CARNEGIE LEARNING

REPORTS HANDBOOK

Carnegie Learning

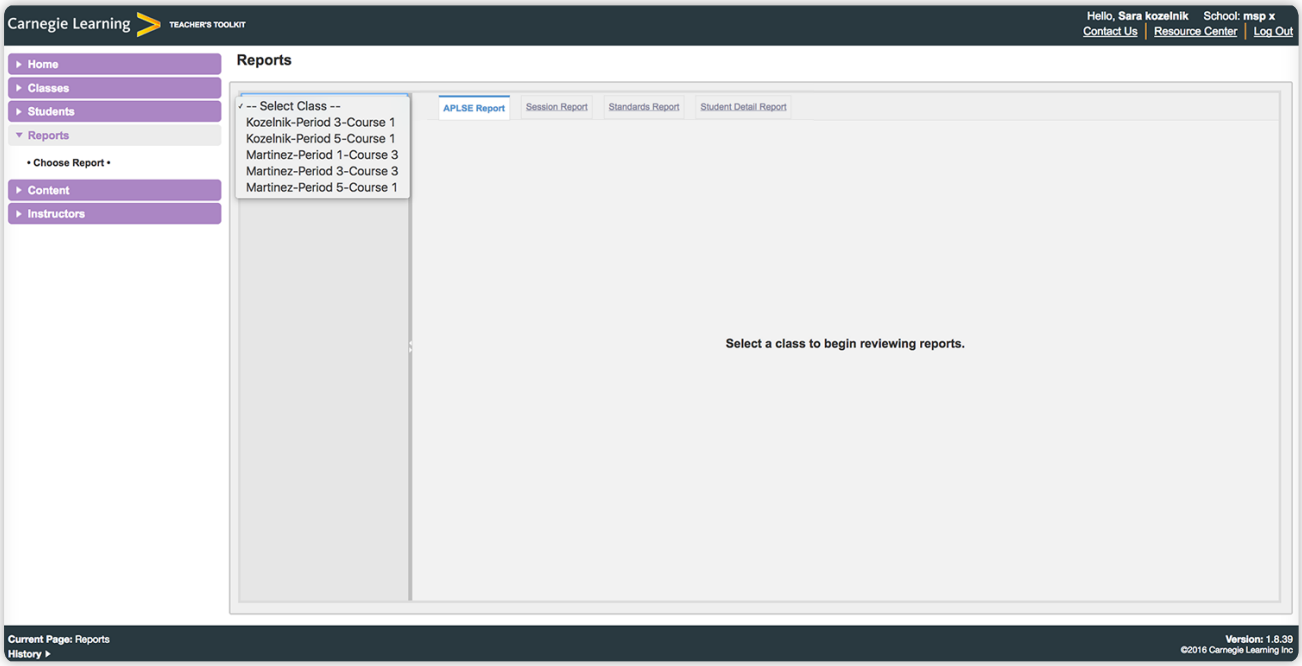
Teacher's Toolkit X Reports

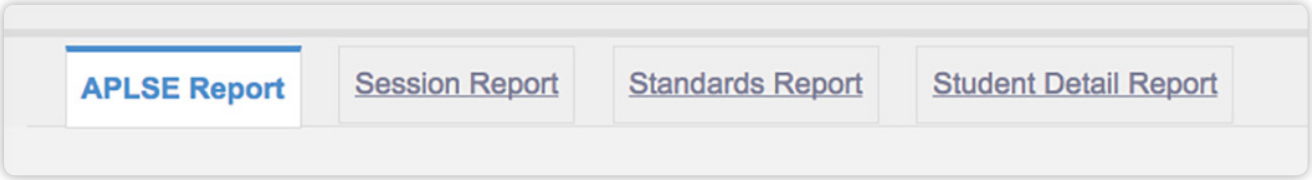
Contents

Accessing Reports in Teacher's Toolkit X

Valuable information regarding students' usage of the MATHia® X Software is at your fingertips in Teacher's Toolkit X. This information is critical for assessing your students' learning and adjusting instruction as a result. You are encouraged to run Teacher's Toolkit X reports weekly.

From the Reports tab, choose the class that you would like to view from the list of available classes. Next, click on the tab for the report you'd like to view. You can switch back and forth between tabs, allowing you to quickly view multiple data metrics for a class or student in just one click.





All MATHia X reports feature information icons and hovering windows to guide you through reviewing the data.

