

Ch 3

Note Title

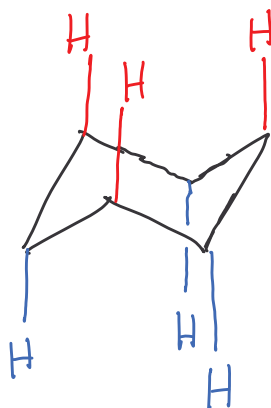
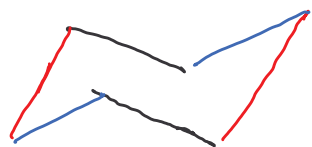
9/19/2005

Cyclohexane

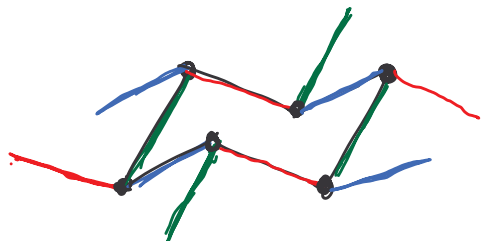
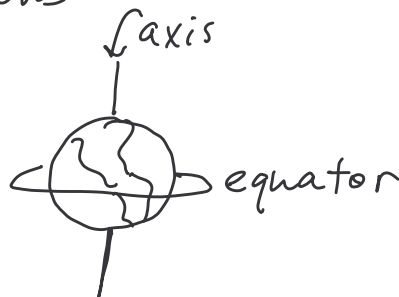
Chair = most stable conformation

torsional strain = none b/c bonds are staggered
(none eclipsed)
angle strain = none b/c all angles 109.5°

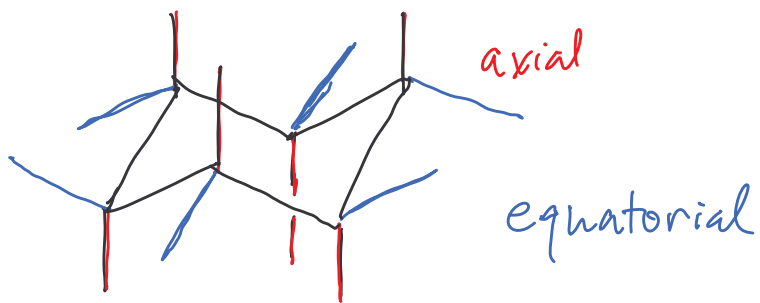
drawing chairs lines only 3 different angles



