

# Chapter 6

## Energy Flow in the Life of a Cell



## 6.1 What Is Energy?

- **Energy** is the capacity to do work
- **Work** is a force acting on an object that causes the object to move
- **Chemical energy** is the energy that is contained in molecules and released by chemical reactions
  - Contained within sugar, glycogen, and fat
  - Cells use *ATP* to accept and transfer energy from one chemical reaction to the next

- Two fundamental types of energy
  - Potential energy** is **stored energy**
    - i.e. chemical energy in bonds, electrical charge in a battery, rock at top of a hill
  - Kinetic energy** is the **energy of movement**
    - i.e. light, heat, electricity, and the movement of objects