Reporting Scenarios

Each time students log into MATHia X, each student's data is constantly recorded and assessed while the software is also adapting programmatically to the mastery level of each individual student. You can use our reporting system to continually assess this progress and use the results to create individualized, data-driven learning plans.

The following table describes how MATHia X reports can be used at the individual student or class level.

IF YOU WOULD LIKE TO …	THEN, RUN THIS REPORT:	REPORT TYPE (Class or Student)
Identify current student placement in a class	Student Detail Report	Class Report
Prepare for parent conferences or IEP meetings	APLSE Progress Report or Student Detail Report	Student Report
Locate class-level summary data helpful for grading	APLSE Progress Report	Student Report
Group students according to standards progress	Standards Report	Class Report
Summarize class progress in the curriculum	Student Detail Report	Class Report
View a summary of how a student is progressing in the software	Student Detail Report	Student Report
Identify a student's most recent session	Session Report	Student Report
Summarize student usage data	Session Report or Student Detail Report	Student Report

APLSE REPORT: OVERVIEW

The Adaptive Personalized Learning ScorE (APLSE) Report is a predictive report that displays class and student progress over time. The APLSE Report takes all aspects of a class or student's work into consideration and provides each class and student with an APLSE Score.

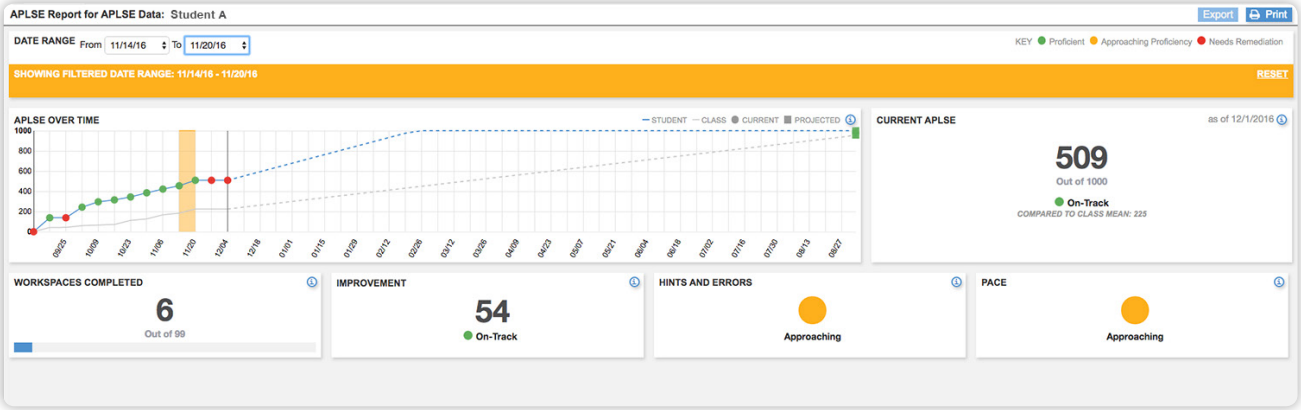
Understanding the Score

The score is based on the amount of work completed, the time taken to complete it, and student performance (including content mastery, hint requests, and errors). Regardless of the date range selected, the APLSE Score and graph displayed will always represent the APLSE Score year to date (out of the total). This is intentionally done to give a full-year picture.

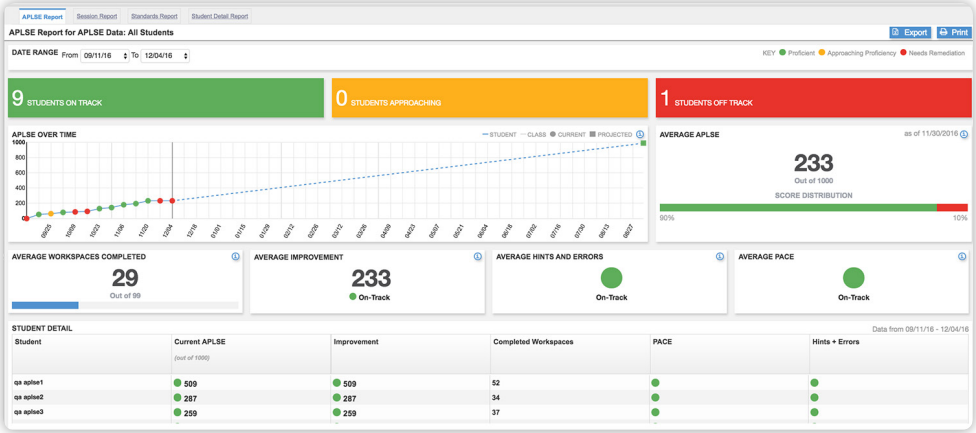
Each class has a total APLSE Score that is determined by sequenced content included in that class. The more content that is included in a course, the higher the available APLSE Score will be. If you build smaller, remedial classes that only focus on a portion of the grade-level content, you will notice the available APLSE Score is lower.

