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EOR 2
Chapter 2 Reading Guide



Name _____

2.1

- A) List the 4 most common elements that make up 96% of your body?
- B) List 7 other trace elements that are also essential for your living body?

2.2

- A) Explain why most table salt has a little bit of Iodine added to it?

2.3 [video B]

- A) Explain why salt is a **compound** ?
- B) Why is salt a great example of matter having emergent properties different than their pure elements (see figure 2.3)?
- C) List the elements found in a sugar molecule?

2.4 [videos C, D]

- A) Explain the difference between **atomic number** and **mass number** for an atom?
- B) Define **isotope** and give an example?
- C) Describe 2 things that are released by a radioactive isotope?

2.5

- A) Explain how a radioactive isotope could **HELP** a human?
- B) Explain how a radioactive isotope could **HARM** a human?

2.6

- A) What determines the chemical and reactive properties of an atom?
- B) Atoms are most stable and **least likely to react** with other atoms when they have _____

2.7 [video F]

- A) What would cause a neutral atom to become a positively charged **ion**?
- B) Explain what holds two atoms together that form an **ionic bond**?

2.8 & 2.9 [video G]

- A) What symbol is used to indicate a double covalent bond? _____ How many total electrons occupy the area between 2 atoms that are connected with a double covalent bond? _____
- B) What do two atoms do with their electrons when they form a **nonpolar** covalent bond?
- C) What do two atoms do with their electrons when they form a **polar** covalent bond?

2.10 [videos **H, I, J, K**]

A) Explain how neighboring water molecules form **hydrogen bonds** (see figure 2.10)?

2.11

A) Define **cohesion** and explain how cohesion is used by a tree for daily survival?

2.12 [video **L**]

A) Explain why cities along a lake or ocean coastline have milder climates than for inland cities?

B) Does evaporation cause the remaining liquid to become warmer or cooler Explain why?

2.13 [video **M**]

A) Explain why solid ice is **less dense** than liquid water?

2.14 [videos **N, O**]

A) Explain what determines if a substance will or won't dissolve in water?

2.15 [videos **P, Q**]

A) Draw a diagram of the pH scale below and identify where 10 or more different liquids would belong on the scale

B) Compare the definitions of an acid and a base?

2.18

A) Compare the definitions of reactants and products.

B) Draw an example chemical reaction and circle the products