Teacher Answer Key

Case Study

1. GlobalXplorer was effective because it uses a crowdsourcing model where many untrained users independently review the same satellite tiles. While any single user might make errors, the collective judgment of dozens of volunteers reviewing the same image produces reliable results. The platform's algorithm only elevates a location when multiple independent users flag the same area, filtering out random mistakes.

2. Archaeologists should consider who has authority over the newly discovered site, particularly if it is located on Indigenous or community land. They must ensure that publishing the site's location does not expose it to looting, and they should coordinate with local governments and communities before conducting excavations. The rights and cultural significance of the site to local populations must be respected throughout the research process.

Multiple Choice

1. A
2. C
3. D

Matching

1-E, 2-A, 3-D, 4-B, 5-C

Fill-in-the-Blank

1) canopy, 2) Sarah, 3) Nazca

Short Answer (Sample Responses)

Q1: Crowdsourcing works because many independent users review the same satellite image tiles. While individual volunteers may make mistakes, the platform's algorithm requires multiple people to independently flag the same area before elevating it for professional review. This collective filtering process produces reliable identifications without requiring any single user to have expert knowledge.

Q2: The 2018 LiDAR survey was significant because it revealed more than sixty thousand previously unknown structures hidden beneath the jungle canopy, including pyramids, palaces, and connecting highways. This dramatically increased the known scale of Maya civilization and suggested that the population was several times larger

than scholars had previously estimated, fundamentally reshaping understanding of the civilization.

Q3: New technologies like AI, drones, and LiDAR are powerful tools for locating and mapping sites, but they cannot replace the careful hands-on work of excavation and artifact analysis. Physical excavation reveals context, stratigraphy, and details that remote sensing cannot capture. Technology amplifies human expertise rather than substituting for it, and skilled archaeologists are still needed to interpret findings and protect cultural heritage.