Interpretive Guide for ACT Aspire

Summative Reports

ACT® Aspire®

Contact Information and Resources

Contact Information

ACT® Aspire® Customer Care

- **Phone:** 855.730.0400, 7:00 a.m.–6:00 p.m., Central time, Monday through Friday
- **Email:** actaspire@act.org

Resources

This manual references various websites and systems. Use this list to locate the url to that website or system.

Website	URL
ACT Privacy Policy	act.org/content/act/en/privacy-policy.html
ACT Calculator Policy	act.org/calculator-policy.html Phone: 800.498.6481
PearsonAccess^next^	aspire.act.org
ACT Aspire Knowledge Hub	success.act.org/s/topic/0TO1B000000P3VIWAK/act-aspire
ACT Aspire product page	act.org/aspire
TestNav™ Support Site	https://support.assessment.pearson.com/display/TN/TestNav+8+Online+Support

Accessibility and Accommodations

The ACT Aspire Knowledge Hub also includes accommodations and accessibility resources. Some examples include:

- Spanish Pre-Recorded Audio Test Directions
- Braille Notes (for the room supervisor)
- ACT-Approved Bilingual Word-to-Word Dictionaries

Prepare Your Examinees

There are two resources available for examinees who wish to prepare for testing:

- Student Sandbox
- Exemplar Test Question Booklets

For more information, see the User Guides section of the ACT Aspire Knowledge Hub.

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Abbreviations

Abbreviation	Definition
ACT CCRS	ACT College and Career Readiness Standards
ACT NCRC	ACT National Career Readiness Certificate
EHS	Early High School (grades 9 & 10)
ELA	English Language Arts—in ACT Aspire reports, a combined score for English, reading, and writing tests.
ISR	Individual Student Report
SEM	Standard Error of Measurement
SGP	Student Growth Percentile
SPF	Student Performance File
STEM	Science, Technology, Engineering, Mathematics—in ACT Aspire reports, a combined score for science and mathematics tests.

Introduction

This guide aims to help you understand and effectively use the ACT® Aspire® score reports available to students, educators, schools, districts, and states. Please keep the following cautions in mind:

- The validity of conclusions about student groups depends, in part, on the accuracy of data provided about students at the time of testing (gender, race/ethnicity background, and other personal information).
- Numerous social, economic, and instructional factors are known to contribute to educational achievement. Relatively few of these factors are represented in these reports. Conclusions based on student achievement about educational programs or policies at your school should be supported by information from additional sources.
- In making decisions or drawing conclusions based on differences among groups of students, caution must be employed when the number of students in any group is small. ACT Aspire also urges caution when interpreting summary results for groups with fewer than 25 students because of the instability associated with data from small samples. For example, one very low or very high score may overly influence the average scores of 10 students but will have much less effect when included in a group of 100 students. In addition, care should be taken with any information from small groups in which group members can be easily recognized and confidentiality is likely to be difficult to maintain.
- When sharing ACT Aspire results with others, it's important to identify the population represented by the educator/group or school report. For example, conclusions regarding your entire class are appropriate only if all or nearly all of your students participated in the program or if you have determined that those who took the test are representative of the class as a whole.
- Scores are estimates of student knowledge and achievement. The student's actual achievement could be slightly higher or lower than the reported scores. For more information about measurement error, see *ACT Aspire Summative Technical Manual* on the ACT Aspire Knowledge Hub.

Overview of the ACT Aspire Program

ACT Aspire is a vertically-scaled modular suite of achievement tests that measures student growth in a longitudinal assessment system. By charting a student's growth from the elementary grades through early high school, ACT Aspire expands the assessment of skills in the same five academic areas as the ACT® test: English, mathematics, reading, science, and writing.

ACT Aspire measures students' progress toward college and career readiness. The scale scores are linked to college and career data through scores on the ACT and the ACT National Career Readiness Certificate™ (ACT NCRC®) program. Empirically-based ACT Readiness Benchmarks provide information about whether students are on target for readiness at the appropriate grade/subject levels. To enhance score interpretation, reporting categories (also called skills) for ACT Aspire use the same terminology as the ACT College and Career Readiness Standards (ACT CCRS) and other standards that target college and career readiness.

The goal of assessment is to collect relevant evidence from the student as authentically as possible while sampling enough of the construct to support inferences based on the student's test scores. ACT Aspire uses several item types to achieve this goal. Selected-response (multiple-choice) items offer an efficient, reliable way to sample a wide range of content skills and understandings. Constructed-response tasks require students to explain, justify, critique, create, propose, produce, design, or otherwise demonstrate knowledge and understanding by generating a response. When appropriate, context is provided to reinforce students' practical applications of concepts, theories, principles, and processes. Technology-enhanced items and tasks use online interfaces to ask questions and pose scenarios that are not possible in traditional paper tests. They also present conventional items in fresh, innovative ways that motivate students. Technology-enhanced items may require students to generate their responses, or they may present students with a wider and more complex set of answer options. The multiple item types on ACT Aspire assessments yield the evidence needed to support inferences about student achievement.

ACT Aspire Scale Scores

For ACT Aspire English, mathematics, reading, and science tests, the number of points earned on each test are counted to obtain a raw score which is then converted to a three-digit scale score. The scale scores for each subject are measured against the ACT Readiness Benchmarks to identify whether students are on target to meet the ACT College Readiness Benchmarks by the time they take the ACT in grade 11. Four Readiness Levels are used for each subject to further identify how student performance relates to the Benchmarks: Exceeding, Ready, Close, and In Need of Support.

In addition, for students who take the English, reading, and writing tests, these scores are combined into a three-digit English Language Arts (ELA) score. Scores on the mathematics and science tests are combined into a three-digit Science, Technology, Engineering, and Mathematics (STEM) score. Based on a subset of items in the reading test, the Progress with Text Complexity indicator also identifies whether students are making sufficient progress toward reading the complex texts they will encounter as they further their education and work toward college and career.

For all students who test English, mathematics, reading, and science there is a three-digit composite score. This Composite score is linked to the ACT NCRC program in order to provide a Progress Toward Career Readiness Indicator for students in grades 8–10.

For testers in grades 6–9, ACT Aspire offers predicted subject test and Composite score ranges on the PreACT. Testers in grades 6–10 receive predicted subject test and Composite score ranges on the ACT. This helps students understand if they are on target for college readiness.

ACT Readiness Benchmarks for English, Mathematics, Reading, and Science

College and career readiness is the cornerstone of the ACT Aspire system. Table 1 provides the ACT Readiness Benchmarks for English, mathematics, reading, and science at each grade level. These benchmarks are aligned with the existing ACT College Readiness Benchmarks. Students at or above the benchmark are on target for college readiness when they take the ACT test in grade 11. For additional information on how the benchmarks were established, see *ACT Aspire Summative Technical Manual*.

Table 1. ACT Readiness Benchmarks

Tested Grade	English	Math	Reading	Science
3	413	413	415	418
4	417	416	417	420
5	419	418	420	422
6	420	420	421	423
7	421	422	423	425
8	422	425	424	427
9	426	428	425	430
10	428	432	428	432

While scale scores and readiness benchmarks are not repoprted for the writing test, performance on the writing test contributes to the English Language Arts (ELA) score. Writing domain scores in “Ideas and Analysis”, “Development and Support”, “Organization”, and “Language Use and Conventions” are reported on the two-page ISR.

ACT Readiness Levels for English, Mathematics, Reading, and Science

In addition to the benchmark score for each grade in English, mathematics, reading, and science, cut scores are created around the benchmark and can be used to classify students into four performance levels.

- Exceeding
- Ready
- Close
- In Need of Support

Students in the Ready category have met the ACT Readiness Benchmark and are on target for 50% or higher likelihood of college course success; students in the Exceeding category scored substantially above the benchmark and have a much higher chance to be college and career ready; students in the Close category scored below but near the ACT Readiness Benchmark, considering the measurement error; and students in the In Need of Support category performed substantially below the ACT Readiness Benchmark. ACT Aspire score reports classify students into the four levels given above. Table 2 provides the score ranges for the four ACT Readiness Levels for all grades in English, mathematics, reading and science. For additional information on how the ACT Readiness Levels were established, see *ACT Aspire Summative Technical Manual*.

Table 2. Score Ranges for ACT Readiness Levels

Subject	ACT Readiness Level	Grade Level Scale Score Ranges							
		3	4	5	6	7	8	9	10
English	Exceeding	418–435	423–438	426–442	427–448	429–450	429–452	433–456	435–456
	Ready	413–417	417–422	419–425	420–426	421–428	422–428	426–432	428–434
	Close	408–412	411–416	412–418	413–419	413–420	415–421	419–425	421–427
	In Need of Support	400–407	400–410	400–411	400–412	400–412	400–414	400–418	400–420
Math	Exceeding	417–434	421–440	424–446	426–451	428–453	431–456	434–460	438–460
	Ready	413–416	416–420	418–423	420–425	422–427	425–430	428–433	432–437
	Close	409–412	411–415	412–417	414–419	416–421	419–424	422–427	426–431
	In Need of Support	400–408	400–410	400–411	400–413	400–415	400–418	400–421	400–425
Reading	Exceeding	419–429	422–431	425–434	426–436	429–438	430–440	431–442	434–442
	Ready	415–418	417–421	420–424	421–425	423–428	424–429	425–430	428–433
	Close	411–414	412–416	415–419	416–420	417–422	418–423	419–424	422–427
	In Need of Support	400–410	400–411	400–414	400–415	400–416	400–417	400–418	400–421
Science	Exceeding	422–433	425–436	427–438	428–440	430–443	432–446	436–449	438–449
	Ready	418–421	420–424	422–426	423–427	425–429	427–431	430–435	432–437
	Close	414–417	415–419	417–421	418–422	420–424	422–426	424–429	426–431
	In Need of Support	400–413	400–414	400–416	400–417	400–419	400–421	400–423	400–425

ACT Readiness Benchmarks for ELA and STEM

From fall 2017, the ACT Readiness Benchmarks for ELA and STEM were updated to better align with the ACT College Readiness Benchmarks. Table 3 presents the updated ACT Readiness Benchmarks for ELA and STEM across grade levels. Please refer to *ACT Aspire Summative Technical Manual* for additional information.

