

## Assessment and Evaluation

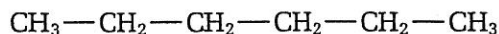
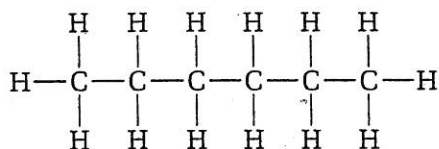
ThoughtLab/ ExpressLab/ Investigation	Curriculum Expectations	Assessment Tools/Techniques	Achievement Chart Category	Learning Skills
Investigation 13-A: Modelling Organic Compounds, page 542	<p><b>Overall Expectations</b></p> <ul style="list-style-type: none"> <li>[HE V.02] describe and investigate the properties of hydrocarbons, and apply calorimetric techniques to the calculation of energy changes</li> </ul> <p><b>Specific Expectations</b> <i>Developing Skills of Inquiry and Communication</i></p> <ul style="list-style-type: none"> <li>[HE 2.03] use molecular models to demonstrate the arrangement of atoms in isomers of hydrocarbons</li> </ul>	<ul style="list-style-type: none"> <li>Rubric for Investigation 13-A: Modelling Organic Compounds (see "Assessment and Evaluation" in the front matter of <i>Teacher's Resource CD-ROM</i>)</li> </ul>	<ul style="list-style-type: none"> <li>Knowledge/Understanding</li> <li>Inquiry</li> <li>Communication</li> </ul>	<ul style="list-style-type: none"> <li>Teamwork</li> <li>Work Habits</li> </ul>

## Section Review Answers

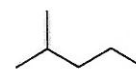
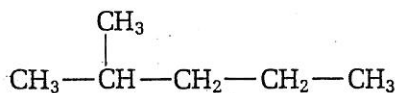
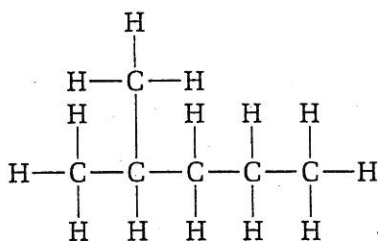
## Student Textbook page 543

- Carbon has four bonding electrons, which allow the formation of four strong covalent bonds to a variety of different elements.
  - Carbon can form single/double/triple covalent bonds and stable chains.
  - Carbon-based molecules can assume various geometric shapes.
- Students should represent their hydrocarbon molecule using a complete structural diagram, a condensed structural diagram, a line structural diagram, and (if time and material exist) a ball-and-stick model.

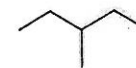
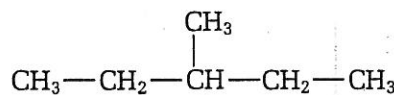
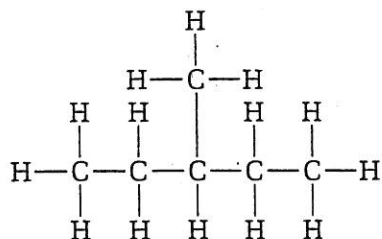
3.

 Isomers of C<sub>6</sub>H<sub>14</sub>


hexane



2-methylpentane



3-methylpentane