Interpreting the Graphs

The graph is designed to show progress over time and predict where a class or specific student will end up at the end of a school year (with regard to the assigned content). The APLSE graph over time will always display the entire length of the course. When a date range is selected, it will be highlighted. The prediction line shows where a class or specific student will end the year if they continue at the same pace.



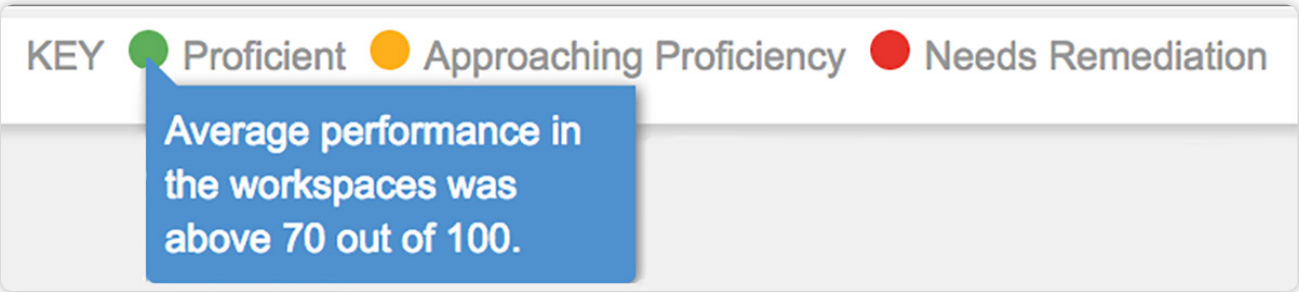
A date range is provided to view APLSE Report data in weekly increments (Sunday to Saturday).



The total possible APLSE score for a class is solely determined by the amount of sequenced content making up the class. The amount of content students need to complete remains the same, regardless of the specified starts and end dates.

APLSE Graph Key

The APLSE Graph features a key that identifies the required metrics for the class and students to fall into one of the following categories:



- **Proficient:** Students whose average performance in completed workspaces was above 70 out of 100.
- **Approaching Proficiency:** Students whose average performance in completed workspaces was between 50 and 69.
- **Needs Remediation:** Students whose average performance in completed workspaces was 50 or less.

Understanding the Content Included in the APLSE Score

- Work completed in unsequenced modules are not included in the APLSE Report.
- Check for Understanding workspaces are not included in the APLSE Score, however, they are calculated into the Workspaces Completed, Hints and Errors, and Pace.
- The total available APLSE Score points will go up if additional, sequenced modules are added to the syllabus.