Table 3. ACT Readiness Benchmarks in ELA and STEM

Grade	ELA	STEM
3	419	420
4	422	422
5	424	425
6	426	428
7	426	430
8	427	433
9	428	435
10	430	437

ACT Aspire Reporting Categories

To provide instructionally insightful and actionable results, student performance is also described in terms of the ACT Aspire reporting categories (found in Appendix A). Score reports show the percent and number of points students earn out of the total number of points possible in each reporting category. For English, mathematics, reading, and science, student performance in each category is compared to the **ACT Readiness Range** which shows where a student who has met the ACT Readiness Benchmark in a particular subject area would typically perform on the reporting category. In this way, students can compare the percent correct in each category to the percent correct attained by a typical student who is on target to be "Ready". Students who score below the ACT Readiness Range may be in need of additional support. Reporting student performance in this way provides meaningful insights into students' areas of strength as well as areas that may need additional attention. Descriptions of what each subject test and reporting category measures for each grade are included in Appendix A.

Performance-Level Descriptors and College and Career Readiness Standards

ACT Aspire assessments are aligned with leading frameworks of content standards that target college and career readiness. ACT Aspire Performance-Level Descriptors (PLDs) have been created to provide specific descriptions of student performance within and across grades. The PLDs were developed in a 2016 study run by an independent facilitator; over 90 subject-matter experts (SMEs) from 14 states drafted the PLD statements. The PLDs at each grade are organized by ACT Readiness Level: In Need of Support; Close; Ready; and Exceeding. In the 2016 PLD study, SMEs reviewed ACT Aspire materials, performance data, and administered test items to generate statements that describe what students know and are able to do within each category in each subject and grade. PLDs are found at: https://success.act.org/s/topic/0TO4v000000DUzYGAW/act-aspire-data-reporting.

In addition, ACT Aspire assessments for grade 8 and EHS are aligned with the ACT College and Career Readiness Standards (CCRS). The ACT CCRS, developed for each subject test, are descriptions of the skills and knowledge that ACT has empirically linked to readiness in postsecondary education and the world of work. Different groups of SMEs developed the ACT CCRS by synthesizing the domain-specific knowledge and skills demonstrated by students in particular score bands across thousands of students' scores. Within each content area, the CCRS are organized by strand, which mirrors the reporting categories featured in ACT Aspire, and by score band.

ACT Aspire Test Forms

Multiple ACT Aspire test forms are administered each year. Despite being constructed to follow the same content and statistical specifications, test forms may differ slightly in difficulty. Equating—the process of making statistical adjustments to maintain score interchangeability across test forms—is used to control for these differences so that scale scores represent the same level of achievement regardless of form.

ACT Aspire National Norms

Each year, ACT conducts a norming study to update the national percentile ranks that are included on score reports. The norming data, composed of test data from multiple years, are statistically weighted to more closely match the national population in terms of selected school and student characteristics and academic achievement.

The following normative information is included in ACT Aspire Summative reporting:

- National Percentile Ranks
- National Averages
- Percentage of students who performed at or above the Ready level

The national percentile ranks and averages are included on student reports. Tables showing the national percentile ranks, national score averages, and percentages of students who performed at or above the Ready level can be found in *ACT Aspire Summative Technical Manual*.

ACT Aspire Growth Models

ACT Aspire reports allow educators to understand how students are performing and growing over time. These features provide valuable insight into students' current and predicted academic achievement.

- *Longitudinal reporting*. ACT Aspire provides longitudinal reporting for English, reading, science, and math, from grade 3 through grade 10. Scores are plotted over time and viewed alongside grade-level-specific ACT Readiness Benchmarks indicating whether students are on target to meet the ACT College Readiness Benchmarks when they take the ACT test in grade 11.
- *Student growth percentiles (SGPs)*. ACT Aspire SGPs describe how a student performed compared to students with the same prior-year score history. The SGPs range from 1 to 100 and growth is categorized as low (SGP < 25), average (25 ≤ SGP ≤ 75), or high (SGP > 75). SGPs are included in the Student Performance File (SPF) and are summarized in educator/group reports. For students who take the ACT in grade 11 after having taken ACT Aspire in grade 10, resources for calculating SGPs are provided at ACT Growth Modeling Resources. The SGPs are developed using quantile regression methods. The reference groups for calculating the SGPs include the nationally-tested population. SGPs measure growth over one-year time intervals (e.g., spring grade 5 to spring grade 6 or fall grade 8 to fall grade 9). Like other measures of student growth, SGPs are subject to measurement error. Users should not rely solely on SGPs when assessing how much a student has learned in a subject.
- *Score Predictions*. Predicted paths forecast ACT Aspire score ranges over the next two years. Because the ACT Aspire assessment system ends in 10th grade, predicted paths for 9th-grade reports only cover one year, and 10th-grade reports do not include predicted paths. Predicted paths are a range, reflecting uncertainty in how a student will perform in the future. The predicted paths assume typical growth and are reported for English, mathematics, reading, and science. Predicted 10th-grade PreACT score ranges are reported for students in grades 6–9, and predicted 11th-grade ACT score ranges are reported for students in grades 6–10. The PreACT and ACT score predictions also assume typical growth.

  Predicted mean scores are used to form predicted paths for classrooms, schools, districts, states, and other user-defined groups. The aggregate predicted paths are drawn as lines connecting the current year's mean score to next year's predicted mean score. While the predicted paths for student score reports show a range of scores over two years, the predicted paths for groups only predict one year.

ACT Aspire Reporting

Score Reports

ACT Aspire offers different levels of score reports tailored to the needs of individual students, teachers, and school administrators. Score reports contain information about individual students and groups on various subject-centered skills that reflect readiness for future success.

ACT Aspire reports display both numerical and graphical representations supported by descriptive text. The following table summarizes the reports that ACT Aspire provides. Instructions for how to access reports within the ACT Aspire administration platform are posted on the ACT Aspire Knowledge Hub.

Table 4. Summary of ACT Aspire Summative Reports

Report Type	Report Name	State	District	School	Educator*	CSV	PDF	Interactive
Published	Current Progress	✓	✓	✓			✓	
	Supplemental Scores	✓	✓	✓			✓	
	Subject Proficiency by Student			✓			✓	
	Subject Proficiency by Demographic	✓	✓	✓			✓	
	Subject Proficiency by Grade	✓	✓	✓			✓	
	Subject Proficiency by School		✓				✓	
	Subject Proficiency by District	✓					✓	
	Skill Proficiency by Demographic	✓	✓	✓			✓	
	Skill Proficiency by Subject			✓			✓	
	Skill Proficiency by School		✓				✓	
	Skill Proficiency by District	✓					✓	
	Individual Student Report (ISR)							
	• One-page ISR			✓			✓	
	• Two-page ISR			✓				
	Student Performance File	✓	✓	✓		✓		
Historical	Historical Student Data	✓	✓	✓	✓		✓	✓
On-Demand	Student Performance List	✓	✓	✓	✓	✓	✓	✓
	Student Performance by Subject	✓	✓	✓	✓		✓	✓
Proficiency	Subject Proficiency by Student or Group	✓	✓	✓	✓		✓	✓
	Subject Proficiency by Grade	✓	✓	✓			✓	✓
	Subject Proficiency by Demographic	✓	✓	✓			✓	✓
	Skill Proficiency by Student or Group	✓	✓	✓	✓		✓	✓
Current Progress	Current Progress	✓	✓	✓	✓		✓	✓
	Supplemental Scores	✓	✓	✓	✓		✓	✓
	Proficiency Summary	✓	✓	✓	✓		✓	✓

** Educator will only see students assigned to that educator through reporting groups*

Report Delivery

Score reports are available as downloadable PDFs or in online dynamic formats within the ACT Aspire administration platform. Online dynamic reports provide the ability to filter and generate new views of the results.

Off-Grade Testing

ACT Aspire score reports also take into account students who may be testing "off grade" (such as a fifth grader testing at the fourth-grade level). If, year-to-year, students consistently tested off grade, you'd see the connected longitudinal line on the ISR's longitudinal progress graph. Similarly, if students tested both on and off grade over a period of years, you'd see two different student reports, one with on-grade and another with off-grade results.

Scores from off-grade testing are reported on the ACT Aspire scale just like any ACT Aspire score. However, when interpreting off-grade scores, one should keep in mind that the grade level indicated on a test form only contains content targeted at that grade, and the appropriateness of a test form for a student at a different grade level should be justified. In addition, the score range associated with the test at a particular grade level is linked to the ACT Aspire scale and only covers a particular range of the scale. Students who test off grade are included in aggregate scores and reports for the grade level tested. A group can be created within the ACT Aspire administration platform that includes off-grade students, and these students can then be excluded from aggregate scores in the online dynamic reports.

Testing with Accommodations

Students who used any accessibility features or accommodations are included in the educator/group and school, district, and state reports. As with students who tested off grade, students who tested with accommodations can be grouped together in the ACT Aspire administration platform and excluded from online dynamic reports. A Personal Needs Profile (PNP) report for student tests can be created based on accessibilities and specific tests.

Understanding Published Reports

Student score reports are primarily intended to facilitate a conversation between a parent, student, and educator around the student's academic achievement. Schools may distribute to students and parents the following reports:

- ISR (two-page colored report)
- One-Page ISR

Student Planning Guide

Along with their score reports, each student who participates in ACT Aspire will have online access (ACT Aspire Knowledge Hub) to *Understanding Your ACT Aspire Summative Results*, which provides interpretive information about the test results and suggestions for improving academic skills and making plans for further education and career training.

