

**Gunn Science Department
Strengths and Areas of Growth
December 2008**

| Strength | ESLR | *Science Content Standard |
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| Provide students with many opportunities to develop critical and creative thinking to solve problems through | | |
| 1 - Inquiry based labs, activities and projects | 5,6 | <ul style="list-style-type: none"> - Within Discipline - Investigation and Experimentation - Guiding Principle: Multiple Instructional Strategies |
| 2- Extension activities that are appropriately differentiated | 6,7 | <ul style="list-style-type: none"> - Within Discipline - Investigation and Experimentation - Guiding Principle: Multiple Instructional Strategies |
| 3 – Creative project that are appropriately di | 4,6 | <ul style="list-style-type: none"> - Within Discipline - Investigation and Experimentation 1m,n - Guiding Principle: Standards based connections |
| 4- Analysis of experimental data | 3,6,7 | <ul style="list-style-type: none"> - Within Discipline - Investigation and Experimentation 1c-g, j,k - Guiding Principle: Balanced comprehensive approach that included investigation and experimentation |
| 5- The nature of hands-on laboratory work | 6 | <ul style="list-style-type: none"> - Within Discipline - Investigation and Experimentation 1 a-f - Guiding Principle: Balanced comprehensive approach that included investigation and experimentation |

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| 6. Due to course re-alignment, students now have more opportunities to take UC approved science courses | All | - Guiding Principle: Engage all students in learning and prepare and motivate students |
| 7. More students have Access to AP courses due to curriculum realignment | All | - Guiding Principle: Engage all students in learning and prepare and motivate students |
| 8. Addition of Environmental Science as a science course has increased access to science curriculum for struggling students | All | - Guiding Principle: Engage all students in learning and prepare and motivate students |
| 9. Tapping resources within our community. Science department takes advantage of opportunities offered by Stanford University, local businesses and museums for field trips, career education and curriculum support | All | - Guiding Principle: Adequate instructional resources |
| 10. Communication of lab processes and data analysis (lab reports) | 2,6,7 | - Within Discipline - Guiding Principle: Balanced comprehensive approach that included investigation and experimentation |
| 11. Essay writing that requires students to support a conclusion with evidence | 2 | - Within Discipline - Investigation and Experimentation 1m - Guiding Principle: Standards based connections |
| 12. Other scientific writing in the form of freshman research paper, letters, resumes and poster Presentations. | 2,3,4 | Within Discipline - Investigation and Experimentation 1i, m, n - Guiding Principle: Standards based connections |

| Area of Growth | ESLR | Science Content Standard |
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| 1. Revising lab curriculum to the extent appropriate in all courses to reflect the importance of inquiry based learning, hands-on activities and real world data collection. | 4,6,7 | Within Discipline - Investigation and Experimentation – 1 a-m - Guiding Principle: Multiple Instructional Strategies, |
| 2. Continue to work on articulation and alignment within and between courses in the science department. | 4,6 | Within Discipline - Guiding Principle: Engage all students in learning and prepare and motivate students for further instruction in science |
| 3. Increase opportunities for students to develop communication skills. | 2,3 | - Within Discipline - Guiding Principle: Develop students' command of the academic language of science |
| 4. Plan for enrollment growth and an increasing interest in science among our student population. Plan and implement the expansion of the biotechnology program to the new classrooms in the IA building. Keep facilities in mind when making curricular decisions | All | Guiding Principle: Adequate instructional resources |

* The science content standards are organized by discipline, Biology, Chemistry, Physics, Earth Sciences and Investigations and Experimentation. Only the last content standard is broad enough to encompass all of the courses taught in the Gunn Science Department. Each science course we teach has been aligned to the appropriate set of content standards. (For more details on this linkage see the individual course descriptions.). The Science Framework for California Public Schools (2002) also includes “Guiding Principles” which provide a foundation and justification for all of our areas of growth.