

DO NOT WRITE ON THIS PAPER!

Holt Physical Science: Section 4.2 A Guided Tour of the Periodic Table

Organization of the Periodic Table

1. What does grouping similar elements together do?
2. How are elements represented in the periodic table?
3. What are the orders elements are arranged in based on?
4. Define periods in the periodic table.
5. What happens to the number of protons an atom has as you move from left to right across a period as well as the number of electrons?
6. What can you determine if you know where an element is located on the periodic table?
7. What are valence electrons and what do they do?
8. Explain what a group (family) on the periodic table is.
9. What do elements from the same group have in common?

Some atoms form ions

10. Define ion.
11. How does a positive ion or cation form? Write an example of a cation.
12. What does an atom do when a negative ion or anion is formed?

How Do the Structures of Atoms Differ?

13. What tells you how many protons are in an atom?
14. Define mass number.
15. Can atoms of the same element have the same atomic number but have a different atomic mass?
16. How do you figure the number of neutrons if you know the atomic number and the atomic mass number? Give an example.
17. How are atomic masses usually expressed?
18. How much is an atomic mass unit (amu) equal to?
19. What is an average atomic mass?