WELCOME

Taking Full Advantage of Galileo Technology:
Tapping Effectively into Each of its Tools

TUESDAY, AUGUST 21, 2018

CO-HOSTED BY

Arizona Charter Schools Association
SUPPORT. ADVOCATE. LEAD.

ATI Assessment Technology Incorporated

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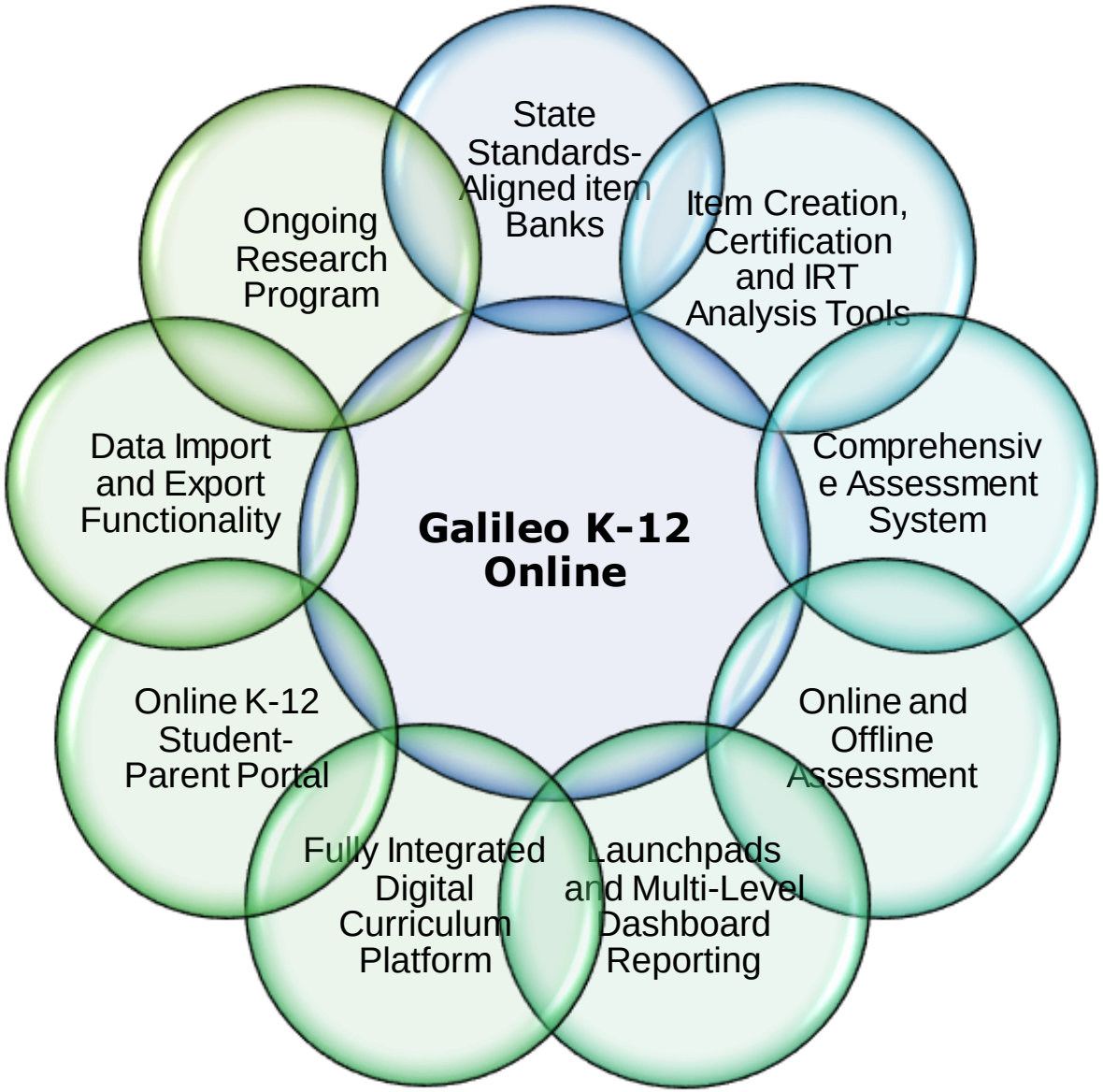
ACSA and ATI are dedicated on creating and sharing innovative programs and state-of-the art technology designed to support leaders and teachers as they work to improve student achievement.

Topics

- Summary of the Major Components of Galileo
- Overview of Current Galileo Statistics in Arizona
- New Developments in Galileo for 2018-2019
- Update on Galileo Secure and Community Item Banks
- Update on Galileo Comprehensive Assessments
- Update on Galileo Comprehensive Dashboard Reports
- Review of the Importance of IRT for Measuring Student Ability
- Review of the Importance of IRT for Measuring Student Growth
- Purpose and Use of Teacher and Student Launchpads
- Purpose and Use of Dashboard Reports
- Using Test Builder for Ongoing Formative Assessment
- Using Item Builder to Create Customized Test Items
- Using Instructional Dialogs and Learning Resources

Summary of the Major Components of Galileo



Current Galileo Statistics in Arizona

High Reliability:
Assessments display high reliability, typically stabilizing at >0.80 for tests with 50+ items

Forecasting Accuracy:
Accurate in forecasting student performance on AzMERIT - overall accuracy = 0.82 percent

Strong Predictive Validity:
Mean correlation between Galileo assessment scores and AzMERIT scores = 0.74

Total Galileo assessments taken in Arizona since initial adoption
67,193,037

Total Galileo benchmarks taken in Arizona since initial adoption
29,758,464

Total Galileo formatives taken in Arizona since initial adoption
27,990,053

Total Galileo IE Pre-Post Tests taken in Arizona since initial adoption
8,090,494

Total Galileo assessments taken in Arizona in 2017-2018
6,224,425

Total Galileo benchmarks taken in Arizona in 2017-2018
1,658,415

Total Galileo formatives taken in Arizona in 2017-2018
3,139,765

Total Galileo IE Pre-Post Tests taken in Arizona in 2017-2018
1,358,303

New Developments for 2018-2019

Major Galileo K-12 Online Enhancements 2018-2019 Planned Release Schedule	
Project	**Scheduled Release Date**
Migration to Amazon Web Services (AWS)	Completed
Initial Integration with Clever for automated SIS Import and Single Sign On	Completed
Integration of Certica Navigate Item Bank™	Completed
Initial College Prep Assessments for Math and ELA	Completed
Expanded Item Builder Tools and New Item Bank Builder Interfaces	Completed
Item Parameter Display in Test Builder and Report Drilldowns	August 2018
Reporting Enhancements- One-Click to Access Saved Favorite Reports	August 2018
Multi-Grade Multi-Stage Computerized Adaptive Tests	September 2018
Multi-Grade Multi-Stage Computerized Adaptive Test Report	September 2018
Assessment Planner Revamp	September 2018
Admin Dashboard Benchmark Performance Levels Widget	October 2018
Student Growth Percentiles Report	December 2018
Admin Dashboard Risk Level Summary Enhancements	Winter/Spring 2018-19
SAS Curriculum Pathways Integration	Winter/Spring 2018-19

Update on Galileo Secure and Community Item Banks

Currently, Galileo *Secure* and *Community Item Banks* are comprised of over **93,400** items in K-12 ELA, mathematics, and science aligned to Arizona State Standards and Next Generation Science Standards representing 19 different item types and including over 16,800 technology enhanced items

Item Types in ATI Secure and Community Item Banks

- Selected-Response
- True-False
- Essay
- Extended Selected-Response (multi-correct)
- Multi-Part Item
- Sequencing (drag and drop)
- Short Answer
- Selectable-Text (hot text)
- Interactive Coordinate Planes
- Interactive Linear and Volume Measurement
- Interactive Classifying
- Interactive Ordering
- Interactive Graphing and Charts
- Interactive Labeling
- Maze
- Dropdown Editing
- *Audio and Video*
- *Observational*
- *Performance-Based*

