

LOS ANGELES UNIFIED SCHOOL DISTRICT  
 “Standards-Based Instruction Model”\*

Subject/Course Science Grade Level 5 Standard #(s) 25 Standard(s) (What students should be able to do) Work independently and in groups to investigate scientific questions by identifying and proposing solutions to control for variables; collect, compile, and evaluate data following safety procedures and ethical standards. (Investigations)

District Elementary Course of Study (Concepts) or Secondary Guidelines for Instruction (Instructional Unit) Investigations/Physical Science

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| <b>CULMINATING TASK/ASSIGNMENT</b><br>What will the individual <b>student</b> produce to demonstrate achievement of the standard(s)?<br><br>Begin the task with a verb.   | <b>ASSESSMENT</b><br>What criteria will be used to evaluate/score <b>student</b> work/performance of the culminating task?<br><br>The statement of the product to be scored is followed by a verb.   | <b>INSTRUCTIONAL ACTIVITIES</b><br>What learning activities will the <b>student</b> be involved in to acquire content knowledge and skills to achieve the standard? Consider alternative strategies and modifications to promote equal access for all learners.<br><br>Begin each learning activity with a verb describing what the student is to do.   | <b>TIME</b><br>How much time will be required for the <b>student</b> to complete each of the activities? | <b>RESOURCES</b><br>What materials, textbooks, supplies, documents, etc., will support the <b>student</b> doing each instructional activity?                                    |
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| <p>Create a chart that shows the amount of vitamin C contained in five juices; construct a bar graph on a sheet of graph paper by analyzing the data and interpreting the results from the chart; and explain in writing how the findings were derived.</p> | <p><b>The chart, graph, and written explanation:</b></p> <p>4: Show the correct amount of vitamin C in each of the five juices; explain clearly how findings were derived including name of juice, collection method, and result for each experiment; are presented clearly with no technical or grammatical errors.</p> <p>3: Show the correct amount of vitamin C in each of the five juices; explain how findings were derived but may not include sufficient detail to demonstrate full understanding of the process; are presented clearly but with one or two errors.</p> <p>2: Show an incorrect amount of vitamin C in the five juices; do not explain clearly how findings were derived; include insufficient detail to demonstrate full understanding of process; are not presented clearly and have several technical or grammatical errors.</p> <p>1: Do not show the amount of vitamin C in the five juices; show incomplete experimental data; are not presented clearly and have many errors.</p> | <ul style="list-style-type: none"> <li>▪ Discuss examples of a controlled experiment.</li> <li>▪ Discuss how to look for variables in an experiment.</li> <li>▪ Discuss the process and steps of an experiment.</li> <li>▪ Discuss an example of a chart and explain how to chart results.</li> <li>▪ Discuss in groups procedures for setting up the vitamin C experiment; write the procedures in a step-by-step fashion.</li> <li>▪ Identify in groups information that must be included in an explanation of the experiment.</li> </ul> | <p>10 min<br/>10 min<br/>15 min<br/>5 min<br/>30 min<br/>20 min</p>                                      | <p>GEMS Vitamin C. Testing.<br/>GEMS Manual.<br/>Pencils, markers.<br/>Chart paper.<br/>Rulers.<br/>Juices, water droppers.<br/>Inclophenol vials.<br/>Water.<br/>Journals.</p> |

\*Model developed, refined, and field-tested by Task Force on Standards-Based Instruction