The following is intended simply to provide some guidance as to the different areas we will consider and the subtopics. It is certainly unlikely we will cover every aspect of every topic, but this gives the “bigger” picture. The listing is based on your book, *An Introduction to Physical Science*, 11th Edition, James T. Shipman, Jerry D. Wilson, Aaron W. Todd, Houghton Mifflin Company, New York, 2006. Parenthetical numbers indicate section numbers in the textbook.

I. Measurement and its application to science (Chapter 1)

II. Physics (Chapters 2 – 10)
   A. Properties of motion: definitions, linear motion, circular motion (Chapter 2)
   B. Relationship between force and motion (Chapter 3)
      i) Definition of force and determination of net force (3.1)
      ii) Newton’s Three Laws of Motion (3.2 – 3.4)
      iii) Newton’s Law of Gravitation (3.5)
   C. Definition of work and its relationship to energy (4.1 – 4.5)
   D. Temperature and heat (Chapter 5)
   E. Properties of waves (6.1 – 6.2, 6.5 – 6.6)
      i) Electromagnetic waves (6.3)
      ii) Sound waves (6.4)
   F. Optics and waves (Chapter 7)
   G. Electricity and magnetism (Chapter 8)
   H. Atomic physics (Chapter 9)
   I. Nuclear Physics (Chapter 10)

III. Chemistry (Chapters 11 – 14)
   A. History and significance of the periodic table (11.1 – 11.4, 11.6)
   B. Basic nomenclature (11.5)
   C. Bonding of atoms of elements to each other (12.1 – 12.6)
   D. Representing chemical reactions through chemical equations (13.1)
   E. Energy effects in chemical reactions (13.2)
   F. Acids and bases (13.3)
   G. Single replacement reactions (13.4)
   H. Simple organic chemistry through polymers (Chapter 14)
IV. Astronomy (Chapters 15 – 18)
   A. Rudimentary coordinate systems (Chapter 15)
   B. Our solar system (Chapter 16)
   C. Moon and other solar system objects (Chapter 17)
   D. The Universe – star life cycles (Chapter 18)

V. Atmospheric science (Chapters 19 – 20)
   A. Basics of the Earth’s atmosphere (Chapter 19)
   B. Meteorology (Chapter 20)

VI. Geology (Chapter 21 – Chapter 24)
   A. Minerals, rocks, and their development (Chapter 21)
   B. Structural geology (Chapter 22)
   C. Surface processes (Chapter 23)
   D. The measurement and determination of the geologic time scale (Chapter 24)