New Galileo Optional Assessments for 2018-2019

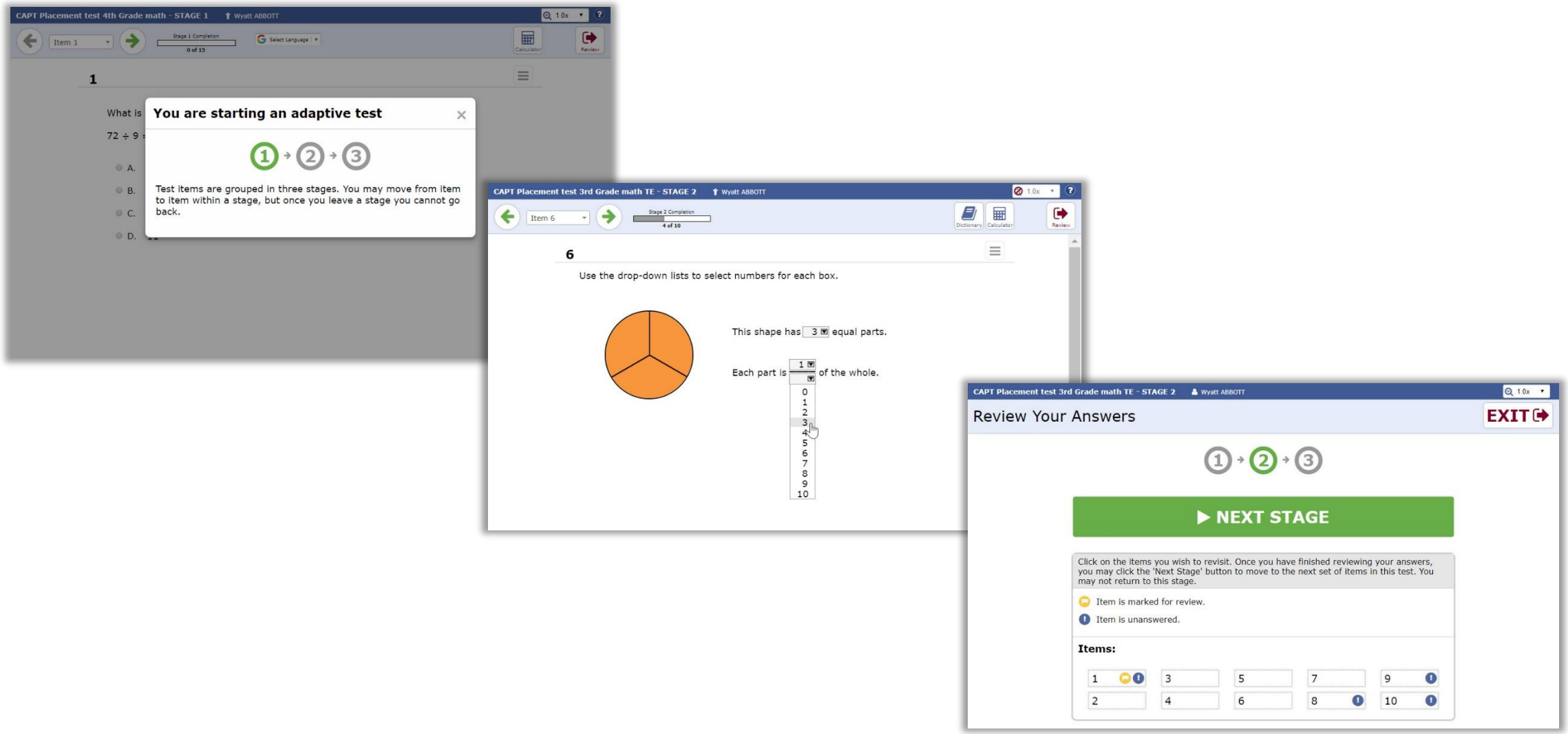
- **Multi-Stage Computer Adaptive Test (MSCAT) for Course and Grade Placement Grades 3-8**

ATI Multi-Stage Computer Adaptive Tests (MSCAT) for Course and Grade Placement use Item Response Theory (IRT) scale scores to adaptively route examinees through multiple assessment stages each comprised of bundles of items. MSCATs are particularly useful for tests that may be used to inform course or grade placement decisions. They may also be used to support differentiated instruction initiatives. The concept of a Multi-Stage Computer Adaptive Test was developed in response to the concern about item exposure on a traditional MCAT. Upon completion of the stage, the adaptive test algorithms are implemented to calculate the student's ability level and then select the next bundle of items based on that estimate.

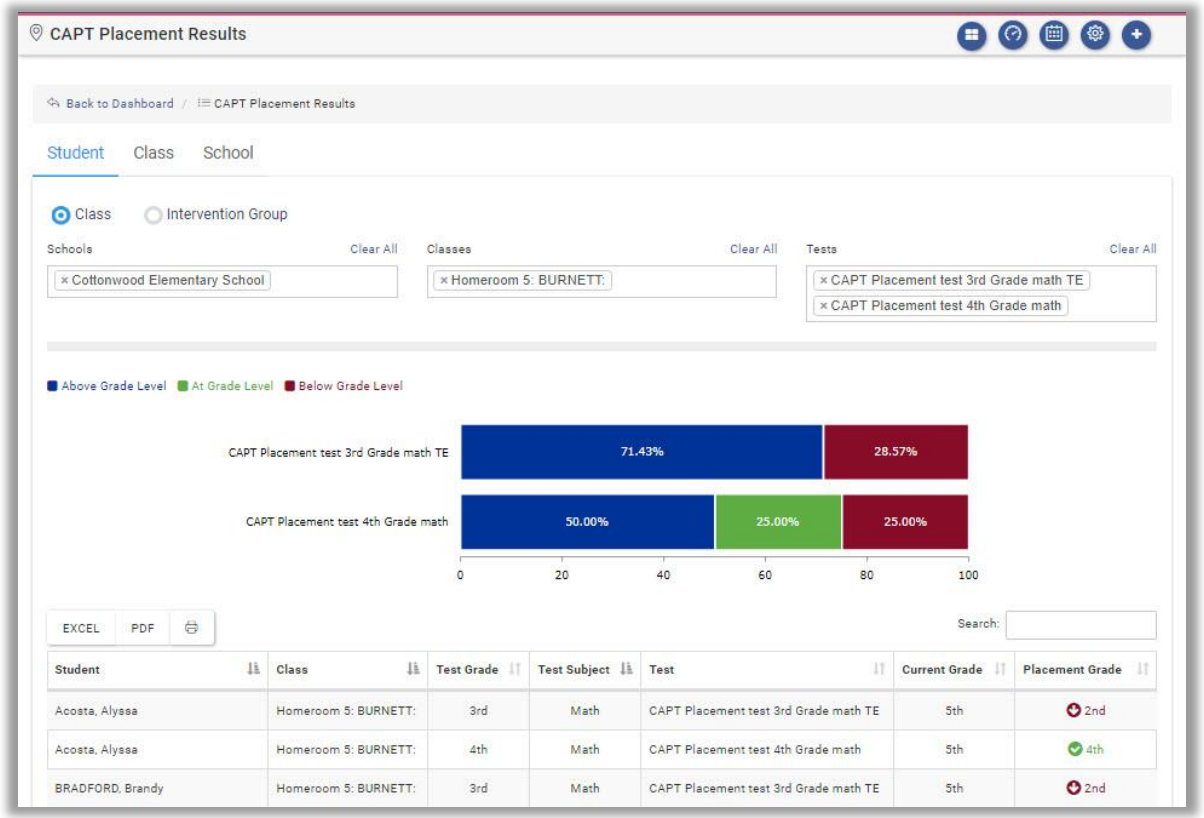
- **Standards-Aligned College Prep Assessments for English language arts, reading, math, and science.**

