Name: Hour:

**Study Guide: Section 1.1**

**Matching**

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Inorganic chemistry | d. | Biochemistry |
| b. | Organic chemistry | e. | Theoretical chemistry |
| c. | Physical chemistry | f. | Analytical chemistry |

\_\_\_\_ 1. the study of most carbon-containing compounds

\_\_\_\_ 2. the study of non-organic substances, many of which have organic fragments bonded to metals (organometallic)

\_\_\_\_ 3. the study of the properties and changes of matter and their relation to energy

\_\_\_\_ 4. the identification of the components and composition of materials

\_\_\_\_ 5. the study of substances and processes occurring in living things

\_\_\_\_ 6. the use of mathematics and computers to understand the principles behind observed chemical behavior and design and predict the properties of new compounds

**Completion**

*Complete each statement.*

 7. The study of the composition, structure, and properties of matter, the processes that matter undergoes, and the energy changes that accompany these processes best describes the science of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

 8. A scientist is working to develop better dating methods for substances that contain carbon. He is working in the field of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ chemistry.

 9. A team of scientists is working to discover how an enzyme affects blood cells in sheep. They are working in the field of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ chemistry.

 10. A chemistry student is studying the formation of quartz crystals. She is studying \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ chemistry.

 11. Two scientists are trying to determine the exact nature of the chemicals in a lava flow. They are working in the field of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ chemistry.

 12. Basic research is performed to increase \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

 13. Applied research is often performed to find the answer to a particular \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

 14. Technological development is performed to better our \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

 15. A chemical can be defined as any substance that has a definite .