

ALTERNATIVE ASSESSMENT

- 57. Performance** Models are often used to visualize the three-dimensional shape of molecules. Using gumdrops as atoms and toothpicks to bond them together, construct models of different hydrocarbons. Use large gumdrops for carbon and smaller gumdrops for hydrogen.
- 58. Performance** Using your gumdrop models, demonstrate why alkenes can have geometric isomers, while alkanes (except cycloalkanes) cannot.
- 59. Performance** Devise a set of experiments to study how well biodegradable plastics break down. If your teacher approves your plan, conduct an experiment to test the procedure on products labeled “biodegradable.”
- 60. Performance** Your teacher will make available unlabeled samples of benzoic acid, ethyl alcohol, and hexanediamine. Develop an experiment to identify each. If your teacher approves your plan, identify the unknown substances.
- 61.** Keep a list of the food you consume in a single day. Compare the content labels from those foods, and then list the most commonly used chemicals in them. With the aid of your teacher and some reference books, try to classify the organic chemicals by their functional groups.
- 62.** As a class or small group, research the preservatives used in various foods. Examine their chemical structures. Determine a way to test for organic functional groups of possibly hazardous preservatives.

extension



Graphing Calculator

Hydrocarbon Formulas

Go to go.hrw.com for a graphing calculator exercise that asks you to find the formula of any straight-chain hydrocarbon, given the number of carbon atoms and the number of double bonds in the compound.



Keyword: HC6ORGX