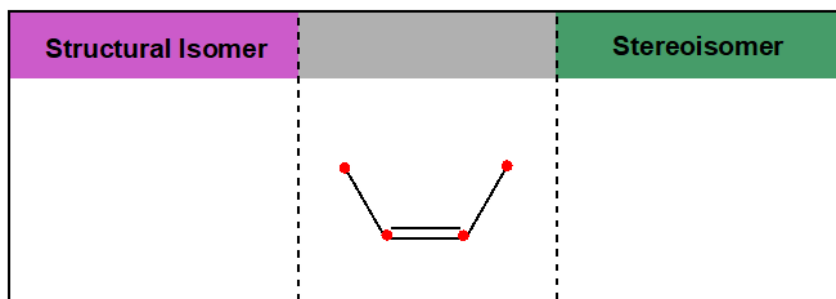
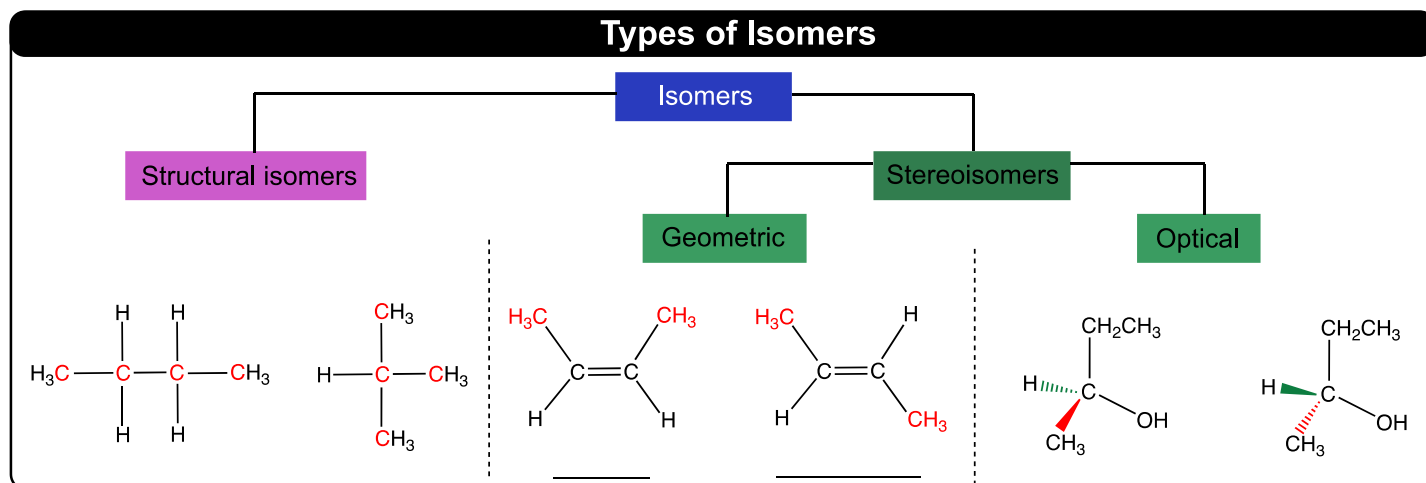
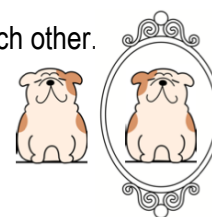


CONCEPT: ISOMERS

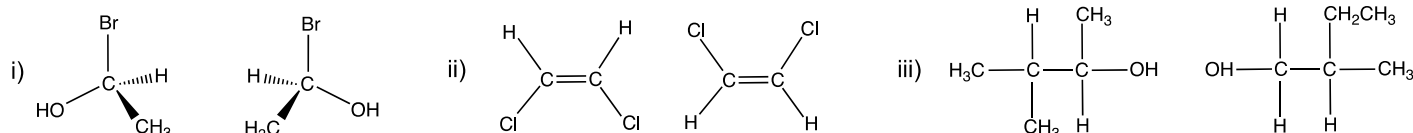
- **Isomers** are molecules with the _____ molecular formula, but _____ connectivity or spatial orientation.
- **Structural (Constitutional) Isomers**: same molecular formula but different _____.
- **Stereoisomers**: same molecular formula and connectivity but different _____ orientation.



- **Stereoisomers** are further divided into ____ types.
 - **Geometric stereoisomers**: molecules with different spatial arrangements around a _____ bond.
 - **Optical stereoisomers**: molecules that are *nonsuperimposable* _____ images of each other.
 - **Nonsuperimposable**: mirror image cannot be placed one _____ the other.

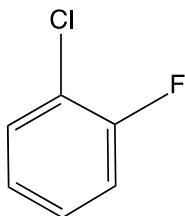


EXAMPLE: Based on the pair of molecules, identify as structural, optical, geometric isomers or identical.



CONCEPT: ISOMERS

PRACTICE: Examine the two molecules and determine if they are identical or isomers.



PRACTICE: Draw a constitutional isomer of butane.