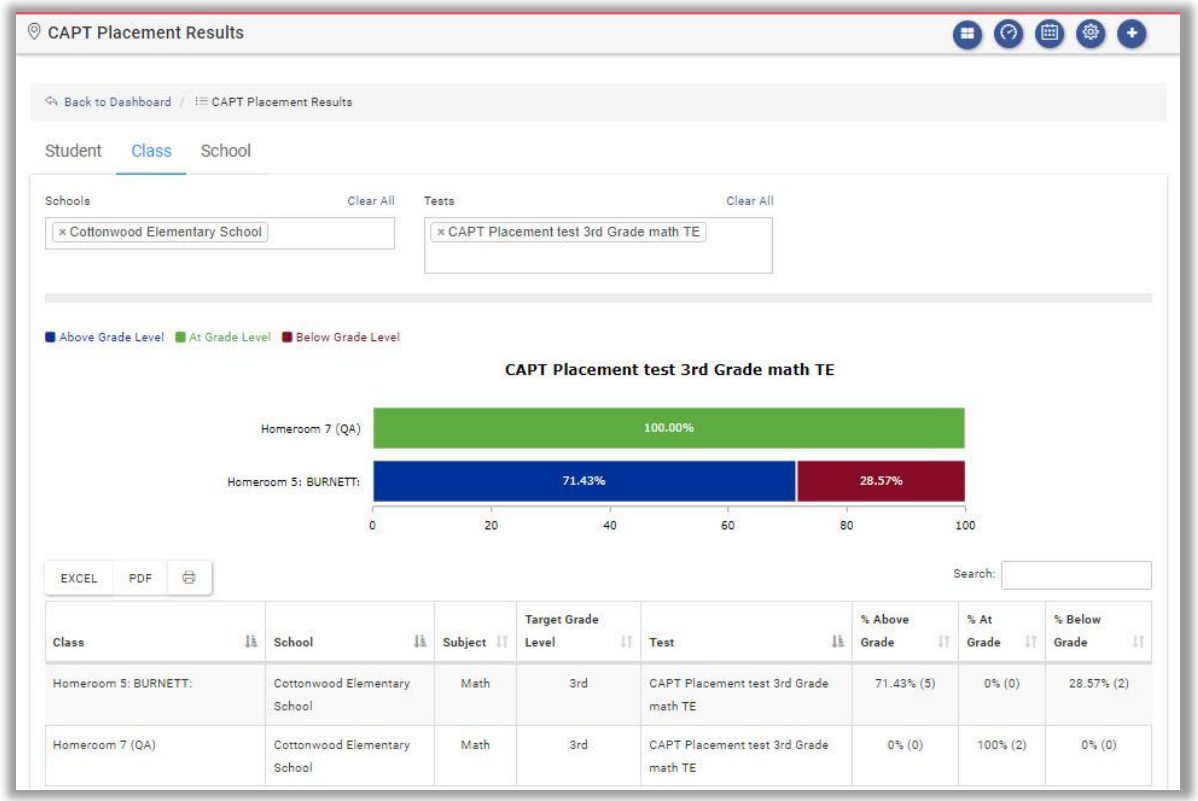
ATI College Prep Assessments resemble the latest versions of nationally accepted college entrance exams, reflect the rigor found in the items and passages included in these exams, and are designed according to similar blueprints. In preparing the ATI College Prep Assessments the ATI Assessment and Instructional Design team reviewed the ACT College and Career Readiness Standards and College Board SAT areas of Focus. Following this review, as part of the test construction procedures, ATI selected items from the Secure Item Banks that reflect these standards and focus areas. The ATI writers also built the College Prep Assessments to reflect the ACT and SAT test blueprints. Items were selected to cover objectives in each reporting category listed in the test blueprints. Note that ATI has no relationship with ACT or SAT and the ATI *College Prep* assessments are not reviewed nor endorsed by ACT or the College Board.

New Galileo Optional Assessments for 2018-2019



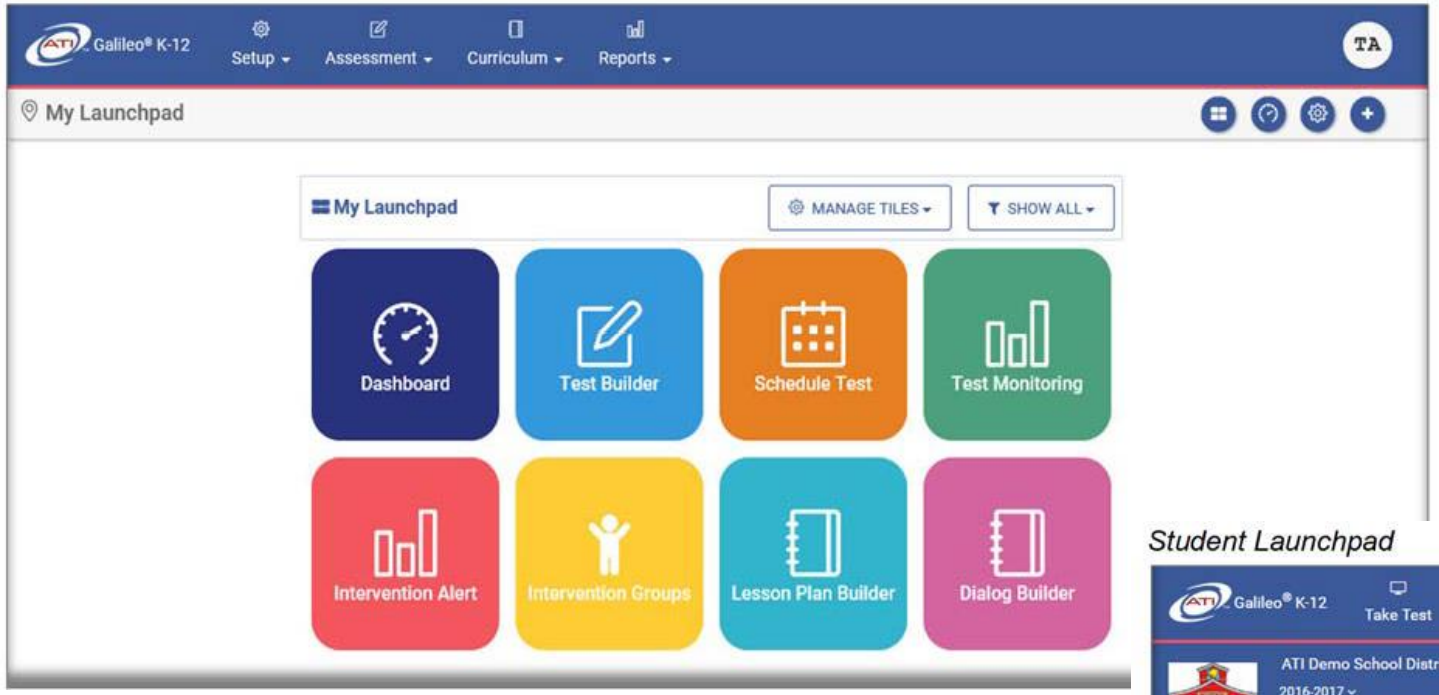
New Galileo Optional Assessments for 2018-2019



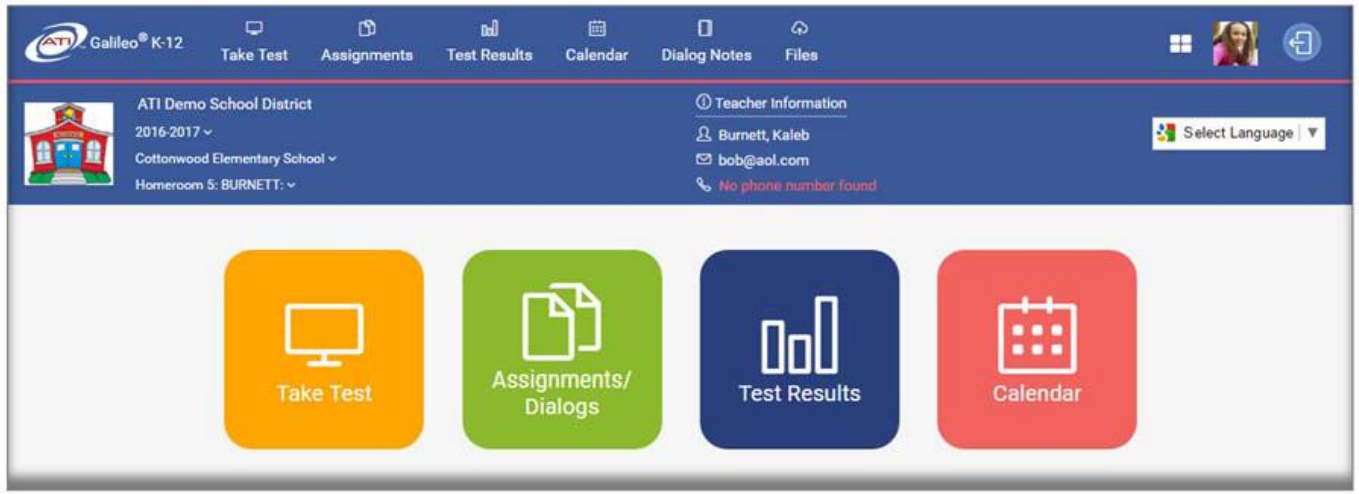


Using Galileo Launchpads

Staff Launchpad



Student Launchpad



Using Galileo Reports

Test Monitoring Report

Shows student responses to test items in real time. Provides the teacher with a continually updated view of which questions each student has answered, the standard associated with each question, what the student's answers were, and whether the student got the answer right or wrong.

Aggregated data is also provided such as the percent of students who answered each question correctly, each student's overall percent correct, and a cumulative display of how many correct and incorrect answers were generated by the class as a whole.

Drilldowns display item content for review. The teacher may then provide explanatory feedback and other forms of instruction.

