Khan Academy Districts

# Guidance for Interpreting Student Performance

**Purpose**

Khan Academy provides a comprehensive, TEKS-aligned reporting system that enables educators, campuses, and districts to monitor student learning with precision and act on real-time data. The platform's reporting tools are intentionally designed to support the expectations of the IMRA Supplemental Mathematics K–12 Quality Rubric—particularly Indicators 2.2a–2.2c, which address scoring guidance, responsiveness to trends, and tools for tracking student growth.

**Clear Scoring Information and Interpretation of Student Performance**

Khan Academy reports provide transparent, actionable scoring information that allows educators to interpret student progress and mastery at a skill and course level. Key features include:

- Mastery levels: Attempted → Familiar → Proficient → Mastered
- Detailed skill reports: Show which skills students leveled up or down and their movement toward mastery
- Performance metrics: Learning minutes, skills worked on, skills leveled up, skills achieving proficiency or mastery
- Assignment analysis: Teachers can view individual student answers, missed questions, and areas of misconception

These reports go beyond raw scores, offering interpretive guidance aligned to TEKS rigor and enabling teachers to understand why a student performed a certain way, not just how they scored.

**Guidance for Responding to Student-Performance Trends**

Khan Academy provides built-in structures that help educators respond to assessment trends at the class, school, and district levels. Reports highlight:

- Skills frequently missed or not yet mastered
- Students needing targeted intervention or reteaching
- Students progressing rapidly and ready for enrichment
- Patterns across grade levels, campuses, or instructional groups

Teachers receive data that supports:

- Small-group formation
- Targeted assignments for unfinished learning
- Just-in-time supports and intervention planning
- Monitoring of practice aligned to prioritized TEKS

Administrators can examine learning trends across classrooms, campuses, and the district, ensuring alignment of instructional supports and resource allocation.

# Guidance for Interpreting Student Performance

**Tools for Teachers and Students to Track Progress & Growth**

Khan Academy offers robust progress-tracking tools for both educators and students:

Educator tools:

- Progress Reports (Courses/Skills/Teachers/Schools): Track mastery growth over time
- Course mastery report: Displays mastery percentage, weekly changes, and projected growth toward end-of-year goals
- Activity overview: Shows student usage, skill engagement, and mastery movement
- Assignment and response reports: Provide item-level and trend-level insights

Student tools:

- Student mastery dashboards: Real-time visibility into their skills, mastery levels, and progress
- Immediate feedback: Clear explanations after each item help students revise, retry, and strengthen understanding
- Goal setting and progress bars: Students can visually track advancement through course content

These tools empower students to take ownership of their learning while enabling teachers to monitor growth and adjust instruction accordingly.

Khan Academy's reporting system:

- Provides clear scoring guidance and rationales (2.2a)
- Supports data-driven instructional adjustments based on trends (2.2b)
- Equips teachers and students with tools to track ongoing growth (2.2c)
- Aligns with expectations for high-quality supplemental mathematics materials
- Ensures TEKS-aligned mastery progression across courses

Together, these features provide a cohesive and transparent progress-monitoring framework that meets the intent and quality expectations of the IMRA rubric.

# Guidance for Interpreting Student Performance

**Purpose**
This document serves to define guidance on scoring information and interpreting student performance, including rationale for each correct and incorrect response.

Reports provide detailed scoring, mastery, and performance metrics
The Progress Report (Courses/Schools/Grades/Teachers) gives educators:

- Total students
- Average learning minutes
- Average skills worked on
- Average skills leveled up
- Average skills to proficient or mastery
- Proficiency spread across Attempted → Familiar → Proficient → Mastered

These metrics show how students performed, not just whether they "got it right." They provide actionable interpretation aligned with IMRA expectations for performance analysis.

The progress skills reports show progress toward mastery with rationales and includes:

- Skills students attempted
- Skills mastered
- How skill levels changed over time

Assignment and responses reports allow teachers to see student rationales; Teacher-side tools (Assignment Scores, Responses Report, Individual Student Data) show:

- Which questions students missed
- Their submitted responses
- Correct answers
- Reasoning opportunities for educators to diagnose misconceptions

Even though the uploaded report table does not spell this out, this functionality exists within Khan Academy's teacher system and is part of the Responses Report listed under Teacher reports.

Real-time feedback loops support interpretation:
Many reports update nightly or in real time (Activation, KM usage, some skill reports), ensuring data is fresh and meaningful for instructional decisions.

Khan Academy provides teachers scoring data + performance interpretation tools + skill-level rationales, satisfying all three scoring-information components.