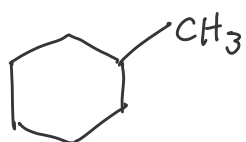
axial positions



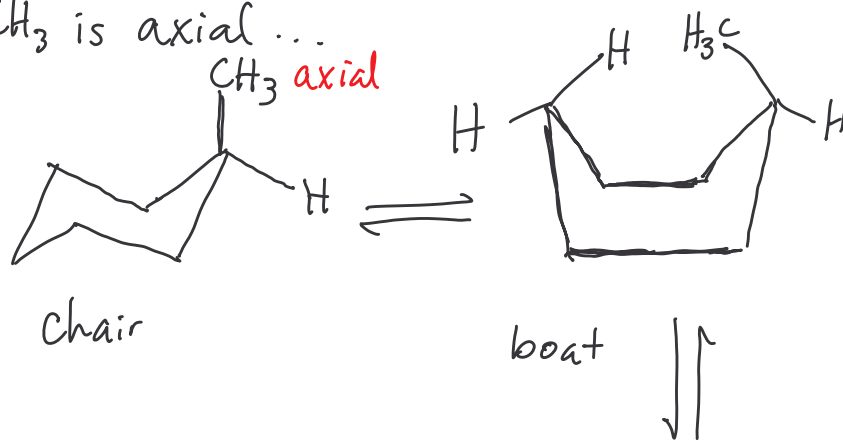
equatorial positions



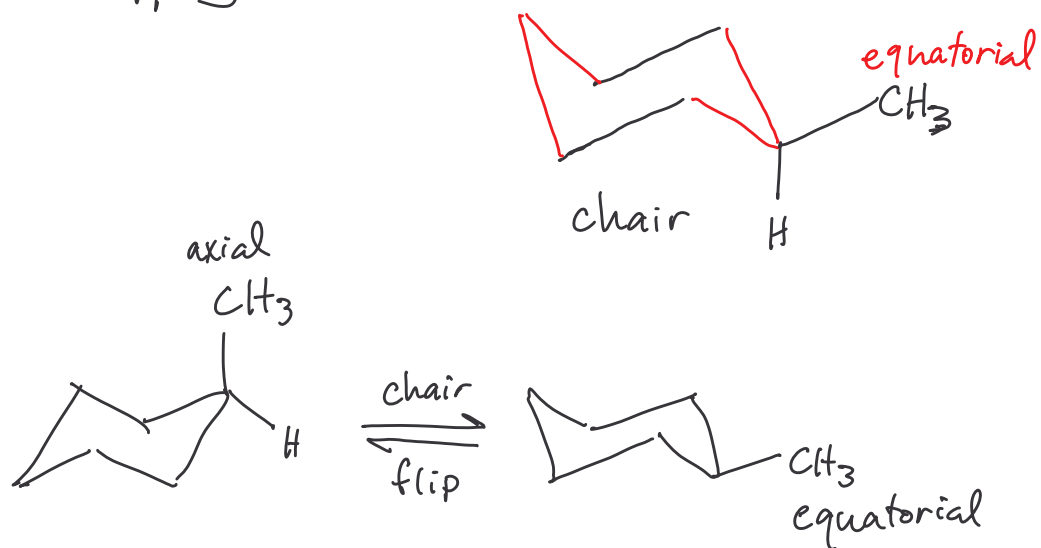
methylcyclohexane

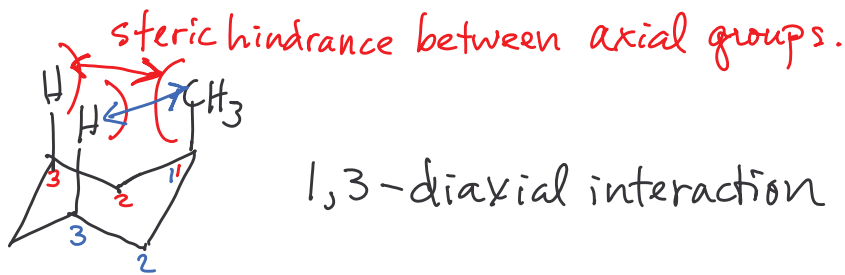


if CH₃ is axial ...

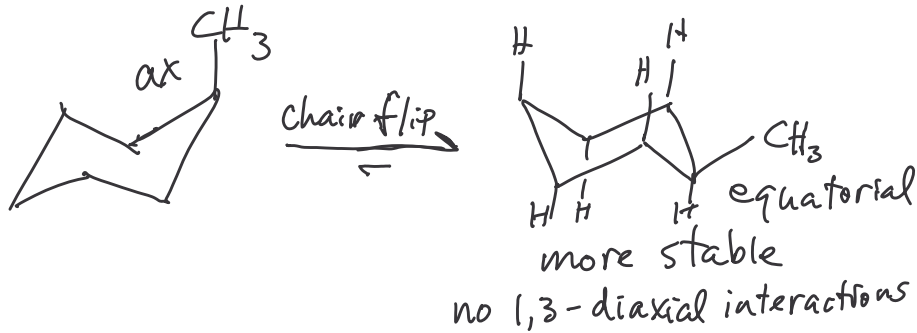


Chair-flipping





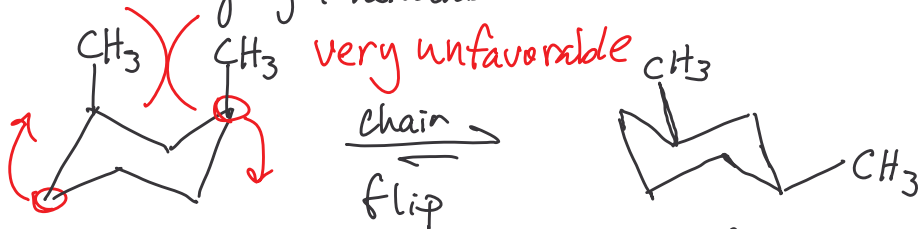
axial conformation of methylcyclohexane has two 1,3-diaxial interactions.



larger groups than CH_3 have stronger 1,3-diaxial interactions

if 2 groups attached, make larger group equatorial through chair-flipping

cis-1,3-dimethylcyclohexane



both axial

more favorable
diequatorial conformation

trans-1,3-dimethylcyclohexane