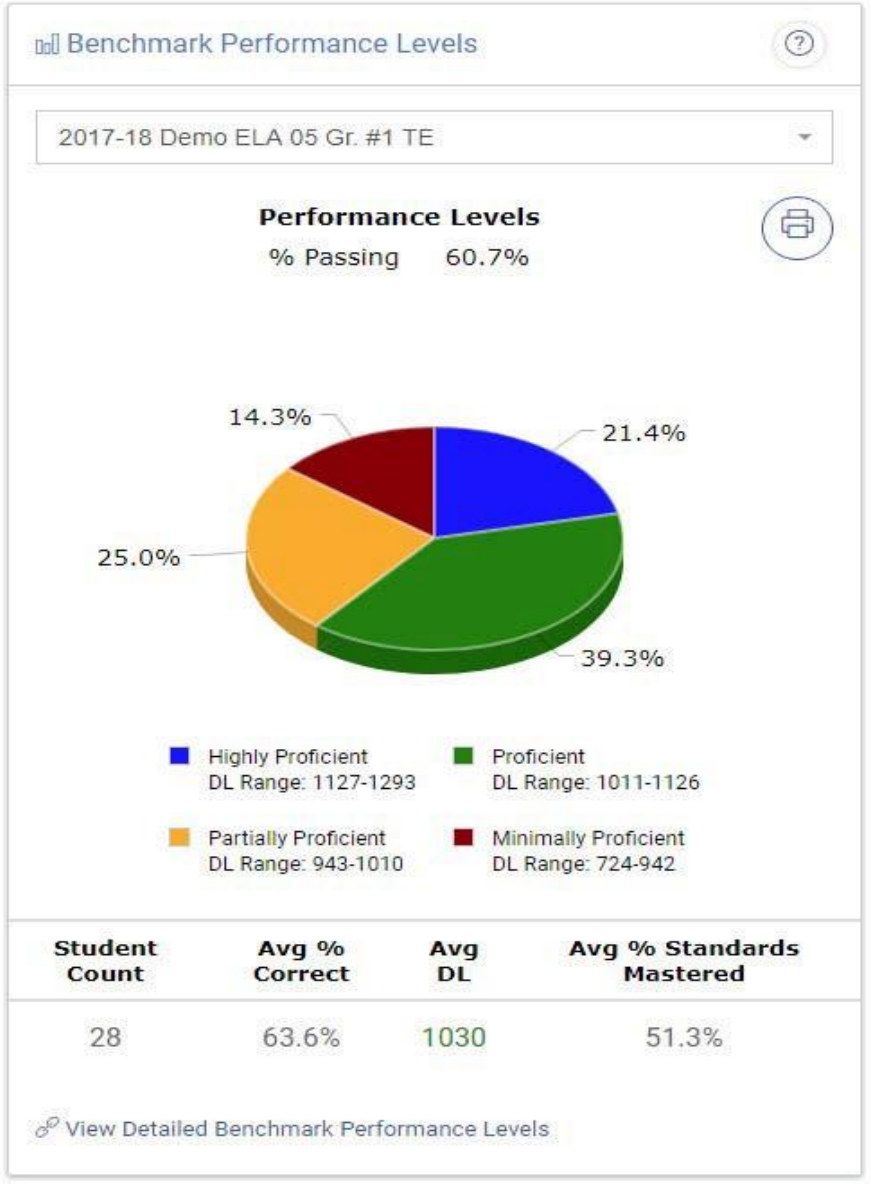
Using Galileo Reports

Benchmark Performance Levels

This report summarizes multiple measures of student performance on benchmark assessments (e.g., English language arts, mathematics, and other subject areas) for an entire class at once.

The pie chart provides a “Big Picture Class Summary” for each assessment including color-coded performance levels (e.g., Highly Proficient, Partially Proficient) that illustrate the number and percent of students at each level of proficiency for the entire assessment.

This report also provides instant access to number of students assessed, average percent correct, average DL Score, and average percent of standards mastered for the class.



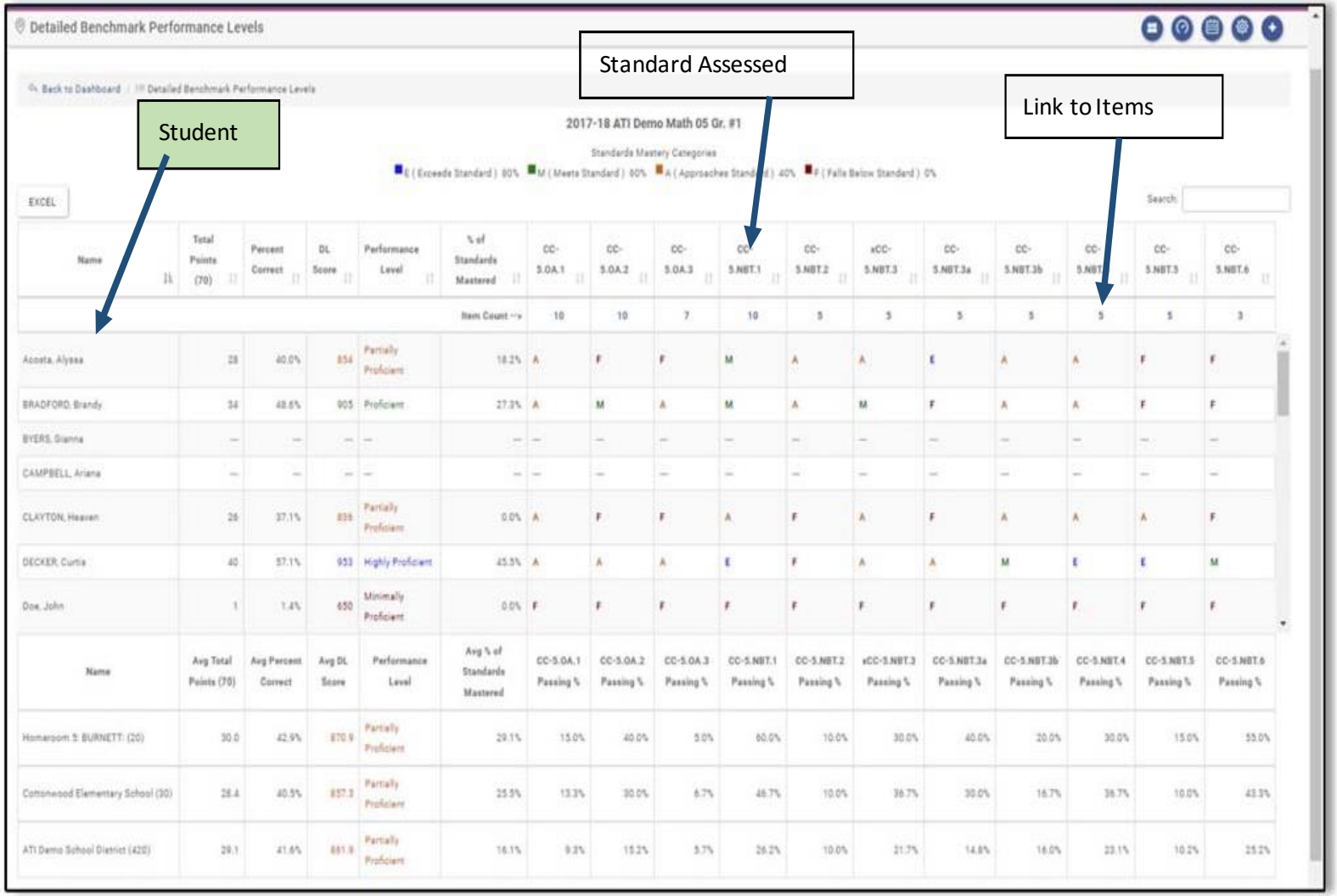
Using Galileo Reports

Detailed Benchmark Performance Levels

A drill down from the Benchmark Performance Levels report provides an interactive data display provides a “Detailed Class Portrait” for each assessment including data for each student as well as comparative data for the class, school, and district.

The chart illustrates the student’s Achievement Level/Mastery Category for each standard on the assessment and also provides one-click access to the items used to assess each standard including item metadata such as DOK information.

Rapid Data Search and Data Sorting capabilities make it easy to analyze the data for individual students as well as trends.



