ANSWER KEY

1.1. Ecosystem Collapse

1. What do you think are the main causes of species extinction today?

Model Answer: I think the main causes include habitat fragmentation, pollution, and climate change. Human activities like deforestation and industrial farming are major external stressors that disturb natural environments. As a result, many animals lose their homes or food sources, leading to mass die-offs.

2. Have you ever heard the term "ecosystem collapse"? What do you think it means?

Model Answer: Yes, I've heard of it in documentaries. I think ecosystem collapse refers to the point when a natural system can no longer function properly because too many species are lost or the balance is broken. It often starts with the disappearance of apex predators or key species, creating a domino effect throughout the ecosystem.

3. Why do you think biodiversity is important for the planet? Can the extinction of one species affect others?

Model Answer: Absolutely. Biodiversity is essential because each species has a role in keeping the environment stable. Losing even one species can cause a cascading impact. For example, if a pollinator like a bee becomes extinct, it can affect plants, which in turn affects herbivores and so on

4. Do you believe climate change and pollution are connected to the survival of animals and plants? Why or why not?

Model Answer: Definitely. Rising temperatures and pollution are major external stressors that affect ecosystems. One clear example is coral bleaching, which happens when oceans get too warm. These events lead to irreversible damage, affecting not just marine life but also people whose primary livelihood depends on fishing or tourism.

5. If a species goes extinct, should humans try to bring it back through science (like cloning)? Why or why not?

Model Answer: It's a fascinating idea, but I think our focus should be on preventing irretrievable loss in the first place. Bringing back extinct species might not restore the original balance because ecosystems evolve. Instead of relying on technology alone, we need a paradigm shift in how we exploit natural resources—prioritizing sustainability and protection.

🟦 Complete Synonym & Antonym Match Activity

Word	Synonym	Antonym	Example
Irreversible	permanent	reversible	The damage to the coral reef may be irreversible if action isn't taken soon.
Biodiversity	variety	uniformity	The rainforest is home to an extraordinary level of biodiversity.
Resilience	strength	fragility	The ecosystem's resilience allowed it to recover after a devastating storm.
Viable	workable	unworkable	The species must have a viable population size to avoid extinction.
Intricate	complex	simple	The food web in a rainforest is intricate, with many species relying on each other.
Cascading impact	chain reaction	isolated event	The extinction of one key species often creates a cascading impact on others/
Exploit	complex	protect	Some companies exploit natural resources without considering the consequences.
Irretrievable loss	chain reaction	recoverable gain	The extinction of a species is often seen as an irretrievable science.

✅ 2. Collocation Definition Match – Answer Key

Collocations	Matching Definition
tipping point	G
ecosystem collapse	H
apex predators	C
external stressors	D

Collocations	Matching Definition
habitat fragmentation	E
restore degraded habitats	B
incremental solutions	F
irretrievable loss	A

✅ 3. Fill-in-the-Blanks – Answer Key

1. bleaching
2. primary livelihood
3. at an alarming rate
4. domino effect
5. epoch
6. conservationists
7. halt the decline
8. a wide array of
9. paradigm shift
10. mass extinction

✅ Answer Key: Multiple Choice Questions

Question	Correct Answer	Explanation
biodiversity's role	A	It contributes to **ecosystem resilience** and functioning.
consequence of coral bleaching	D	It causes **mass die-offs**, destabilizing marine life.
why the Amazon is mentioned	C	Deforestation causes **species extinction** and fragmentation.
domino effect outcome	B	One extinction can trigger **cascading losses**.
author's main suggestion	B	Advocates a **paradigm shift** in how we treat nature.

✅ Answer Key: Summary Completion

No	Answer
1	domino effect
2	bleaching
3	habitat fragmentation
4	incremental solutions
5	paradigm shift

🌿 Model Answers – After Reading Discussion

1. What do you think is the most urgent threat to ecosystems today: climate change, deforestation, pollution, or something else? Why?

Model Answer: In my opinion, climate change is currently the most urgent threat. It acts as an external stressor that intensifies other problems like droughts, wildfires, and coral bleaching. These changes can lead to ecosystem collapse if species can't adapt quickly enough. For instance, even slight increases in temperature can cause mass die-offs in marine life.

2. Do you believe governments and corporations are doing enough to halt the decline in biodiversity? What more could be done?

Model Answer: I don't think enough is being done to halt the decline in biodiversity. Many efforts are incremental solutions, which are too slow for the urgency of the crisis. Governments should enforce stricter environmental laws, and corporations must stop exploiting natural resources. We need a paradigm shift in how society values nature—not just economically, but ecologically.

