VERMONT
AGENCY OF EDUCATION

Vermont Comprehensive Assessment Program (VTCAP)

Score Interpretation Guide

for Computer-Based and Paper-Based Tests

Spring 2024

Prepared by Cognia

cognia®

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General Information

Background

During spring 2024, the Vermont Comprehensive Assessment Program (VTCAP) was administered in the following content areas and grades:

- English language arts (ELA) grades 3–9
- Mathematics grades 3–9
- Science grades 5, 8, and 11

The ELA and mathematics assessments measure the Common Core State Standards (CCSS) for ELA and mathematics, respectively. The science assessment measures the Next Generation Science Standards (NGSS).

VTCAP Assessments

The VTCAP assessments are designed to measure Vermont student achievement of the academic standards adopted by the Vermont State Board of Education: the Common Core State Standards (CCSS) in mathematics and English language arts and the Next Generation Science Standards (NGSS) in science. The VTCAP assessments are criterion-referenced assessments, which means they measure student proficiency against a fixed set of criteria (the standards). The VTCAP assessments provide information about how well students have mastered the CCSS and NGSS. As the VTCAP is a single measure at the end of a grade or grade band, interpretations and uses of VTCAP scores should be supplemented with additional measures, including information from classroom assessments.

Results Usage: Guidelines and Caveats

To ensure consistent and accurate decision-making based on assessment results, it is vital that the reported scores are comparable across different sets of items students take, especially considering the adaptive nature of VTCAP assessments. Scale scores are utilized to achieve this comparability. In the case of VTCAP, all assessment scores are presented as scale scores. These scale scores are derived by considering the difficulties of the items and a student's responses to these items.

Students must complete a minimum of five items in the entire test to receive a scale score. However, if a student fails to complete all the items within a specific reporting category, they will not receive a score for that reporting category.

Confidentiality of Reporting Results

Individual student performance results on VTCAP assessments are confidential and should be released only in accordance with the Family Educational Rights and Privacy Act of 1974 (20 U.S.C. Section 1232g).

Purpose of This Guide

This guide provides information on the Individual Student Reports (ISRs), school reports, and district reports provided for VTCAP assessment results. The section Understanding the VTCAP Individual Student Report outlines and explains elements of the ISR. This section will help educators support families in their understanding of their child's test results. This can supplement the *Family Interpretation Guide* that will also be provided. The section Understanding the Student Results Data File outlines and explains elements of the school and district student results data files. Vermont state policies and calculations for accountability reporting may differ from the policies and calculations used for assessment reports.

Sample reports included in this guide are for illustration purposes only. They are provided to show the basic layout of the reports and the information they provide. Sample reports do not include actual data from any administration.

Understanding the VTCAP Individual Student Report (ISR)

Types of Scores on the VTCAP ISR

Student performance on the VTCAP is described in the ISR using scale scores, performance levels, standard error of measurement (SEM), and reporting category performance indicators.

Scale Score

A scale score is a numerical value that summarizes student performance. Given the adaptive nature of the VTCAP, not all students respond to the same set of test items, so each student's scale score accounts for the slight differences in difficulty among the various forms and administrations of the test. The scale score allows for an appropriate comparison across test forms and administration years within a grade or course and content area. VTCAP ISRs provide overall scale scores for ELA, mathematics, and science, which determine a student's performance level for each content area. Scale scores range from 1500–2000 for all grades and content areas. You can refer to the VTCAP scale score ranges in the table provided in Appendix A.

For example, a student who earns an overall scale score of 1750 on one form of the grade 8 mathematics assessment would be expected to earn an overall scale score of 1750 on any other form of the grade 8 mathematics assessment. Furthermore, the student's overall scale score and level of mastery of concepts and skills would be comparable to a student who took the same assessment the previous year or following year.

Performance Level

Each performance level is a broad, categorical level defined by a student's overall scale score and is used to report overall student performance by describing how well the student met the expectations for the grade level/course in the given content area. Each performance level is defined by a range of overall scale scores for each content area. There are four performance levels for the VTCAP assessments.

Performance Level Descriptors (PLDs) describe the knowledge, skills, and practices that students should know and be able to demonstrate at each performance level in each content area (ELA, mathematics, and science) and at each grade level/course.

