

Name _____

Rock and Roll: How Human Activities Shape the Rock Cycle

Short Answer Key

1. Fragmentation of rocks during mining increases their surface area, making them more vulnerable to weathering processes. Smaller rock fragments can be more easily broken down by physical and chemical weathering agents like water, wind, and temperature changes.
2. Tailings are waste materials generated during mining. They often contain harmful substances such as heavy metals and chemicals used in the extraction process. Tailings can be a concern because if not properly managed, they can leach these substances into nearby water bodies, leading to environmental contamination.
3. Construction activities can alter landscapes by excavating and reshaping the terrain. This can affect natural processes such as erosion, sedimentation, and the flow of water in rivers and streams. For example, the construction of a dam can alter the flow of a river and create a new lake.
4. Potential environmental challenges associated with mining and construction activities include habitat disruption, water pollution, increased erosion, and resource depletion. These activities can disrupt natural ecosystems, harm wildlife, and lead to the loss of valuable resources.
5. Developing sustainable practices in mining and construction is crucial to minimize the negative impacts on the environment and the rock cycle. Sustainability involves using resources efficiently, reducing waste, and mitigating environmental harm. This approach helps ensure that the Earth's resources are conserved for future generations while meeting current needs.