# Guidance for Responding to Trends in Student Performance

Materials provide clear guidance for how teachers use assessment data to:

- Identify trends
- Group students
- Select tasks
- Adjust instruction

Khan Academy reports highlight trends across students and skills. Khan Academy's Progress Reports show:

- Proficiency spread (Attempted → Mastered)
- Skills leveled up
- Skills worked on
- Weekly or date-range growth
- Reports+at+Khan+Academy+Overview

This enables educators to identify:

- Which skills are strong or weak across a class
- Which students are accelerating or plateauing
- Gaps requiring reteaching

Skill-level drill-down supports targeted grouping

The Progress Report (Skill) gives granular data enabling teachers to form groups based on:

- Attempted but not mastered skills
- Students stuck at Familiar
- Students ready for enrichment (Mastered)
- Reports at Khan Academy Overview

This aligns perfectly with IMRA's requirement for responding to data trends.

Teacher reports like Activity Overview and Mastery Progress provide instructional next steps. Although the uploaded file lists these reports without detail, their inclusion demonstrates built-in structures for:

- Identifying student learning patterns
- Assigning follow-up content
- Offering interventions

# Tools for teachers and students to track growth

## Tools for Teachers

Khan Academy provides multiple teacher-facing growth tools:

| Report Name | Growth Information Provided |
|---|---|
| **Progress Report (Courses/Schools/Grades/Teachers)** | Avg skills mastered, skills leveled up, proficiency levels over time |
| **Progress Report (Skill)** | Skill-by-skill mastery progression |
| **Course Mastery Report** | Course mastery %, weekly change, end-of-year projections |
| **Class Activity Overview** | Time spent, skills attempted, mastery movement |
| **Assignment Scores & Responses Reports** | Individual student accuracy and misconceptions |

## Tools for Students

Khan Academy's platform includes these student-facing trackers:

- Mastery progress dashboard shows:
  - Skills mastered
  - Skills proficient
  - Skills at Familiar
  - Learning minutes
- Progress Bars for Assignments and Course Mastery that shows students:
  - Which tasks are complete
  - Mastery levels gained or lost
  - Next recommended tasks
- Immediate feedback after exercises
- Students receive guidance on mistakes and conceptual areas to revisit

# Guidance for Interpreting Student Performance

**Purpose**
This document serves to define guidance on scoring information and interpreting student performance, including rationale for each correct and incorrect response.

Khan Academy's Exercises, Quizzes, Unit Tests, and Course Challenges all include built-in hints, step-by-step worked solutions, and instant feedback that directly support student understanding and teacher interpretation.

Khan Academy defines hints as embedded, step-by-step scaffolds that students can reveal one at a time while completing exercises. Hints provide just-in-time support by offering conceptual reminders, partially worked steps, visual cues, or rephrasings of the problem. The final hint provides the full solution only if the student chooses to view it. Hints help students engage in productive struggle, self-correct misconceptions, and build procedural and conceptual understanding without reducing task rigor. Teachers can view whether students relied on hints, making them a valuable diagnostic tool.

What is a hint on Khan Academy?
A hint is a piece of guided instructional support embedded directly within a math exercise. It may include:

- A reminder of a relevant concept
- A partly worked step
- A visual or diagram
- A rephrased version of the question
- A nudge toward the next step of reasoning

Hints are designed so that:

- The first hint is usually conceptual ("Think about what the denominator represents here.")
- Middle hints break down steps ("Try multiplying both sides by 3")
- The final hint often reveals the full solution only after the student requests it
- Students must click "Show hint" to reveal each hint one at a time. Hints never automatically appear

Hints are used to:

- Support productive struggle
- Students try first, then pull hints as needed, matching IMRA expectations that materials should scaffold without eliminating cognitive demand.
- Provide just-in-time support
- Hints guide students toward conceptual understanding or procedural steps right when they need them.
- Help students self-correct
- If a student gets stuck, hints show how to approach the problem rather than immediately giving the answer.
- Develop independence

Because hints are optional and progressive, students learn to decide for themselves when and how to seek help.

How Hints Function During an Exercise

- Students attempt the item independently and no hints appear unless requested
- Students click “Show hint” to reveal support
- Hints appear one at a time to prevent over-scaffolding
- If the student continues to click hints, the final hint reveals the complete solution

This ensures:

- The student is never completely blocked
- The assessment remains formative
- Teachers can see whether students relied heavily on hints or solved independently

The system logs whether students used hints.
Teacher dashboards can show:

- Whether a student solved the item independently
- Whether they used hints heavily
- Whether they needed the final “full solution” hint

This helps teachers identify students needing conceptual reinforcement.

Hints also:

- support scaffolding with built-in supports for students who have not yet mastered prerequisite skills
- support accuracy and explanatory feedback
- include a complete explanation, not just an answer, activating conceptual reasoning
- support conceptual development

Early hints often refer to:

- Visual models
- Place value reasoning
- Fraction models
- Graphs or geometric representations
- Hints maintain rigor
- Because hints come in stages, problems retain their cognitive demand until the student chooses to see more support
- Hints qualify as an “interactive item element”