

INQUIRY**Scientific Inquiry****Process Skills**

_____ Conduct systematic experiments with organic chemicals, report and display results. *OrgChem-01*

CONTENT**Chemistry****Background Review and Introduction to Organic Chemistry**

_____ Compare and contrast organic and inorganic compounds based on molecular structure and properties. *OrgChem-02*

Bonding in Organic Compounds

_____ Explain bonding and geometry of organic compounds in terms of hybridized orbitals. *OrgChem-03*

Alkanes

_____ Name alkanes and draw structural and conformational isomers. *OrgChem-04*

Alkenes and Alkynes

_____ Name alkenes and alkynes and recognize and give examples of various types of isomers. *OrgChem-05*

Organic Reactions

_____ Identify the products of various types of organic reactions and determine the mechanism of the reaction. *OrgChem-06*

Aromatic Compounds

_____ Complete simple reactions with aromatic compounds and name the reactants and products. *OrgChem-07*

Stereochemistry

_____ Recognize stereoisomers and determine R and S configurations of chiral carbon atoms. *OrgChem-08*

Organic Halogen Compounds

_____ Name organic halogen compounds and complete simple reactions. *OrgChem-09*

Alcohols, Phenols and Ethers

_____ Recognize compounds as being alcohols, phenols or ethers and name them with the IUPAC system. *OrgChem-10*

CONNECTIONS**Science Practices**

_____ Explain the strengths, weaknesses and uses of research methodologies including observational studies, controlled laboratory experiments, computer modeling and statistical studies. *OrgChem-11*

S/T/S (Science, Technology and Society)

_____ Assess how scientific and technological progress has affected other fields of study, careers, job markets and aspects of everyday life. *OrgChem-12*