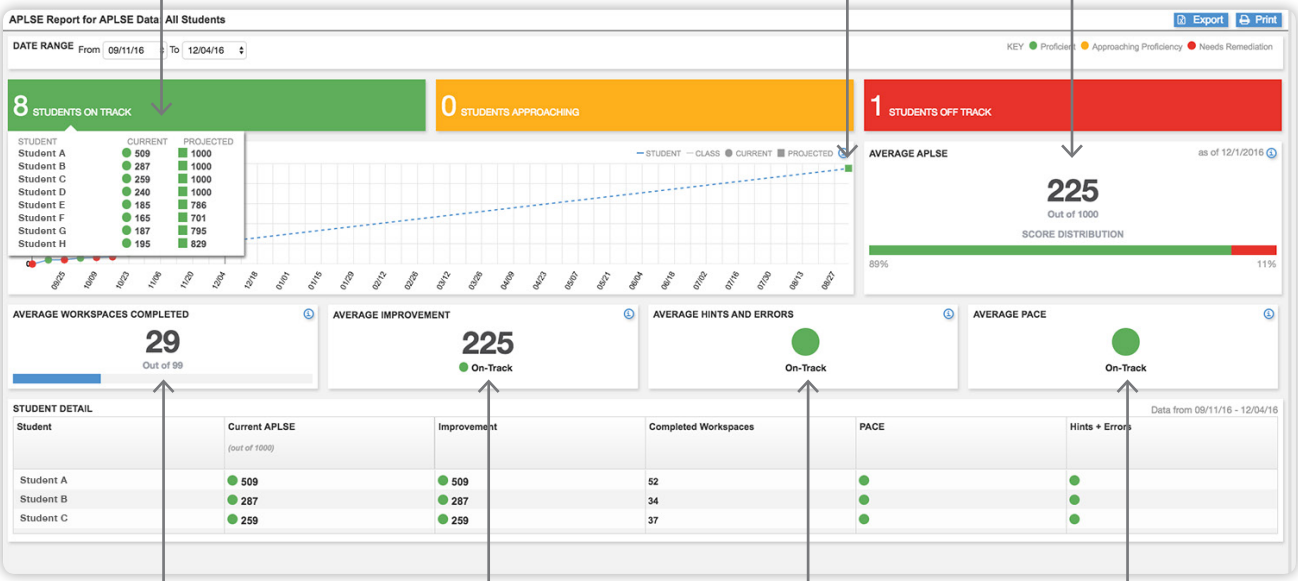
APLSE REPORT: CLASS VIEW

The class view of the APLSE Report provides insight into the current overall progress of the entire class as well as the current projection of year-end performance. The Student Detail table underneath the graph provides specific metrics for each student, to help identify target students who might require remediation. You can also review incremental APLSE Score growth for each student by viewing the Improvement Score for the selected date range.

Mouse over the **On Track, Approaching, and Off Track bars** to determine, based on their year to date work, which individual students make up each category.

The graph predicts that this class is projected to complete the curriculum by August, provided the class continues working at their current pace.

Average APLSE is the average APLSE Score across all of the students in the class. Hover over the colored bar to see the students in each category.



Average Workspaces Completed is the class average of workspaces completed by all students in the class, for the date range selected.

Average Improvement is the average APLSE Score improvement for the class, for the date range selected.

Average Hints and Errors compares the class usage data against historical usage data for the same content, for the date range selected.

Average Pace is the rate at which the class is completing workspaces and is determined by comparing class usage data against historical usage data for the same content, for the date range selected.

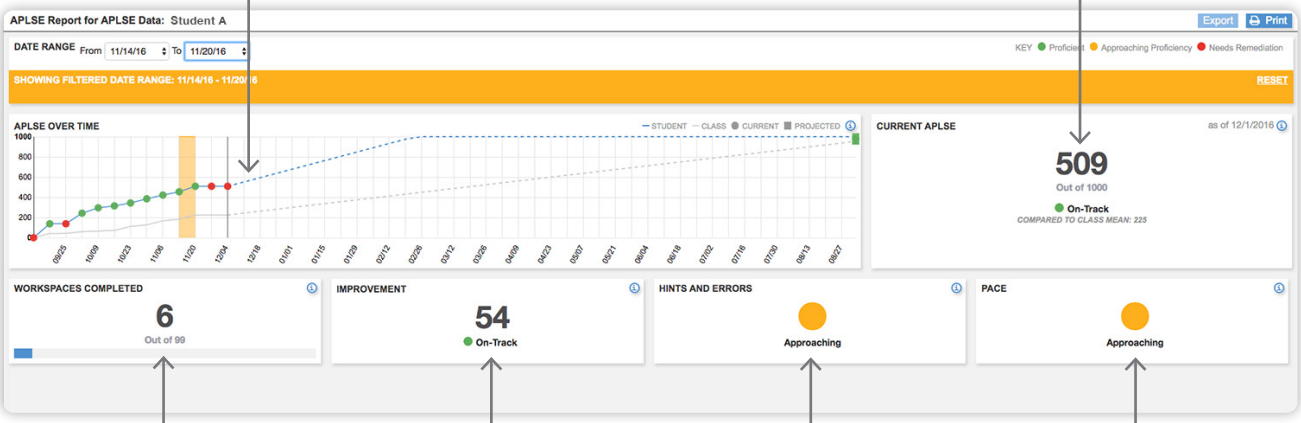
Students identified as Inactive in the table underneath the graph are students who have not completed any workspaces within the last 30 days. These students may have logged into the MATHia X Software, however, they did not complete any workspaces.

APLSE REPORT: STUDENT VIEW

The student view of the APLSE Report displays the student's current APLSE Score, and whether or not the student is on track to complete the curriculum by the end of the class.