The performance level descriptors for ELA are:

- Level 4: Level 4 students show thorough understanding of how to interpret and analyze texts, use language and its conventions, and write for a task and purpose.
- Level 3: Level 3 students show satisfactory understanding of how to interpret and analyze texts, use language and its conventions, and write for a task and purpose.
- Level 2: Level 2 students show partial understanding of how to interpret and analyze texts, use language and its conventions, and write for a task and purpose.
- Level 1: Level 1 students show emerging understanding of how to interpret and analyze texts, use language and its conventions, and write for a task and purpose.

The performance level descriptors for mathematics are:

- Level 4: Level 4 students show thorough understanding of mathematical concepts and strong procedural skill, fluency, and application to solve problems.
- Level 3: Level 3 students show satisfactory understanding of mathematical concepts and adequate procedural skill, fluency, and application to solve problems.
- Level 2: Level 2 students show partial understanding of mathematical concepts and some procedural skill, fluency, and application to solve problems.
- Level 1: Level 1 students show emerging understanding of mathematical concepts and beginner procedural skill, fluency, and application to solve problems.

The performance level descriptors for science are:

- Level 4: Level 4 students show thorough understanding of all three dimensions in making sense of phenomena and designing solutions in all three science domains.
- Level 3: Level 3 students show satisfactory understanding of all three dimensions in making sense of phenomena and designing solutions in all three science domains.
- Level 2: Level 2 students show partial understanding of all three dimensions in making sense of phenomena and designing solutions in all three science domains.
- Level 1: Level 1 students show emerging understanding of all three dimensions in making sense of phenomena and designing solutions in all three science domains.

Students who are Level 3 and above display proficiency of grade-level expectations.

Reporting Category Performance Indicators

Reporting category information for VTCAP assessments is reported by graphs indicating if the student performed above standard, at/near standard, or below standard in a given reporting category.

A student's reporting category performance indicator appears as one of the following:

- Above Standard—represented by an arrow pointing diagonally up
- At/Near Standard—represented by a green checkmark
- Below Standard—represented by a yellow triangle

Description of Individual Student Reports

Each Individual Student Report (ISR) presents the student's results for the test taken. Sample ISRs for Grade 5 ELA, mathematics, and science are shown on pages 5, 6, and 7. An ISR provides the following information:

A Student Identity Information

The top page of the ISR presents the student's name, state-assigned student ID, student's grade level, student's tested language (if applicable), grade level of the test, content area of the test, district name, and school name. A report is produced only if the test is complete or classified as "tested, but incomplete" based on the number of items the student attempted.

B Lexile and Quantile Measurements

The Lexile measure (ELA) indicates the student's reading ability. Lexile measures range from below 200L for early readers to above 1600L for advanced readers.

The Quantile measure (mathematics) indicates the student's mathematical achievement level. Quantile measures range from below 0Q (Emerging Mathematician) to above 1600Q and span the skills and concepts taught in kindergarten through Algebra II, Geometry, Trigonometry, and Precalculus.

As a part of the ongoing linking study for grade 9 assessments, Lexile and Quantile results will not be provided to grade 9 students in 2024.

C Scale Score and Performance Level

This section of the report provides the student's overall scale score and performance level (refer to the section Types of Scores on the VTCAP ISR). Students receive an overall scale score and based on that scale score, are placed in one of four performance levels, with Level 3 indicating the student is on track to meet their grade-level expectations. Along with the overall scale score, the standard error of measurement (SEM) is reported using a black vertical bar to represent the error band. The SEM indicates the level of precision associated with a scale score; the smaller the SEM, the higher the degree of score precision. To the right of the individual student performance bar, the average scale score for the school and district are displayed.

D Student Accommodations

Accommodations provided for the student during testing are listed here. For additional information on what qualifies as an accommodation, please refer to the Accessibility and Accommodations Guidelines.

E Student Performance in Each Reporting Category

Within VTCAP, there are specific skill sets, or reporting categories, that students demonstrate on the assessment. Students receive both a scale score and a placement for each reporting category. The performance levels for each reporting category are classified into one of three levels—Below Standard, At/Near Standard, or Above Standard—indicating whether the student has met the expectations. For each reporting category, a horizontal black bar is used to represent the SEM associated with the scale score. The SEM indicates the level of precision for each reporting category scale score.

