

Teacher's Manual • Unit 7

- synthetic fibers for cloth, artificial rubber, artificial flavors, imitation wood surfaces, patent leather, artificial flowers, and so forth
- Tubal-cain
- There is a sudden and vigorous result when vinegar is added to sodium carbonate. The caustic effect is similar to the effect of a merry song on a heavy heart.
- Many men do "not like to retain God in their knowledge" (Romans 1:28). This is part of the ungodliness of our day. Some may say that God is unobservable by scientific standards and therefore outside the realm of science. It is the desire of Satan that men would ignore God for whatever reason. But for those of us who believe God, "the invisible things of him . . . are clearly seen." This also leaves the unbelievers without excuse.

Review of Vocabulary: (263)

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|---------------------|----------------------------|
| 1. element | 11. chemical formula |
| 2. atom | 12. organic compound |
| 3. protons | 13. oxides |
| 4. electrons | 14. acid |
| 5. neutrons | 15. base |
| 6. isotope | 16. salt |
| 7. periodic table | 17. replacement reaction |
| 8. compound | 18. combination reaction |
| 9. molecule | 19. decomposition reaction |
| 10. chemical symbol | 20. catalyst |

Multiple Choice: (263)

- (b)—Sometimes a teaching will remain a theory because there is no direct evidence that it is true. Indirect evidence includes observations that can be explained by assuming that there are atoms even though no one ever saw a single atom.
- (b)—The difference in the number of neutrons makes the different isotopes of the same element.
- (a)—The element numbers give the number of protons in each atom. The number of electrons equals the number of protons. Therefore, if the element number increases by two, then the number of both protons and electrons will increase by that amount.
- (c)—The proton has a positive charge. The electron has a negative charge.
- (d)
- (c)—These are sometimes called the transuranium elements since they are the elements beyond uranium.