



#254-21

**Commonwealth of Virginia
Virginia Department of Education
Superintendent's Memo #254-21**

DATE: September 3, 2021
TO: Division Superintendents
FROM: James F. Lane, Ed.D., Superintendent of Public Instruction
SUBJECT: **Reminders and Updates regarding the Implementation of the 2018 Science Standards of Learning and New Science Assessments**

While the implementation of the 2018 *Science Standards of Learning* was delayed in response to the COVID-19 pandemic (see [Superintendent's Memorandum #131-20](#)), school divisions are reminded that the 2021-2022 school year is a crosswalk year where the 2010 *Science Standards of Learning* and 2018 *Science Standards of Learning* are both included in the written and taught curricula. School divisions should begin teaching the new content from the 2018 *Science Standards of Learning* in the 2021-2022 school year as the spring 2022 Standards of Learning (SOL) assessments administered in grade 5 science, grade 8 science, and end-of-course (EOC) Biology will measure the 2010 *Science Standards of Learning* and include field test items measuring the 2018 *Science Standards of Learning*.

New Type of Science Test Item

A goal of Virginia's 2018 *Science Standards of Learning* is to more fully integrate Science and Engineering Practices (SEP) with science content throughout instruction and assessment. To support this goal, a new type of test item, science item clusters, is being introduced and field tested with students in certain Science SOL tests in spring 2022. A science item cluster is comprised of a context-rich stimulus (e.g., a description of a scientific investigation performed by students) that is presented to students in the assessment followed by three to

six science questions that are connected to the scientific details of the stimulus. This new item type will be included in the grade 5 science, grade 8 science, and EOC Biology SOL tests and will support the assessment of students' science knowledge and skills as found in the 2018 *Science Standards of Learning*. Science item clusters will be fully implemented so they count toward students' overall test scores beginning in spring 2023.

Revised SOL Practice Items

An updated set of SOL Practice Items will be made available in fall 2021 for the grade 5 science, grade 8 science, and EOC Biology tests. These practice items will provide students an opportunity to become familiar with the types of test questions, including the new science cluster items, that will be administered to assess the 2018 *Science Standards of Learning*. Revised resource documents, *Guided Practice Suggestions*, will accompany these updated science practice items to provide specific guidance for teachers or other adults in leading students through the questions. School divisions will be notified once the updated SOL Practice Items are available for science in fall 2021.

New SOL Test Blueprints

In preparation for implementation of the new assessments measuring the 2018 *Science Standards of Learning*, new science test blueprints have been developed for the grade 5 science, grade 8 science, and EOC Biology SOL tests. The new science test blueprints are [available online at the Virginia Department of Education's website](#). It is important to note that science assessments developed using the new blueprints will be administered for the first time in the spring 2023 SOL test administration.

Additional Changes in Spring 2023

All Science SOL tests measuring the 2010 and 2018 *Science Standards of Learning* will include access to the [Desmos Virginia online calculators](#) beginning in spring 2023. The grade 5 science, grade 8 science, and EOC Earth Science, Biology, and Chemistry SOL tests administered in TestNav, the online test delivery application, will each provide students with access to the appropriate Desmos Virginia online calculator.

Also beginning in spring 2023, students who receive an audio accommodation during an online grade 5 science, grade 8 science, and EOC Biology SOL test will have the audio version of their test delivered through the text-to-speech audio tools in the TestNav application. The text-to-speech audio tools vary from the traditional audio player found in the science tests measuring the 2010 *Science Standards of Learning*. Prior to completing an online audio version of the new science tests in spring 2023, students should have the opportunity to practice using the text-to-speech audio tools in the SOL Practice Items.

For more information

If you have any questions, please contact the student assessment staff by email at Student_Assessment@doe.virginia.gov or by phone at 804-225-2101.

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