*Science: Matter and Energy*

*Mr. Myers*

Chapter 4 Study Guide—Energy

1. Introduction to Energy
   1. Joule—the SI unit of energy
   2. Forms of energy
      1. Kinetic energy—the energy of motion (mechanical energy is a form of kinetic energy)
      2. Potential energy
      3. Radiant energy
   3. Law of conservation of energy
   4. Law of conservation of matter and energy
2. Forms of kinetic energy
   1. Whole-body kinetic energy
   2. Translational kinetic energy
   3. Rotational kinetic energy
3. Fundamental forces and potential energy
   1. Potential energy results from natural forces
   2. Nature’s four fundamental forces
      1. Gravitational force
      2. Weak nuclear force
      3. Electromagnetic force
         1. Electricity
         2. Magnetism
         3. Chemical energy
      4. Strong nuclear force