Using Galileo Reports

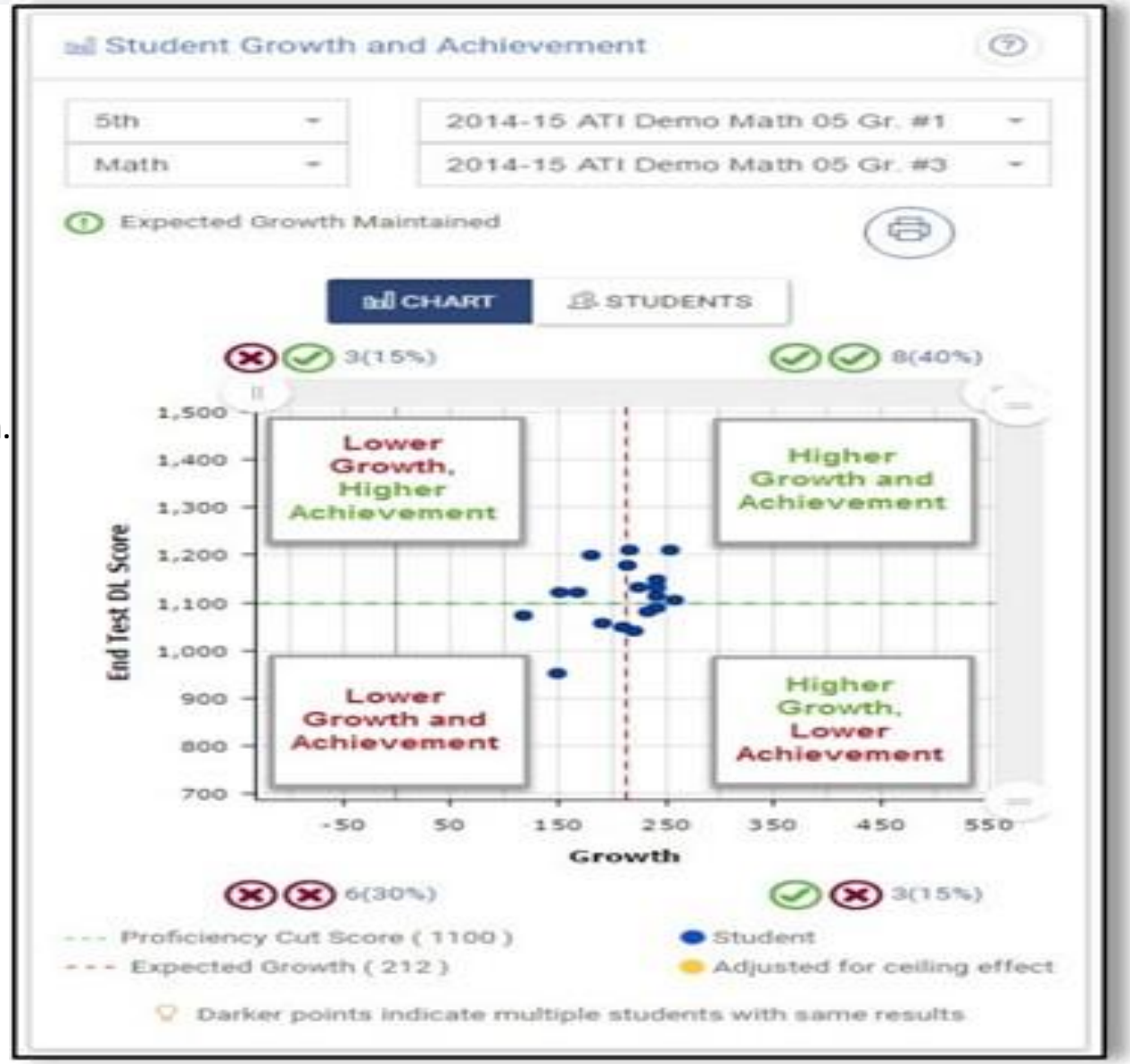
Student Growth and Achievement

Growth expectations in ELA, math, writing, and science (grades kindergarten through 12) are based on annual research conducted by ATI using regression techniques.

A classification of Expected Growth Exceeded indicates that observed growth was significantly higher than expected growth while a classification of Expected Growth Not Maintained indicates that observed growth was significantly lower than expected growth. A classification of Expected Growth Maintained indicates that observed growth was not significantly different from expected growth.

The Student Growth and Achievement widget provides a graphical cross-classification of students based on their growth between two tests and their achievement on the second test. This graphical summary is designed to facilitate the identification of student groups for intervention and enrichment (e.g., high performing students showing inadequate growth, low performing students showing exceptional growth).

Additional views provide a student list along with each student's growth and achievement classification.



Using Galileo Reports

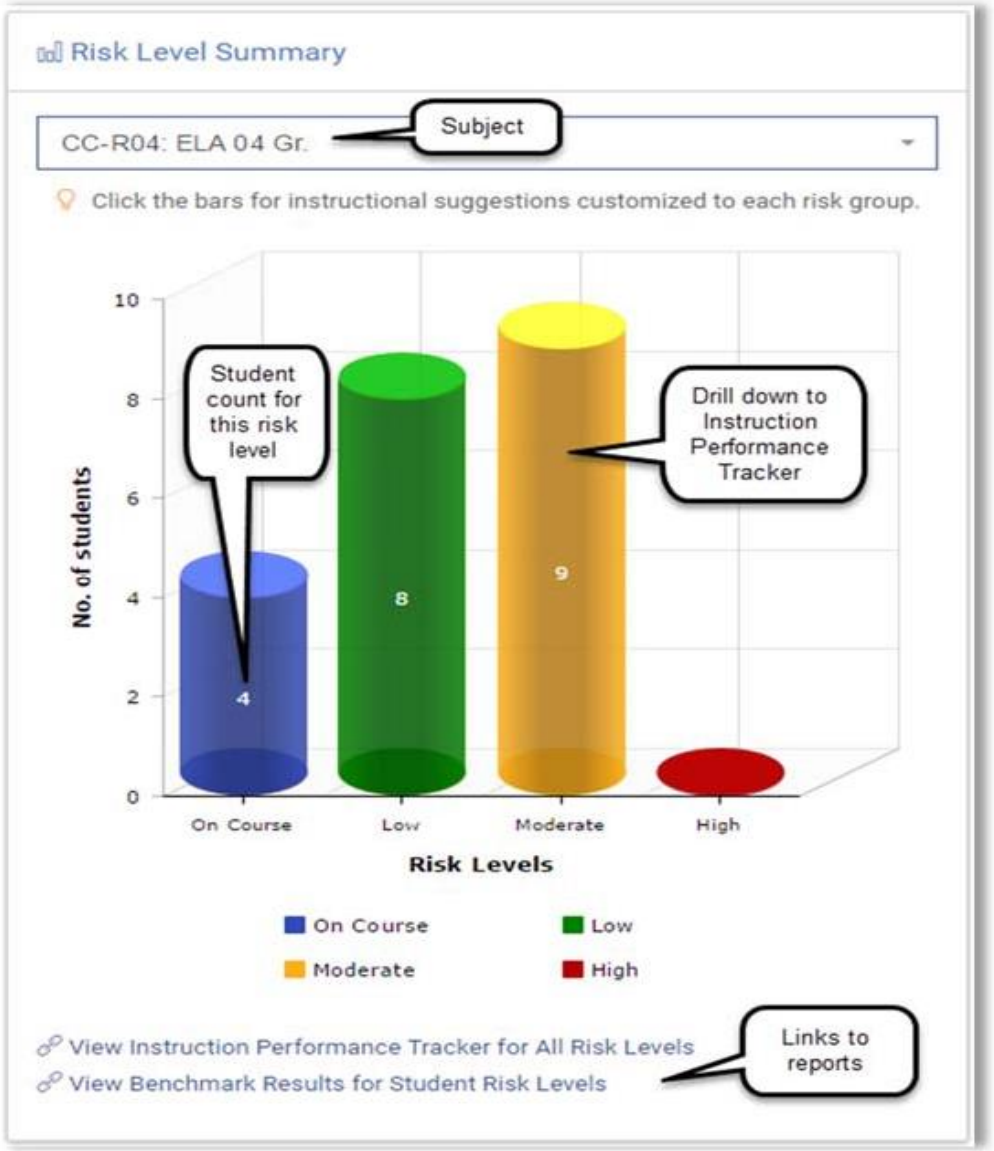
Risk Level Summary and Performance Tracker

The Risk Level Summary widget identifies groups of students at varying levels of risk for not meeting standards on the statewide assessment based on their assessment scores.

The standards requiring mastery to reduce risk are specified for each risk level intervention group. In addition, learning activities targeted at the relevant standards are specified allowing the teacher to take immediate action to minimize risk.

Students who have been determined to be at high, moderate, or low risk of not passing may be easily assembled into an intervention group that can be tracked in the system.

The Risk Level Summary also provides users with the capability to view the specific weaknesses of the students in the intervention group and allows them a way to search for curriculum materials that will target the areas in which those children haven't yet demonstrated mastery.



