(5 pts) There are two types of signal transduction pathways. Explain the two types and the differences between them.

The 2 types of signal transduction pathways are with lipid soluble or lipid nonsoluble entities. The lipid soluble are steroids, vitamin D3 and others that are able to pass through membrane because the molecules have cholesterol backbones and the membrane's internal section is made up of lipids. These have receptors in the cytoplasm or on the nuclear membrane or on DNA, mRNA.

The second type is with receptors on the plasma membrane. The activators are usually proteins and affect the receptors in 1 of 5 ways. They open ion channels by binding to the receptor, they affect a receptor bound activator like protein kinases, they activate a 2nd messenger like CAMP or Inositol Triphosphate (IP3).

(3 pts) Explain a reflex arc in words and/or diagram.