

Name _____

The Puzzle Solvers: Pioneers of the Periodic Table

Open-Ended Response Questions

1. Compare and contrast the approaches of Dmitri Mendeleev and Henry Moseley to the organization of the periodic table. Discuss the key differences in their concepts and methodologies.
2. Investigate the impact of Henry Moseley's work on the accuracy and reliability of the periodic table. How did his reordering of the elements improve our understanding of chemical properties and atomic structure?
3. Analyze the role of Glenn T. Seaborg in extending the periodic table to include the actinide series. Explain the significance of synthesizing transuranium elements and their placement on the table.
4. Imagine you are a scientist living in the late 19th century. Explain the challenges and innovations involved in organizing the elements into a coherent periodic table, as demonstrated by Mendeleev's work.

