

Effects of Changes in The Sun Answer Key

Critical Thinking Questions (Sample Answers)

1. Earth's temperature would drop, seasons could become harsher, and ecosystems might collapse as plants and animals struggled to survive in the cold.
2. Ice caps could melt, sea levels would rise, and storms could become more intense due to extra heat.
3. With less sunlight, plants could not perform photosynthesis effectively, leading to food shortages for animals and humans.
4. Stronger solar energy could cause more solar storms, disrupting satellites, communication networks, and power grids.
5. Life on Earth would face constant instability, making it difficult for ecosystems and humans to adapt.

Reflection Prompt (Sample Response)

The Sun's balance of energy is crucial because it provides just the right amount of heat and light for life to exist. Too little energy would freeze the planet, while too much would overheat it. A stable Sun allows ecosystems, weather, and human societies to thrive. Without this balance, Earth would be a far less hospitable place.