Student Information

The student information section shows the student's name, grade, school, and student ID number. The grade listed is the grade in which the student was enrolled at the time of testing.

Page 1 of the two-page ISR, (see Figure 1) includes the student's current and predicted subject performance, Composite Score, ACT Readiness Benchmarks, ACT Readiness Levels, national averages, ELA and STEM Scores, Progress With Text Complexity Indicator, Progress Toward Career Readiness Indicator, national percentile ranks, and Scale Score Ranges. The longitudinal progress graph shows the student's three-digit score in relation to the ACT Readiness Benchmark for each subject and in relation to the four ACT Readiness Levels—Exceeding, Ready, Close, and In Need of Support.

All measurements, including test scores, contain uncertainty. Scores under the readiness level and shown in the graph on this report indicate how well a student performed on the actual test day. The **Scale Score Range** shows the scores a student would likely obtain if they took the test again without additional coursework.

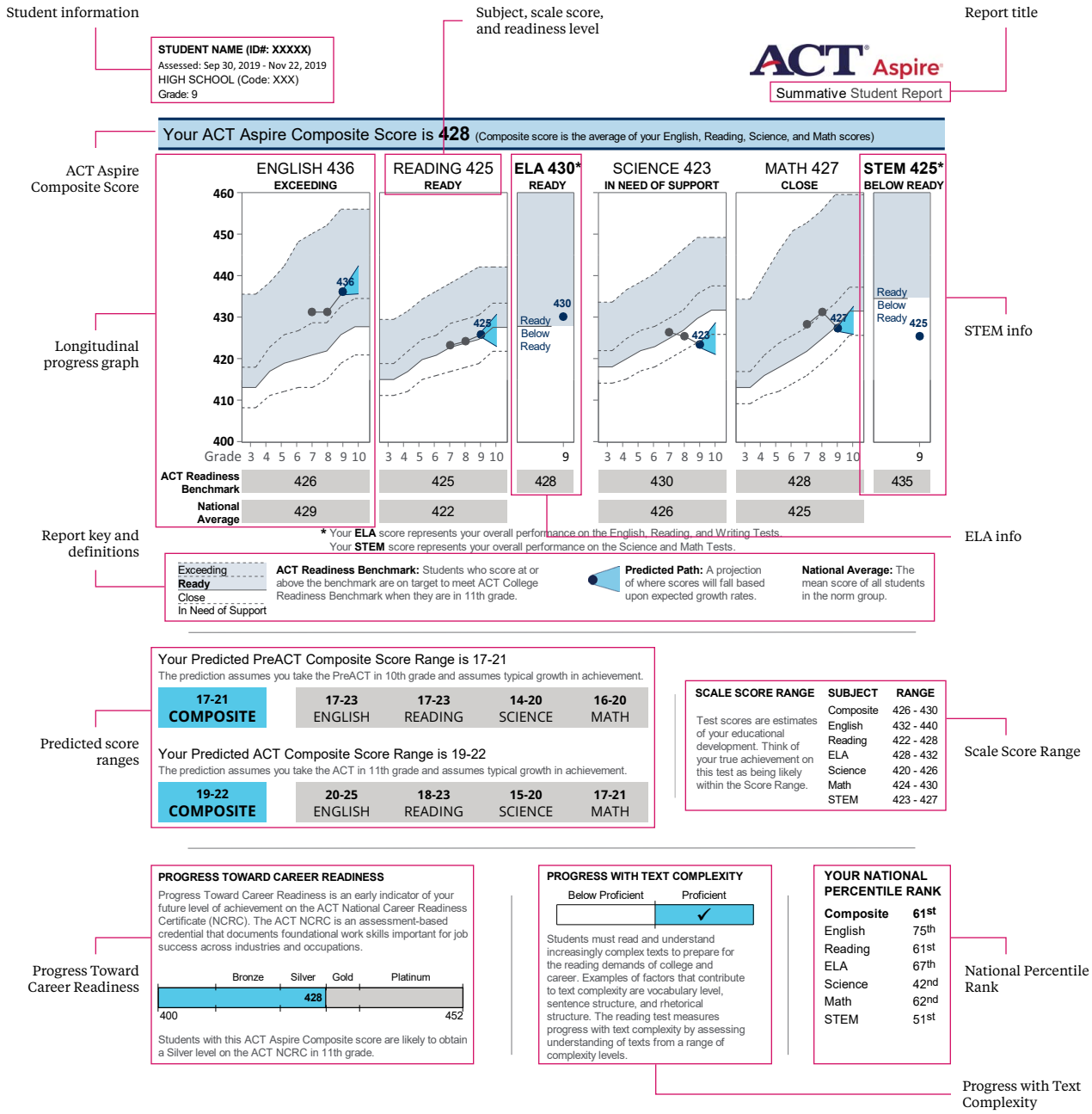


Figure 1. ACT Aspire Individual Student Report, page 1

A predicted path for each subject is also shown. The blue cone on the Grade 9 report in Figure 1, page 12 shows a one-year projection (two-year projection in lower grades) of where scores may fall based upon expected growth. Sometimes the predicted path can be negatively sloped, although a test score may be high. A student's test score is an estimate of the student's true achievement level, and students who scored very high are more likely than others to have scored above their true achievement level. When these students test again, they tend to score closer to the average. For this same reason, it is not uncommon for students who score very low one year to score much higher the next year. The ACT Aspire predicted paths reflect this complexity, and are consistent with what ACT has observed in other testing programs. For some subjects and grade levels, negatively sloped predicted paths will be more likely because of differences in growth across subjects and grade levels that ACT has observed with previously tested students.

In the middle of the report, there are definitions offered for key terms (see Figure 1). For a list of terms used on ACT Aspire reports, see the Glossary in this guide.

An ACT Aspire Composite Score, Predicted ACT Composite Score Range (provided for grades 6–10), and Predicted PreACT Composite Score Range (provided for grades 6–9) are shown on the report if the student took the ACT Aspire English, mathematics, reading, and science tests (see Figure 1). Predicted ACT and PreACT subject score ranges are also given for each subject test. The predicted score ranges for the ACT English, mathematics, reading, and science are reported on a 1–36 scale; predicted score ranges for the PreACT are on a 1–35 scale.

ACT Aspire also reports the student's national percentile ranks, ELA Score, Progress With Text Complexity Indicator, STEM Score, and Progress Toward Career Readiness Indicator. These additional measures of student performance are only available if specific subjects and grade levels are assessed.

- *National Percentile Rank*. Student national percentile ranks are given for English, mathematics, reading, science, ELA, STEM, and Composite. A national percentile rank shows the percentage of other students in the nation who received a score equal to or lower than the student's score for the grade and subject tested. For example, a national percentile rank of 93 implies that 93% of students included in the norm group scored at or below this student's score. Percentile ranks have a maximum value of 100, with higher values indicating better performance. When interpreting percentile ranks, keep in mind the norm group against which the student is being compared.
- *English Language Arts (ELA)*. For students who take the English, reading, and writing assessments, an ELA score is the rounded average of the English, reading, and writing test scale scores and represents a measure of the student's overall literacy skills. To calculate the ELA score, the student's writing raw score (4–20 in grades 3–5 and 4–24 in grades 6–EHS) is converted to a three-digit scale. This three-digit writing scale score is only used for the ELA score calculation. The ELA score represents the overall performance on these assessments and is compared against the ACT Readiness Benchmark in ELA, which is aligned to the ACT College Readiness Benchmark for ELA. A student score that falls below the ELA Benchmark is indicated as "Below Ready." A student score that is at or above the ELA Benchmark is indicated as "Ready."

- *Progress with Text Complexity*. A Progress with Text Complexity Indicator is shown for students who take the reading test. This is an indication of how well students are able to demonstrate understanding of the central meanings and purposes of increasingly complex texts. Questions that contribute to the score require connecting information across a whole text, or substantial sections of text, to demonstrate an understanding of key information—a skill sometimes referred to as "global comprehension." Such questions include:
  - What is the main idea?
  - For what purpose did the author write this text?
  - What caused the main character's actions?
  - How is the information structured in this text? (e.g., chronologically, by concept)

  Student performance on the Progress with Text Complexity measure is compared to a readiness range empirically derived from the performance of students who meet the ACT Readiness Benchmarks in Reading. Students who perform within the readiness range will receive an indication that they are making sufficient progress toward reading the complex texts they will encounter in college and career. Students who perform below the readiness range receive recommendations for improvement, or "insights," such as to practice reading increasingly complex texts from a variety of genres, checking for understanding, and using problem-solving strategies with challenging texts. Students who perform better on the overall reading test than they do on the Progress with Text Complexity measure have demonstrated relative strengths in analyzing words and sentences as well as evaluating particular techniques used by authors. They have demonstrated lower ability with tasks that require an understanding of the overall meaning, or the big picture, expressed in a text. Students fitting this profile might benefit from practicing skills that help build accurate mental representations of whole texts, such as pausing to reflect on key ideas during reading and summarizing afterward.
- *Science, Technology, Engineering, and Mathematics (STEM)*. For students who take the science and mathematics tests, a STEM score is calculated by taking the average of the two scale scores achieved in those subjects. The STEM score represents the overall performance in these subjects and is compared against the ACT Readiness Benchmark in STEM, which is aligned to the ACT College Readiness Benchmark for STEM. A student score that falls below the STEM Benchmark is indicated as "Below Ready." A student score that is at or above the STEM Benchmark is indicated as "Ready."
- *Progress Toward Career Readiness*. Students who receive scale scores on English, mathematics, reading, and science tests taken in grades 8, 9, or 10 are given a Progress Toward Career Readiness Indicator. This indicator links the student's ACT Aspire Composite Score (given on the report) with predicted performance on the ACT NCRC. The report indicates visually whether a student is making progress toward a Bronze, Silver, Gold, or Platinum level ACT NCRC. If the student is not making progress toward any of these levels, the report indicates that improvement is needed.

