Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Understanding the Periodic Table of Elements

Part 1: States of Matter of the Elements

Use the Periodic Table to shade the boxes in the blank table of elements (red for solids, blue for liquids, and yellow for gases). Color the key below.



Key: State of Matter

 Solid

 Liquid

 Gas

In what state of matter do most of the elements of the periodic table exist? \_\_\_\_\_\_\_\_\_\_

Part 2: Kinds of Elements

Use the Periodic Table to shade the boxes in the blank table of elements (orange for metals, pink for nonmetals, and green for metalloids). Color the key below.



Key: Kinds of Elements

  Metals

  Nonmetals

  Metalloids

Where on the periodic table are the metals located? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Where on the periodic table are the nonmetals located? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

List the metalloids. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Part 3: Families of Elements

Use the Periodic to shade the boxes in the blank table of elements. (See colors on the board.) Color the key below.

 

Key: Element Families

 Alkali metals

 Alkaline earth metals

 Transition metals

 Boron family

 Carbon family

 Nitrogen family

 Oxygen family

 Halogens

 Noble gases

 Lanthanides

 Actinides

The element hydrogen should not be colored. It stands

apart from the rest of the elements because its properties

do no match any other single group. It’s the most

abundant element in the universe and is highly reactive.

Rows of the periodic table are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

How many periods are on the table? \_\_\_\_\_\_\_\_

Columns of the periodic table are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Part 4: History of the Periodic Table

Who discovered a pattern to the elements in 1869? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

He is called the “Father of the Periodic Table.” His periodic table organized the elements according to increasing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

What method did he use to organize the elements? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The modern periodic table organizes the elements according to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Who developed our modern periodic table? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_