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Statewide Science Assessment Results Released Results Show No Improvement from 2014

BARRE –Today the Vermont Agency of Education released the Spring 2015 New England Common Assessment Program (NECAP) Science assessment results for Vermont students in grades four, eight, and 11. The science assessment is designed to measure students’ scientific literacy and inquiry. Overall, students performed nearly the same in 2015 as they did in 2014.

Scale Scores

Scale scores locate each student's level of achievement on a scale of 80 possible points. There is no statistically significant difference in average scale scores at any of the three tested grade levels between 2014 and 2015. However, when we compare scale scores in 2011 to 2015, 4th grade science scores are slightly lower. There was no statistically significant change in scores at the 8th and 11th grade.

Vermont Statewide Assessment Area and Grade	Average Scale Scores ¹				
	2011	2012	2013	2014	2015
NECAP Science Grade 04	40.2	40.0	38.7	38.2	38.5
NECAP Science Grade 08	34.6	35.0	35.4	34.5	33.7
NECAP Science Grade 11	34.4	34.9	34.7	34.8	34.6

“Science and scientific inquiry are important to Vermonters,” said Secretary Rebecca Holcombe. “Our children need to be scientifically literate and able to reason from scientific evidence and able to ask important scientific questions, whether they want to be scientists or just good citizens worried about issues like climate change. Some of our schools provide excellent opportunities to learn in science, and others have work to do. We are committed to supporting improvements in science instruction across all our systems, to ensure that all our children, no matter where they live, have access to high-quality science instruction.”

¹ One point change on a scale score at the state level is considered a statistically significant difference, hence the use of decimal points.

Assessment Area and Grade	Total "Proficient" and Above				
	2011	2012	2013	2014	2015
NECAP Science Grade 04	53%	53%	47%	44%	46%
NECAP Science Grade 08	29%	30%	32%	25%	24%
NECAP Science Grade 11	30%	33%	31%	30%	32%

“This is also a time of transition in science education from NECAP targets and grade expectations to Next Generation Science Standards (NGSS),” explained AOE Science Consultant Gail Hall. “To support this transition, several professional learning opportunities addressing NGSS instructional practices will be available to Vermont science educators in their implementation of the new science standards.”

Vermont Statewide Results for High and Low Income Students

As seen in previous years, statewide and nationally, an achievement gap persists between students who live in poverty and students from wealthier families across all subjects assessed, including science. In Vermont, the science achievement gap continues to be large.

Assessment Area and Grade	Free/Reduced Lunch Status	Average Scale Score				
		2011	2012	2013	2014	2015
NECAP Science Grade 04	FRL	36.4	36.0	34.9	34.5	34.6
NECAP Science Grade 04	Not FRL	43.0	43.1	41.6	40.8	41.4
NECAP Science Grade 08	FRL	30.5	31.3	31.7	30.6	30.4
NECAP Science Grade 08	Not FRL	36.9	37.3	37.8	36.8	35.8
NECAP Science Grade 11	FRL	30.2	30.5	30.6	30.7	30.6
NECAP Science Grade 11	Not FRL	36.1	36.8	36.8	36.5	36.2

“These results give us a means to evaluate the size and direction of our achievement gaps,” said State Testing Director Michael Hock. “At the state level, we will look closely at scores to assess challenges related to equity and set goals.”

School reports are available online:

http://education.vermont.gov/new/html/pgm_assessment/data.html#necap.

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