**Chapter 8- Compounds of Carbon**

**Key Knowledge**

* Properties and systematic naming of alkanes and alkenes up to C6.
* Structural isomers of C4H10.
* Addition polymers
  + Relationship between structure, properties and applications.
  + Synthesis, cross-linking.
* Development of customised polymers

**Chapter Outcomes**

* Give the systematic names and molecular formulas of alkanes and alkenes with up to six carbons.
* Draw the structural formulas of straight-chained alkanes and alkenes with up to six carbons.
* Understand the significance of organising carbon compounds into homologous series.
* Explain why some compounds have isomers.
* Explain the trend in boiling temperatures, viscosity and volatility of alkanes and alkenes.
* Write equations for combustion reactions of hydrocarbons and addition reactions of alkenes.
* List a number of everyday uses of polymers.
* Recall that polymers are long-chained molecules.
* Write an equation to show addition polymerisation, given the structure of an unsaturated monomer.
* Explain the relationship between the structure, properties and applications of polymers.
* Describe some examples of ways in which polymers can be customised to fulfil a particular purpose.