

Name \_\_\_\_\_

## Cryptocurrency Miners: The Guardians of Digital Transactions

### Open-Ended Response Answer Key

1. (Sample answer) Decentralization in cryptocurrency networks means that no single entity controls the network, and power is distributed among participants. Miners play a role in maintaining decentralization by validating transactions and securing the network through proof of work, ensuring no single entity can manipulate the network.
2. (Sample answer) Environmental concerns in cryptocurrency mining can be addressed through the adoption of more energy-efficient consensus mechanisms, such as proof of stake. Additionally, using renewable energy sources for mining operations can reduce the environmental impact.
3. (Sample answer) Mining rewards, including newly created cryptocurrency coins, can impact the circulation and value of a cryptocurrency. Block rewards can affect the supply of the cryptocurrency, and the perception of mining incentives can influence investor confidence and demand.
4. (Sample answer) Miners are essential in ensuring the integrity and security of cryptocurrency transactions by validating transactions, preventing double spending, and adding them to the Blockchain. Without miners, the trustless and decentralized nature of cryptocurrency networks would be compromised, and transactions could not be reliably confirmed.

