**Arthropods**

* Arthropods are animals, so they belong in the Kingdom Animalia.
* Arthropods are the largest group of animals and have their own phylum: Phylum Arthropoda.
* Some of the characteristics of arthropods:
  1. They have some sort of digestive tract
  2. They have a segmented body
  3. Their body shows bilateral symmetry (the left and right sides are “mirrors” of each other)
  4. They have an exoskeleton (usually this is flexible and is made of a material called chitin)
  5. All arthropods have jointed appendages (legs, antennae)
* Exoskeletons
  + Advantages of exoskeletons
    1. They offer protection for the inside parts of the body
    2. They provide places for the muscles to attach
    3. They can be reinforced with the mineral calcium carbonate to make them stronger
  + Disadvantages of exoskeletons
    1. They can be heavy…the larger the arthropod, the heavier the exoskeleton
    2. Exoskeletons can’t grow with the inside of the body, so they must be replaced with a larger exoskeleton. This is called molting.
* Molting
  + When an arthropod molts, it first grows a soft, flexible new exoskeleton underneath the old exoskeleton. It then tightens up its muscles, sucks in a lot of water or air, and expands (swells up) its’ insides. This causes the old exoskeleton to crack open. The arthropod then pulls its’ body out of the old skeleton, swells up its’ body a bit more, and allows the new soft exoskeleton to harden. This happens 4 – 7 times as the arthropod grows to an adult’s size.