

Name: Key

Date: _____

Chemistry: Properties

Recall that *physical properties* can be observed without producing new substances. *Chemical properties* describe how a substance interacts with other substances to produce new substances. *Extensive properties* depend upon the amount of matter in the sample; *intensive properties* do not.

Directions, Part 1: Classify each of the properties listed below as extensive or intensive. Then classify each property as physical or chemical. Write the word out to earn full credit.

Property	Extensive or Intensive Property	Physical or Chemical Property
color	intensive	P
combustibility	intensive	C
hardness	intensive	P
density	intensive	P
mass	extensive	P
melting point	intensive	P
ductility	intensive	P
volume	extensive	P
reactivity with acid	intensive	C
odor	intensive	P
weight	extensive	P
malleability	intensive	P
tendency to corrode	intensive	C

Directions, Part 2: Some measurements or descriptions of properties are listed below. Write which property is being described in each case. Select properties that are listed in the table from Part 1.

- A. 15 dm³
- B. can easily be hammered into sheets
- C. 2.8 g/cm³
- D. burns when heated in the presence of O₂
- E. shiny metal forms a chalky white layer on its surface
- F. can be scratched by a diamond
- G. 500°C
- H. can easily be drawn into a wire

- A. volume
- B. malleability
- C. density
- D. combustibility
- E. tendency to corrode
- F. hardness
- G. melting point
- H. ductility