

46.1 Deep Dive – Biological Diversity



Summarize main points from each video.

Video Title / topic _____

Video Title / topic _____

Video Title / topic _____

Topic Introduction



Summarize your understanding of each paragraph.

Biodiversity is the variety of life in the world or in a particular habitat or ecosystem. Biodiversity includes not only species we consider rare, threatened, or endangered but also every living thing – from humans to organisms we know little about.

At the Center for Biodiversity and Conservation, we include humans and human cultural diversity as a part of biodiversity. We use the term “biocultural” to describe the dynamic, continually evolving and interconnected nature of people and place.

Biodiversity is important to most aspects of our lives. We value biodiversity for many reasons, some utilitarian, some intrinsic. This means we value biodiversity both for what it provides to humans, and for the value it has in its own right.

Utilitarian values include the many basic needs humans obtain from biodiversity such as food, fuel, shelter, and medicine. The intrinsic value of biodiversity refers to its inherent worth, which is independent of its value to anyone or anything else.

Read/Summarize Text



1. Read the passage.
2. Underline key expressions in each sentence.
3. Re-write each word (or expression) you underlined.
4. Summarize the passage.

Threats to Biodiversity

Over the last century, humans have come to dominate the planet, causing rapid ecosystem change and massive loss of biodiversity across the planet. This has led some people to refer to the time we now live in as the “*anthropocene*.”

While the Earth has always experienced changes and extinctions, today they are occurring at an unprecedented rate. Major direct threats to biodiversity include habitat loss and fragmentation, unsustainable resource use, invasive species, pollution, and global climate change.

The conservation efforts of the last decades have made a significant difference in the state of biodiversity today.

<https://www.amnh.org>

Re-write words you underlined

Using a complete sentence, summarize or rephrase the passage

Read Text for Comprehension

Read this article for deeper understanding. No summary is required, although you may want to circle, underline, or mark key ideas and words.

[Adapted from The Guardian “The Briefing” ... \(by Damian Carrington\)](#)

What is biodiversity?

It is the variety of life on Earth, in all its forms and all its interactions. If that sounds bewilderingly broad, that’s because it is. Biodiversity is the most complex feature of our planet and it is the most vital. “Without biodiversity, there is no future for humanity,” says Prof David Macdonald, at Oxford University.

The term was coined in 1985 – a contraction of “biological diversity” – but the huge global biodiversity losses now becoming apparent represent a crisis equalling – or quite possibly surpassing – climate change.

More formally, biodiversity is comprised of several levels, starting with genes, then individual species, then communities of creatures and finally entire ecosystems, such as forests or coral reefs, where life interplays with the physical environment. These myriad interactions have made Earth habitable for billions of years.

A more philosophical way of viewing biodiversity is this: it represents the knowledge learned by evolving species over millions of years about how to survive through the vastly varying environmental conditions Earth has experienced. Seen like that, experts warn, humanity is currently “burning the library of life”.

Do animals and bugs really matter to me?

For many people living in towns and cities, wildlife is often something you watch on television. But the reality is that the air you breathe, the water you drink and the food you eat all ultimately rely on biodiversity. Some examples are obvious: without plants there would be no oxygen and without bees to pollinate there would be no fruit or nuts.

Others are less obvious – coral reefs and mangrove swamps provide invaluable protection from cyclones and tsunamis for those living on coasts, while trees can absorb air pollution in urban areas.

