



Living Planet Report 2022:

Short Answer Assessment Questions

The assessment questions below are to be used upon completing the [Living Planet Report 2022: Youth Edition classroom presentation](#). For each prompt, question b indicates the more advanced option.

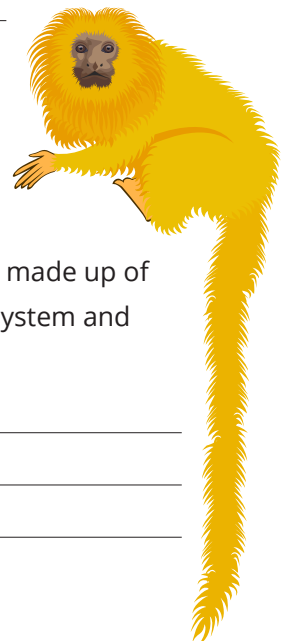
1. In the *Living Planet Report*, our planet’s biodiversity is calculated using a measurement called the *Living Planet Index*, which measures changes in thousands of animal species over the past 50 years.

a. Why is time an important factor to consider when evaluating species population health?

b. Indicator species are species whose presence or absence and health help scientists learn more about the surrounding ecosystem. These species are often mammals, birds, reptiles, amphibians, and fish (groups that are monitored for the *Living Planet Report*). Select one species mentioned in the report and explain how changes in their populations or movements would help inform scientists of the health of the ecosystem.

2. When performing a research study of this magnitude, scientists evaluate the health of the Earth by viewing it as a living *system* and taking into consideration the health of all its working parts and processes.

a. The presentation compared our planet to the human body, both being systems made up of various components that need to work together. Name another example of a system and identify its working parts and processes.





b. Select one ecosystem (e.g., oceans, freshwater, forests) and explain how it contributes to the Earth's health.

3. Define each of the phrases below in terms of biodiversity as referred to in the *Living Planet Report*.

• Bend the curve

• Tipping point

• Global double emergency

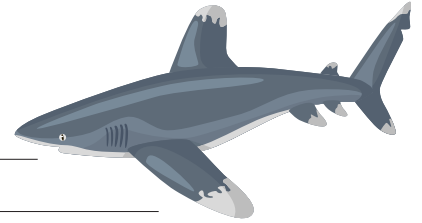


4. Forests and oceans are both examples of *carbon sinks* due to their ability to absorb carbon from the atmosphere that would otherwise continue to contribute to changes in our climate.

a. Explain how forests and oceans process carbon and therefore help reduce climate change.



i. Forests:



ii. Oceans:

b. What is a degraded habitat? How would a forest's or an ocean's ability to perform ecosystem services (such as being a carbon sink) be altered if it were degraded?

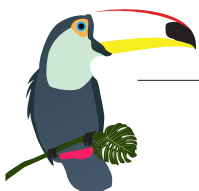
5. On average, there has been a 69% decline in global wildlife populations since 1970; however, some species, such as oceanic whitetip sharks, have been affected more than others.

a. Explain, in terms of cause and effect, the connection between a decline in sharks and an unhealthy ocean.

b. How would fewer sharks affect local communities living near the coast?

6. Indigenous peoples are the first human inhabitants of an area, and they have traditions and culture associated with a landscape because they have generations of history there.

a. What kind of knowledge or understanding do you think Indigenous peoples have of their ecosystem that makes their insights so valuable?





b. Why do you think Indigenous communities are often most affected by issues caused by unsustainable use of a landscape's resources?

7. The Amazon rainforest is of huge importance to humans—not only the 30 million people who live there but also people all around the world.

a. Name one resource or service that the Amazon rainforest provides to those living far away from it.

b. If destruction of the Amazon rainforest were to continue, how would that affect its ability to provide benefits to people?

8. We can all feel small in the face of these big issues, but together, there is a lot we can do to help make a difference for our planet.



a. What change(s) could you make in your daily routine that would have a positive impact on the environment?

b. How will you motivate others to join you in supporting nature and biodiversity?