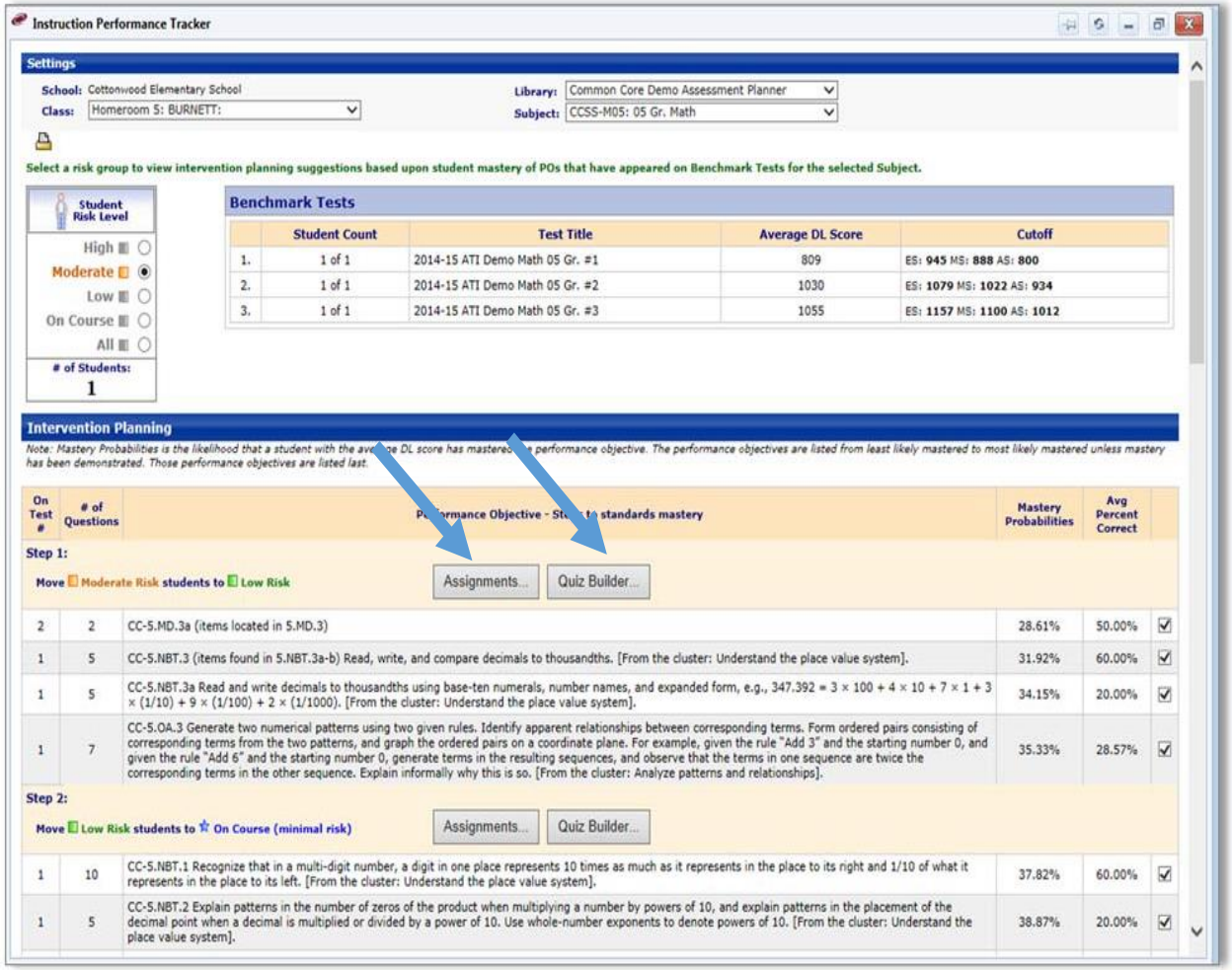
Using Galileo Reports

Risk Level Summary and Performance Tracker

The Instruction Performance Tracker, can be accessed directly from the Risk Level Summary and provides recommendations for remediation and enrichment activities based on student performance on district-wide assessments.

The Instruction Performance Tracker can identify the standards to be mastered to minimize the risk of not meeting state standards. The report also identifies Dialogs and optional formative assessments that can be used to determine what was learned as a result of this form of instruction.

The Instruction Performance Tracker is available at the district, school, and class level.



Importance of IRT in Measuring Student Ability

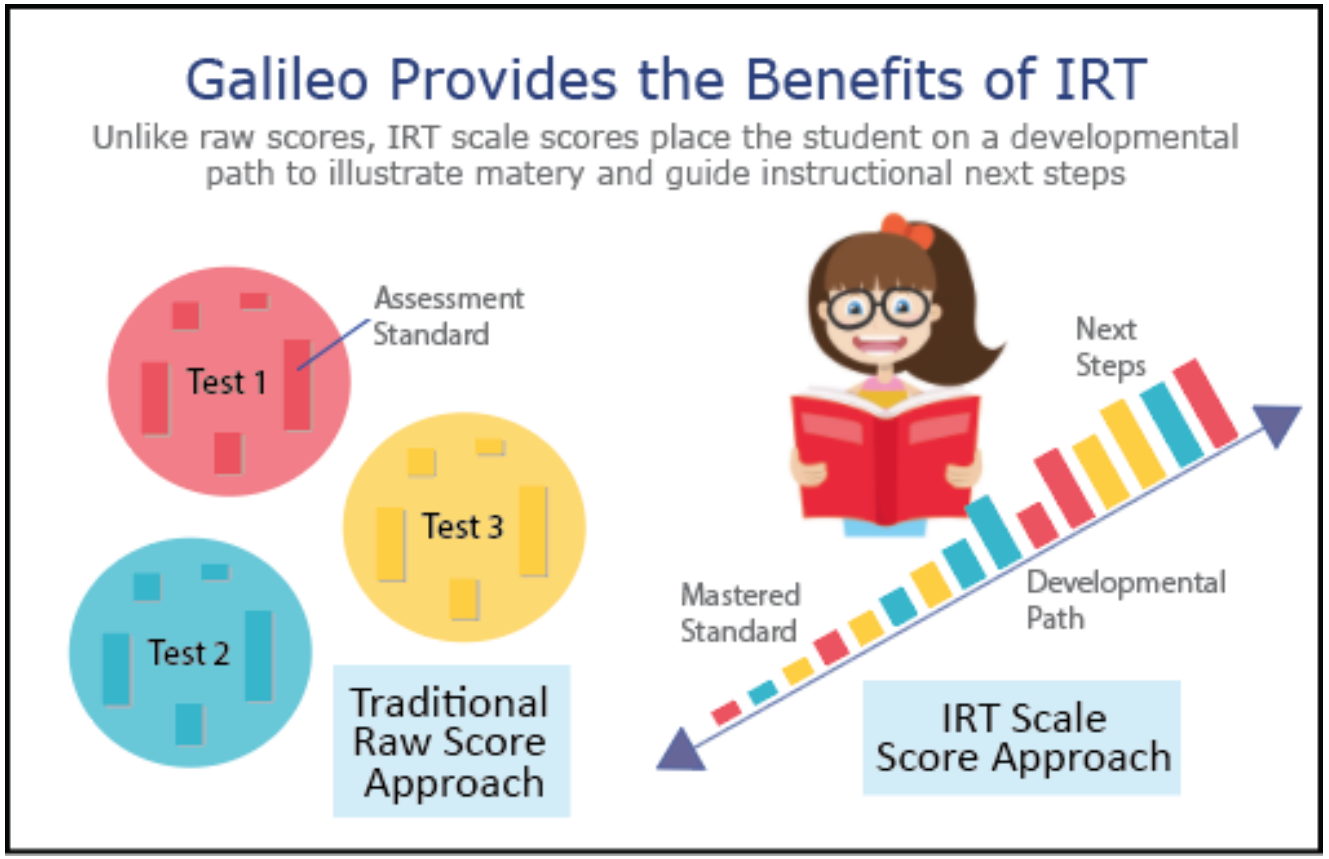
Galileo provides an IRT Developmental Level (DL) scale score, similar to the scale score on AzMERIT. Systems that don't use IRT only provide raw scores (i.e., number/percent correct).

