

**Maryland General Assembly  
Department of Legislative Services**

**Proposed Regulation  
State Board of Education**  
(DLS Control No. 14-249)

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**Overview and Legal and Fiscal Impact**

This regulation updates the provisions of the Science Instructional Programs for Grades Prekindergarten through 12 to align the program requirements with the Maryland College and Career Ready Next Generation Science Standards.

The regulation presents no legal issue of concern.

The fiscal impact on the Maryland State Department of Education will depend on the cost of the new contract for the science assessments, but it is assumed that the cost will be roughly comparable to that of the current science assessments plus any associated cost for development. The department notes some fiscal impact on local school systems to develop local science curricula based on the Next Generation Science Standards.

**Regulation of COMAR Affected**

**State Board of Education:**

Specific Subjects: Program in Science: COMAR 13A.04.09.01

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**Legal Analysis**

**Background**

On June 25, 2013, the Maryland State Board of Education adopted the Next Generation Science Standards, a set of rigorous and internationally benchmarked standards that were developed by twenty-six states working collaboratively with stakeholders throughout the country. As the State's new academic standards for the science subject area, the Maryland College and Career Ready Next Generation Science Standards define the knowledge and skills all students should master by the end of each grade level. According to the State board, local school systems and the Maryland State Department of Education will develop curriculum, curriculum resources, and science assessments aligned to the new standards.

**Summary of Regulation**

The regulation updates the provisions of the Science Instructional Programs for Grades Prekindergarten – 12 to align with the Maryland College and Career Ready Next Generation Science Standards. The regulation requires each student to participate in a comprehensive instructional program through which the student must demonstrate an understanding of science and engineering practices, the processes that operate on earth and in the solar system and galaxy,

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the key concepts of the life sciences (including biology and environmental science), physical and chemical principles, and the use of engineering, technology, and science applications to solve complex problems. The regulation also requires each local school system to provide the schools within its jurisdiction with curriculum documents that include and are aligned with the Maryland College and Career Ready Next Generation Science Standards.

### **Legal Issue**

The regulation presents no legal issues of concern.

### **Statutory Authority and Legislative Intent**

The State board cites § 2-205(h) of the Education Article as legal authority for the regulation. This provision requires the State board, with the advice of the State Superintendent of Schools, to establish basic policy and guidelines for the program of instruction for the public schools. This authority is correct and complete. The regulation complies with the legislative intent of the law.

### **Technical Correction**

Please note that the department has agreed to correct the erroneous cross reference in subsection H of the regulation by substituting § 4-111 of the Education Article for the previous reference to § 4-110.

### **Fiscal Analysis**

The fiscal impact on the Maryland State Department of Education will depend on the cost of the new contract for the science assessments, but it is assumed that the cost will be roughly comparable to that of the current science assessments *plus* any associated cost for development. The department notes some fiscal impact on local school systems to develop local science curricula based on the Next Generation Science Standards.

### **Agency Estimate of Projected Fiscal Impact**

The fiscal impact of adopting the Next Generation Science Standards will depend on the extent to which the cost of the new contract for the science assessments is greater or less than what is spent on current science assessments. The difference will not be known until bids to develop and score the new assessments are reviewed; however, it is assumed that the cost will be roughly comparable to the current assessment cost. The Maryland State Department of Education advises that the cost is likely to be \$11.5 million annually – which is the same amount as for the current science assessments, \$4.0 million for the Maryland State Assessments for Science given in grades 5 and 8 and \$7.5 million for the High School Assessment in Biology.

The department is currently in the process of bidding for the new science assessments, which will be implemented in the 2017-2018 school year, and advises that the development cost is expected to be included in the \$11.5 million estimate. The Department of Legislative Services notes that cost to *develop* similar assessments has ranged from \$4 million to \$6 million. Although any such additional cost is likely to be one-time only, rather than ongoing, any such

impact depends on the structure of the bids and may be mitigated if incorporated into the new contract as anticipated by the department. Likewise, in addition to the ongoing curricula cost, the impact on local school systems to *develop* new curricula and related resources is expected to be one-time only.

The State Board of Education initially adopted the Next Generation Science Standards on June 25, 2013, to replace Maryland's existing science standards, which were based on 15-year-old standards known as the National Science Education Standards and Benchmarks for Science Literacy. In order to receive specified federal funds under the Elementary and Secondary Education Act (ESEA), states must test students in science at least once in grades 3 through 5, 6 through 8, and 9 through 12. The new assessments will meet the federal ESEA assessment requirements for science.

### **Impact on Budget**

Unless the bids are higher than anticipated by the department, it is assumed that there is no impact on the State operating or capital budget.

### **Agency Estimate of Projected Small Business Impact**

The department advises that the regulation has minimal or no economic impact on small businesses in the State. The Department of Legislative Services concurs.

### **Contact Information**

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