

## Information Sheet

**Module Title:** Biodiversity

**Module Description (overview):**

The world is rich with an amazing variety of life. Is it important to preserve this biodiversity? This is an introductory writing assignment where the focus is to introduce students to the concept and importance of biodiversity. In a later module, students will explore the impact of humans on biodiversity.

Template Task (include number, type, level)	Teaching Task
Task 11, Informational, Level 1	After researching the bookmarked online articles on biodiversity, write a report that defines “biodiversity” and explains its importance. Support your discussion with evidence from your research.

Grade(s)/Level: 7

Discipline: Science

Course: Life Science

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# Student paper 1

Humans have increased the rate of extinction to 1,000 times it's usual rate. Biodiversity is a main part of the human life cycle, for example the air we breathe, the food we eat, and the house we sleep in. Biodiversity is all organisms, their genetic make up, and natural communities. Important examples of biodiversity are insects, animals, plants, and humans. Marine ecosystems and forests are two examples of very diverse areas. Biodiversity is slowly getting smaller and smaller due to humans inhabiting other organisms ecosystems, which causes some species to be extinct or endangered. Biodiversity is slowly getting smaller and smaller due to humans inhabiting other organisms ecosystems, which causes some species to be extinct or endangered. If some species are unable to adapt to their habitat they may be lost forever. However, if exotic organisms are brought into ones ecosystem, the native organisms could eat them and die, mate with them, compete against them, and infect them.

TC: Excellent- provide specific examples of the biodiversity found in marine ecosystems and forests. Strong hook and thesis statement.

As biodiversity decreases, farming and agriculture increase. Some of the main reasons that biodiversity is decreasing is thanks to our farmers. When the farmers in certain areas fertilize the ground right before a big storm the fertilizer sometimes runs off into our streams and rivers affecting underwater organisms. However, some of the organisms underwater filter out any of the toxins that may be harming the water. Along with bad things agriculture also brings extremely good things, for example, green plants let off oxygen that humans need to survive. For human health, on the other hand, 30% of all medicines come from plants or animals. TC: examples? Forest ecosystems, provide oxygen, clean the water, and remove carbon from our atmosphere. TC: how? The world resources institute has said that 1/5 of the original forest area is untouched, which is causing less and less oxygen to be produced. Deforestation has taken about 180 million hectares between 1980-1995. Overfishing is also leaving the worlds fish ecosystem in a shortage. TC: example?

As a result of all of the harms that humans have brought on the ecosystem, TC: which ecosystem? biodiversity is rapidly decreasing. No matter how small the piece of grass or how big the animal, we need biodiversity to keep the beautiful organisms of the earth. Biodiversity is needed to keep the earth in its natural balance of living things. TC: explain. One little fish that gets killed may not matter now but in a few years when we need to preserve our wildlife, you are going to be wishing that you never killed that fish.

TC: Very good paper- avoid getting "preachy" in your conclusion.

My name:

Peer checker:

1. LISTEN to your partner read his/her essay ALOUD to you. As you listen, point out any words or phrases that are unclear, and help your partner FIX them.
2. READ your partner's paper a second time, QUIETLY to yourself. Write a YES or NO next to each FCA, according to whether or not it's included in the essay.

**Organization**

Hook sentence.....YES  
Thesis statement.....YES  
THREE paragraphs are evident.....YES  
Closing.....YES

**Content**

Paragraph 1:

Hook sentence.....YES  
Definition of biodiversity.....YES  
Two examples of biodiversity.....YES  
    Supporting detail.....YES

Paragraph 2:

The importance of **biodiversity** is clear.....YES  
Importance to agriculture is clear.....YES  
    Supporting detail.....YES  
Importance to human health is clear.....YES  
    Supporting detail.....YES  
Importance to industry/business is clear.....  
    Supporting detail.....YES

Paragraph 3:

Summarizing sentence, stating your opinion in a different way.....YES  
The most important parts of the paper are restated.....YES  
At least 4 sentences.....YES

**Please type at least two suggestions for improving the ORGANIZATION or CONTENT:**

You could use more information and make it longer.

\*\*\*\*\* STUDENT REVISION END \*\*\*\*\*

<http://www.admwebstudios.co.uk/Biodiversity1.htm>

<http://www.ciel.org/Biodiversity/WhatIsBiodiversity.html>

<http://youthink.worldbank.org/issues/environment/life-earth-importance-biodiversity>

<http://www.suite101.com/content/the-importance-of-biodiversity-a214198>

TC: Good sources.

# Student paper 2

BIODIVERSITY TC: no title yet

Human activities have increased the rate of extinction by 1,000 times that of what it used to be. Biodiversity is the variety of all living things; organisms, plants, fungi, aquatic life, flora and fauna, their variability, species, populations, habitats, and ecosystems. An ecosystem is a geographic area with living organisms and the nonliving parts of their physical environment. Biodiversity is important to many parts of life. One of them is agriculture. Biodiversity provides fishing. Over 1 billion people on earth rely on fish for food. Also, Biodiversity provides medicines, such as penicillin. Trees also provide oxygen for breathing. We also rely on forests for wood, and on hunting, fisheries, and fruit for food. Fibers such as cotton and wool for clothes are from biodiversity. These all come from Biodiversity. TC: excellent paragraph!!! My only suggestion is to re-write the very last sentence- it is a little weak.