F Student Performance on the Essay

This information is only provided in the ELA ISR. Student essays are scored in two domains: Written Expression and Conventions. Each domain carries a maximum score of four points. The total score of the essay is determined by combining the scores from both domains. If the student did not complete the essay, there will be an asterisk noting the student's score is based on an incomplete test, and no score is provided.

G Your Student's Achievement

This table is available on ELA and mathematics reports, and includes the student's performance on the VTCAP for the past three years. If three years of data is not available, only the available years will display data. For example, a third grade student will not have any historical data. This data is not available for science.

H Student Performance in Reading & Listening and Writing & Language

This information is only available in the ELA ISR. Student scores are reported individually for the Reading & Listening domain and the Writing & Language domain. The report includes scale scores that indicate the student's performance in each domain.

English Language Arts Sample Report

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Vermont 2023-2024 Summative Assessment — Individual Student Report

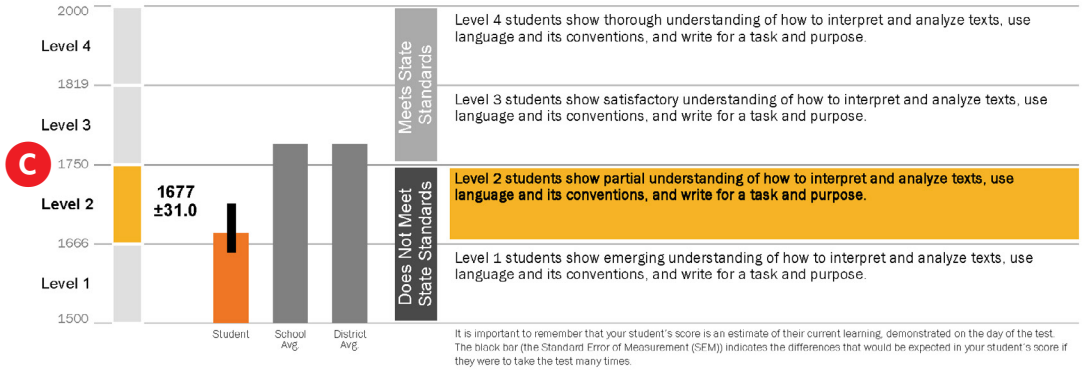
A

Name: Lastname1, Firstname1 A.
Student ID: 1234567
Enrolled Grade: 05
Tested Language: English

Grade 5 - English Language Arts
Demonstration District A
Demonstration School 1

Scale Score:	**B** Lexile Measure:	Performance Level:
1677 ±31.0	780L	Level 2

Your Student's Performance on the Grade 5 ELA Summative



C

It is important to remember that your student's score is an estimate of their current learning, demonstrated on the day of the test. The black bar (the Standard Error of Measurement (SEM)) indicates the differences that would be expected in your student's score if they were to take the test many times.

D

Your student tested with the following accommodations:

100s Number Table, Color Contrast

E

How Your Student Performed In Each Reporting Category

Category	Performance Standard	Performance
Text Type - Literary Text	Below the Standard / Above the Standard	✓
Text Type - Informational Text	Below the Standard / Above the Standard	✓
Writing Analysis & Language Convention	Below the Standard / Above the Standard	!

! Below Standard ✓ At/Near Standard ↗ Above Standard

It is important to remember that your student's score is an estimate of their current learning, demonstrated on the day of the test. The black bar (the Standard Error of Measurement (SEM)) indicates the differences that would be expected in your student's score if they were to take the test many times.

* Your student's score is based on an incomplete test. As a result of the incomplete test, the student may not have a score for all reporting categories. Further, your student's scores may have a larger Standard Error of Measurement (as represented by the black bands) due to the incomplete test.

F

How Your Student Performed on the Essay

Writing Prompt	Rubric Score
Written Expression	1 / 4

The response may be related to a controlling idea about the texts, but details, examples, and evidence are incorrect, insufficient, or missing. Little or no discernable organizational structure contributes to a lack of focus.

Conventions	1 / 4

The response demonstrates little to no command of conventions.