This student's usage and projection is represented by the blue dotted line, while the gray dotted line represents the class.

Current APLSE is the student's current APLSE Score. The Class Mean is also provided to determine how the student is performing compared to the class.



Workspaces Completed is the total number of workspaces completed by the student, for the date range selected.

Improvement is the student's incremental APLSE Score improvement, for the date range selected.

Hints and Errors compares the student's usage data against historical usage data for the same content, for their workspaces completed for the date range selected.

Pace is the rate at which the student is completing workspaces and is determined by comparing student's usage data against historical usage data for the same content, for their workspaces completed for the date range selected.

Hover over the graph to view the student's APLSE Score for any given week.

SESSION REPORT: CLASS VIEW

The Session Report is designed to give teachers a day-to-day view of work being completed by students.

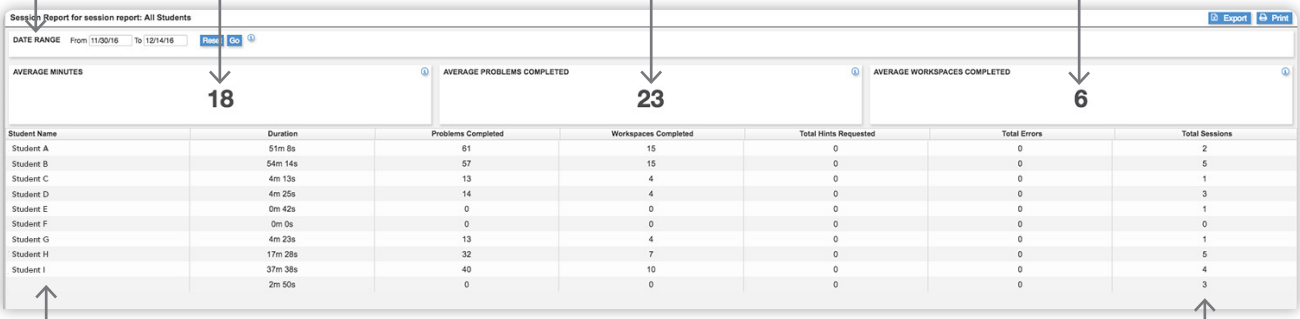
The class view of this report gives teachers a clear view of student work completed during a single class period, a week in the lab, or a full two-week stretch.

Date Range allows teachers to select a specific date range to run this report by daily increments, for up to a two week period of time.

Average Minutes shows the class average of minutes logged, for the specified date range.

Average Problems Completed displays the class average of problems completed, for the specified date range.

Average Workspaces Completed displays the class average of workspaces completed, for the specified date range.



Student Name	Duration	Problems Completed	Workspaces Completed	Total Hints Requested	Total Errors	Total Sessions
Student A	51m 8s	61	15	0	0	2
Student B	54m 14s	57	15	0	0	5
Student C	4m 13s	13	4	0	0	1
Student D	4m 25s	14	4	0	0	3
Student E	0m 42s	0	0	0	0	1
Student F	0m 0s	0	0	0	0	0
Student G	4m 23s	13	4	0	0	1
Student H	17m 28s	32	7	0	0	5
Student I	37m 38s	40	10	0	0	4
	2m 50s	0	0	0	0	3

Student Matrix summarizes the work a student has completed (time, problems, workspaces, hints, errors, and total sessions), for the specified date range.

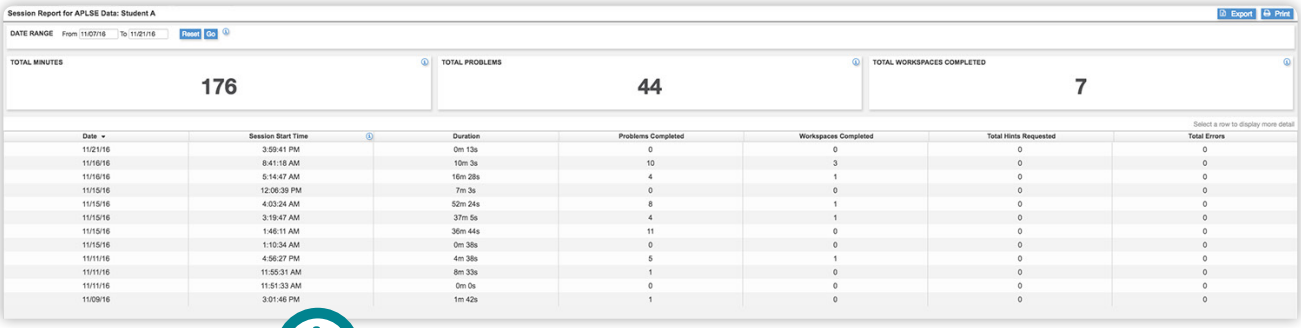
Total Sessions is the number of times a student logged into the MATHia X Software during the specified date range.

