2011 Wyoming NAEP Science Scores Released

Cheyenne – State Superintendent of Public Instruction Cindy Hill today announced Wyoming’s performance on the 2011 National Assessment of Educational Progress, known as the Nation’s Report Card or NAEP. Wyoming’s eighth grade students continue to outperform the national average test score in science. Additionally, students increased Wyoming’s science scores from those reported for 2009.

<table>
<thead>
<tr>
<th></th>
<th>NAEP 8th Grade Science</th>
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</thead>
<tbody>
<tr>
<td>2011</td>
<td>160</td>
</tr>
<tr>
<td>2009</td>
<td>158</td>
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For full details on Wyoming’s 2011 NAEP results, please direct your Internet web browser to Wyoming's NAEP page and click the “2011 NAEP” button.

A key role of NAEP under No Child Left Behind (NCLB) is to serve as an external audit or point-of-reference and comparison in understanding each state’s academic standards and educational testing program.

Unlike NAEP reading and mathematics assessments—which are compulsory under NCLB—NAEP’s science assessment is voluntary for states. In 2011, all fifty states plus the District of Columbia and Department of Defense Schools participated in the NAEP science assessment.

NAEP’s scale operates much like a thermometer in measuring and detecting changes in students’ academic achievement. NAEP’s measurement scale in science ranges from 0 to 300 points.
In 2011, five (5) states performed higher than Wyoming, ten (10) were not reliably different from Wyoming, and thirty-six (36) performed lower than Wyoming in grade 8 science:

During 2009, by contrast:
- Five (5) states performed higher than Wyoming,
- Ten (10) states were not reliably different from Wyoming,
- Twenty-nine (29) states performed lower than Wyoming, and
- Five (5) jurisdictions—Alaska, Kansas, Nebraska, District of Columbia, and Vermont—did not participate in the 2009 NAEP science assessment.
In 2011, Wyoming was one of sixteen (16) states which raised its performance in grade eight science above their state results from the previous 2009 NAEP assessment.

Wyoming’s eighth grade White and Hispanic students, female students, students eligible for free and reduced lunch programs and those not-eligible, students in urban school districts, and students performing at the lower-end or 25th percentile of NAEP’s science scale—all registered positive gains since the 2009 NAEP science assessment.

As in previous years, Wyoming in the 2011 NAEP science assessment retained some of the smallest educational gaps nationally between high and low income students as indicated by eligibility for the National School Lunch Program (NSLP). The difference in average scores for Wyoming NSLP eligible and non-eligible students was 14 points on NAEP’s science scale. Only seven states (New Hampshire, West Virginia, Maine, Oklahoma, Iowa, Montana, and Idaho) showed comparably small “poverty gaps” in eighth grade science as those in Wyoming.

-MORE-

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The percentage of Wyoming eighth grade students eligible for school lunch assistance and taking NAEP science assessment increased from 29% in 2009 to 34% in 2011.

-MORE-
Gaps in science performance between white and Hispanic students in Wyoming remained unchanged during 2011—neither narrowing nor widening—from previous NAEP results in 2009. Gender gaps (Wyoming boys outperform girls in science) also remain unchanged from the prior reporting period.

Disparities in academic achievement among student groups remain an area of concern for all educators in Wyoming. Reducing learning gaps between student groups is a key aspect of elementary and secondary education under No Child Left Behind.

American Indian student participated in the 2011 NAEP science assessment, but unfortunately there were not enough students to meet NAEP reporting requirements for protecting students’ identities and confidentiality of their individual test scores. All results for Wyoming represent public school students, and do not include home school or private school students.

Below is an example of a 2011 NAEP multiple-choice question in the field Earth and space sciences that requires students to use science principles:

The diagram below shows the collision of two tectonic plates in Asia.

What is a result of this collision?

A) Volcanoes erupt periodically.
B) The Tibetan Plateau slowly sinks.
C) The Himalayas increase in height each year.
D) Glaciers on the Tibetan plateau melt.

Eighty percent (80%) of Wyoming eighth-graders correctly answered this NAEP science question, seventy-two percent (72%) nationally. For the correct answer, click this link.
Wyoming Department of Education

PRESS RELEASE

The 2011 NAEP science results provide another opportunity to directly compare Wyoming’s results on the national assessment to the state’s Proficiency Assessments for Wyoming Students or PAWS in science.

The percentage of students meeting Wyoming academic standards as measured by the science PAWS during 2011, and those scoring at or above NAEP’s Proficient level are as follows:

<table>
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<tr>
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<th>8th Grade Science</th>
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<tbody>
<tr>
<td>NAEP</td>
<td>38.1%</td>
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<tr>
<td>PAWS</td>
<td>50.7%</td>
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</table>

NAEP’s Proficient level indicates “competency over challenging subject matter” and does not refer to “at grade” performance, whereas proficient on PAWS reflects grade-level performance expectations for students in science as specified in Wyoming’s education standards.

Unlike PAWS testing, NAEP is administered to a statistical sample of students and does not provide individual student test scores.

Associated with the NAEP’s scale are its achievement levels:

<table>
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<tr>
<th>Cut-Scores on NAEP’s Measurement Scale</th>
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<tr>
<td>Basic</td>
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<td>8th Grade Science</td>
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Cut scores denote differing levels of student performance on NAEP’s science scale.

It’s critical to note that PAWS is distinctive from NAEP. PAWS’ primary assessment purpose is to measure an individual student’s achievement and provide specific instructional advice to teachers for improving students’ skill. NAEP, on the other hand, employs various sampling procedures for measuring the educational progress for groups of students, providing a common yardstick in making direct state-to-state comparisons, and is not intended to direct provide recommendations or advice to students or teachers for improving achievement.

Focusing on individual student achievement—and providing assessment results to teachers to address learning gaps—is critical to ensuring that each student meets the academic bar set under No Child Left Behind.

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If you would prefer to receive this and other announcements or press releases in electronic format, please contact Public Information Officer Jerry Zellars at (307) 777-7675 or by e-mail at Jerry.Zellars@wyoming.gov

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