3. How might the extinction of a single species, such as bees or sharks, create a domino effect in an ecosystem?

Model Answer: When one species disappears, it often creates a domino effect throughout the food chain. For example, if bees go extinct, it affects a wide array of plants that depend on pollination. That then impacts herbivores and eventually predators. This cascading impact can destabilize the entire system and lead to further irretrievable losses.

4. Should economic growth be prioritized over environmental protection? Why or why not?

Model Answer: I believe environmental protection should come first because without a healthy planet, economic growth is not viable in the long run. Prioritizing growth often means exploiting ecosystems, which leads to irreversible damage. Sustainable development is possible, but only if we invest in clean energy and restore degraded habitats.

5. If you were part of a conservation team, what actions would you take to restore a degraded habitat?

Model Answer: I would focus on replanting native vegetation, limiting human access, and reintroducing apex predators if needed. These steps help rebuild food chains and improve the resilience of the habitat. Public education and cooperation with local communities would also be crucial in making the restoration efforts viable and long-lasting.

🐢 *Interview with a Sea Turtle: "I've Had Enough of Your Plastic Promises"*

Introduction: In today's exclusive feature, Planet Earth Weekly interviews Shelldon, a 150-year-old sea turtle who's returned from the brink of mass extinction to tell humans what went wrong—and what still needs to change. Once a proud resident of tropical oceans, Shelldon now swims alone through degraded habitats, dodging plastic bags and oil spills.

Journalist: Welcome, Shelldon. It's an honor to speak with a species that has survived so much. How are you feeling?

Shelldon (Turtle): Tired. Disappointed. Slightly salty—literally and emotionally. I used to glide through clear blue waters. Now, I can't tell the difference between a jellyfish and a shopping bag. That's not just sad—it's irreversible damage.

Journalist: Why do you think your species ended up on the endangered list?

Shelldon: Let's start with habitat fragmentation. Humans build, dig, and drill—breaking up nesting beaches and coral reefs. Then there's overfishing, boat traffic, and oil spills. Add climate change to the mix, and boom: you've got an ecosystem collapse.

Journalist: Do you think humans can still help?

Shelldon: If they act fast, yes. But they need to halt the decline—not next year, now. That means protecting coastlines, cleaning up pollution, and letting marine ecosystems recover. Oh, and stop exploiting the oceans like they're an endless buffet. They're not.

Journalist: What about biodiversity? Why does it matter?

Shelldon: You see, I'm not just complaining about sea turtles. I'm talking about a cascading impact. When species like me disappear, others follow. The food chain breaks. The ocean loses its resilience, and before you know it, there's no seafood, no tourism, no balance. It's all connected.

Journalist: If you had one message for humanity, what would it be?

Shelldon: Stop treating nature like it's optional. You're not living alongside the planet—you're part of it. Show respect. Make a real paradigm shift. If not for me, then for yourselves. Because trust me, I'm not the only one washing up on your shores.

Closing Note: Shelldon may be fictional, but his story reflects a very real crisis. The question is: will we listen?

🎬 ***Extended Video Script: "Nature on the Edge" (Approx. 1:30 min)***

📹 **[Scene 1: Earth from space → Lush forests and oceans]**

🎙️ **Narrator** (calm, thoughtful voice): "From the clouds above to the deepest oceans below, life on Earth is held together by a delicate balance."

📹 **[Scene 2: Rapid clips of endangered animals—bees, elephants, sea turtles, coral reefs]**

🎙️ **Narrator**: "But that balance is breaking. Every day, more species disappear. Forests are burning. Ice is melting. Oceans are warming. And biodiversity is fading—at an alarming rate."

📹 **[Scene 3: Coral bleaching, deforestation, polluted water]**

🎙️ **Narrator**: "This isn't just a loss of animals. It's the breakdown of entire systems. When key species vanish, food chains collapse, triggering a cascading impact across ecosystems."

📹 **[Scene 4: A lion fades away → prey multiplies → grassland turns dry]**

🎙️ **Narrator**: "Even the disappearance of one apex predator can spark a domino effect—a chain of events that puts all life at risk."

🎥 **[Scene 5: Children cleaning beaches, planting trees, scientists tagging animals]**

🎙️ **Narrator** (hopeful tone): “Some damage may be irreversible. But not all. Across the globe, conservationists are working to restore degraded habitats and protect what’s left.”

🎥 **[Scene 6: Youth holding signs, drone view of the Amazon, turtle returning to the sea]**

🎙️ **Narrator**: “The Earth is not just our home. It’s our responsibility. If we don’t act now, we could face a new mass extinction—in our own lifetime.”

🟢 **Final Text on Screen (white letters on black screen):**

"Will we change direction—or reach the tipping point?"
Let’s explore it together.