The default view of this report includes data from sessions completed within the last seven calendar days. Change the date range to view different sets of data.

SESSION REPORT: STUDENT VIEW

All of the metrics from the Class Session Report are the same for the Student Session Report, except instead of class averages, teachers see actual individual student metrics, for the selected date range.

The session matrix is a detailed view of the work completed each time an individual student logged into MATHia X.



Session Report for APLSE Data: Student A

Export | Print

DATE RANGE From: 11/07/16 To: 11/21/16 Reset Go

TOTAL MINUTES	TOTAL PROBLEMS	TOTAL WORKSPACES COMPLETED
176	44	7

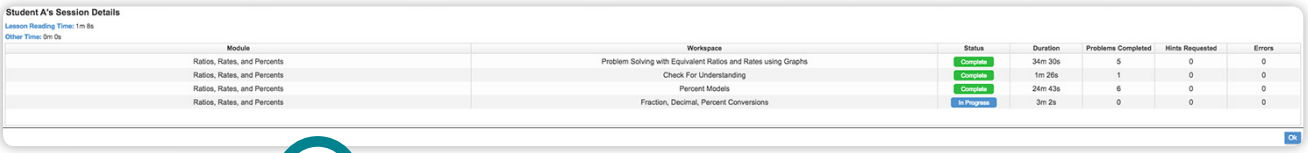
Select a row to display more detail

Date	Session Start Time	Duration	Problems Completed	Workspaces Completed	Total Hints Requested	Total Errors
11/21/16	3:59:41 PM	0m 13s	0	0	0	0
11/16/16	8:41:18 AM	10m 3s	10	3	0	0
11/16/16	5:14:47 AM	16m 28s	4	1	0	0
11/15/16	12:06:39 PM	7m 3s	0	0	0	0
11/15/16	4:03:24 AM	52m 24s	8	1	0	0
11/15/16	3:19:47 AM	37m 5s	4	1	0	0
11/15/16	1:46:11 AM	36m 44s	11	0	0	0
11/15/16	1:10:34 AM	0m 38s	0	0	0	0
11/11/16	4:56:27 PM	4m 38s	5	1	0	0
11/11/16	11:55:31 AM	8m 33s	1	0	0	0
11/11/16	11:51:33 AM	0m 0s	0	0	0	0
11/09/16	3:01:46 PM	1m 42s	1	0	0	0

The timestamp reflects the student's local time zone.

Session Details View

Clicking on a student's session displays a window that provides insight to where the student worked in the software, during that session.



Student A's Session Details

Lesson Reading Time: 1m 8s

Other Time: 0m 0s

Module	Workspace	Status	Duration	Problems Completed	Hints Requested	Errors
Ratios, Rates, and Percents	Problem Solving with Equivalent Ratios and Rates using Graphs	Complete	34m 30s	5	0	0
Ratios, Rates, and Percents	Check For Understanding	Complete	1m 26s	1	0	0
Ratios, Rates, and Percents	Percent Models	Complete	24m 43s	6	0	0
Ratios, Rates, and Percents	Fraction, Decimal, Percent Conversions	In Progress	3m 2s	0	0	0

