Name: Key

Block _____

Video: The Periodic Table

1. How many elements are in the periodic table?

about 100 (114 or there abouts)

2. How are atoms classified?

according to their properties

3. How are hydrogen and helium different?

in their chemical behavior - hydrogen burns, helium doesn't react with anything

4. How can one differentiate between Al (metal) and S (non-metal)?

Al conducts electricity S does not

5. What property mentioned in this movie is unique to each element?

melting point

6. What is the periodic law?

the pattern of elements

7. When mentioning the periodic table, one name comes to mind. Which one?

Mendeleev

8. What is the name for the systematic variation in the properties of the elements in the periodic table?

periodicity of properties

9. What is the main difference between Mendeleev's periodic table and the modern periodic table?

atomic number vs atomic weight

10. Define groups and periods.

groups - vertical columns

periods - horizontal rows

Key

11. What were the first 3 elements in Mendeleev's first group?

He Ne Ar

12 Name the elements called the noble gases.

He Ne Ar Kr Xe Rn

13. a) In the modern periodic table, what is the name of the first group?

alkali metals

b) How are these elements similar?

soft metals that can be cut with a knife

c) How are these elements stored? Why?

In oil.

In air the elements become coated with compounds that form on the metals surface

d) Name the gas produced when alkali metals come into contact with water.

hydrogen

e) Groups contain Similar elements. However, in the case of the alkali metals, the reactivity with water (circle the appropriate answer) increase/decrease as we go down the column.

14. What are the weaknesses of Mendeleev's table?

periodic trends are not precise or reliable sometimes.
groups split into A + B subgroups which are very different
3 elements need to be placed in one space as well as the 15 "rare-earth" elements

15. Where are metals, non-metals, semimetals on the modern periodic table?

metals are in the lower left
non-metals are in the upper right
semimetals are in between

16. For what purpose did Niels Bohr use the periodic table?

To guess the electron configuration of the elements