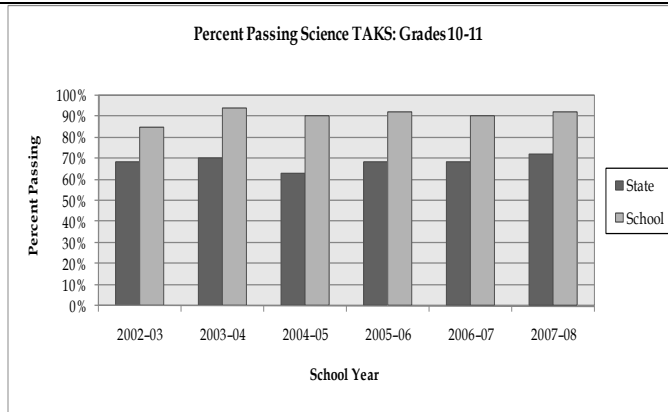


HIGH SCHOOL SCIENCE	
<p>CAMPUS Wylie High School <i>Exemplary 2007-08</i></p> <p>DISTRICT Wylie ISD</p> <p><i>U.S. Blue Ribbon School 2007-08</i></p>	<p>PROGRAM SUMMARY</p> <p>The goal of Wylie High School’s program is to improve student performance in science.</p> <p>Key strategies include a standardized curriculum, horizontally aligned courses, and intensive and integrated review of science content previously studied.</p> <p>Outcomes include consistent high performance on science TAKS.</p> <hr/> <p>EFFECTIVENESS</p> <p>In the first year the test was administered, 2002-03, 85% of Wylie High School students passed science TAKS in 10th and 11th grade, compared to the state average* of 68%, with 6% performing at the Commended level, compared to the state average* of 1%.</p> <p>In 2007-08, 92% of Wylie High School students passed science TAKS in 10th and 11th grade, compared to the state average* of 72%, with 25% performing at the Commended level, compared to the state average* of 6%.</p>

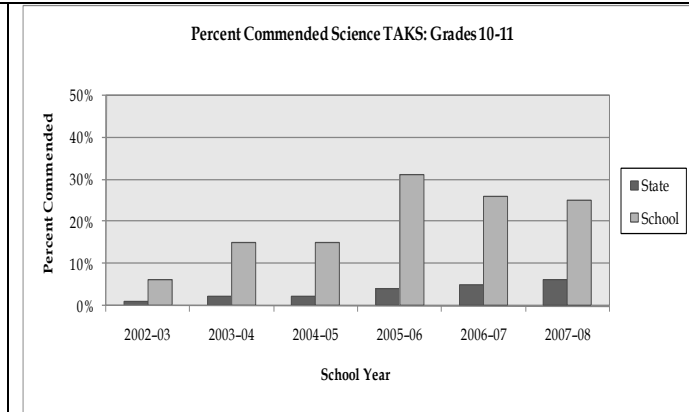
* State averages are weighted averages based on the grade level(s) of the practice.

Please take one minute to answer the feedback survey (six questions).

[Best Practices Feedback Survey](#)



Source: AEIS; TAKS Statewide Performance Results - 2003-2008



Source: AEIS; TAKS Statewide Performance Results - 2003-2008

CONTEXT/IMPLEMENTATION

Demographics (2007-08)

Grade Levels Served		9-12		Campus Enrollment		957	
Ethnic Distribution				Economically Disadvantaged		77 8.0%	
African American	34	3.6%	At-risk		193 20.2%		
Hispanic	73	7.6%	Mobility (2006-07)		90 9.1%		
White	824	86.1%					
Native American	7	.7%					
Asian/Pacific Islander	19	2.0%					

Source: AEIS

Background

- Wylie ISD is the smaller of two districts serving the city of Abilene. Enrollment has been stable over recent years, though there is some mobility due to the proximity of an air force base to the district.
- Most teachers in the science department are certified in composite science, have taught Integrated Physics and Chemistry (IPC), and have strong mathematics backgrounds. Staff reported that recent hiring decisions have emphasized certification in composite science.
- The campus began implementation of the practice in 2001-02.

Procedures

- Science teachers worked collaboratively to standardize content within each science discipline, including biology, chemistry, and physics. All teachers in the department worked together to develop common course syllabi, lesson objectives and plans, and assessments with grading rubrics so that the same basic course was taught by all teachers of a course. Teachers who taught in the same discipline worked together to create the common courses over the summer during four work days that counted toward the teachers' staff development requirements. In addition, the teachers participated in ongoing informal collaboration. Teachers also continued to refine courses and work on vertical alignment through departmental meetings.
- At the beginning of each year, science teachers reviewed prior science performance to identify students who might benefit from additional instructional support. These students were invited to attend TAKS tutorial and review sessions before and after school and could check out TAKS review booklets.
- Science labs in the second semester were created to focus on integrated concepts, building from previously taught concepts, and higher level thinking skills. Teachers modified labs from a variety of sources to increase the rigor of labs.
- Ongoing review of biology and chemistry content was integrated into instruction across the science curriculum using biology and IPC content resources with intensive review scheduled prior to TAKS testing in grades 10 and 11. For example, prior to the TAKS test in grade 10, every student was required to keep a TAKS notebook of TEKS-based biology projects assigned every six weeks. These projects were taken from released TAKS tests and textbooks and modified to integrate with the science course being taught. Teachers worked through the projects with students providing intensive, exploratory lessons about the content. Students could use the TAKS notebooks for review.
- The department also developed a set of science "bell ringers" or warm-up activities based on frequently missed questions on TAKS. Bell ringers were assigned in biology, chemistry, and physics multiple times a week during the second semester and used to re-teach previously taught content.
- Staff administered released science TAKS tests over a two-day period with intensive focus on test-taking strategies prior to official TAKS testing. Additional TAKS review offered prior to the test included game-based activities focused on content from previous courses.
- All course content, including lesson plans and TAKS review activities, for biology, chemistry, and physics was collected into a science packet that the campus staff shared with science teachers at other schools. Science staff regularly reviewed, updated, and modified course materials with new content and activities.

- To ensure that science instruction was relevant and engaging, students were encouraged to keep a folder of current events on science-related topics and could gain extra credit by writing about a current event linked to a science concept taught in a course they were taking. Teachers also integrated current events into instruction to focus on up-to-date and real-world applications of science. In addition, all teachers used technology, such as streaming video, SMART Boards and handheld wireless student AirLiners or slates for working problems, PowerPoint, calculators and probes, and other technology applications in science instruction.
- Staff reported that the district supported any materials request they made to improve student achievement.

Lessons Learned

- Staff reported that one challenge was generating student interest in participating in tutorial or support programs, such as those offered before school, after school, or during the summer.

CAMPUS/DISTRICT STAFF

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