

■ AI Student Study Worksheet

Name: _____ Date: _____

Lesson Summary

Climate Data Analysis in Simien Mountains National Park, Ethiopia 1. Introduction and Background The Simien Mountains National Park (SMNP) is a UNESCO World Heritage site situated in the northern region of Ethiopia. Known for its dramatic escarpments, deep valleys, and unique Afro-alpine ecosystems, the park is home to several endemic and endangered species, including the Ethiopian wolf (*Canis simensis*), gelada baboons (*Theropithecus gelada*), and numerous high-altitude plant species.

Key Concepts

data, climate, conservation, project, analysis, local, ecosystems, community, park, site, species, biodiversity

■ Practice Quiz

1. Data Visualization: _____ results via dashboards, charts, and interactive maps to illustrate climate trends and ecological implications.

Answer: _____

2. _____ Significance This _____ addresses a critical gap in climate monitoring for Ethiopia's high-altitude ecosystems.

Answer: _____

3. Risk Identification: Identify areas vulnerable to climate stress such as drought, soil _____, landslides, and habitat degradation.

Answer: _____

4. Expected Outcomes The project will generate the following _____: 1.

Answer: _____

5. Redundancy will be included to prevent data loss in case of device _____.

Answer: _____

6. Anomaly Detection: Using statistical methods and machine learning (e.g., Isolation Forest, Autoencoders) to _____ unusual climate events.

Answer: _____

7. Provides guidance on ecological assessment, sensor placement, and conservation _____.

Answer: _____

8. Field technicians will conduct weekly site checks to _____ proper functioning.

Answer: _____

9. Recommendations for _____ strategies and sustainable agricultural practices.

Answer: _____

10. _____ 15–20 sites will be monitored to ensure representative data coverage.

Answer: _____

■■■ Teacher Answer Key

1. Sharing
2. project
3. erosion
4. outputs
5. malfunction
6. identify
7. relevance
8. ensure
9. conservation
10. Approximately