Draw Illustration



Copy and Label the Illustration in the Space Provided

Illustration



<http://greendustriesblog.com>

Draw (Copy) the Illustration Here

Interpret a Graph



Write the title of the graph _____

Circle the type of chart this represents

Bar Chart Line Chart Pie Chart Other

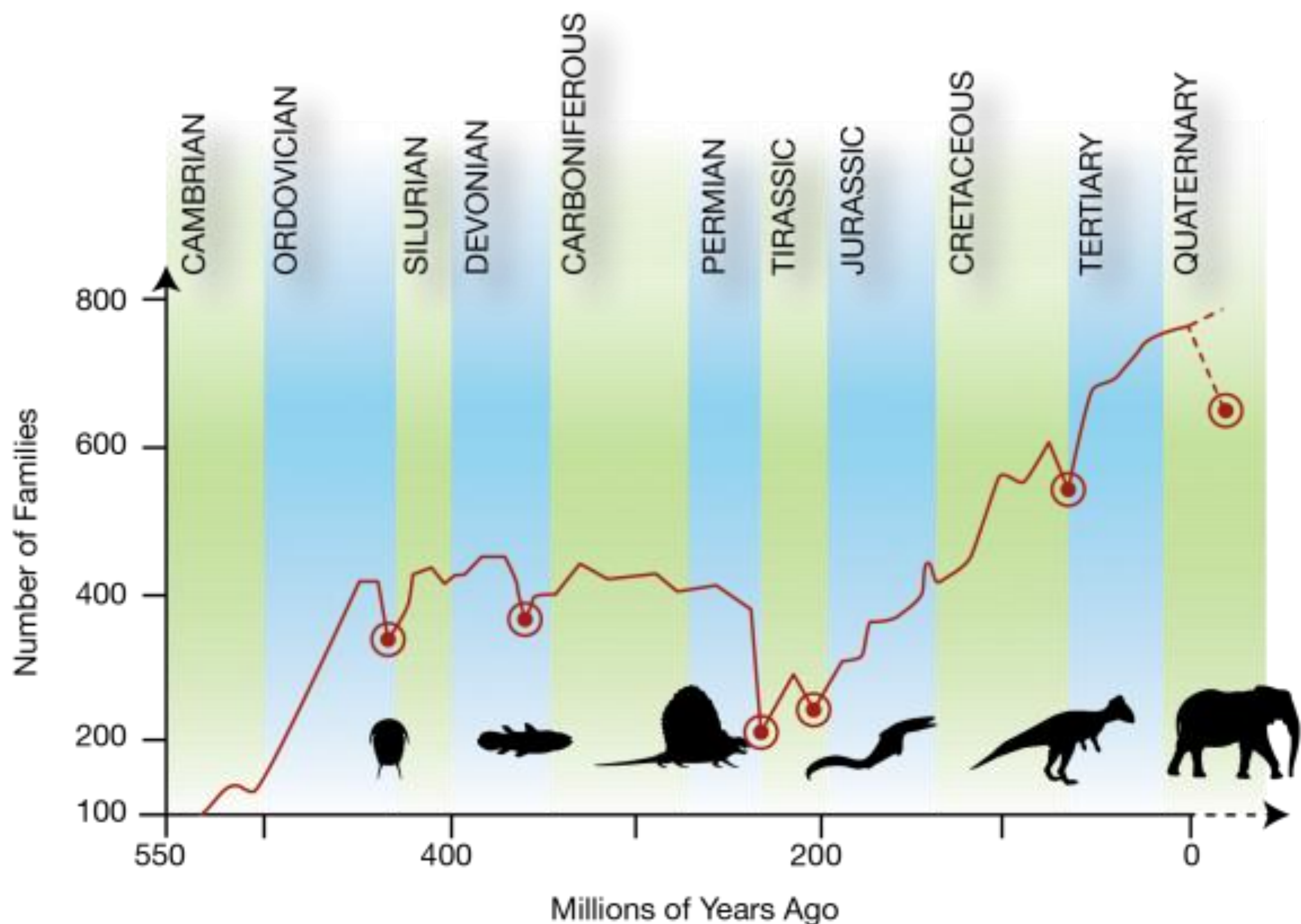
If applicable,

What does the X-axis represent _____

What does the Y-axis imply _____

Summarize what this graph represents or conveys

<https://healingearth.ijep.net/biodiversity/biodiversity-and-evolution>



Show-Off Your Smarts!