If a room supervisor observes a student engaging in any prohibited behaviors during testing, the student's test must be marked Do Not Report (DNR). When a test is DNR, the score for that test will not be reported on the ISR. Instead, for each subject test that was DNR, a message will be displayed indicating that a score was not earned. See Figure 2 for an example of this message. A list of prohibited behaviors that may prompt invalidation can be found in the *Test Coordinator Manual*.

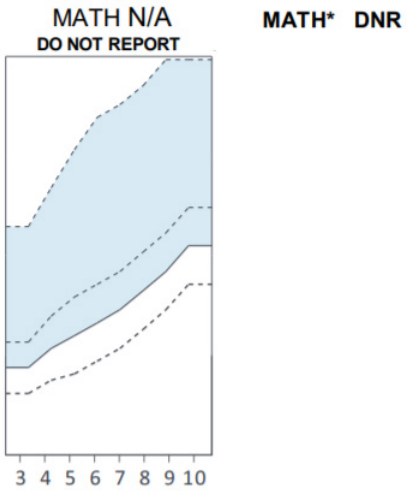
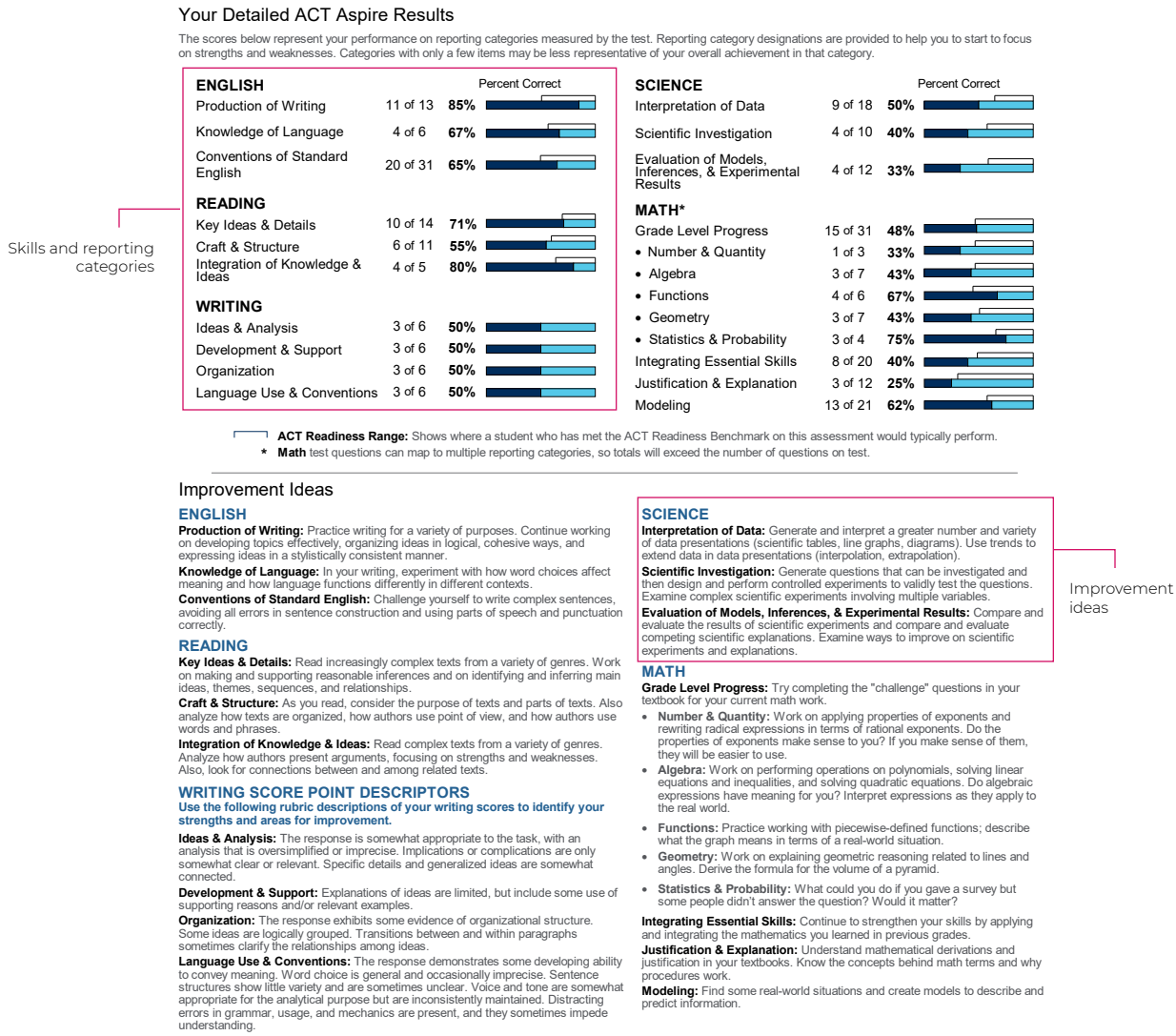


Figure 2. Student report notifications of invalid results

ISR Page 2

Page 2 of the ISR (Figure 3) shows the student's performance on reporting categories, the ACT Readiness Range, and the improvement ideas (available for English, mathematics, reading and science), as well as the score point description for the writing test. Reporting category performance is given as the number of points earned out of the total points possible and as the percentage of points earned. For reporting categories in English, mathematics, reading, and science, scores can be compared to the ACT Readiness Range. Scores within the ACT Readiness Range are consistent with scores at or above the ACT Readiness Benchmark on the overall subject test.

For each reporting category, an improvement idea is given. The improvement ideas vary, depending on whether students scored within the ACT Readiness Range.



Your Detailed ACT Aspire Results

The scores below represent your performance on reporting categories measured by the test. Reporting category designations are provided to help you to start to focus on strengths and weaknesses. Categories with only a few items may be less representative of your overall achievement in that category.

Skills and reporting categories

ENGLISH		Percent Correct
Production of Writing	11 of 13	85%
Knowledge of Language	4 of 6	67%
Conventions of Standard English	20 of 31	65%
READING		
Key Ideas & Details	10 of 14	71%
Craft & Structure	6 of 11	55%
Integration of Knowledge & Ideas	4 of 5	80%
WRITING		
Ideas & Analysis	3 of 6	50%
Development & Support	3 of 6	50%
Organization	3 of 6	50%
Language Use & Conventions	3 of 6	50%

SCIENCE		Percent Correct
Interpretation of Data	9 of 18	50%
Scientific Investigation	4 of 10	40%
Evaluation of Models, Inferences, & Experimental Results	4 of 12	33%
MATH*		
Grade Level Progress	15 of 31	48%
• Number & Quantity	1 of 3	33%
• Algebra	3 of 7	43%
• Functions	4 of 6	67%
• Geometry	3 of 7	43%
• Statistics & Probability	3 of 4	75%
Integrating Essential Skills	8 of 20	40%
Justification & Explanation	3 of 12	25%
Modeling	13 of 21	62%

ACT Readiness Range: Shows where a student who has met the ACT Readiness Benchmark on this assessment would typically perform.

* **Math** test questions can map to multiple reporting categories, so totals will exceed the number of questions on test.

Improvement Ideas

Improvement ideas

ENGLISH

Production of Writing: Practice writing for a variety of purposes. Continue working on developing topics effectively, organizing ideas in logical, cohesive ways, and expressing ideas in a stylistically consistent manner.

Knowledge of Language: In your writing, experiment with how word choices affect meaning and how language functions differently in different contexts.

Conventions of Standard English: Challenge yourself to write complex sentences, avoiding all errors in sentence construction and using parts of speech and punctuation correctly.

READING

Key Ideas & Details: Read increasingly complex texts from a variety of genres. Work on making and supporting reasonable inferences and on identifying and inferring main ideas, themes, sequences, and relationships.

Craft & Structure: As you read, consider the purpose of texts and parts of texts. Also analyze how texts are organized, how authors use point of view, and how authors use words and phrases.

Integration of Knowledge & Ideas: Read complex texts from a variety of genres. Analyze how authors present arguments, focusing on strengths and weaknesses. Also, look for connections between and among related texts.

WRITING SCORE POINT DESCRIPTORS

Use the following rubric descriptions of your writing scores to identify your strengths and areas for improvement.

Ideas & Analysis: The response is somewhat appropriate to the task, with an analysis that is oversimplified or imprecise. Implications or complications are only somewhat clear or relevant. Specific details and generalized ideas are somewhat connected.

Development & Support: Explanations of ideas are limited, but include some use of supporting reasons and/or relevant examples.

Organization: The response exhibits some evidence of organizational structure. Some ideas are logically grouped. Transitions between and within paragraphs sometimes clarify the relationships among ideas.

Language Use & Conventions: The response demonstrates some developing ability to convey meaning. Word choice is general and occasionally imprecise. Sentence structures show little variety and are sometimes unclear. Voice and tone are somewhat appropriate for the analytical purpose but are inconsistently maintained. Distracting errors in grammar, usage, and mechanics are present, and they sometimes impede understanding.

SCIENCE

Interpretation of Data: Generate and interpret a greater number and variety of data presentations (scientific tables, line graphs, diagrams). Use trends to extend data in data presentations (interpolation, extrapolation).

Scientific Investigation: Generate questions that can be investigated and then design and perform controlled experiments to validly test the questions. Examine complex scientific experiments involving multiple variables.

Evaluation of Models, Inferences, & Experimental Results: Compare and evaluate the results of scientific experiments and compare and evaluate competing scientific explanations. Examine ways to improve on scientific experiments and explanations.

