

Pre and Post Tests

Use the periodic table to answer these questions.

MULTIPLE CHOICE

1. Neon is an example of a(n):
A. Alkali Metal B. Noble Gas C. Halogen D. Rare Earth Metal
2. An element that has two valence or outer level electrons would be considered a(n):
A. Nonmetal B. Noble Gas C. Halogen D. Metal
3. Sodium is in the same group or family as:
A. Lithium B. Helium C. Calcium D. Thorium
4. Iodine is an example of a(n):
A. Noble Gas B. Halogen C. Alkali Metal D. Rare Earth Metal
5. If an element is a gas at room temperature, then it must be a(n):
A. Alkali Metal B. Nonmetal C. Halogen D. Alkaline Earth Metal
6. If an element has one to three valence or outer level electrons, then it is a(n):
A. Nonmetal B. Halogen C. Noble Gas D. Metal
7. Which of the following elements belongs to the group that includes the most active metals?
A. Aluminum B. Sodium C. Iron D. Mercury

GRIDDED RESPONSE

8. How many valence or outer level electrons does an atom of the element argon have?

SHORT RESPONSE

9. Barium and magnesium are both found in the same group in the periodic table. Name two properties that they would be expected to share.

EXTENDED RESPONSE

10. Chlorine and bromine are both found in the same group in the periodic table. Name this group. Are these elements metals or nonmetals? How many valence electrons do they have? Name a property that these two elements would be expected to share.

TEACHER ANSWER SHEET

MULTIPLE CHOICE

1. B
2. D
3. A
4. B
5. B
6. D
7. B

GRIDDED RESPONSE

8. 8 valence electrons

SHORT RESPONSE

9. Any two of the following would be an acceptable response:

Chemically active

Dense

Lustrous

Good conductor

Solid at room temperature

Silvery gray color

EXTENDED RESPONSE

9. Question 1 - Halogen
Question 2 - Nonmetal
Question 3 - Seven
Question 4 – Any of the following responses would be acceptable: Chemically active
Low density
Poor conductor
Translucent
Gas or liquid at room temp.

Scoring Rubric for Short Response Question:

- 0 points – No correct answer given
- 1 point – One correct answer given
- 2 points – Two correct answers given

Scoring rubric for Extended Response Question:

- 0 points – No correct answer given
- 1 point – One correct answer given
- 2 points – Two correct answers given
- 3 points – Three correct answers given
- 4 points – Four correct answers given

Name _____

Class _____



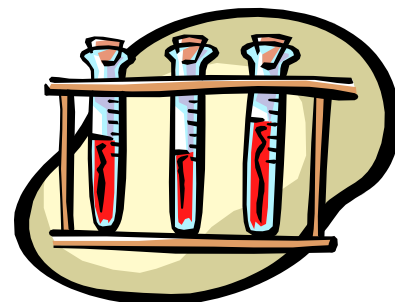
Student Periodic Table Worksheet

1. For each of the following elements, give the following information:

Symbol
Atomic number
Atomic mass
Group or family
Number of valence electrons
Metal or nonmetal

- A. Barium
- B. Xenon
- C. Fluorine
- D. Rubidium
- E. Calcium
- F. Krypton
- G. Iodine
- H. Radium
- I. Strontium
- J. Potassium

2. List four properties of metals and four properties of nonmetals.



Answer Key to Student Periodic Table Worksheet

1.
 - A. Ba, 56, 137.33, 2, 2, Metal
 - B. Xe, 54, 131.30, 18, 8, Nonmetal
 - C. F, 9, 18.998, 17, 7, Nonmetal
 - D. Rb, 37, 85.4678, 1, 1, Metal
 - E. Ca, 20, 40.08, 2, 2, Metal
 - F. Kr, 36, 83.80, 18, 8, Nonmetal
 - G. I, 53, 126.9045, 17, 7, Nonmetal
 - H. Ra, 88, 226.0245, 2, 2, Metal
 - I. Sr, 38, 87.62, 2, 2, Metal
 - J. K, 19, 39.0983, 1, 1, Metal

2.

METALS

Solids (except mercury)
Good conductor (of heat and electricity)
Lustrous
Malleable
Ductile
High density
Tend to lose electrons in chemical reactions
Compounds tend to be basic

NONMETALS

Solid, liquid, or gas
Poor conductor
Dull surface, transparent, or translucent
Brittle (if solid)
Low density
Tend to lose electrons in chemical reactions
Compounds tend to be acidic

Student Group Evaluation Checklist

1. Element name
2. Atomic number
3. Atomic mass
4. Number of valence electrons
5. Metal or nonmetal
6. Physical properties
7. Chemical properties
8. Effective delivery and acceptable degree of clarity of presentation
9. BONUS POINT: Awarded for effective use of visual aids

Group presentations will be graded on a scale of one to eight based on number of items indicated as satisfactory on the checklist. One bonus point will be awarded for effective use of student-prepared visual aids.