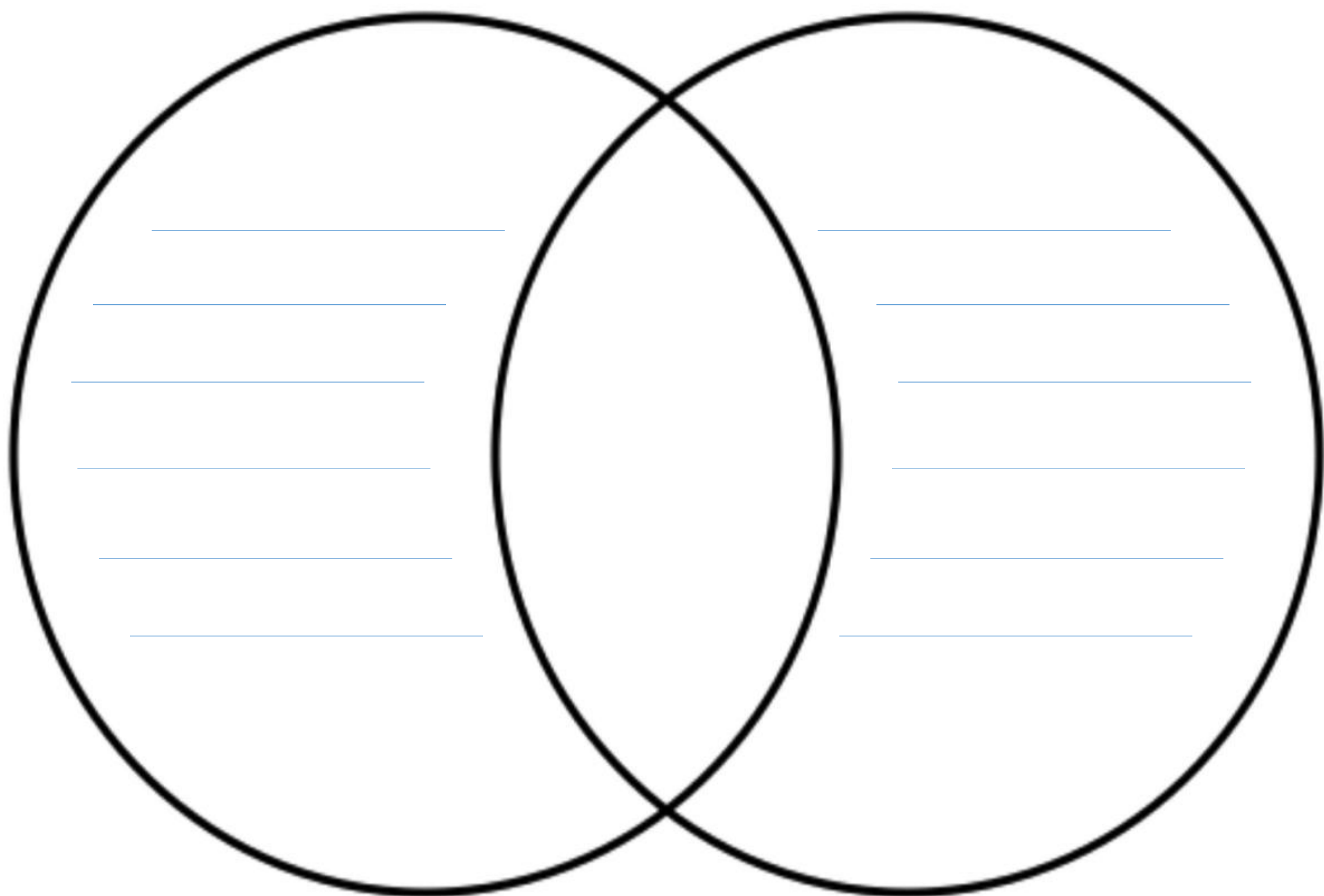


Instructions

- Complete as an individual or small group.
- Discuss your ideas/answers/responses in a small group.
- Select one person to present your responses to the class.

Biodiversity

Natural Selection



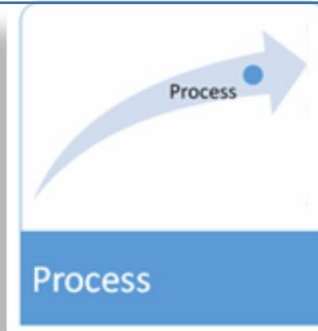
Your opinion ... defend why or why not ...

Should students and youth be concerned about biodiversity?

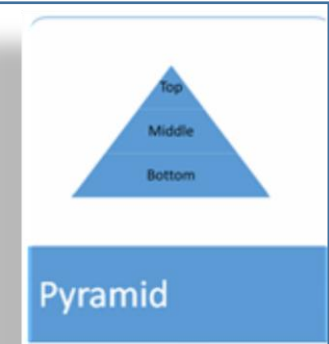
Make a Poster

In the space provided here, illustrate biodiversity concepts through the use of four diagrams suggested.

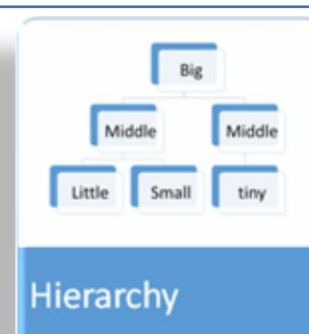
Process



Pyramid



Hierarchy



Relationship