But biodiversity is being endangered. TC: consider restating your first sentence more subtly. For example "The loss of habitat is greatly reducing the great numbers of different living things." or something like that... 180 hectares of forests have been cut down around the world from 1980 to 1995. Because people cut down forests for lumber to quickly for them to grow back, animals who live in the forests will die. Forests are home to 50-90% of land species. Overfishing has also caused the extinction of many aquatic animals. Habitat losses such as rain forests have been destroyed that were home to many species. This is over-exploitation, or hunting, fishing, and over collecting of a species which leads to its extinction. Over-hunting has caused problems worldwide, and all ready 2 out of every 3 bird species on earth is in a population decline, one out of every eight plant species are threatened or endangered, and 25% of mammals and amphibians, and 20% of reptiles are also endangered or vulnerable as well. This is a problem because biodiversity is important to humans. TC: How is it important. So if humans destroy biodiversity, than they will not be able to live either, because everything that we have is because of biodiversity. TC: biodiversity is not really "destroyed", but reduced. Keep this in mind as you write.

So as you can see, biodiversity is important to all living things on earth. For this reason we must make sure that we protect it. Biodiversity is important to all aspects of human life, agriculture, health, business, and food. So this is what biodiversity is, and why we must preserve it for everybody. TC:OK- again, work on a stronger final sentence. Overall, very good work, Jeremy! Please insert your name and peer checker name below.

<http://www.ciel.org/Biodiversity/WhatIsBiodiversity.html>

<http://www.admwebstudios.co.uk/Biodiversity11.htm>

TC: good sources

# Student paper 3

Biodiversity is the web of all life on earth. Biodiversity can be defined as variety of life in a given area; the variation of life forms in the ecosystem; or even just a variety of species with D.N.A. Pets, wasps, birds, farm animals, plants, bats, earthworms, fish, phytoplankton, even sea vegetation are all examples of biodiversity. Biodiversity is involved in agriculture, human health, industry/business, and so much more.

TC: can you modify your hook so it is more clear? definition (cut "with DNA"), better examples of biodiversity...choose area with good biodiversity (Galapagos Islands?)

Biodiversity has an enormous importance on earth. For agriculture, biodiversity enriches soil, purifies water, and regulates the climate. Wasps and birds eat pests that destroy crops on farms. Many of the world's staple crops are pollinated by insects, birds, and bats. Crops need the nitrogen provided by organisms in the soil to grow and it would be hard to grow crops if you did not have any earthworms in the area because they are one of the organisms that provide nitrogen. We also need biodiversity in our own health for example medication, antibiotics, removal of CO<sub>2</sub>, and good food, shelter and maintaining oxygen. As humans 90% of the calories we consume come from 80 plant species. Many of the industries and business may rely on biodiversity to make products. Industries that make things like medicines, antibiotics, painkillers, penicillin, and inoculations use either plant or animal organisms in these products for they are the most important part of the medicine, the part that actually makes you better. Farming is also a job that requires probably the most biodiversity that any business and there are also fisheries to supply our seafood products. Biodiversity is everywhere, even in a desert. There are 5-6,000 different plant species in the deserts in America. There are also 100 species of birds, 20 species of fish, and many many reptiles like snakes and scorpions. Famous people have also written songs to help nature like Micheal Jackson. He wrote a song called Human Nature, and Earth Song. This proves that we are all capable of helping the environment in one way or another.

TC: overall pretty good...clarify supporting details

Agriculture, human health, and industries and businesses could not continue without biodiversity. We need to find ways to encourage people to help protect what we have left of nature. A man named Naik Abhijit said, "A rubber band tends to stretch as we pull it, but there comes a point in time when it snaps and hurts our own hand. The behavior of nature is not much different, and the more we try to stretch it, the more severe will be its impact on our lives when it snaps." This is true, and if we don't stop pulling the rubber band our lives will change forever.

TC: good hook, restate main points of essay, good

## Student paper 4

Pennsylvania is home to 25 thousand species alone! The definition of biodiversity, is the variety of species on earth and there communities (ecosystem). Examples of biodiversity is native plants, animals in Pennsylvania ,and processes of life on earth.

TC: don't start definition with "the definition of...", give more specific examples of where good BD can be found, need a thesis statement

Agriculture helps enrich the soil for farms, also the air we breathe. 90% of calories are consumed by 80 types of different plants. Also almost 30% of all medicines are developed from plants and animals , and many more are derived from these sources.(industry/business) Example medicine is business because you have to pay for medicine.Farming is biodiversity because it is a business. A species will last for an average 2-10million years. Also invasive alien species are those which are not native to an area.

TC: hook needed, vague content...need to add supporting details to examples.

Pennsylvania is home to over 25 thousand diffrent species alone on earth!

TC: 4 sentences needed, your opinion?, restate main ideas of the essay

## Student paper 5

Biodiversity might be the most important subject in science. Biodiversity explains the huge variety of species and their DNA on earth and the natural way in which ecosystems are formed. There are about 15 million species just in Pennsylvania.Many species are needed to provide critical services such as fresh water,oxygen,control of erosion, and the removal of carbon dioxide.If biodiversity is lost,then many things will be gone to.

TC: supporting details for examples,need thesis statement

Agriculture ,human health,and industry and business are all affected by biodiversity. Organisms help enrich soil for farming. Many farming communities are found were deciduous forests used to stand because of it's fertile soil.There are 80 plant species are credited with 90% of the worlds food sources.Ecosystems are a source of many medicines.30% of medicines come from plants or animals.One-quart of all medicines come from the rainforests.The Madagascar rose periwinkle increased the survival rates of blood diseases from 10% to 90%, but because of deforestation, it has gone extinct.Many business depend on biodiversity. Farmers,fishermen,pharmaceuticals and the list goes on.

TC: pretty good thus far...add supporting details to examples

Biodiversity affects almost every thing.It affects farming,health,business and our every day lives. Without biodiversity,we would loose almost every thing.

TC: 4 sentences, your opinion?