



# SCIENCE DISSECTED

## *The New and Improved TIPS: Targeted Interventions for Proficiency in Science*

The Southern Nevada Regional Professional Development Program is pleased to announce the rollout of the **Middle School TIPS** website, as well as an improvement to the existing **High School TIPS** website. This project was a massive undertaking and will provide science teachers in Nevada with a resource to improve student achievement in science.

The **High School TIPS** resource was introduced to science teachers in the fall of 2007. The website provides content background, common student misconceptions, sample science High School Proficiency Exam (HSPE)-style questions, and interventions and resources for each of the 63 benchmarks within the Nevada State Science Standards in the 9-12 grade band. All of the sample Science HSPE questions have been revised to reflect the new Depth of Knowledge (DOK) levels that are being used to assess the standards in Nevada. Teachers now have access to over 800 sample HSPE-style questions that are written and coded to the DOK 1 and DOK 2 levels.

The **Middle School TIPS** website contains information similar to the **High School TIPS** website, including content background, common student misconceptions, sample science Criterion Reference Test (CRT)-style questions, and interventions and resources for each of the 63 benchmarks within the Nevada State Science Standards in the 6-8 grade band. The sample CRT-style questions are also coded to the item specifications for each benchmark. There are sample DOK 1 and DOK 2 level multiple-choice questions, as well as sample DOK 3 constructed response questions with scoring rubrics.

There is a wealth of information provided within each level of the **TIPS** website. The background information is written to remind or inform teachers of the information necessary for the benchmark. Teachers may introduce their students to the website and have them read the content to supplement their textbook. Teachers may also develop an activity, such as a webquest, to ensure that the students read the material on the website. The common student misconceptions will help the teachers plan how to introduce or teach a topic by identifying the students' preconceptions. The sample questions can be used "as is", incorporated into a pretest, or as a unit assessment developed by the teacher. The interventions and resource section provides teachers with materials that relate to the benchmark and are available on the internet.

The **MS TIPS** and **HS TIPS** sites were designed to be highly interactive. Users should find it easy to navigate between sections and between specific areas of interest. Each page is designed to provide a logical flow of information presented for a specific benchmark. Links to "printable" pages have been provided for each benchmark to increase the "usability" of specific sections. RPDP encourages teachers to download these printable pages and use them to meet the needs of their classrooms.



### KEY POINTS

- ◆ Teachers can use the TIPS website as a supplement to their existing textbook.
- ◆ Schools can provide the link to the TIPS website from their homepage.
- ◆ Parents can access the TIPS website and use it to help prepare their children for the Science CRT & HSPE.



### HS TIPS & MS TIPS Web Resource

Accessible through the  
SNRPDP website at  
<http://www.rpd.net>  
Hover cursor over the  
"Science" tab  
OR  
access it directly at  
[http://rpd.net/sciencetips\\_v3/](http://rpd.net/sciencetips_v3/)

TIPS Home Page is found at: [http://rpd.net/sciencetips\\_v3/](http://rpd.net/sciencetips_v3/)



Complete Nevada State Science Standards  
[click here](#)

## TIPS: Targeted Interventions for Proficiency in Science

Main Site »	<a href="#">RPDP Home</a> <a href="#">Contact Us</a> <a href="#">Tips Home</a>	Middle School »	<a href="#">Nature of Science (NOS)</a>   <a href="#">Life Science</a>   <a href="#">Earth Science</a>   <a href="#">Physical Science</a>   <a href="#">Contributors</a>
		High School »	<a href="#">Nature of Science (NOS)</a>   <a href="#">Life Science</a>   <a href="#">Earth Science</a>   <a href="#">Physical Science</a>   <a href="#">Contributors</a>

Welcome science teachers! The TIPS site contains a wealth of information specific to Nevada's State Science Standards (NSSS). This project currently covers all middle and high school science benchmarks of the NSSS.

Middle School Targeted Interventions for Proficiency in Science	High School Targeted Interventions for Proficiency in Science
<p>The <b>MS TIPS</b> site is broken down into Nevada's 63 middle school science benchmarks (6-8 grade band) covering Life, Earth, and Physical science content, as well as Nature of Science. The following four sections have been developed for each middle school science benchmark:</p> <ul style="list-style-type: none"> <li>• Easy to read background content information</li> <li>• Common student misconceptions associated with the benchmark</li> <li>• Depth of Knowledge (DOK)-Leveled CRT-style sample multiple choice and constructed response test questions</li> <li>• Links to excellent classroom-ready intervention strategies and resources</li> </ul>	<p>The <b>HS TIPS</b> site is broken down into Nevada's 63 high school science benchmarks covering Life, Earth, and Physical science content, as well as Nature of Science. The following four sections have been developed for each high school science benchmark:</p> <ul style="list-style-type: none"> <li>• Easy to read background content information</li> <li>• Common student misconceptions associated with the benchmark</li> <li>• Depth of Knowledge (DOK)-Leveled HSPE-style sample multiple choice test questions</li> <li>• Links to excellent classroom-ready intervention strategies and resources</li> </ul>
Select a Link Below to View Middle School Tips	Select a Link Below to View High School Tips
<input type="radio"/> <a href="#">Nature of Science (NOS)</a>	<input type="radio"/> <a href="#">Nature of Science (NOS)</a>
<input type="radio"/> <a href="#">Life Science</a>	<input type="radio"/> <a href="#">Life Science</a>
<input type="radio"/> <a href="#">Earth Science</a>	<input type="radio"/> <a href="#">Earth Science</a>
<input type="radio"/> <a href="#">Physical Science</a>	<input type="radio"/> <a href="#">Physical Science</a>

The **MS TIPS** and **HS TIPS** sites were designed to be highly interactive. Users should find it easy to navigate between sections and to specific areas of interest. Each page is designed to provide a logical flow of information presented for a specific benchmark. Links to "printable" pages have been provided for each benchmark to increase the "usability" of specific sections. We encourage teachers to download these printable pages and use them as they see fit.

### Navigation: Hints

TOP MENU BAR	LEFT HAND NAVIGATION SIDE BAR	RIGHT HAND NAVIGATION SIDE BAR
Clicking on any of the headings located in this bar will take you to the MAIN PAGE for the section in question. For example, clicking "Earth Science" will take you to the page that has a list of the Unifying Themes in Earth Science and links to each of the associated sub-sections.	This bar changes with each new screen. It provides a more direct route to each of the benchmark pages for the Unifying Themes (UT) in question and a bridge to each of the other UT's in that science subject area. There are also links to the main pages for each of the subject areas (Nature of Science, Life Science, Earth Science, and Physical Science).	This area is used to navigate WITHIN a page. The links here will "jump" the user to the specific section (content information misconceptions, sample questions, and intervention strategies and resources) for that benchmark. This is also where the link for "printable pages" is found