



# NEVADA

## Sciences & Life Sciences Achievement

### STUDENT ACHIEVEMENT

NAEP Grade 8	NV	U.S. Avg.	State Rank
Science Average, 2005	138.2	147.1	39
Science, 2005 (% at or above "proficient")	19.1%	27.3%	40
Life Sciences Average, 2005	137.8	148.2	41

ACT	NV	U.S. Avg.	State Rank
Science Average, 2008	20.9	20.8	31
Biology, 2008 (% of students ready for college level)	28%	28%	32

AP	NV	U.S. Avg.	State Rank
Science Scores, 2008 (% with a score of 3 or higher)	41.1%	55.4%	44
Science Exams, 2008 (Exams as % of all H.S. grads)	11.0%	10.5%	16
Biology Scores, 2008 (% with a score of 3 or higher)	32.0%	49.8%	46
Biology Exams, 2008 (Exams as % of all H.S. grads)	5.0%	4.6%	19

SCIENCE TEACHER QUALITY and PROFESSIONAL DEVELOPMENT	NV	U.S. Avg.	State Rank
Science Teachers with Major in Assigned Field, 2003–04 (% , Grades 7–12)	73%	77%	31
Science Teachers Certified, 2006 (% , Grades 7–8)	N/A%	N/A%	–
Biology Teachers Certified, 2006 (% , Grades 9–12)	N/A%	88%	–

**Note:** NAEP = National Assessment of Educational Progress, AP = Advanced Placement  
N/A = Data not available.

## Key Organization(s) Promoting Bioscience Education

One of five mission areas for the **Nevada Biotechnology and Bioscience Consortium (NevBio)** is to promote the study and understanding of science, with an emphasis on elementary, middle, and high school students.

## NV STATE SCIENCE STANDARDS & REQUIREMENTS

### STANDARDS PROFILE

- Most recent update of K-12 Science Standards: **2005**
- Next scheduled update: **2011**
- Research scientists provided input in development of standards
- Achievement Indicators for Science, Grades 9–12, contains a section on genetics including "Investigate advances in biotechnology using multiple resources"

### BIOSCIENCE-RELATED GRADUATION REQUIREMENTS:

Requirements are determined district by district  
80% of recent high school graduates have taken a course in biology or life sciences

67.1% of 6th–9th graders and 59% of 10th–12th graders met "proficient" level under No Child Left Behind Adequate Yearly Progress test



## Examples of Bioscience Education Activities

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### Teacher Preparation and Professional Development

The University of Nevada School of Medicine and the Biology Department at Truckee Meadows Community College collaborate on a **Science Partners program** under which teachers who need help to do hands-on science in the classroom receive a \$125 stipend or three in-service credits, 3 hours a week from an undergraduate science major, \$200 to purchase equipment, and support from the university.

Faculty members at the **Nevada State College** have extensive partnerships with **Clark County School District** on teacher development and other science, technology, engineering, and mathematics (STEM) issues.

### Experiential Learning and Outreach

The **High School Medical Scholars and Summer of Discovery programs** at the University of Nevada School of Medicine have been suspended for 2009 for budgetary review but may be offered again in 2010.

### Bioscience-focused Schools and Programs

Biomedicine is one of four tracks at the **Jim Bridger Middle School** in North Las Vegas. Students receive training in the human body, disease, medical terminology, and the operation and care of medical equipment, as well as mathematical skills necessary to perform medical duties, hazards in the medical profession, and basic medical technologies and procedures.

## Basic Skills Achievement and Other Summary Metrics

### STUDENT ACHIEVEMENT

NAEP Grade 8	NV	U.S. Avg.	State Rank
Math Average, 2007	270.8	280.2	44
Math, 2007 (% at or above “proficient”)	23.0%	31.0%	43
Reading Average, 2007	252.3	261.0	45
Reading, 2007 (% at or above “proficient”)	21.5%	29.2%	44
Writing Average, 2007	143.1	154.3	43
Writing, 2007 (% at or above “proficient”)	20.5%	30.6%	41

  

ACT	NV	U.S. Avg.	State Rank
Percentage of Graduates Tested	30%	43%	29
Math Average, 2008	21.4	21.0	28
Reading Average, 2008	21.7	21.4	32
English Average, 2008	20.7	20.6	30

  

SAT	NV	U.S. Avg.	State Rank
Percentage of Graduates Tested	41%	48%	25
Math Average, 2008	506	515	38
Critical Reading Average, 2008	498	502	38
Writing Average, 2008	478	494	47

  

AP	NV	U.S. Avg.	State Rank
Math Scores, 2008 (% with a score of 3 or higher)	60.4%	65.2%	36
Math Exams, 2008 (Exams as % of all H.S. grads)	8.4%	8.7%	22
English Scores, 2008 (% with a score of 3 or higher)	55.6%	59.2%	39
English Exams, 2008 (Exams as % of all H.S. grads)	22.1%	18.9%	11

### SUMMARY STATE EDUCATION METRICS

Selected Indicators	NV	U.S. Avg.	State Rank
High School Graduation Rate, 2005–06	55.8%	73.4%	51
Student/Teacher Ratio, 2006–07	18.5	15.5	46*
Low-income Students, 2006–07 (% of all students)	N/A	41.6%	–
Expenditure per Student (\$), 2005–06	\$7,177	\$9,154	45

**Note:** NAEP = National Assessment of Educational Progress, AP = Advanced Placement  
N/A = Data not available. \* Lowest value receives highest ranking.

#### TABLE SOURCE NOTES:

**NAEP Assessments, grade 8:** U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics (NCES), National Assessment of Educational Progress (NAEP), 2005; **ACT Exam:** ACT, Inc., 2008; **SAT Reasoning Test:** The College Board, 2008.

**Advanced Placement (AP):** Battelle analysis of data from the College Board, 2008; AP test takers as a share of high school graduates includes graduate data from U.S. Department of Education, NCES for both public (Common Core of Data) and private high schools (Private School Survey).

**Science Teacher Indicators:** Council of Chief State School Officers (CCSSO) analysis of State Departments of Education data on public schools, 2007; U.S. Department of Education, NCES Schools and Staffing Survey, 2003–04 as reported by CCSSO, 2007.

**Summary State Education Metrics:** U.S. Department of Education, National Center for Education Statistics (NCES), Common Core of Data (CCD) on public elementary and secondary education.

**Note:** High school graduation rates are averaged freshman graduation rates—the rate is the number of graduates divided by the estimated count of freshmen 4 years earlier. U.S. figure for share of students eligible for free or reduced-price school lunch (“low-income” students) is available for 2005–06 only (state data are for 2006–07).