

4.1 Organizing the Elements

Honors Integrated Science

Video Lesson

Name: _____ Date: _____ Per. _____

Watch the Video: "Mendeleev and the Periodic Table"

 Mendeleev and the Periodic Table | Properties of Matter | Chemistry | FuseSchool and answer the questions below in complete sentences, using the information from the video for support.

1. How did scientists initially organize the elements before the concept of protons, neutrons, and electrons?
2. What were some of the patterns observed among the known elements before the periodic table was established?
3. Explain the concept of triads and provide an example of one such triad.
4. What was Newlands' contribution to the organization of elements and what flaw did he encounter in his theory?

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5. How did Mendeleev address the flaws in Newlands' octaves and create a more plausible arrangement of elements?

6. Describe how Mendeleev's prediction of gallium's properties marked a significant advancement in the development of the periodic table.

7. What were some of the challenges Mendeleev faced with his periodic table, and how were they eventually resolved in the modern version?