LOS ANGELES UNIFIED SCHOOL DISTRICT
"Standards-Based Instruction Model"*

Subject/Course Science Grade Level 5 Standard #(s) 20 Standard(s) (What students should be able to do) Observe and describe the behavior of matter with respect to motion, force, and energy transformations and relate findings to Newton's Laws of Motion; predict the effects of gravity, density, and electromagnetism on the behavior of matter. (Physical Science)
District Elementary Course of Study (Concepts) or Secondary Guidelines for Instruction (Instructional Unit) Physical Science
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CULMINATING TASK/ASSIGNMENT What will the individual **student** produce to demonstrate achievement of the standard(s)? Begin the task with a verb.	**ASSESSMENT** What criteria will be used to evaluate/score **student** work/performance of the culminating task? The statement of the product to be scored is followed by a verb.	**INSTRUCTIONAL ACTIVITIES** What learning activities will the **student** 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. Begin each learning activity with a verb describing what the student is to do.	**TIME** How much time will be required for the **student** to complete each of the activities?	**RESOURCES** What materials, textbooks, supplies, documents, etc., will support the **student** doing each instructional activity?
Explain in writing, using Newton's laws of motion, the interactions of bodies in motion in the solar system; chart and graph the distances and placement of bodies in the solar system.	**The written explanation, charts, and graphs:** 4: Demonstrate Newton's laws of motion by showing the planets, their satellites, and their rotations and orbits around the sun; show the distances accurately and clearly; use the conventions of standard written English. 3: Demonstrate Newton's laws of motion by showing the orbits and rotation of planets and satellites; show the distances but with minor errors in data; contains some errors in conventions of written English. 2: Demonstrate Newton's laws of motion incompletely; do not relate orbits and rotation to the laws; contain errors in data collection that lead to inaccurate graphs and charts; contain many errors in conventions of standard written English that impede understanding. 1: Do not demonstrate Newton's laws of motion and do not show the relationship of the laws to orbits and rotation of planets; display invalid information due to faulty data collection; contain serious errors in conventions of standard written English that impede understanding.	▪ Study a model of the planets in the solar system and their satellites. ▪ List all the planets and moons, their rotation speed on their axis, and the number of days needed to orbit the sun. ▪ Relate Newton's laws of motion to orbits, rotations, and speed. ▪ Describe the relative motion of planets around the sun within a 24-hour period. ▪ Role-play the part of planets and their satellites in orbit and rotation around the sun.	45 min 45 min 40 min 55 min 30 min	Seven-inch tag boards. Lanyards. Glue. Three-dimensional model of solar system.

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