MATH

Grade Level Progress: Try completing the "challenge" questions in your textbook for your current math work.

- **Number & Quantity:** Work on applying properties of exponents and rewriting radical expressions in terms of rational exponents. Do the properties of exponents make sense to you? If you make sense of them, they will be easier to use.
- **Algebra:** Work on performing operations on polynomials, solving linear equations and inequalities, and solving quadratic equations. Do algebraic expressions have meaning for you? Interpret expressions as they apply to the real world.
- **Functions:** Practice working with piecewise-defined functions; describe what the graph means in terms of a real-world situation.
- **Geometry:** Work on explaining geometric reasoning related to lines and angles. Derive the formula for the volume of a pyramid.
- **Statistics & Probability:** What could you do if you gave a survey but some people didn't answer the question? Would it matter?

Integrating Essential Skills: Continue to strengthen your skills by applying and integrating the mathematics you learned in previous grades.

Justification & Explanation: Understand mathematical derivations and justification in your textbooks. Know the concepts behind math terms and why procedures work.

Modeling: Find some real-world situations and create models to describe and predict information.

Figure 3. ACT Aspire Individual Student Report, page 2

One-Page ISR

The One-Page ISR on Figure 4 provides students, parents, and educators with a summary of student performance in a simplified format that lends itself to "at-a-glance"-level interpretation and easy printing. The One-Page ISR includes scale scores of subject tests (only English, mathematics, science, and reading), readiness level, national percentile rank, Predicted PreACT Score (for students in grades 6–9), and Predicted ACT Score (for students in grades 6–10). An ELA Score, STEM Score, Progress With Text Complexity Indicator, and Progress Toward Career Readiness Indicator (for grades 8–10) is also included.

ACT Aspire

Assessed Sep 30, 2019 - Nov 22, 2019

STUDENT
Grade: 9
HIGH SCHOOL, School ID: XXX
Student ID: XXXXXX

Student Report
Summative

MAIN SCORES

Subject	ACT Readiness Level	Score Score Range	Your National Percentile Rank	Predicted PreACT Score	Predicted ACT Score
English	Exceeding	**436** 432 - 440	75th	17 - 23	20 - 25
Reading	Ready	**425** 422 - 428	61st	17 - 23	18 - 23
Writing	Scoreable				
Science	In Need of Support	**423** 420 - 426	42nd	14 - 20	15 - 20
Math	Close	**427** 424 - 430	62nd	16 - 20	17 - 21
Composite		**428** 426 - 430	61st	17 - 21	19 - 22

SUPPLEMENTAL SCORES

	Readiness	Score Score Range
ELA	Ready	**430** 428 - 432
STEM	Below Ready	**425** 423 - 427

Progress with Text Complexity — Sufficient Progress: **Yes**
Progress Toward Career Readiness — You are likely to obtain a **Silver** level on the ACT NCRC in the 11th grade.

ACT Readiness Level: Based on the test score and performance level cut scores, your performance can be classified into one of these levels: Exceeding, Ready, Close, In Need of Support.

Score Range: Test scores are estimates of your educational development. Think of your true achievement on this test as being likely within the Score Range.

National Percentile Rank: The percentage of other grade 9 students in the nation who received a score that is the same as or lower than yours.

Understand subject skill expectations for each ACT Readiness Level by reviewing the Performance Level Descriptors: www.act.org/aspire

Figure 4. One-Page ISR

Understanding Interactive Reports

These reports are interactive:

- Historical Student Data
- Student Performance List
- Student Performance by Subject
- Subject Proficiency by Student or Group
- Subject Proficiency by Grade*
- Subject Proficiency by Demographic*
- Skill Proficiency by Student or Group
- Current Progress
- Supplemental Scores
- Proficiency Summary

** These reports are not available at the Educator level*

Subject Proficiency by Student Report

How can students be grouped by subject to inform teaching?

The Subject Proficiency by Student Report provides educators with a summary view of their classroom's performance in all assessed subjects except writing and helps them understand each student's overall performance versus ACT Readiness Benchmarks. This report also identifies which students are struggling (falling below the benchmark in the Close or In Need of Support readiness levels) in a subject as well as those who are excelling (meeting or exceeding the benchmark in the Ready or Exceeding levels) in a subject.

Current Progress Report

How are students progressing toward unlocking their potential and preparing for college and career?

The Current Progress Report provides educators with an overall view of their classroom's performance and their students' predicted path in all assessed subjects except writing. It supports an educator's understanding of the class's growth over the prior year (if prior-year

scores are available) and quickly identifies the areas where a group of students are meeting (or not meeting) the benchmarks. It includes the same student cohort performance over the prior year, the classroom/group current and predicted performance, and the national average for the grade level assessed in each subject.

Supplemental Scores Report

How can additional performance measures inform decisions?

The Supplemental Scores Report aggregates the classroom/group additional measures of performance, including National Percentile Ranks, ELA, STEM, Progress With Text Complexity, and Progress Toward Career Readiness. The latter two measures of student performance are only available if specific subjects and grade level tests are assessed.

- *National Percentile Rank*. The median national percentile rank for the group is given for each subject tested. This is to compare the typical performance in the group to the performance of all students included in the national norm group. The numbered ranks show the percentage of students in the nation who received a score equal to or lower than the group's median score for the grade and subject tested.
- *English Language Arts (ELA)*. The classroom/group average ELA Score is presented (English, reading, and writing assessments must be tested in order to receive an ELA Score). The ACT Readiness Range Distribution chart represents the overall performance on ELA relative to the ACT Readiness Benchmark in ELA. The percentage and *n*-count of students that scored in the "Ready" Range are shown first, followed by the percentage and *n*-count of students that scored below the range.
- *Science, Technology, Engineering, and Mathematics (STEM)*. A classroom/group average STEM Score is calculated by taking the average of all individual student STEM Scores (mathematics and science must be tested in order to receive a STEM Score). The ACT Readiness Range Distribution chart represents the overall performance on STEM relative to the ACT Readiness Benchmark in STEM. The percentage and *n*-count of students who scored in the "Ready" Range are shown first, followed by the percentage and *n*-count of students who scored below the range.
- P*rogress With Text Complexity*. A Progress With Text Complexity Indicator is shown if the reading test was administered. Student performance on the Progress With Text Complexity measure is compared to a readiness range empirically derived from the ACT Readiness Benchmarks in reading. Performance is categorized as either making "sufficient progress" or "insufficient progress." The educator/group report shows the percentage and number of students who made sufficient progress with text complexity and the percentage and number of students who made insufficient progress.
- *Progress Toward Career Readiness*. Students who receive scale scores on English, mathematics, reading, and science tests taken in grades 8, 9, or 10 are given a Progress Toward Career Readiness Indicator. The Progress Toward Career Readiness Indicator links the student's ACT Aspire Composite Score with predicted performance toward an ACT NCRC. The educator/group report shows the group's average Composite Score and score range (i.e., lowest and highest obtainable scores). It also categorizes the percentage and number of students who are making progress toward a Bronze, Silver, Gold, or Platinum level ACT NCRC and students who are not making progress toward any of these levels (indicated as "none").

Proficiency Summary Report

How can students be grouped by subject proficiency and growth to inform teaching?

This report details a group's performance in a given subject. It supports an educator's ability to quickly understand the overall performance of the class and each individual student's performance and growth rate. It also aggregates the classroom/group performance in assessed skill areas for that subject.

Readiness Distribution

The readiness graph (see Figure 5) shows the number and percentage of students whose scores fell into each of the ACT Readiness Levels: Exceeding, Ready, Close, and In Need of Support. The total number of students assessed is identified in the report header. This is the number of students who received valid scale scores for the subject. This total may not reflect the total number of students in the particular class (group) if, for example, some students were absent on test day or if student scores were marked Do Not Report due to testing irregularities.

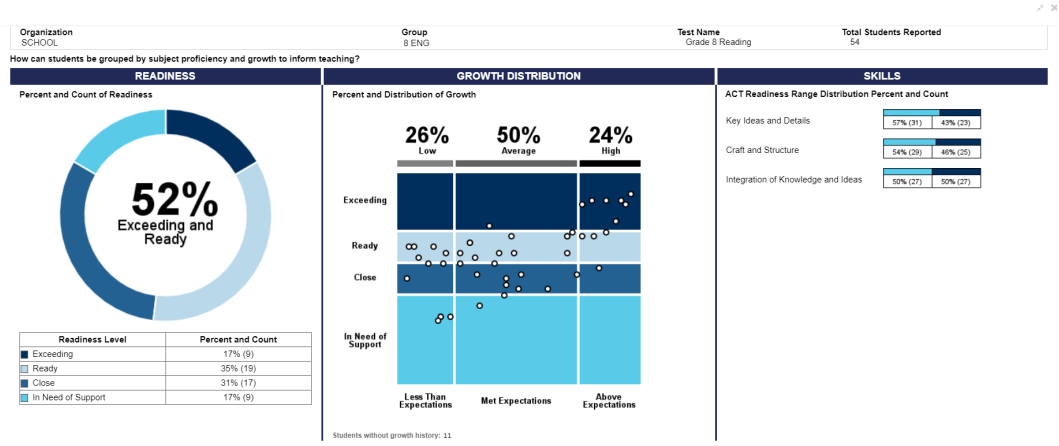


Figure 5. Proficiency Summary Report section of the educator/group reports

Growth Distribution

The growth distribution graph (see Figure 5) shows how the classroom distribution looks in terms of student growth percentiles and subject scale scores. The *x*-axis plots SGPs on the range 1–100. (See the section "ACT Aspire Growth Models" for more information on the meaning and calculation of student growth percentiles.) The SGPs are categorized into low, average, and high ranges, and the percentage of students that fell into each of these categories is given at the top of the graph. If a student does not have prior-year scale score data available, an SGP cannot be calculated, and the student data will not be plotted on the graph. A note that indicates the number of students without growth history data is given below the graph. The *y*-axis plots student scale scores. It ranges from the lowest achievable scale score to the highest achievable scale score for the tested grade. The student scale scores are further broken out into the ACT Readiness Levels.

