

Study Guide – Chapter 1 (Introduction to Chemistry)

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Name: _____ Date: _____ Period: _____

1. Chemistry is defined as the science that studies the _____ of _____ and its _____.

2. What is wrong with the statement: "I only buy soft drinks that don't have chemicals in them."?

3. The "chemists" from 8th century AD Arabia were known as _____. They believed in a magic potion that had _____ and could _____.

4. Aristotle (384-322 BC) believed that nature could be completely understood through the application of _____. According to Aristotle, in addition to the four elements proposed by Empedocles, the entire universe was permeated by a substance called _____. Aristotle's ideas endured for nearly _____ years.

5. Robert Boyle's (1627-1691) book, *The Sceptical Chymist* (1661), emphasized the need for _____ in scientific discovery. This led to the development of _____.

6. A late 17th century theory proposed that in order for something to burn (combust), it had to contain _____. The remaining material was reduced to a substance called _____.

This theory was eventually discredited by _____ through experiments that showed that _____ was required for combustion to occur.

7. The French scientist _____ is considered to be _____ due to his published works and experimental techniques.

8. A model that explains the behavior of nature is a _____, whereas a _____ states a measurable relationship.

9. The branch of chemistry that focuses on substances containing carbon is called _____ chemistry.

10. Because of its relevance to other scientific disciplines, chemistry is often called _____.

11. Success in studying chemistry may be dependent upon _____ and

_____ about how difficult and relevant the subject is.

12. Table salt, sodium chloride, comes from three major sources: _____,

_____ and _____. Most salt in the human

diet comes from _____. For proper function of the thyroid gland, table salt also

contains _____ as a dietary supplement.

13. A scientific theory is accepted only after _____, which establishes that the

_____ is a valid interpretation of the evidence.

14. The earliest concept of science began with the _____, _____

and _____ civilizations.

15. Three positive associations for the concept of chemistry are: _____,

(answers may vary)