Name: _____ Group: _____ Date: _____

Molecule

STUDENT BOOK pp. 6, 35, 302, 381

1. Which statement is the true definition of a molecule?

a) A molecule is a group of two or more atoms held together by chemical bonds. ☐

b) A molecule is a group of two or more atoms held together by physical bonds. ☐

c) A molecule is a group of two or more atoms mixed together. ☐

d) A molecule is a group of two or more atoms dissolved in one another. ☐

2. Complete the table by filling in the name of each molecule and the number of atoms it contains. (You may use the periodic table on the inside back cover of the student book.)

Molecule	Name	Number of atoms in the molecule
O_2	Oxygen *(oxygen in the air)*	
H_2O	Hydrogen dioxide *(water)*	
CO_2	Carbon dioxide *(carbonic anhydride)*	
HCl	Hydrogen chloride *(hydrochloric acid)*	
NH_3	Nitrogen trihydride *(ammonia)*	
SO_2	Sulphur dioxide *(sulphurous anhydride)*	
NaCl	Sodium chloride *(table salt)*	
CH_4	Carbon tetrahydride *(methane)*	
$C_6H_{12}O_6$	Glucose	
$C_{12}H_{22}O_{11}$	Sucrose *(table sugar)*	

3. Can the bonds linking atoms of a molecule be broken and those atoms then form other kinds of molecules? Explain your answer.

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