

Spring 2021 State Assessment Results

Interpretation Considerations



COVID-19 Disrupted Learning for Many Students

The COVID-19 pandemic had an impact on many aspects of education last year, including reducing or disrupting learning opportunities for some students, schools and districts. In addition, students across Colorado had to adapt to a variety of learning models over the course of the year, including in-person, remote and hybrid instruction. Due to reduced in-person instructional time, some districts may have had to adjust the content for students, and it's likely the impact of these learning disruptions was uneven within districts and across the state.

2021 State Assessment Results Provide Insight into Student Learning

Spring 2021 state tests and expectations were consistent with tests from previous years. Because the scale scores and performance levels (e.g., approached expectations, met expectations, etc.) had the same meaning from previous years, results provide important insight into what individual students know and can do in relation to the grade-level expectations of the Colorado Academic Standards. Results for students who had a relatively typical testing experience may be able to be interpreted with reasonable confidence. For example, student scores at performance Levels "Met Expectations" or "Exceeded Expectations" are indicators of mastery of the standards.

State assessments provide point-in-time snapshots of what individual students know. It is important to take this year's circumstances and other available information about a student's learning into consideration when reviewing results. In addition, any significant difference in test administration conditions from past years should be considered on an individual basis.

Participation Information is Critical to Interpretation

Participation information must be reviewed and taken into consideration thoughtfully when interpreting 2021 district and school results. This year's participation rates for districts, schools and student groups are significantly lower overall than in past years. As participation rates decrease and vary across student, school and district groups, challenges with interpreting results will increase. Depending on the specific school or district, some student groups will be overrepresented in the results and others may be underrepresented. Participation rates and how well the students who tested reflect the district/school as a whole vary greatly across the state this year. Participation information will indicate that in some cases, conclusions should be drawn with caution or completely avoided. Due to these factors and many more challenges experienced during the pandemic, for some districts, schools and student groups, this year's data will not support all of the cross-state comparisons and uses made with prior years' data. However, where appropriate, this year's results can be used as a temperature check to better address and track future COVID-19 school recovery efforts.



Colorado Measures of Academic Success (CMAS) 2021 State Achievement Results Science

Interpretation Considerations

Colorado state assessments are the only standards-based statewide indicators of student achievement. Spring 2021 results can be used as a temperature check to identify where the pandemic may have differentially impacted learning across Colorado student groups and as a baseline to support the evaluation of future COVID-19 recovery efforts.

COVID-19 Disrupted Learning for Many Students	2021 State Assessment Results Provide Insight into Student Learning	Participation Information is Critical to Interpretations
<ul style="list-style-type: none"> • Students may have had reduced or disrupted learning opportunities • Students received instruction under in-person, remote and/or hybrid models • Schools may have adjusted or reduced covered content 	<ul style="list-style-type: none"> • Spring 2021 tests did not change • Scale scores and performance levels hold the same meaning as previous years • Individual student results can be interpreted with reasonable confidence for students who had a relatively typical testing experience 	<ul style="list-style-type: none"> • Fewer students tested in 2021 and participation varied by group • Some student groups tested at a higher rate than other groups • For some districts, schools and student groups, this year's data will not support all of the cross-state comparisons and uses made with prior years' data

Overall Results

Report Category	Participation Information		Score Information		Performance Level Information				
	Number of Valid Scores	Participation Rate	Mean Scale Score	Standard Deviation	Percent Partially Met Expectations	Percent Approached Expectations	Percent Met Expectations	Percent Exceeded Expectations	Percent Met or Exceeded Expectations
Science Overall									
Grade 08	36,957	54.6	568	120	41.9	31.7	24.4	2.0	26.4
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Science Grade 08									
Male	19,717	56.8	564	124	43.2	30.5	24.1	2.2	26.2
Female	17,240	52.3	573	116	40.4	33.1	24.7	1.8	26.6
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Science Results by Race/Ethnicity

