

Name: _____

Block: _____

How do you value biodiversity?

Looking deeper into our view on the value of living things

We all place value on living things for different reasons. There are four (4) main ways in which we value species:

- ☐ **Environmental value:** species has value because other organisms rely on it.
- ☐ **Aesthetic value:** species has value because it is attractive in some way.
- ☐ **Economic value:** species has value because it has a financial value of some sort.
- ☐ **Intrinsic value:** species has value in and of itself; no direct human benefit.

1. Using the different values above, which best fits your attitude towards valuing elephants?
2. Explain why this value best fits your attitude towards elephants.
3. Which of the values above is easiest to argue from evidence? Why?
4. Which of the values is the most difficult to argue from evidence? Why?

Read the following article and respond to the questions.

Battles over ever decreasing land

Elephants are not only being squeezed into smaller and smaller areas, but farmers plant crops that elephants like to eat. As a result, elephants frequently raid and destroy crops. They can be very dangerous, too. While many people in the West regard elephants with affection and admiration, the animals often inspire fear and anger in those who share their land. Elephants eat up to 450kg of food per day. They are messy eaters, uprooting and scattering as much as is eaten. A single elephant makes light work of a hectare of crops in a very short time.

Consequences for local people

Small farmers - often desperately poor and already economically and nutritionally vulnerable, forced by circumstances to encroach into elephant habitat - can lose their entire livelihood overnight from an elephant raid. Large agriculture is also affected. In the largest palm oil producing province in Indonesia, Riau, losses due to elephant damage of oil palm plantations and timber estates are estimated to be around US\$105 million per year.

People are also often injured and killed. In India, over 100 people are killed by elephants each year, and over 200 people have been killed in Kenya over the last 7 years. Elephants are often killed in retaliation. Wildlife authorities in Kenya shoot between 50 and 120 problem elephants each year and dozens of elephants are poisoned each year in oil palm plantations in Indonesia. Over the last 100 years, African elephant populations have declined from 3-5 million to 470,000-690,000 and Asian elephant populations have declined from 100,000 to between 35,000 and 50,000. Habitat loss and conflict with people are among the biggest threats to their continued survival.

5. What is causing the decline in elephants according to the article?

6. What value is placed on the elephants according to this article?

7. What value is placed on the cause of their decline?

Elephants & Biodiversity

The current estimate on biodiversity is that there are approximately 12,250,000 species currently on Earth. Most people tend to forget about biodiversity in the larger view, focusing only on plants and vertebrates and not the smaller, less conspicuous organisms that complete our complex food webs. Healthy ecosystems require a much broader view, with many different organisms filling the many important jobs that enable an ecosystem to function properly. Elephants serve important roles in their habitats as well.

Read 2 of the articles provided on the class website and answer questions #8-10.

8. What roles do elephants play in their habitats? What do elephants do for the ecosystem?

9. Why do you think more people don't care about conserving elephants if they are so important to the ecosystem?

10. After reading the 2 articles, which of the 4 values best fits your attitude towards elephants? Why?

Elephant Conservation Groups

Research 4 different elephant conservation groups. Which value does each group use to justify the conservation of elephants? Complete the table below using the information you learned during your research.

Group/Program Name	Group's Driving Value (environmental, aesthetic, economic, or intrinsic)	Group/Program's Goal or Mission	How Do They Help Elephants?	How Do They Help Biodiversity?

Which of the programs you researched would you feel the most comfortable donating money to for the conservation of elephants?

Why?