



# SCIENCE DISSECTED

## *Guidance Documents to Promote Student Achievement*

Science teachers often rely on documents such as the district syllabi, test score summaries, and the Nevada State Science Standards (NSSS) to plan their lessons. There are additional resources available from the Nevada Department of Education (NDE) and the Southern Nevada Regional Professional Development Program (SNRPDP) to help students succeed in science.

The Science Item Specifications and Achievement Indicators were designed to help teachers interpret the standards and prepare their students for the science portion of the High School Proficiency Exam (HSPE) and the Criterion Reference Test (CRT). The Item Specifications contain bulleted information about each of the benchmarks of the NSSS. Test writers use the Item Specifications to develop questions for the HSPE and CRT. Teachers can use the Item Specifications to ensure they are teaching the key points of each benchmark. However, instruction should not be limited to teaching only the bulleted items.

**Teachers need to focus on developing lessons that teach the depth and breath of the standards.**

The Science Achievement Indicators help teachers by identifying student performance at the *Emergent*, *Approaches*, *Meets*, and *Exceeds* levels. The Achievement Indicators provide sample student tasks at each level. Teachers can use this document to assess the level of their students. The Item Specifications assist by preparing teachers for the topics that might be tested on the HSPE and CRT, whereas the Achievement Indicators inform the teacher whether or not their students are demonstrating abilities that meet the standards.

There is a third resource provided by the NDE which includes the item specifications and sample Depth of Knowledge (DOK) level questions or tasks for each benchmark. In this document, the item specifications are listed for each benchmark and labeled with a DOK ceiling. This resource is valuable to teachers because it provides direction on the extent a topic should be covered and gives example DOK level 1-4 activities or questions that could be used with each benchmark. Not all benchmarks are written to be taught at a DOK level 3 or 4, therefore, it is unrealistic to expect teachers to cover certain benchmarks to that level.

The SNRPDP developed the **Targeted Intervention for Proficiency in Science (TIPS)** website as an online resource to assist teachers with each of the middle school and high school benchmarks within the NSSS to prepare students for high stakes exams. The **TIPS** website includes background information, common student misconceptions, sample HSPE and CRT-style questions, and online activities and resources for all of the secondary science benchmarks. Schools are encouraged to provide a link to the **TIPS** website for students and parents on their homepage.

The **TIPS** website may be accessed directly from the link below or through the "Science TIPS" tab on the SNRPDP's homepage. Each of the resources from the NDE are also available on the SNRPDP website under the green "Science" tab and click on "HSPE" or "Science CRT".

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### Sources and Related Links

MS and HS TIPS: [http://rpd.net/sciencetips\\_v3/](http://rpd.net/sciencetips_v3/)

SNRPDP Homepage: <http://www.rpd.net/>

Nevada Department of Education: <http://nde.doe.nv.gov/>

Archived Issues of Science Dissected, <http://www.rpd.net/link.news.php?type=sciencedis>