Skills Distribution

The skills distribution chart (see Figure 5) summarizes classroom performance in each reporting category assessed for the subject. The percentage and student *n*-count that fell within and below the ACT Readiness Range are depicted for each skill.

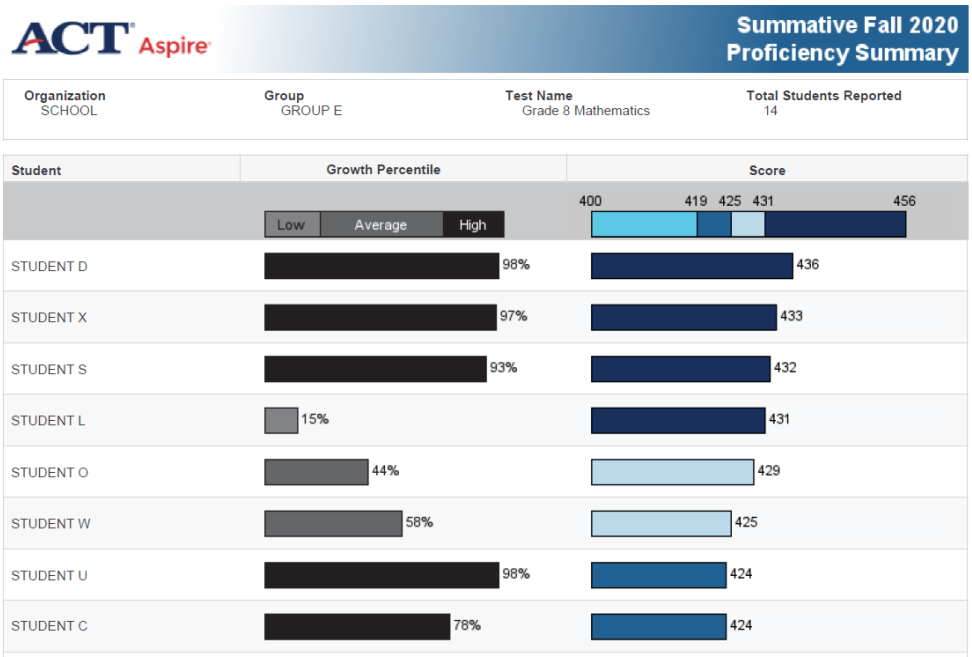


Figure 6. Proficiency Summary Report section of the educator/group reports

The printed version of this report lists each student and their growth and scale score. The section header includes a breakdown of the scale score benchmark for each of the readiness levels. The students are sorted highest to lowest scale score. Growth is indicated by color and length of bar and includes the student's growth percentage.

This Proficiency Summary shows educators where their students are in relation to subject performance and growth. For example, a student who is slightly below the benchmark with a high-growth indicator may not be of as much concern as a student who is slightly above the benchmark with a low-growth indicator.

Skill Proficiency Report

How can students be grouped by skill proficiency to inform teaching?

The Skill Proficiency Report assists educators in quickly identifying students in need of extra support in a particular subject as well as students who might benefit from additional rigor. It also pinpoints skill areas where curriculum adjustments or professional development might be needed. The report indicates if the student met or was below the benchmark for each reporting category. Clicking the 'i' next to the student name provides additional student test information, such as previous scores, scale score, readiness benchmark, ELA, STEM, Progress Toward Career Readiness, and detailed information for each reporting category.

Data is available for groups by clicking on the **Group** tab. The group information includes the average score and the percent of student who met or were below the readiness benchmark for each reporting category.

Historical Student Data

How can teachers prepare to meet the needs of his/her incoming students?

The Historical Data Report provides classroom teachers with subject test scores and ACT Readiness Level information from the previous year's administration for each student who will be entering his/her class in the upcoming school year. The report provides teachers with insights into each incoming student's current level of skill and knowledge to inform instruction and meet the needs of individual students.

Understanding ACT Aspire School Reports

These reports are available to individuals with an ACT Aspire administrator or test coordinator role.

- Current Progress
- Supplemental Scores
- Subject Proficiency by Grade Level
- Subject Proficiency by Student
- Subject Proficiency by Demographic
- Skill Proficiency by Subject
- Skill Proficiency by Demographic

Current Progress Report

How are students progressing toward unlocking their potential and preparing for college and a career?

The Current Progress Report provides an overall view of school performance and students' predicted path in all assessed subjects except writing. It supports the ability to understand the school's growth over the prior year (if prior-year scores are available) and to identify areas where students in the school are meeting (or not meeting) the benchmarks. It includes the same student cohort performance over the prior year, the school's current and predicted performance, and the national average for the grade level assessed in each subject.

An ACT Aspire average Composite score (all grades) and predicted average ACT Composite score (computed for grades 6–10) are shown on the report if the ACT Aspire English, mathematics, reading, and science tests are taken. Predicted average ACT subject scores are also given for each subject test. The predicted score ranges for the ACT English, mathematics, reading, and science tests are reported on a 1–36 scale.

The "About Progress" section of the report explains the different points plotted on the longitudinal graphs. The prior year data is represented with a blue triangle and encompasses

any test score from the previous academic year. Keep in mind that the time of testing during an academic year (fall or spring) can impact a student's scores (students tested in spring should score higher with more instructional time).

Supplemental Scores Report

How can additional performance measures inform decisions?

The Supplemental Scores Report summarizes additional measures of performance, including National Percentile Ranks, ELA, STEM, Progress With Text Complexity, and Progress Toward Career Readiness. These additional measures of performance are only available if specific subjects and grade level tests are assessed.

- *National Percentile Rank*. National percentile rank for the median group performance is given for each subject (English, reading, science, and math) tested. This is to compare the median school performance to the performance of all students included in the national norm group. The numbered ranks show the percentage of students in the nation who received a score equal to or lower than the school's median score for the grade and subject tested.
- *English Language Arts (ELA)*. A school's average ELA Score is calculated by taking the average of all individual student ELA Scores (English, reading, and writing must be tested in order to receive an ELA Score). The ACT Readiness Range Distribution chart represents the overall performance on ELA relative to the ACT Readiness Benchmark in ELA. The percentage and *n*-count of students that scored in the "Ready" (Meets) Range are shown first, followed by the percentage and *n*-count of students that scored below the range.
- *Progress With Text Complexity*. A Progress With Text Complexity Indicator is shown if the reading test was administered. Student performance on the Progress With Text Complexity measure is compared to an ACT Readiness Range empirically derived from the ACT Readiness Benchmarks in reading. Performance is categorized as either making "sufficient progress" or "insufficient progress." The school report shows the percentage and number of students who made sufficient progress with text complexity and the percentage and number of students who made insufficient progress.
- *Science, Technology, Engineering, and Mathematics (STEM)*. A school's average STEM Score is calculated by taking the average of all individual student STEM Scores (mathematics and science must be tested in order to receive a STEM Score). The ACT Readiness Range distribution chart represents the overall performance on STEM relative to the ACT Readiness Benchmark in STEM. The percentage and *n*-count of students who scored in the "Ready" (Meets) range are shown first, followed by the percentage and *n*-count of students who scored below the range.
- *Progress Toward Career Readiness*. Students who receive scale scores on English, mathematics, reading, and science tests taken in grades 8, 9, or 10 are given a Progress Toward Career Readiness Indicator. The Progress Toward Career Readiness Indicator links the student's ACT Aspire Composite Score with predicted performance toward an ACT NCRC. The Supplemental Scores Report shows the school average Composite Score and score range and categorizes the percentage and number of students who are making progress toward a Bronze, Silver, Gold, or Platinum level ACT NCRC and those students who are not making progress toward any of these levels (indicated as "none").

Subject Proficiency by Grade Level Report

How can decisions be informed based upon grade level subject proficiency?

The Subject Proficiency by Grade Level Report summarizes the school's performance in all assessed grade levels and subjects except writing. It supports the ability to quickly grasp how each grade level is performing relative to the ACT Readiness Benchmarks, the ACT Readiness Levels, and the national norms. It also provides the percentages of students scoring in each readiness level: Exceeding, Ready, Close, and In Need of Support. The percentage of students in the national norm group who performed in the Ready or Exceeding levels is also graphically represented.

Subject Proficiency by Student Report

How can students be grouped by subject to inform teaching?

The Subject Proficiency by Student Report indicates the number of students in the school who are at the Exceeding or Ready level and the Close or In Need of Support level. It also provides a roster of students indicating the test score for each subject except writing.

Subject Proficiency by Demographic Report

How can decisions be informed based upon demographics' subject proficiencies?

The Subject Proficiency by Demographic Report summarizes students' performance by demographic group in all assessed subjects except writing. It supports the ability to quickly grasp how each demographic group is performing relative to the ACT Readiness Benchmarks, the ACT Readiness Levels, and the national norms. It also provides the percentage of students at the school who performed in each readiness level: Exceeding, Ready, Close, and In Need of Support.

Skill Proficiency by Subject Report

How can students be grouped by skill proficiency to inform learning?

The Skill Proficiency by Subject Report provides a roster of students (organized by readiness level) along with their subject score. The report also indicates whether or not each student is within or below the ACT Readiness Range in each reporting category for that subject. A level of growth (high, average, or low) is also indicated for those students who have taken ACT Aspire in consecutive years.

Skill Proficiency by Demographic Report

How can students be grouped by demographic to inform learning?

The Skill Proficiency by Demographic Report is organized by demographics and indicates whether or not each demographic is within or below the ACT Readiness Range in each reporting category for that subject.

