



# OREGON

## Sciences & Life Sciences Achievement

### STUDENT ACHIEVEMENT

NAEP Grade 8	OR	U.S. Avg.	State Rank
Science Average, 2005	153.4	147.1	19
Science, 2005 (% at or above "proficient")	32.2%	27.3%	21
Life Sciences Average, 2005	154.6	148.2	17

ACT	OR	U.S. Avg.	State Rank
Science Average, 2008	20.9	20.8	31
Biology, 2008 (% of students ready for college level)	29%	28%	30

AP	OR	U.S. Avg.	State Rank
Science Scores, 2008 (% with a score of 3 or higher)	55.6%	55.4%	25
Science Exams, 2008 (Exams as % of all H.S. grads)	7.3%	10.5%	34
Biology Scores, 2008 (% with a score of 3 or higher)	48.2%	49.8%	28
Biology Exams, 2008 (Exams as % of all H.S. grads)	3.3%	4.6%	36

SCIENCE TEACHER QUALITY and PROFESSIONAL DEVELOPMENT	OR	U.S. Avg.	State Rank
Science Teachers with Major in Assigned Field, 2003–04 (% , Grades 7–12)	83%	77%	11
Science Teachers Certified, 2006 (% , Grades 7–8)	87%	N/A%	12
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

The Oregon University System sponsors the **Oregon Pre-Engineering and Applied Sciences Initiative**, which is developing programs to increase the number of work-ready engineers and applied scientists across all science, technology, engineering, and mathematics (STEM) fields through collaboration between education, industry, and government.

## OR STATE SCIENCE STANDARDS & REQUIREMENTS

### STANDARDS PROFILE

- Most recent update of K-12 Science Standards: **2009**

### BIOSCIENCE-RELATED GRADUATION REQUIREMENTS:

Biology is not specified in science requirement



Intel and the Business Education Compact sponsor the **Techno Science Supersite**, a comprehensive Web portal for all programs that encourage teen exploration of STEM disciplines and careers.

### **Examples of Bioscience Education Activities**

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#### **Teacher Preparation and Professional Development**

The Oregon Health and Sciences University (OHSU) hosts the **Teacher Institute for the Experience of Science**, funded by the National Institutes of Health, which brings middle school teachers from multiple subject areas to OHSU for weeklong sessions to learn about biomedical research.

The Office of Science Education Opportunities at OHSU serves as a clearinghouse for multiple other programs that offer professional development for STEM teachers and learning opportunities for K-12 students.

#### **Experiential Learning and Outreach**

OHSU's Oregon Area Health Education Centers program sponsors **MedStars**, a summer residential experience at OHSU for high school students, and **MedQuest**, a 5-day residential camp for high school students at Eastern Oregon University.

**Saturday Academy**, a Portland-based nonprofit, offers classes and workshops for 4th through 12th grade students both on Saturdays and after school. It provides precollege students an opportunity to interact with community professionals in all STEM fields.

The Portland State University sponsors an Oregon site in the national Mathematics, Engineering, Science Achievement program. MESA provides high school students hands-on, team-based learning opportunities in conjunction with industry partners. It targets minorities underrepresented in STEM disciplines.



## Basic Skills Achievement and Other Summary Metrics

### STUDENT ACHIEVEMENT

NAEP Grade 8	OR	U.S. Avg.	State Rank
Math Average, 2007	283.8	280.2	23
Math, 2007 (% at or above "proficient")	34.8%	31.0%	20
Reading Average, 2007	265.7	261.0	19
Reading, 2007 (% at or above "proficient")	34.0%	29.2%	17
Writing Average, 2007	N/A	154.3	–
Writing, 2007 (% at or above "proficient")	N/A%	30.6%	–

  

ACT	OR	U.S. Avg.	State Rank
Percentage of Graduates Tested	30%	43%	29
Math Average, 2008	21.4	21.0	28
Reading Average, 2008	21.8	21.4	28
English Average, 2008	20.3	20.6	40

  

SAT	OR	U.S. Avg.	State Rank
Percentage of Graduates Tested	54%	48%	20
Math Average, 2008	527	515	26
Critical Reading Average, 2008	523	502	26
Writing Average, 2008	502	494	30

  

AP	OR	U.S. Avg.	State Rank
Math Scores, 2008 (% with a score of 3 or higher)	70.4%	65.2%	15
Math Exams, 2008 (Exams as % of all H.S. grads)	6.4%	8.7%	34
English Scores, 2008 (% with a score of 3 or higher)	63.4%	59.2%	24
English Exams, 2008 (Exams as % of all H.S. grads)	12.9%	18.9%	33

### SUMMARY STATE EDUCATION METRICS

Selected Indicators	OR	U.S. Avg.	State Rank
High School Graduation Rate, 2005–06	73.0%	73.4%	33
Student/Teacher Ratio, 2006–07	21.3	15.5	50*
Low-income Students, 2006–07 (% of all students)	42.0%	41.6%	–
Expenditure per Student (\$), 2005–06	\$8,645	\$9,154	26

**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).

