

Study: Nevada's science curriculum receives a D grade

By Sean Whaley, Nevada News Bureau

CARSON CITY — As Gov. Brian Sandoval and the Board of Education move ahead with the selection of a state schools chief to push forward with education reform, a new report gives another reason for urgency: Nevada has received a D grade for its science standards from a national group.

The Thomas B. Fordham Institute this week released its report, “The State of State Science Standards 2012”, and if there is any good news, it is that Nevada is not alone in its poor marks.

“American science performance is lagging as the economy becomes increasingly high tech, but our current science standards are doing little to solve the problem,” the report says. “Reviewers evaluated science standards for every state for this report and their findings were deeply troubling: The majority of states earned D’s or F’s for their standards in this crucial subject, with only six jurisdictions receiving A’s.”

The District of Columbia and five states: California, Indiana, Massachusetts, South Carolina and Virginia received A’s. Seventeen states received D’s. Another 10 received F’s.

Nevada received two of seven points for content and rigor, and one of three points for clarity and specificity for its science standards.

The report said: “The Nevada science standards are lamentably brief. Complicating matters, educators must piece together information from two separate and confusing documents to form a complete picture of what students must know and be able to

do. Altogether, the materials furnish a very shaky foundation in the sciences.”

Ray Bacon, executive director of the Nevada Manufacturers Association and a long-time advocate for education reform, said the report isn’t all bad news for Nevada.

“The good news is, that this is a test, if you take a look at the last time this thing was scored, which I think was either three or four years ago, Nevada was pretty much down at the bottom of the pole,” he said. “So we’ve done something in our science programs to move up substantially. I think that is wonderful. We have a long way to go, obviously.”

Bacon said Nevada still has inequities in its science programs statewide because of the difficulty some districts have, particularly rural districts, in recruiting qualified chemistry, biology and physics teachers. A teacher shortage problem in the past in the Clark County School District also led to the use of long-term substitutes to teach math and science, he said.

Bacon said the recent adoption by the state Board of Education of the Common Core State Standards could make further improvement in science a challenge because the focus will be on English and math.

“I hate the thought but I suspect that we probably are not going to make as much progress in the next couple of years as we have made in the last few years because the common core standards are going to shift the focus back to the two primaries,” he said.

But getting the math standards in place will make it easier in the future to address the science standards, Bacon said.

The report identified four areas in particular where science standards are flawed: In the handling of evolution in the face of anti-evolutionary pressures; standards that are so vague as

to be meaningless; attempting to teach science through discovery instead of direct instruction of specific content; and failing to link math to science.

In commenting on the findings, Fordham President Chester Finn Jr. said: "If America is to remain a prosperous, scientifically-advanced and economically competitive nation, then we must ensure that every school is teaching science to a very high standard. In this subject as in others reviewed by Fordham experts, the states set the bar, prescribing what schools should teach and students need to learn. They then develop assessments keyed to those standards. If our expectations are low and unclear, we're guaranteeing the failure of our students and the weakening of our nation."

Sandoval pushed hard for education reform in the 2011 legislative session, and has said the appointment of a new schools chief will be one of his most important as governor.

The Nevada Board of Education is set to interview five finalists next month for the position of state superintendent of public instruction. Three names will be forwarded to Sandoval for his final selection.

Education reform is also viewed by policy makers as a key element of Nevada's efforts to grow and diversify its economy by producing an educated and well-trained workforce.