How vision works

11-*cis*-Retinal

Binds to an -NH$_2$ group from the amino acid lysine in the protein opsin

Rhodopsin
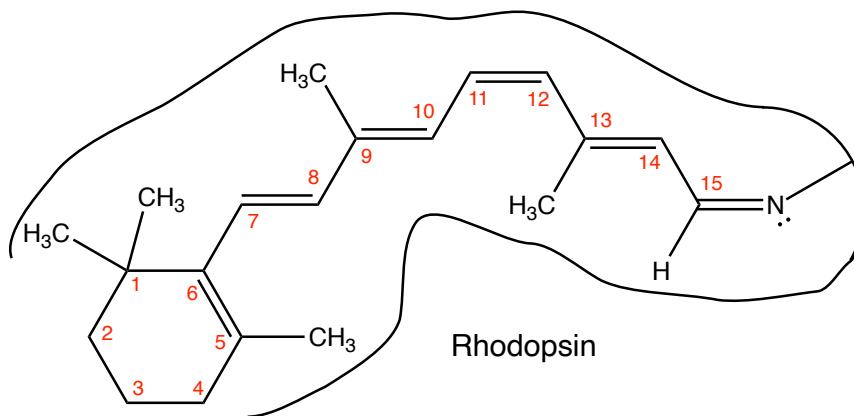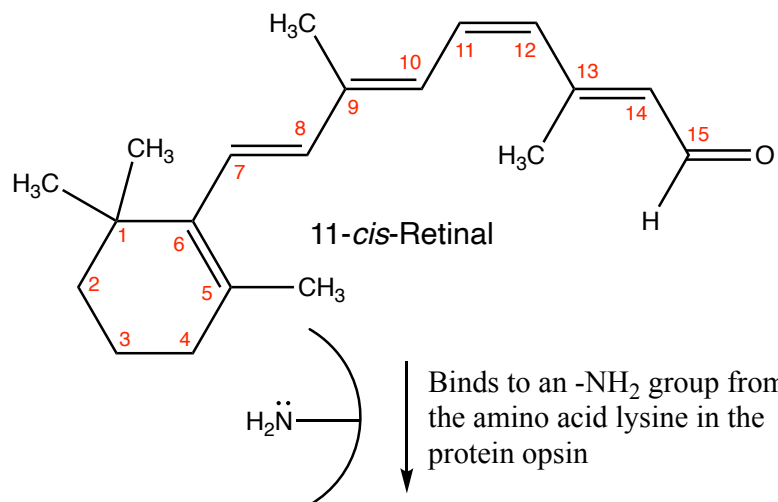
A photon of visible light is absorbed by the retinal, isomerizing the *cis* bond to *trans*, dramatically altering the shape of the molecule

Molecule resets

This change in shape causes a nerve impulse to be sent to the brain