

ANSWER KEY

Unit 5 Review: Periodic Table

Format

- Multiple choice and short answer. No calculations
- Periodic table provided

Content

- Organization of periodic table: numbering of groups and periods, names of groups, location of metals, nonmetals, and metalloids
- Recognize properties of metals and nonmetals (for a multiple choice)
- Identify elements on the periodic table by group, period, valence electrons, principal energy level, and group name.
- Figure out the charge an ion would have based on its location on the periodic table
- Define periodic trend, atomic radius, ionization energy, and electronegativity
- Describe the trends of atomic radius, ionization energy, and electronegativity
- Compare and contrast the periodic properties of elements in a single group or period

Review questions

1. List 5 metals.
Aluminum, gallium, tin, bismuth, and polonium are the first elements to the left of the staircase that are metals. You can pick any of these or any other five to the left of the chart, including the lanthanide and actinide series.
2. List 5 nonmetals.
Carbon, phosphorus, selenium, iodine, and radon are nonmetals along with anything to the right of them.
3. List 2 metalloids.
boron, silicon, germanium, arsenic, antimony, tellurium
4. In which direction do groups go and how many are there?
up and down (vertical); 18 groups
5. In which direction do periods go and how many are there?
left to right (horizontal); 7 periods
6. What is the name of the group in the middle of the table that includes many common metals?
transition metals
7. Which has a higher group number, noble gases or alkaline earth metals?
noble gases (8A)
8. An element is shiny gray in color, melts only at very high temperatures and conducts electricity. Is it a metal, a nonmetal, or a metalloid?
metal