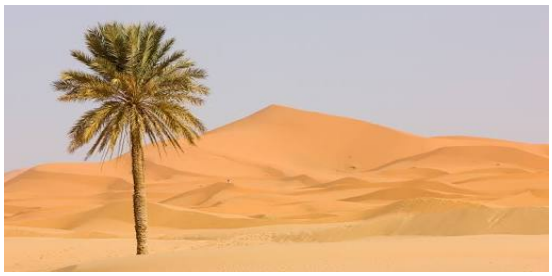
Yes,Micheal?

Sir

As a student, we can protect and contribute through planting more trees, taking care animals and apply the three R's namely: Re-use, Reduce, Recycle.

IV. Evaluation

With your group, identify the pictures as either high or low biodiversity. Each picture is equivalent for 5 points. Write your answer in a ¼ sheet of paper.



DESERT ECOSYSTEM
answer: LOW BIODIVERSITY

DESERT SCRUB LAND
answer: LOW BIODIVERSITY

TROPICAL FOREST
answer: HIGH BIODIVERSITY

MARINE ECOSYSTEM
answer: HIGH BIODIVERSITY

V. Assignment

In a short bond paper create a Poster Slogan on how to protect and conserve biodiversity. The poster slogan will be graded using a rubric.