

WKS [15 pts]
**“The Evolution of the
Periodic System”**

Name _____
Date _____
Period _____

Answer the following questions as you read the article, “The Evolution of the Periodic System” (read on website/Google drive or download)

1. [1 pt] How many years does the history of the periodic table go back? Has it always existed as we now know it?
2. [1 pt] Why is it called the *periodic* table?
3. [1 pt] How does the periodic table help modern chemists?
4. [2 pts] Who is considered the “father” of the modern periodic table? When did he complete his first table and how many elements did it contain?
5. [1 pt] How did Döbreneiner organize the elements and why?
6. [1 pt] What was Kremers’ contribution to Mendeleev’s system?

7. [2 pts] How did Newlands improve on the organizational schemes that had come before him? Was his improvement readily accepted at the time? *Explain why or why not.*

8. [2 pts] What atomic property was used by Newlands to arrange elements in early periodic tables? What property is used in the modern table? Why was this property not originally used?

9. [1 pt] The structure of Mendeleev's periodic table was not completely accepted by the scientific community of the late 1800s. What specific discovery occurred in 1894 and over the next few years that challenged the structure of the periodic table?

10. [1 pt] When the periodic table was finally arranged by atomic number rather than atomic weight (mass), what two elements became properly ordered? Why had scientists thought that they had been incorrectly positioned?

11. [1 pt] According to Bohr's model, why are the Noble gases unreactive?

12. [1 pt] Are all modern periodic tables identical? Give one example of a variation that emphasizes a different property or feature compared to our "standard" periodic table.