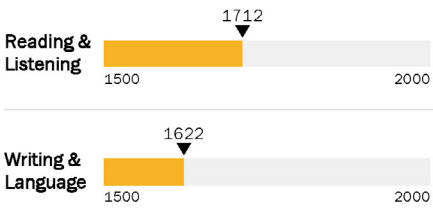
G

Your Student's Achievement

Grade	Performance Level	Year
5	Level 3	2024
4	Level 2	2023
3	Level 2	2022

H

How Your Student Performed in Reading & Listening and Writing & Language



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Mathematics Sample Report

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Vermont 2023-2024 Summative Assessment — Individual Student Report

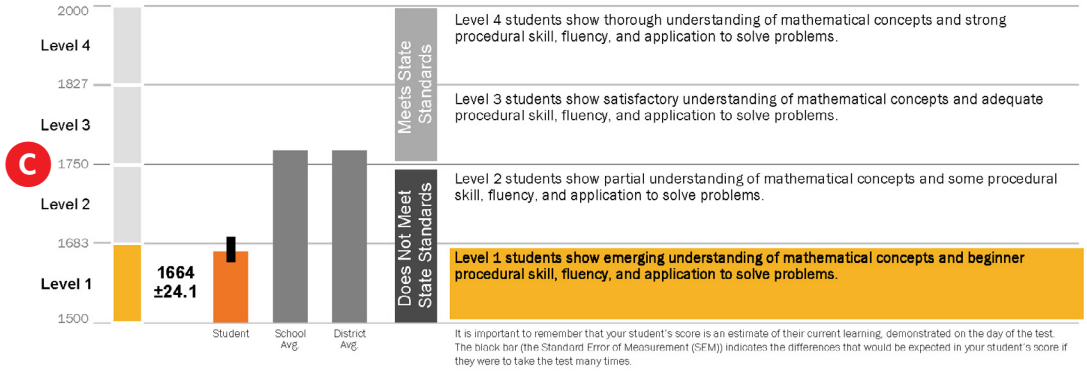
A

Name: Lastname1, Firstname1 A.
Student ID: 1234567
Enrolled Grade: 05
Tested Language: Spanish

Grade 5 - Mathematics
Demonstration District A
Demonstration School 1

Scale Score:	**B** Quantile Measure:	Performance Level:
1664 ±24.1	690Q	Level 1

Your Student's Performance on the Grade 5 Mathematics Summative



It is important to remember that your student's score is an estimate of their current learning, demonstrated on the day of the test. The black bar (the Standard Error of Measurement (SEM)) indicates the differences that would be expected in your student's score if they were to take the test many times.

D

Your student tested with the following accommodations:

100s Number Table, Color Contrast

E

How Your Student Performed In Each Reporting Category

Category	Performance Standard	Performance
Operations and Algebraic Thinking	Below the Standard / Above the Standard	⚠
Number and Operations in Base Ten, Number and Operations - Fractions	Below the Standard / Above the Standard	⚠
Measurement and Data/Geometry	Below the Standard / Above the Standard	✓
Problem Solving, Reasoning, and Argument	Below the Standard / Above the Standard	⚠
Modeling, Patterns, and Structure	Below the Standard / Above the Standard	⚠

⚠ Below Standard ✓ At/Near Standard ↗ Above Standard

It is important to remember that your student's score is an estimate of their current learning, demonstrated on the day of the test. The black bar (the Standard Error of Measurement (SEM)) indicates the differences that would be expected in your student's score if they were to take the test many times.

* Your student's score is based on an incomplete test. As a result of the incomplete test, the student may not have a score for all reporting categories. Further, your student's scores may have a larger Standard Error of Measurement (as represented by the black bands) due to the incomplete test.

G

Your Student's Achievement

Grade	Performance Level	Year
5	Level 3	2024
4	Level 2	2023
3	Level 2	2022

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Science Sample Report

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Vermont 2023-2024 Summative Assessment — **Individual Student Report**

A

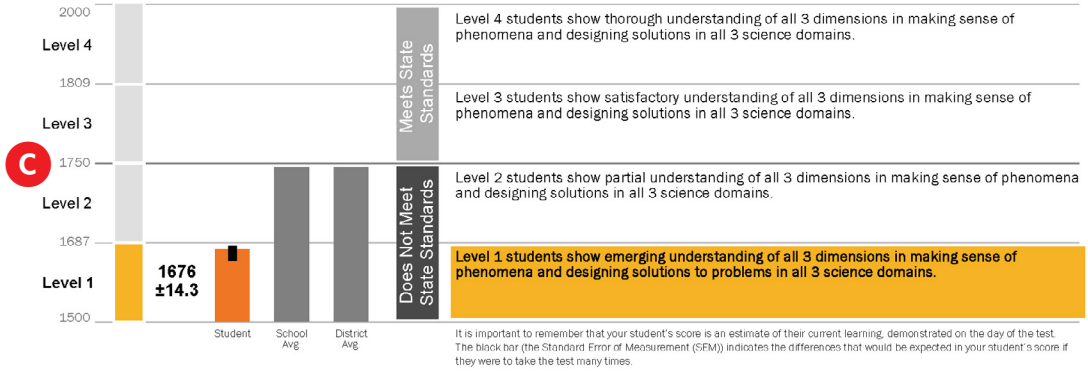
Name: Lastname1, Firstname1 A.
Student ID: 1234567
Enrolled Grade: 05
Tested Language: Spanish