With Raw Scores

- Student responses to items and tests are evaluated in isolation
- Nothing is known about the student's underlying ability
- It is difficult to predict student performance on other items assessing a standard or other standards

With IRT Scale Scores

- ✓ A student's ability in a given subject or knowledge area is evaluated not just performance on items
- ✓ Educators know not only what the student has already mastered, but also what they are ready to learn next
- ✓ Educators have information about item characteristics including discrimination, difficulty, and guessing
- ✓ Developmental path reports that use the ability score help guide teachers in next instructional steps



Importance of IRT in Measuring Student Growth

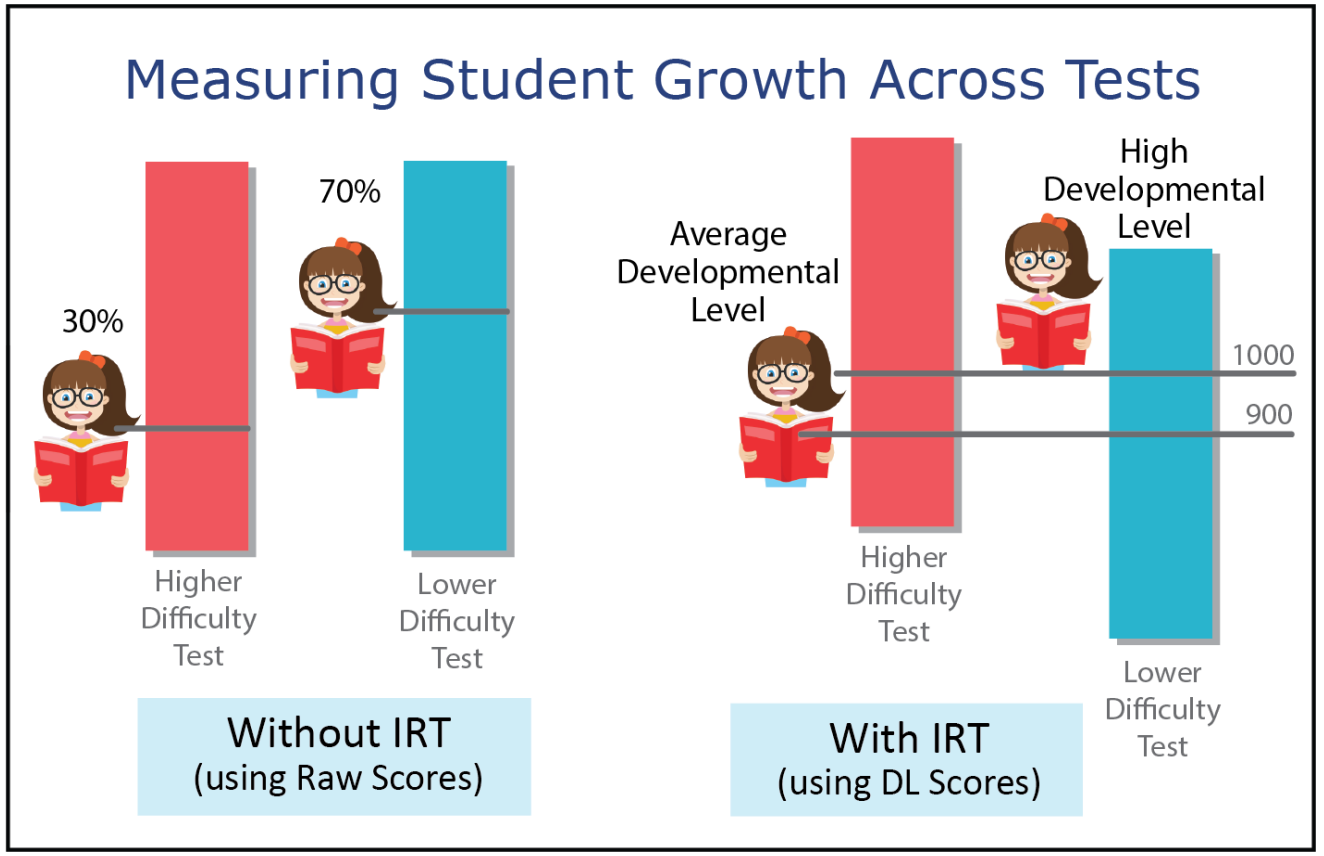
Galileo places the DL (IRT) score on a common scale across tests in a grade and subject to measure growth. Systems without IRT can only evaluate a student's score for each test in isolation.

With Raw Scores

- The relative difficulty of different tests is ignored
- Student growth estimates can be inaccurate and misleading

With IRT Scale Scores

- ✓ The score is adjusted based on the relative difficulty of different tests
- ✓ Student growth estimates are accurate and defensible
- ✓ Educators have the ability to measure growth across different tests
- ✓ Educators have the ability to determine if patterns of student growth differs from research-based growth expectations



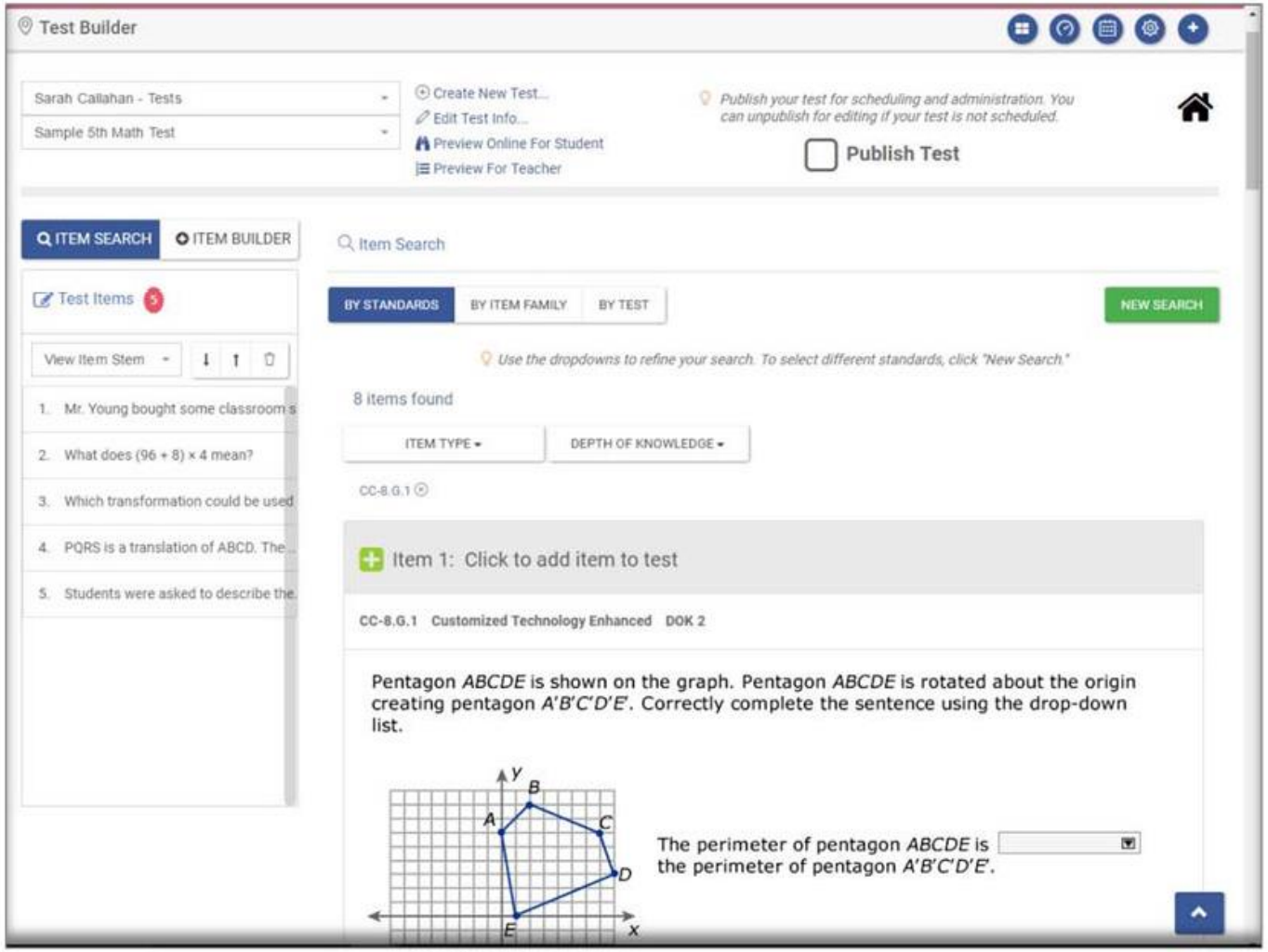
Using Test Builder for Ongoing Formative Assessment

Test Builder

The Test Builder interface is optimized for desktops, laptops, and tablets and offers the following:

- search Item Banks (e.g., ATI Community Item Banks, Inspect® Item Bank, Navigate Item Bank™ by standard, item family, or previously created test
- refine searches by item type and DOK
- quickly add, reorder, and/or delete items
- edit items from existing item banks or create your own items including TE items
- view a summary of your current test items
- easily access online student and teacher previews of your test
- once published, access quick links to schedule the test online and print if needed

