

# Colorado's Growth Model

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## Introduction to the Growth Model

For the past decade, Colorado has been a national leader in how to measure a student's academic growth from year to year. A decade ago, the state created the Colorado Growth Model to look specifically at how individual students progress from year to year based on the state standards. Growth provides another dimension of performance beyond just achievement on tests by describing the

relative change of individual students from year to year. The model provides information for many different student populations and identifies areas of strength and areas that may need more attention and support. It also supplies necessary growth data for the annual school and district accountability ratings.

### How does it work?

A student's score is matched with his or her "academic peers" – students in the same grade who have had similar score histories on the Colorado Measures of Academic Success tests in English language arts and math. Scores are also calculated using the same methodology based on the growth from the PSAT to the SAT. For example, a student who scored 357 on his third-grade math assessment one year and 400 on the fourth-grade test the following year would be grouped with other students who had similar scoring histories to determine his fifth-grade growth score.

Growth is not expressed as a test score but rather a **student growth percentile**, which has some similarities to how pediatricians use height and weight percentiles in discussions with parents. In the doctor's office, a child in the 60th percentile for weight is as heavy as or heavier than 60% of children his age.

A student growth percentile looks specifically at growth on specific tests. So a child who scores in the 60th percentile grew academically as well or better than 60% of his or her academic peers on those tests.



## Where can I learn more?

For additional information concerning the Colorado Growth Model visit:  
<http://www.cde.state.co.us/accountability/coloradogrowthmodel>

View all CDE factsheets: [www.cde.state.co.us/communications/factsheetsandfaqs](http://www.cde.state.co.us/communications/factsheetsandfaqs)

Contact Dan Jorgensen, PhD for additional questions: 303-866-6763 or [Jorgensen\\_d@cde.state.co.us](mailto:Jorgensen_d@cde.state.co.us).

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1 Every year Colorado students in third to 11th grade are tested in English language arts and math.

178 Colorado School Districts test students in spring.

2 Individual student's scores are then grouped together with other students with similar scores - known as their academic peers.



3 And students with the same achievement history are compared to each other.

4 Students are assigned a growth score from 1 to 99 based on their performance compared to their peers. This is also referred to as a growth percentile.

5 This score helps us understand whether their growth is low, typical or high compared to their academic peers.



For example, a student with a growth percentile of 78 performed at or better than 78 percent of his or her academic peers and can be said to have high growth.

## Where can I learn more?

2022

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## What is considered low growth, typical growth or high growth?

As defined by the Colorado State Board of Education, a child who falls below the 35 percentile for growth is considered to have made low growth. Typical growth is between the 36th and 65th percentile. The state median growth percentile is 50 for each grade and subject. High growth is above the 65th percentile.

### Examples:

#### LOW GROWTH

A child with a growth percentile of 20 indicates that 80% of this student's academic peers had at least the same or better growth on this particular assessment.

#### TYPICAL GROWTH

A child with a growth percentile of 55 means he or she grew at the same rate or better than 55% of his or her academic peers.

#### HIGH GROWTH

A child in the 80th percentile grew as well or better than 80% of his or her academic peers.

Note: The "low," "typical" and "high" categories don't tell us if the growth was sufficient for the student to be at grade level. Rather, it tells us how much they grew in their academic achievement from year to year compared to other similar students.

## How will growth be calculated given disruptions created by the pandemic?

Due to the pandemic, state assessments were canceled in 2020, and many students took a limited number of tests in 2021. Specifically in 2021, third, fifth and seventh graders took the English language arts tests and fourth, sixth and eighth graders took the math tests. High school students still took the PSAT (ninth and 10th graders) and SAT (11th graders).

In the spring of 2022, the normal administration of tests resumed. The state is still calculating growth in 2022, but it will be more limited for elementary and middle school students. This is because it takes two years of achievement data to calculate growth. With the alternating assessment schedule in 2021, there is only half as much data as in a typical year. The growth model calculations are expected to return to their typical approach by next year (e.g., assign growth scores for all students in fourth - 11th grade in English language arts and math).

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