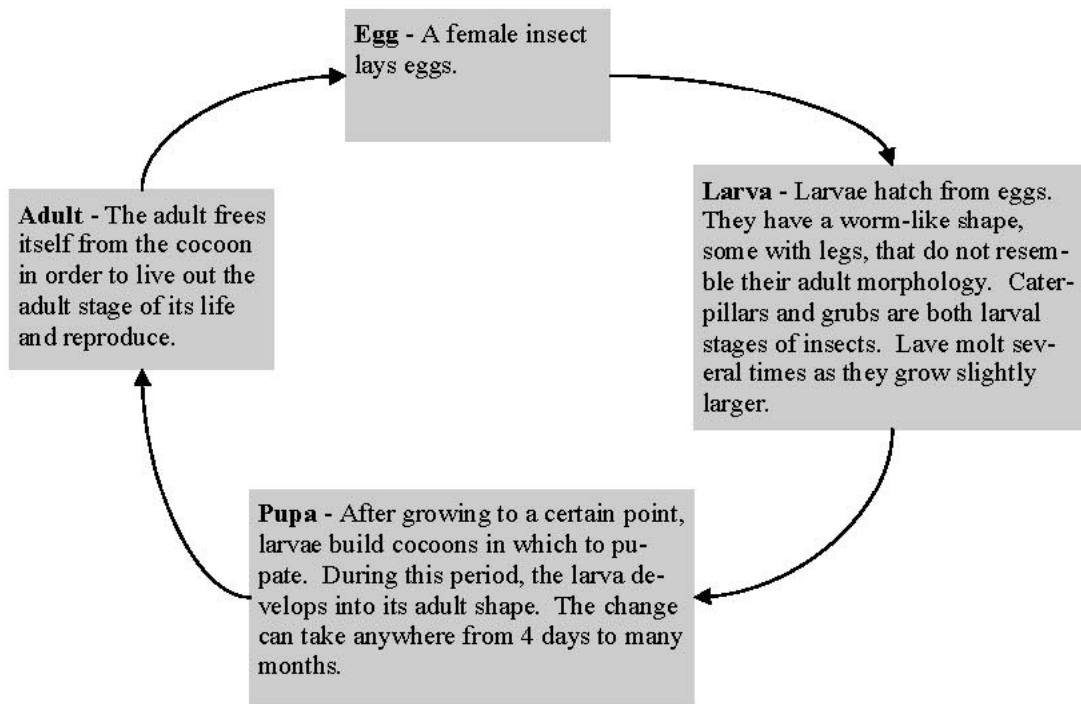


Complete metamorphosis



Breathing Underwater

In order to breathe underwater, aquatic insect nymphs and larvae have developed gills. Gills come in many shapes and sizes, but all gills are characterized by a large surface area. Gills need to have a great deal of surface area available in order to extract the oxygen needed for metabolism. Most bottom dwelling organisms that utilize gills prefer rocky areas to silty areas because the silt can clog their gills, making it difficult to breathe. Gills can be either protected or unprotected.



Platelike



Featherlike



Leaflike