Grade 5 - Science
Demonstration District A
Demonstration School 1

Scale Score:
1676 ±14.3

Performance Level:
Level 1

Your Student's Performance on the Grade 5 Science Summative



C

It is important to remember that your student's score is an estimate of their current learning, demonstrated on the day of the test. The black bar (the Standard Error of Measurement (SEM)) indicates the differences that would be expected in your student's score if they were to take the test many times.

D

Your student tested with the following accommodations:

100s Number Table, Color Contrast

E

How Your Student Performed In Each Reporting Category

Category	Performance Standard	Performance
Practices and Crosscutting Concepts in Physical Sciences	Below the Standard / Above the Standard	⚠
Practices and Crosscutting Concepts in Life Sciences	Below the Standard / Above the Standard	⚠
Practices and Crosscutting Concepts in Earth and Space Sciences	Below the Standard / Above the Standard	⚠

⚠ Below Standard ✓ At/Near Standard ↗ Above Standard

It is important to remember that your student's score is an estimate of their current learning, demonstrated on the day of the test. The black bar (the Standard Error of Measurement (SEM)) indicates the differences that would be expected in your student's score if they were to take the test many times.

* Your student's score is based on an incomplete test. As a result of the incomplete test, the student may not have a score for all reporting categories. Further, your student's scores may have a larger Standard Error of Measurement (as represented by the black bands) due to the incomplete test.

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Understanding the Student Results Data File

Purpose and Use of VTCAP Results

The VTCAP is Vermont's statewide summative assessment for ELA, mathematics, and science. As the VTCAP is a single measure at the end of a grade or grade band, interpretations and uses of VTCAP scores should be supplemented with additional measures, including information from classroom assessments.

Each school and district can download a student results data file from the Report Assets section in ADAM. The full layout of the results file is available on the Reporting page of the Vermont Help and Support website. For the purposes of this document, we will refer to the data in the file by sections going through the results file from left to right.

Student Information

Each individual test will have its own row in the results file. This means that a student in grade 5 that tested in all content areas will have one row for ELA, one row for mathematics, and one row for science.

The first section of the results file includes student and test information, including the student's name, ID, grade, school and district information, subject, tested language, and demographic information. Student demographic information is provided by AOE.

Overall Student Performance

The second section of the results file includes score specific information for the overall test, including number of items attempted, participation status, test start and end times, overall scale score, performance level, writing score information, and Lexile/Quantile scores for ELA and mathematics, respectively.

Student Performance in Each Reporting Category

The third section of the results file includes score specific information within each reporting category. This includes the score and performance level for each reporting category. For additional information on the specific reporting categories for each grade or subject, refer to Appendix B of this document or the Reporting Category Codes tab of the results file layout.

Each VTCAP assessment is designed to assess performance on a set of content standards. An assessment's content standards can be grouped into subsets that are referred to as reporting categories. For example, the reporting categories on the VTCAP ELA Grade 3 assessment include Reading & Listening, Text Type – Informational Text, and Writing & Language.

Students receive a scaled score and performance indicator for each reporting category. The scaled score for each reporting category is calculated by estimating a student's performance on the VTCAP scale, using only the items aligned to that reporting category. The scaled score for each reporting category is categorized into a performance indicator that has one of three levels—Below Standard, At/Near Standard, or Above Standard. Reporting category performance indicators reflect whether the student has met the expected performance on the standard. A student's reporting category performance indicator is calculated using three values: 1) the student's scaled score for that reporting category, 2) the standard error of measurement (SEM) associated with the student's scaled score for the reporting category), and 3) the overall scaled score associated with the proficiency cut.