Understanding ACT Aspire District and State Reports

More reports are available to individuals with an ACT Aspire administrator or test coordinator role at the district and state level:

- Subject Proficiency by Grade Level
- Current Progress
- Supplemental Scores
- Subject Proficiency by Demographic
- Skill Proficiency by Demographic
- Skill Proficiency by School (for districts only)
- Skill Proficiency by District (for states only)
- Subject Proficiency by School (for districts only)
- Subject Proficiency by District (for states only)

See "Understanding Your ACT Aspire School Reports" for information about the individual reports. District and state reports include the same reports as the school reports (with different aggregate data), with the addition of: Subject Proficiency by School Report, Skill Proficiency by School Report, Subject Proficiency by District Report, and Skill Proficiency by District Report. Instead of reporting Skill Proficiency by Subject, as is done in the school reports, Skill Proficiency data is reported only for demographics, districts, and schools. This allows for a more manageable number of report pages, the identification of exceptional or problematic areas of interest, and the option to drill down for more information in other reports (like the school report).

Glossary

ACT Readiness Benchmark. A score value which, when met or exceeded, indicates a student is on target for college and career readiness when they take the ACT test in grade 11.

ACT Readiness Level. These levels are defined as Exceeding, Ready, Close, and In Need of Support. Each level corresponds to a score range that varies by subject and grade and indicates the level of performance students achieved on a particular assessment.

ACT Readiness Range. A score range provided for each reporting category to show where a student who has met the ACT Readiness Benchmark in the corresponding subject would typically perform in that reporting category.

Composite Score. ACT Aspire Composite Score—the average of the English, mathematics, reading, and science test scores.

National Percentile Rank (NPR). A number used to describe the standing of an individual relative to the national norm group. If an examinee with a score of 420 has a NPR of 73, it means that 73% of the examinees in the norm group received a score of 420 or lower, or that the student scored the same as or better than 73% of the students in the norm group.

Mean (Average). The arithmetic sum of a set of scores divided by the total number of scores.

Median. The middle score value of a range of values.

National Average. The mean score of all students in the norm group.

Percent. The number of students who gave a certain response, or who obtained a certain scale score, divided by the total number of students and multiplied by 100.

Predicted Path. A projection of where scores will fall based upon expected growth.

Scale Score. Scores equated across test forms to adjust for slight differences in test difficulty and to ensure comparability of scores across different ACT Aspire test forms. An examinee's raw score is obtained by summing over the scores the examinees earned on each item that contributes to the scoring. The raw score is then converted to a scale score.

Text Complexity. How challenging the reading material is at a specific grade level.

Appendix A: Subject Assessments and Reporting Categories

Reading

ACT Aspire reading assessments determine whether students can understand what increasingly challenging texts say explicitly and what can reasonably be inferred from these texts, understand general academic and domain-specific language in the context in which it is used, and integrate knowledge and ideas from multiple texts.

Reporting Categories

Key Ideas and Details. The questions and tasks in this skill category assess students' ability to read texts closely; to determine central ideas and themes and summarize information and ideas accurately; and to understand sequential, comparative, and cause-effect relationships.

Craft and Structure. The questions and tasks in this skill category assess students' ability to determine word and phrase meanings and analyze an author's word choice rhetorically as well as influences on the English language, to analyze text structure, and to understand purpose and point of view in texts.

Integration of Knowledge and Ideas. The questions and tasks in this skill category assess students' ability to understand how arguments are constructed, to make connections to prior knowledge, and to make connections between and among texts.

English

ACT Aspire English assessments evaluate students' ability to revise and edit texts; to understand the rhetorical purpose and focus of a piece of writing in order to develop a topic effectively; to use strategies for logical organization, topical unity, and general cohesion; and to employ knowledge of language to ensure that writing is precise, concise, and stylistically consistent.

Reporting Categories

Production of Writing. The questions and tasks in this skill category assess students' ability to understand the rhetorical purpose and focus of a piece of writing in order to develop a topic effectively; to use strategies to achieve logical organization, topical unity, and general cohesion; and to ensure that writing is precise, concise, and stylistically consistent.

Knowledge of Language. The questions and tasks in this skill category assess students' ability to demonstrate effective language use through ensuring precision and concision in word choice and maintaining consistency in style and tone.

Conventions of Standard English. The questions and tasks in this skill category assess students' understanding of the conventions of standard English grammar, usage, and mechanics to revise and edit text.

Writing

ACT Aspire writing assessments are designed to provide a strong indication of whether students have the writing skills they will need to succeed as they begin work at their next grade level. Student responses are evaluated according to analytic rubrics that assess the generation, development, organization, and communication of ideas in standard written English.

Reporting Categories

Ideas and Analysis. This skill category assesses students' ability to generate ideas in response to a given writing task. The ideas are assessed based on the extent to which they lead to critical and complex argument, analysis, or reflection.

Development and Support. This skill category assesses students' ability to explore and explain their ideas. Skillful writers provide persuasive support for their claims, illustrate their ideas with well-chosen examples, or convey meaning through effective narration.

Organization. This skill category assesses students' ability to shape their ideas into a cohesive body of writing. Through effective organization, a writer builds a logical argument, provides a clearly sequenced explanation, or relays a coherent narrative.

Language Use and Conventions. This skill category assesses students' ability to communicate ideas in standard written English. Strong writers demonstrate command-of-language conventions and make purposeful stylistic choices to clarify and guide the reader's understanding.

Science

ACT Aspire science assessments assess students' science practices using real-world scientific scenarios. Scenarios in upper-grade assessments include student investigations, formal scientific research, formal scientific data from references, and students or scientists providing competing explanations for real scientific phenomena. At the earlier grades, topics generally focus on everyday student discovery rather than formal science.

Reporting Categories

Grades 3–5

Interpretation of Data. The questions and tasks in this skill category assess students' ability to manipulate and analyze student-gathered data presented in simple tables, graphs, and diagrams (e.g., select and compare data, find trends in data, convert a table into a simple graph, and extend from trends in data).

Scientific Investigation. The questions and tasks in this skill category assess students' ability to understand experimental tools, procedures, and design (e.g., identify the factor the students changed during an investigation) and compare and extend investigations (e.g., describe differences between two student investigations).

Evaluation of Models, Inferences, and Experimental Results. The questions and tasks in this skill category assess students' ability to judge the validity of simple scientific information and make conclusions and predictions based on that information (e.g., determine which set of data supports or weakens a student's claim).

Grades 6–Early High School

Interpretation of Data. The questions and tasks in this skill category assess students' ability to manipulate and analyze scientific data presented in tables, graphs, and diagrams (e.g., recognize trends in data, translate tabular data into graphs, interpolate and extrapolate, and reason mathematically).

Scientific Investigation. The questions and tasks in this skill category assess students' ability to understand experimental tools, procedures, and design (e.g., identify variables and controls) and compare, extend, and modify experiments (e.g., predict the results of additional trials).

Evaluation of Models, Inferences, and Experimental Results. The questions and tasks in this skill category assess students' ability to judge the validity of scientific information and formulate conclusions and predictions based on that information (e.g., determine which explanation for a scientific phenomenon is supported by new findings).

Mathematics

ACT Aspire mathematics assessments assess students' ability to solve problems, explain and justify, and model with the mathematics up through the given grade.

Reporting Categories

Grade 3

Grade Level Progress. The questions and tasks in this skill category assess students' understanding of and fluency in mathematics new to grade 3 and include Operations and Algebraic Thinking, Number and Operations in Base 10, Number and Operations—Fractions, Measurement and Data, and Geometry.

- **Operations and Algebraic Thinking**. The questions and tasks in this skill category assess students' ability to understand multiplying as finding the total number in equal-sized groups, and dividing as sharing equally; multiply and divide within 100; and write expressions using multiplication and division.
- **Number and Operations in Base 10**. The questions and tasks in this skill category assess students' ability to use place value to add and subtract within 1,000; to round to 10s and 100s; and to multiply 1-digit numbers by multiples of 10 that are 2-digit numbers.
- **Number and Operations—Fractions**. The questions and tasks in this skill category assess students' ability to understand fractions, especially unit fractions, as numbers and as parts of a whole; understand that different-looking fractions can be the same number; and compare two fractions based on the size of numerators or denominators.
- **Measurement and Data**. The questions and tasks in this skill category assess students' ability to understand measuring, show a set of measurements on a bar graph, find area using unit squares, connect multiplication to the area of a rectangle in terms of unit squares, and solve problems about perimeter and area.
- **Geometry**. The questions and tasks in this skill category assess students' ability to understand how sets of shapes (like rectangles and rhombuses) can be part of a larger set of shapes (like quadrilaterals) and how to divide shapes into parts with equal areas.

Integrating Essential Skills. The questions and tasks in this skill category assess students' continued use and strengthening of mathematics learned in earlier grades.

Justification and Explanation. The tasks in this skill category assess students' ability to explain mathematical reasons for why things work the way they do.

Modeling. The questions and tasks in this skill category assess students' ability to connect problems to mathematical drawings and expressions that can help them understand the problem and figure out what to do.

Grade 4

Grade Level Progress. The questions and tasks in this skill category assess students' understanding of and fluency in mathematics new to grade 4 and include Operations and Algebraic Thinking, Number and Operations in Base 10, Number and Operations—Fractions, Measurement and Data, and Geometry.

- **Operations and Algebraic Thinking**. The questions and tasks in this skill category assess students' ability to understand how to solve multistep word problems using operations with whole numbers, find factors and multiples of whole numbers within 1–100, and generate and analyze patterns that follow a given rule.
- **Number and Operations in Base 10**. The questions and tasks in this skill category assess students' ability to understand place value for multidigit whole numbers and use this understanding to perform multidigit arithmetic.
- **Number and Operations—Fractions**. The questions and tasks in this skill category assess students' ability to explain fraction equivalence, compare two fractions, add and subtract fractions (including mixed numbers) with like denominators, multiply a fraction by a whole number, and use decimal notation for fractions.
- **Measurement and Data**. The questions and tasks in this skill category assess students' ability to solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit in the same measurement system and to understand angle concepts and measure angles.
- **Geometry**. The questions and tasks in this skill category assess students' ability to draw and identify lines and angles, classify shapes by properties of their lines and angles, and understand a line of symmetry in terms of folding along the line.

