

Name _____ Date _____

Complete the following table. You may want to look at the periodic table.

Element	Atomic Number	Atomic Symbol	Number of Protons	Number of Shells	Number of Outer Electrons
Carbon	6	C	6	2	4
Hydrogen	_____	_____	_____	_____	_____
Nitrogen	_____	_____	_____	_____	_____
Sulfur	_____	_____	_____	_____	_____
Sodium	_____	_____	_____	_____	_____
Chlorine	_____	_____	_____	_____	_____

1. How can you tell from the Periodic Table how many outer shell electrons an atom will have?

2. How can you tell from the Periodic Table how many shells an atom will have?

3. Look at Calcium. What charge ion would this atom make, and why?

4. Look at Oxygen. What charge ion would this atom make, and why?

5. Explain why water is polar.

6. How is this related to its ability to hydrogen bond?

7. Explain the difference between hydrophilic and hydrophobic molecules.

8. List a functional group that you would expect to be attracted to water.

9. List an R group that you would expect to be attracted to water.

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