First, the SEM is added to and subtracted from the scaled score to establish an error band around the scaled score for a given reporting category. The lower and upper bound values of this error band vary by student, because the scaled score and the SEM associated with a reporting category vary by student.

If the cut-score for overall proficiency falls within the error band around the reporting category scaled score, then the reporting category performance indicator is set equal to At/Near Standard. If error band falls above the proficient scaled score for the reporting category, then the reporting category performance indicator is set equal to Above Standard. If the error band falls below the proficient scaled score for the reporting category scaled score, then the reporting category performance indicator is set equal to Below Standard.

A reporting category performance indicator that is equal to Below Standard indicates a high degree of confidence that the student is not able to demonstrate the necessary skill sets for this reporting category. A reporting category performance indicator that is equal to Above Standard indicates a high degree of confidence that the student can demonstrate such skills above standard. A reporting category performance indicator that is equal to At/Near Standard indicates that the student is most likely to demonstrate skills at or near standard.

Student Accommodations

The final section of the results file includes information on student accommodations. There is one column for each accommodation, as outlined in the Accessibility and Accommodations Guidelines. In addition to the accommodations, text to speech for mathematics and science is also included in the results file. These accommodations reflect what was assigned in ADAM during test administration.

Appendix A

Scale Score Ranges

		Scale Score Range			
Subject	**Grade**	**Level 1**	**Level 2**	**Level 3**	**Level 4**
ELA	3	1500–1630	1631–1749	1750–1801	1802–2000
	4	1500–1650	1651–1749	1750–1815	1816–2000
	5	1500–1665	1666–1749	1750–1818	1819–2000
	6	1500–1610	1611–1749	1750–1818	1819–2000
	7	1500–1607	1608–1749	1750–1826	1827–2000
	8	1500–1652	1653–1749	1750–1806	1807–2000
	9	1500–1663	1664–1749	1750–1860	1861–2000
Mathematics	3	1500–1645	1646–1749	1750–1851	1852–2000
	4	1500–1663	1664–1749	1750–1866	1867–2000
	5	1500–1682	1683–1749	1750–1826	1827–2000
	6	1500–1673	1674–1749	1750–1859	1860–2000
	7	1500–1685	1686–1749	1750–1810	1811–2000
	8	1500–1644	1645–1749	1750–1855	1856–2000
	9	1500–1654	1655–1749	1750–1861	1862–2000
Science	5	1500–1686	1687–1749	1750–1808	1809–2000
	8	1500–1676	1677–1749	1750–1861	1862–2000
	11	1500–1709	1710–1749	1750–1893	1894–2000

Appendix B

Reporting Category Codes

Subject	Grade	Reporting Order	Reporting Category
ELA	3–9	RepCat1	Text Type – Literary Text
		RepCat2	Text Type – Informational Text
		RepCat3	Writing Analysis & Language Conventions
Mathematics	3–5	RepCat1	Operations and Algebraic Thinking
		RepCat2	Number and Operations in Base Ten, Numbers and Operations – Fractions
		RepCat3	Measurement and Data, Geometry
		RepCat4	Problem Solving, Reasoning, and Argument
		RepCat5	Modeling, Patterns, and Structure
Mathematics	6–7	RepCat1	Ratios and Proportional Relationships
		RepCat2	The Number System, Expressions and Equations
		RepCat3	Geometry and Statistics and Probability
		RepCat4	Problem Solving, Reasoning, and Argument
		RepCat5	Modeling, Patterns, and Structure
Mathematics	8	RepCat1	Functions
		RepCat2	The Number System, Expressions and Equations
		RepCat3	Geometry and Statistics and Probability
		RepCat4	Problem Solving, Reasoning, and Argument
		RepCat5	Modeling, Patterns, and Structure
Mathematics	9	RepCat1	Number and Quantity/Algebra
		RepCat2	Algebra/Functions
		RepCat3	Geometry
		RepCat4	Statistics and Probability
		RepCat5	Problem Solving, Reasoning, and Argument
		RepCat6	Modeling, Patterns, and Structure
Science	5, 8, 11	RepCat1	Practices and Crosscutting Concepts in Physical Sciences
		RepCat2	Practices and Crosscutting Concepts in Life Sciences
		RepCat3	Practices and Crosscutting Concepts in Earth and Space Sciences

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