Integrating Essential Skills. The questions and tasks in this skill category assess students' continued use and strengthening of mathematics learned in earlier grades.

Justification and Explanation. The tasks in this skill category assess students' ability to explain mathematical reasons for why things work the way they do.

Modeling. The questions and tasks in this skill category assess students' ability to connect problems to mathematical drawings and expressions that can help them understand the problem and figure out what to do.

Grade 5

Grade Level Progress. The questions and tasks in this skill category assess students' understanding of and fluency in mathematics new to grade 5 and include Operations and Algebraic Thinking, Number and Operations in Base 10, Number and Operations—Fractions, Measurement and Data, and Geometry.

- **Operations and Algebraic Thinking**. The questions and tasks in this skill category assess students' ability to write expressions to record calculations; interpret numerical expressions without finding the value; and, for two rules, generate patterns, compare corresponding terms, and graph ordered pairs of corresponding terms.
- **Number and Operations in Base 10**. The questions and tasks in this skill category assess students' ability to understand how the value of a digit changes if it shifts one place; explain patterns when multiplying by a power of 10; and add, subtract, multiply, and divide decimals to hundredths and explain the calculation strategy.
- **Number and Operations—Fractions**. The questions and tasks in this skill category assess students' ability to use equivalent fractions to add and subtract fractions with unlike denominators, interpret fractions as division, interpret multiplication as scaling, multiply fractions, divide unit fractions by whole numbers and vice versa, and divide 4-digit numbers by 2-digit factors.
- **Measurement and Data**. The questions and tasks in this skill category assess students' ability to convert within a given measurement system, understand volume in terms of unit cubes, and relate volume to multiplication and addition.
- **Geometry**. The questions and tasks in this skill category assess students' ability to graph points in the first quadrant to solve problems, classify two-dimensional figures into categories that have a hierarchy, and understand that properties of all figures in a category also apply to all figures in a subcategory.

Integrating Essential Skills. The questions and tasks in this skill category assess students' continued use and strengthening of mathematics learned in earlier grades.

Justification and Explanation. The tasks in this skill category assess students' ability to explain mathematical reasons for why things work the way they do.

Modeling. The questions and tasks in this skill category assess students' ability to connect problems to mathematical drawings and expressions that can help them understand the problem and figure out what to do.

Grade 6

Grade Level Progress. The questions and tasks in this skill category assess students' understanding of and fluency in mathematics new to grade 6 and include Ratios and Proportional Relationships, The Number System, Expressions and Equations, Geometry, and Statistics and Probability.

- **Ratios and Proportional Relationships**. The questions and tasks in this skill category assess students' ability to understand ratio concepts, including unit rate; connect rate relationships to multiplication and division and to equivalent fractions; and use ratio reasoning to solve problems.
- **The Number System**. The questions and tasks in this skill category assess students' ability to divide fractions by fractions and explain why procedures make sense, explain and use relationships between a positive whole number or fraction and its negative counterpart, and understand absolute value as distance from zero.
- **Expressions and Equations**. The questions and tasks in this skill category assess students' ability to apply arithmetic understandings to algebraic expressions, understand what solving an equation means, solve one-variable equations and inequalities, write an equation to represent a quantity in terms of a related quantity and analyze the relationship, and assess numerical expressions with whole-number exponents.
- **Geometry**. The questions and tasks in this skill category assess students' ability to rearrange parts of triangles and special quadrilaterals to form rectangles and connect to area formulas; decompose shapes, including nets, into triangles and rectangles to find area and surface area; understand why the volume formula works for right rectangular prisms with fractional dimensions; and draw polygons in the coordinate plane.
- **Statistics and Probability**. The questions and tasks in this skill category assess students' ability to recognize statistical questions as expecting variability across a population, display data in plots on the number line, and summarize data in relation to context.

Integrating Essential Skills. The questions and tasks in this skill category assess students' continued integration, strengthening, and application of mathematics learned in earlier grades.

Justification and Explanation. The tasks in this skill category assess students' ability to explain reasons behind mathematical statements, results, and procedures.

Modeling. The questions and tasks in this skill category assess students' ability to demonstrate their modeling skills by creating, interpreting, evaluating, and improving mathematical models.

Grade 7

Grade Level Progress. The questions and tasks in this skill category assess students' understanding of and fluency in mathematics new to grade 7 and include Ratios and Proportional Relationships, The Number System, Expressions and Equations, Geometry, and Statistics and Probability.

- **Ratios and Proportional Relationships**. The questions and tasks in this skill category assess students' ability to recognize, represent, and analyze proportional relationships between quantities and solve multistep ratio and percent problems and to compute unit rates from ratios of fractions.
- **The Number System**. The questions and tasks in this skill category assess students' ability to understand how addition, subtraction, multiplication, and division extend to negative integers and fractions and to convert a fraction to decimal form and know it must terminate in zeroes or eventually repeat.
- **Expressions and Equations**. The questions and tasks in this skill category assess students' ability to use properties of operations to create equivalent expressions, solve problems using numerical and algebraic expressions and simple equations, and compare solving algebraically to solving arithmetically.
- **Geometry**. The questions and tasks in this skill category assess students' ability to describe geometric relationships, for example, about scale drawings; construct triangles with given angle measures or side lengths; solve problems involving area, surface area, and volume; and describe how circumference and area are related for a circle.
- **Statistics and Probability**. The questions and tasks in this skill category assess students' ability to understand that random sampling produces samples that tend to represent the population, compare populations based on random samples, interpret probability in terms of likelihood, and find probability using organized lists or drawings.

Integrating Essential Skills. The questions and tasks in this skill category assess students' continued integration, strengthening, and application of mathematics learned in earlier grades.

Justification and Explanation. The tasks in this skill category assess students' ability to explain reasons behind mathematical statements, results, and procedures.

Modeling. The questions and tasks in this skill category assess students' ability to demonstrate their modeling skills by creating, interpreting, evaluating, and improving mathematical models.

Grade 8

Grade Level Progress. The questions and tasks in this skill category assess students' understanding of and fluency in mathematics new to grade 8 and include The Number System, Expressions and Equations, Functions, Geometry, and Statistics and Probability.

- **The Number System**. The questions and tasks in this skill category assess students' ability to recognize decimal expansion of numbers, understand rational numbers as those whose decimal expansions eventually repeat, approximate irrational numbers, and convert the form of rational numbers.
- **Expressions and Equations**. The questions and tasks in this skill category assess students' ability to work with integer exponents, scientific notation, square roots, and cube roots; connect proportional relationships, lines, and linear equations; and solve linear equations and pairs of linear equations.
- **Functions**. The questions and tasks in this skill category assess students' ability to understand functions in terms of input-output using rules, tables, graphs, and descriptions; understand $y = mx + b$ as a linear function with constant rate of change; and model with linear functions.
- **Geometry**. The questions and tasks in this skill category assess students' ability to understand congruence and similarity in terms of rotations, reflections, translations, and dilations; understand the Pythagorean Theorem; and find volumes of cylinders, cones, and spheres.
- **Statistics and Probability**. The questions and tasks in this skill category assess students' ability to use patterns of association between 2 quantities as seen in scatterplots and in 2-way frequency tables, and, for appropriate scatterplots, model with a linear function and interpret slope and intercept.

Integrating Essential Skills. The questions and tasks in this skill category assess students' continued integration, strengthening, and application of mathematics learned in earlier grades.

Justification and Explanation. The tasks in this skill category assess students' ability to explain reasons behind mathematical statements, results, and procedures.

Modeling. The questions and tasks in this skill category assess students' ability to demonstrate their modeling skills by creating, interpreting, evaluating, and improving mathematical models.

Early High School

Grade Level Progress. The questions and tasks in this skill category assess students' understanding of and fluency in mathematics new to the early high school grades (grades 9 and 10) and include Number and Quantity, Algebra, Functions, Geometry, and Statistics and Probability.

- **Number and Quantity**. The questions and tasks in this skill category assess students' ability to understand how properties of exponents extend to all rational numbers, rewrite radical expressions in terms of rational exponents, use units to solve problems, and understand numbers in terms of decimal expansion.
- **Algebra**. The questions and tasks in this skill category assess students' ability to see structure in expressions; perform operations on polynomials; create equations; understand and explain solving as a reasoning process; and solve linear equations and inequalities, or pairs of these, and quadratic equations.
- **Functions**. The questions and tasks in this skill category assess students' ability to interpret functions in different representations; understand average rate of change; and build and model with functions; all with a focus on linear, exponential, quadratic, square-root, absolute value, and piecewise-defined functions.
- **Geometry**. The questions and tasks in this skill category assess students' ability to apply and derive geometric relationships and explain geometric reasoning related to congruence, similarity, lines, angles, triangles, parallelograms, circles, and distance; and to model with geometric objects.
- **Statistics and Probability**. The questions and tasks in this skill category assess students' ability to compare distributions and interpret differences, interpret 2-way frequency tables and conditional probability in context, fit models to scatterplots and examine residuals, understand randomization in surveys and experiments, and find probability for sampling with and without replacement.

Integrating Essential Skills. The questions and tasks in this skill category assess students' continued integration, strengthening, and application of mathematics learned in earlier grades.

Justification and Explanation. The tasks in this skill category assess students' ability to explain reasons behind mathematical statements, results, and procedures.

Modeling. The questions and tasks in this skill category assess students' ability to demonstrate their modeling skills by creating, interpreting, evaluating, and improving mathematical models.

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