

## Chemical Tests: Goals and Assessment Strategies

Concepts	
Goals	Assessment Strategies
Common household chemicals have different physical and chemical properties. Lessons 1–17	Lessons 1, 3, 7, 9, 11, 12, 15, 17 <ul style="list-style-type: none"> <li>▪ Class and team discussions</li> <li>▪ Notebook entries</li> <li>▪ Record sheets</li> </ul>
Chemicals undergo changes in form, color, and texture when they are mixed together, separated, or heated. Lessons 1, 3–10, 17	Lessons 4, 6, 9, 17 <ul style="list-style-type: none"> <li>▪ Notebook entries</li> <li>▪ Record sheets</li> <li>▪ Class and team discussions</li> </ul>
Some chemicals can be identified by their interaction with water, vinegar, iodine, red cabbage juice, and heat. Lessons 11, 12–14, 16	Lessons 11–14, 16 <ul style="list-style-type: none"> <li>▪ Record sheets</li> <li>▪ Class discussions</li> <li>▪ Notebook entries</li> <li>▪ Oral presentations</li> </ul>
Different types of mixtures, such as solutions and suspensions, are created when solids are combined with water. Lessons 4–6, 13–14, 16	Lessons 4, 6 <ul style="list-style-type: none"> <li>▪ Class discussions</li> <li>▪ Notebook entries</li> <li>▪ Record sheets</li> </ul>
Evaporation and filtration are methods for separating mixtures of solids and liquids. Lessons 5–6	Lesson 6 <ul style="list-style-type: none"> <li>▪ Record sheets</li> <li>▪ Class lists and discussion</li> </ul>
Some chemicals can be classified as acids, bases, or neutral substances on the basis of their reactions with red cabbage juice. Lesson 15	Lesson 15 <ul style="list-style-type: none"> <li>▪ Class lists and discussion</li> <li>▪ Notebook entries</li> </ul>

Skills	
Goals	Assessment Strategies
Observing and describing properties of materials. Lessons 1–10, 13–17	Lessons 1, 3–4, 6, 9, 14, 16–17 <ul style="list-style-type: none"> <li>▪ Record sheets</li> <li>▪ Class lists and discussions</li> <li>▪ Notebook entries</li> </ul>
Learning to perform different physical and chemical tests. Lessons 3–10, 14	Lessons 3, 9, 14, 16 <ul style="list-style-type: none"> <li>▪ Record sheets</li> <li>▪ Notebook entries</li> <li>▪ Observation of testing procedures</li> </ul>
Predicting, observing, describing, and recording results of tests. Lessons 3–10, 13–16	Lessons 1, 4, 6, 9, 14, 16–17 <ul style="list-style-type: none"> <li>▪ Notebook entries</li> <li>▪ Class discussions</li> <li>▪ Record sheets</li> </ul>
Analyzing and drawing conclusions from the results of tests. Lessons 4–16	Lessons 6, 9, 11–12, 14–16 <ul style="list-style-type: none"> <li>▪ Notebook entries</li> <li>▪ Record sheets</li> <li>▪ Class discussions</li> </ul>

Chemical Tests: Goals and Assessment Strategies, Skills (continued)

Goals	Assessment Strategies
Comparing and contrasting test results to define the properties of household chemicals so they can be identified. Lessons 11–16	Lessons 11, 14, 16 <ul style="list-style-type: none"> <li>▪ Notebook entries</li> <li>▪ Record sheets</li> <li>▪ Class lists and discussions</li> <li>▪ Teacher observations</li> </ul>
Supporting conclusions with reasons based on experiences. Lessons 6, 12–16	Additional Assessments and Lessons 6, 9, 12–16 <ul style="list-style-type: none"> <li>▪ Notebook entries</li> <li>▪ Record sheets</li> <li>▪ Class lists and discussions</li> </ul>
Communicating results and reflecting on experiences through writing and discussion. Lessons 1–17	Lessons 4, 6, 9, 11–12, 14, 16–17 <ul style="list-style-type: none"> <li>▪ Notebook entries</li> <li>▪ Class and team discussions</li> <li>▪ Teacher’s observations</li> <li>▪ Oral presentations</li> </ul>
Applying previously learned knowledge and skills to solve a problem. Lessons 13–16	Lessons 14–16 <ul style="list-style-type: none"> <li>▪ Notebook entries</li> <li>▪ Class discussions</li> <li>▪ Record sheets</li> <li>▪ Teacher’s observations</li> </ul>
Reading to enhance understanding of chemistry concepts. Lessons 6, 12, 15	Lessons 6, 12, 15 <ul style="list-style-type: none"> <li>▪ Class discussions</li> <li>▪ Teacher’s observations</li> </ul>
Developing proper laboratory techniques to ensure safety and avoid contamination. Lessons 2–10, 13–16	Lessons 3, 9, 16 <ul style="list-style-type: none"> <li>▪ Teacher’s observations</li> </ul>

<b>Attitudes</b>	
Goals	Assessment Strategies
Developing an interest in exploring and investigating properties of chemicals. Lessons 1–17	Lessons 1, 16–17, Additional Assessments <ul style="list-style-type: none"> <li>▪ Teacher’s observations</li> <li>▪ Student self-assessment</li> </ul>
Recognizing the importance of guidelines for experimentation. Lessons 3–10, 13–16	Lessons 3, 9, 16, Additional Assessments <ul style="list-style-type: none"> <li>▪ Teacher’s observations</li> <li>▪ Student self-assessment</li> </ul>
Developing an awareness of the importance of chemicals in our lives. Lessons 1, 12, 15, 17	Lessons 1, 9, 12, 17, Additional Assessments <ul style="list-style-type: none"> <li>▪ Pre- and post-unit assessments</li> <li>▪ Notebook entries</li> <li>▪ Student self-assessment</li> </ul>
Developing an appreciation for the safe handling of chemicals. Lessons 1–17	Lessons 1–3, 9, 16–17 <ul style="list-style-type: none"> <li>▪ Teacher’s observations</li> <li>▪ Class discussions</li> <li>▪ Class list</li> </ul>