Searching item banks in Galileo Test Builder Interface



Using Item Builder to Create Customized Test Items

Item Builder

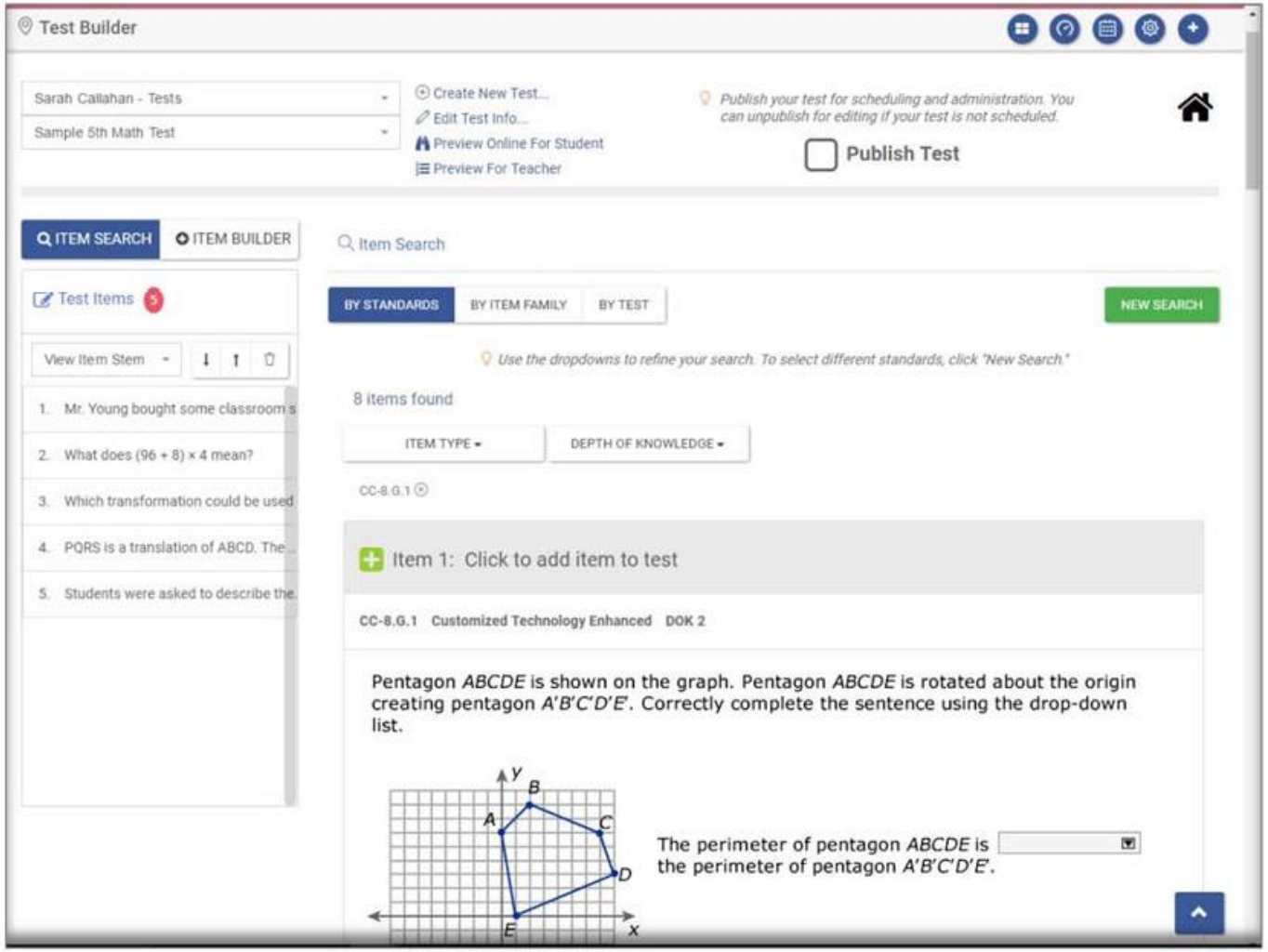
Item Builder makes it possible for teachers to create items and to align these items to Arizona State Academic Standards, and other state standards in any grade and subject.

Item Builder allows users to create, modify, and edit test items and place them in their own or shared libraries.

Assessment items including answer choices may be accompanied by images, text, and links to a variety of media (e.g., videos, images, texts, attached files) and associated with metadata (e.g., DOK). Once items have been created, they can be searched for inclusion in future assessments.

Item Builder makes it possible for educators to create the following item types: Multiple Choice and Expanded Selected Response; Open Response; Selectable Text; Short Answer; Dropdown; Classifying, Sequencing.

Searching item banks in Galileo Test Builder Interface



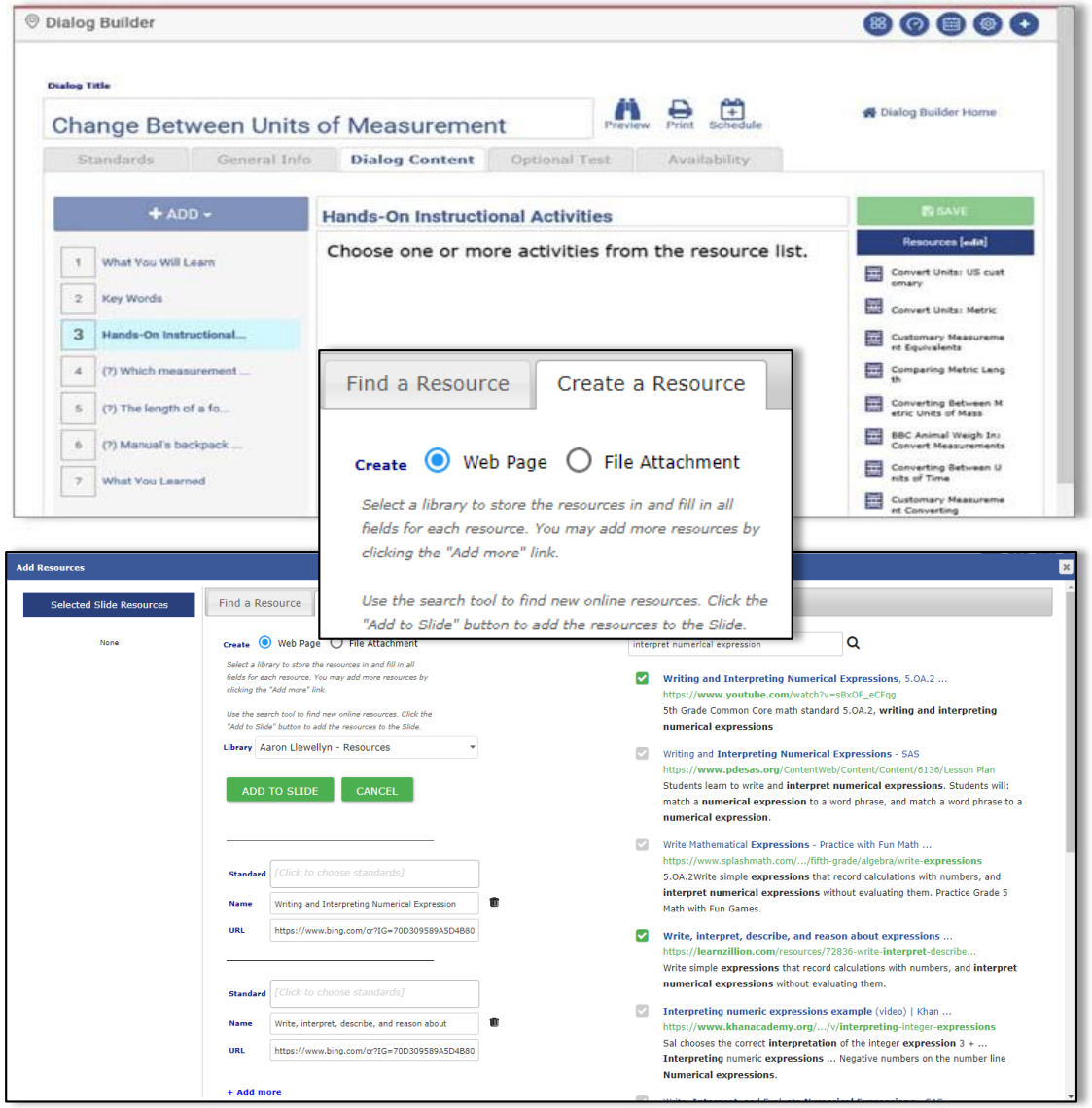
Using Instructional Dialogs and Learning Resources

Dialogs and Resources

Galileo online Instructional Dialog Builder provides tools for educators to use in building online Instructional Dialog lessons and assignments integrating instruction, related instructional activities including graphics, practice items, and formative class assessments.

Dialogs make it possible to assess what is learned and guide learning by providing immediate feedback during the learning process. Online content may include multimedia content such as images, video presentations, and sound. Dialogs can also be effectively utilized to provide performance-based and project-based assessments.

Galileo comes complete with Instructional Dialogs built right in, as well as the capability for a district to build, share, and implement their own Dialogs.



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We appreciate your participation

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