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	Number of Valid Scores	Participation Rate	Mean Scale Score	Standard Deviation	Percent Partially Met Expectations	Percent Approached Expectations	Percent Met Expectations	Percent Exceeded Expectations	Percent Met or Exceeded Expectations
Science Grade 08									
American Indian or Alaska Native	205	46.2	519	118	57.6	30.7	--	--	11.7
Asian	1,149	55.1	627	116	22.9	30.5	39.9	6.7	46.6
Black	1,164	37.5	513	119	59.2	28.4	--	--	12.4
Hispanic	12,952	54.2	512	114	62.7	26.3	10.7	0.4	11.1
White	19,880	57.1	604	109	28.8	35.4	32.9	2.9	35.7
Hawaiian/Pacific Islander	92	47.2	549	115	50.0	31.5	--	--	18.5
Two or More Races	1,510	48.3	588	116	34.6	33.0	29.7	2.7	32.4
Not Reported	< 16	--	--	--	--	--	--	--	--

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Note: Free and Reduced Lunch data collection and reporting was less precise for spring 2021 assessments than historically. These data should be used with caution.

Science Results by Free/Reduced Lunch Status

Report Category	Participation Information		Score Information		Performance Level Information				
	Number of Valid Scores	Participation Rate	Mean Scale Score	Standard Deviation	Percent Partially Met Expectations	Percent Approached Expectations	Percent Met Expectations	Percent Exceeded Expectations	Percent Met or Exceeded Expectations
Science Grade 08									
Free/Reduced Lunch Eligible	13,217	51.7	509	113	63.3	26.8	9.6	0.3	10.0
Not Free/Reduced Lunch Eligible	23,740	56.4	601	111	30.0	34.5	32.6	2.9	35.5

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Science Results by Special Programs Status

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	Number of Valid Scores	Participation Rate	Mean Scale Score	Standard Deviation	Percent Partially Met Expectations	Percent Approached Expectations	Percent Met Expectations	Percent Exceeded Expectations	Percent Met or Exceeded Expectations
Science Grade 08									
IEP	3,723	50.8	442	108	84.7	11.7	3.4	0.2	3.6
No IEP	33,234	55.1	583	113	37.1	34.0	26.7	2.2	28.9
Title I	7,249	50.8	504	117	64.9	24.7	9.9	0.5	10.4
Not Title I	29,708	55.6	584	116	36.3	33.4	27.9	2.4	30.3

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Science Results by Language Proficiency

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	Number of Valid Scores	Participation Rate	Mean Scale Score	Standard Deviation	Percent Partially Met Expectations	Percent Approached Expectations	Percent Met Expectations	Percent Exceeded Expectations	Percent Met or Exceeded Expectations
Science Grade 08									
English Learner (EL)	3,104	54.9	423	90	92.7	6.7	--	--	0.5
EL: NEP (Not English Proficient)	625	58.0	373	79	97.9	--	--	--	--
EL: LEP (Limited English Proficient)	2,479	54.2	436	89	91.4	--	--	--	--
Not English Learner (Not EL)	33,853	54.6	582	114	37.2	34.0	--	--	28.7
Not EL: FEP (Fluent English Proficient), FELL (Former English Language Learner)	4,576	57.2	552	101	49.4	35.2	14.4	1.0	15.4
Not EL: PHLOTE, NA, Not Reported	29,277	54.2	586	115	35.3	33.8	--	--	30.8

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Science Results by Migrant Status

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	Number of Valid Scores	Participation Rate	Mean Scale Score	Standard Deviation	Percent Partially Met Expectations	Percent Approached Expectations	Percent Met Expectations	Percent Exceeded Expectations	Percent Met or Exceeded Expectations
Science Grade 08									
Migrant	188	71.2	472	107	73.9	23.4	--	--	2.7
Not Migrant	36,769	54.5	569	120	41.7	31.8	--	--	26.5

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Science Results by Gifted and Talented Status

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	Number of Valid Scores	Participation Rate	Mean Scale Score	Standard Deviation	Percent Partially Met Expectations	Percent Approached Expectations	Percent Met Expectations	Percent Exceeded Expectations	Percent Met or Exceeded Expectations
Science Grade 08									
Gifted and Talented	4,558	60.0	704	73	3.0	16.5	68.5	12.0	80.5
Not Gifted and Talented	32,399	53.9	549	113	47.4	33.9	18.2	0.6	18.8

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