

## Food Chemistry: Goals and Assessment Strategies

Concepts	
Goals	Assessment Strategies
Foods contain starches, sugars, fats, and/or proteins. Lessons 1–17	Lessons 1, 3, 6, 9, 12, 15–17 <ul style="list-style-type: none"> <li>▪ Pre- and post-unit assessments</li> <li>▪ Class and individual Venn diagrams</li> <li>▪ Journal writing</li> <li>▪ Record sheets</li> </ul>
Specific chemical and physical tests can be used to determine whether a food contains starches, glucose, fats, or proteins. Lessons 3–15	Lessons 3, 6, 9, 12, 15 <ul style="list-style-type: none"> <li>▪ Record sheets</li> <li>▪ Teacher’s observations of lab procedures</li> <li>▪ Class discussions</li> </ul>
Iodine can be used to test for starches, glucose test paper for glucose, brown paper for fats, and Coomassie blue for proteins. Lessons 3–4, 6–7, 9–10, 12–13, 16	Lessons 3, 6, 9, 12, 16 <ul style="list-style-type: none"> <li>▪ Record sheets</li> <li>▪ Teacher’s observations of lab procedures</li> <li>▪ Class discussions</li> </ul>
Varying amounts of starches, glucose, fats, and proteins are found in foods. Lessons 3–16	Lessons 3, 6, 9, 12, 15 <ul style="list-style-type: none"> <li>▪ Journal writing</li> <li>▪ Record sheets</li> </ul>
Starches and sugars are carbohydrates. Lessons 3–8, 15	Lessons 6, 15 <ul style="list-style-type: none"> <li>▪ Venn diagrams</li> <li>▪ Class discussions</li> <li>▪ Oral and written presentations</li> </ul>
Glucose is one kind of sugar. Lessons 6–8, 15	Lessons 6, 15 <ul style="list-style-type: none"> <li>▪ Class discussions</li> <li>▪ Journal writing</li> <li>▪ Oral and written presentations</li> </ul>
Carbohydrates, fats, proteins, water, vitamins, and minerals are nutrients. Lessons 1–2, 5, 8, 11, 14–17	Lessons 1, 3, 6, 9, 15–17 <ul style="list-style-type: none"> <li>▪ Pre- and post-unit assessments</li> <li>▪ Class lists and discussions</li> <li>▪ Oral and written presentations</li> </ul>
Nutrients are essential to human health. Lessons 1–2, 5, 8, 11, 14, 16–17	Lessons 1, 3, 6, 9, 12, 15, 17 <ul style="list-style-type: none"> <li>▪ Pre- and post-unit assessments</li> <li>▪ Class discussions</li> <li>▪ Journal writing</li> </ul>

<b>Skills</b>	
<b>Goals</b>	<b>Assessment Strategies</b>
Learning to perform four chemical and physical tests to identify the presence or absence of nutrients in foods. Lessons 2–14	Lessons 3, 6, 9, 12, 16 <ul style="list-style-type: none"> <li>▪ Teacher’s observations of lab procedures</li> <li>▪ Class discussions</li> </ul>
Predicting the nutrient content of foods. Lessons 3–4, 6–7, 9–10, 12–13	Lessons 3, 6, 9, 12, 16 <ul style="list-style-type: none"> <li>▪ Record sheets</li> </ul>
Conducting independent research on nutrients. Lessons 2, 5, 8, 11, 14	Lessons 5–6, 9, 12 <ul style="list-style-type: none"> <li>▪ Journal writing</li> <li>▪ Class discussions</li> <li>▪ Oral and written presentations</li> </ul>
Observing, recording, and organizing test results. Lessons 2–16	Lessons 3, 6, 9, 12, 16 <ul style="list-style-type: none"> <li>▪ Record sheets</li> <li>▪ Journal writing</li> </ul>
Interpreting a range of test results to draw conclusions about the kinds and amounts of nutrients in foods. Lessons 4–5, 7–8, 10–11, 13–14, 16	Lessons 3, 6, 9, 12, 16 <ul style="list-style-type: none"> <li>▪ Journal writing</li> <li>▪ Class discussions</li> </ul>
Developing laboratory techniques to avoid contamination of the test samples. Lessons 2–14	Lessons 3, 6, 12 <ul style="list-style-type: none"> <li>▪ Teacher’s observations</li> </ul>
Communicating results in writing and through discussion. Lessons 3–16	Lessons 3, 5–6, 9, 12 <ul style="list-style-type: none"> <li>▪ Class discussions</li> <li>▪ Journal writing</li> <li>▪ Record sheets</li> <li>▪ Oral and written presentations</li> </ul>
Reflecting on experiences in writing and through discussion. Lessons 4–5, 7–8, 10–11, 13–16	Lessons 3, 6, 9, 12, 16 <ul style="list-style-type: none"> <li>▪ Journal writing</li> </ul>
Applying previously learned concepts and skills to solve a problem. Lessons 4, 7, 10, 13, 16	Lessons 5–6, 9, 12, 16 <ul style="list-style-type: none"> <li>▪ Teacher’s observations</li> <li>▪ Journal writing</li> </ul>

<b>Attitudes</b>	
<b>Goals</b>	<b>Assessment Strategies</b>
Developing an interest in investigating the nutritional content of food. Lessons 1–17	Lessons 1, 16–17 <ul style="list-style-type: none"> <li>▪ Teacher’s observations</li> <li>▪ Student self-assessment</li> </ul>
Recognizing the importance of repeating tests to validate results. Lessons 3–16	Lessons 3, 6, 9, 12 <ul style="list-style-type: none"> <li>▪ Class discussions</li> <li>▪ Journal writing</li> </ul>
Recognizing that nutritional information can be used to make informed decisions about the foods we eat. Lessons 1–2, 5, 8, 11, 14–17	Pre- and post-unit assessments and Lessons 1, 15–17 <ul style="list-style-type: none"> <li>▪ Class discussions</li> <li>▪ Student self-assessment</li> </ul>