

Name _____

Shimmer and Shine: How Minerals and Gems Brighten Our Everyday Life

Open-Ended Response Answer Key

1. Silicon is used in computer chips as a semiconductor material that controls the flow of electricity. It is essential for modern electronics because it allows for the miniaturization of components, making devices smaller and more powerful.
2. The environmental impact of mining minerals includes habitat destruction, water and air pollution, and greenhouse gas emissions. To reduce this impact, we can promote recycling, use materials more efficiently, and explore sustainable mining practices.
3. In a world without minerals and gems in everyday life, we would lack essential materials for construction, transportation, and technology. This would lead to limited access to electricity, healthcare, and communication, posing significant challenges to our daily lives.
4. The mining of rare earth elements can have negative environmental and social consequences. Ethical considerations include the responsible sourcing of these minerals, reducing waste, and supporting efforts to develop alternative materials for green technologies.