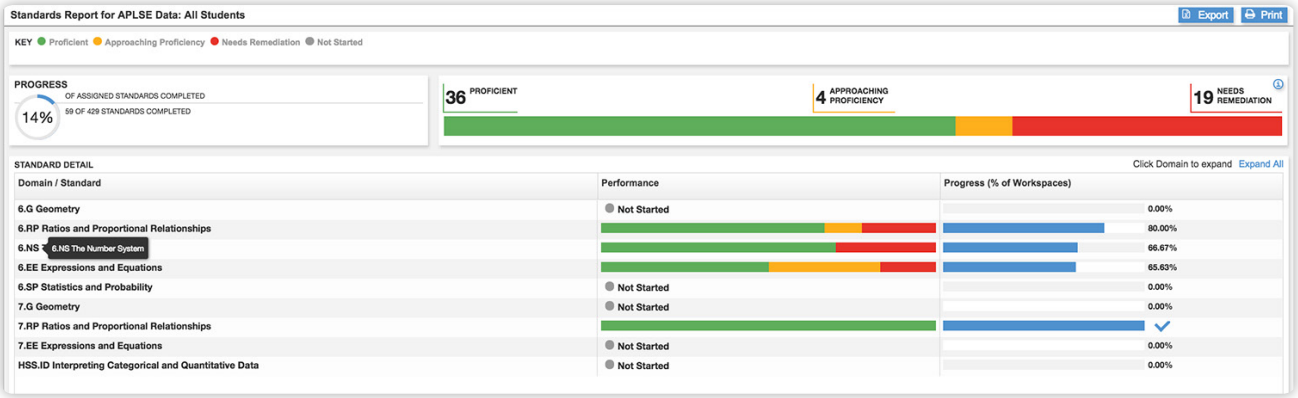
Ok

Other Time reflects time spent logged into the software that was not spent reading the lesson or working in a module.

STANDARDS REPORT: CLASS VIEW

The Standards Report is designed to provide an easy view into how well students are mastering, or have mastered, specific standards.

The class view of the Standards Report displays summary-level data for progress and performance on the standards assigned in the curriculum.

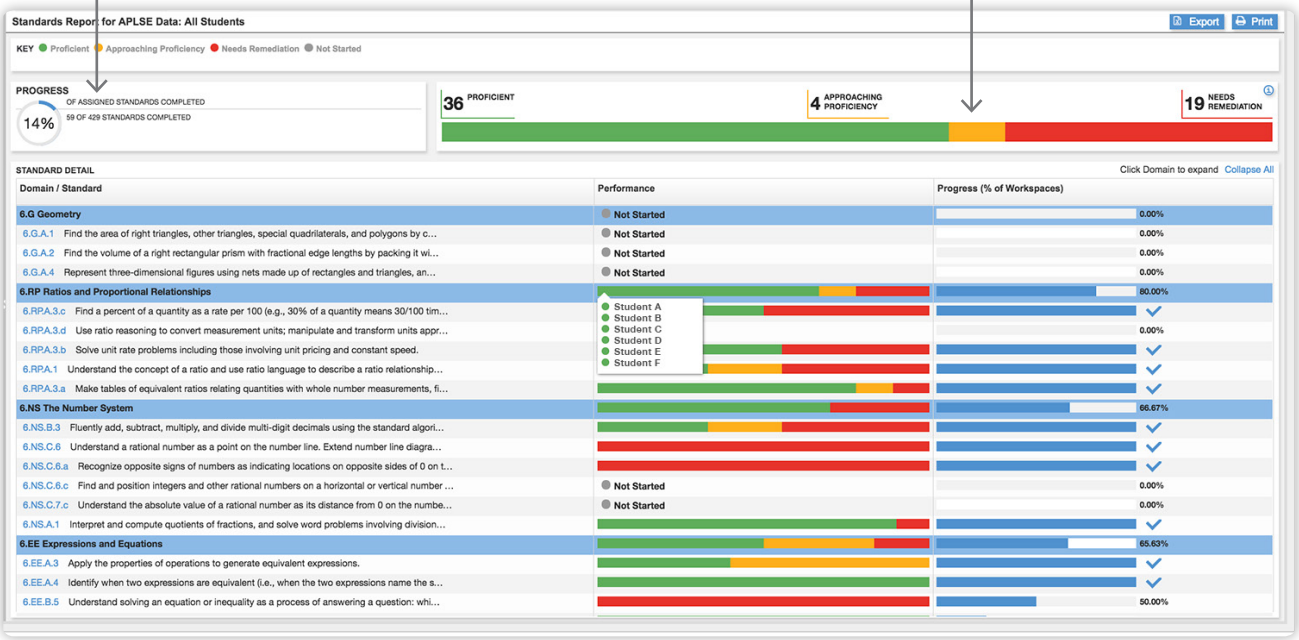


Collapsed View

The Standards Detail table allows teacher to identify the un-mastered standards and the specific students in need of remediation.

Progress represents the current progress towards the standards for the entire class. In this class, there are 33 total standards for the students to work through and there are 13 students in the class. With each student needing to master 33 standards there are 429 total standards for this class.

The Performance Indicator identifies how the class has performed on the standards that have been completed to date.



Expanded View

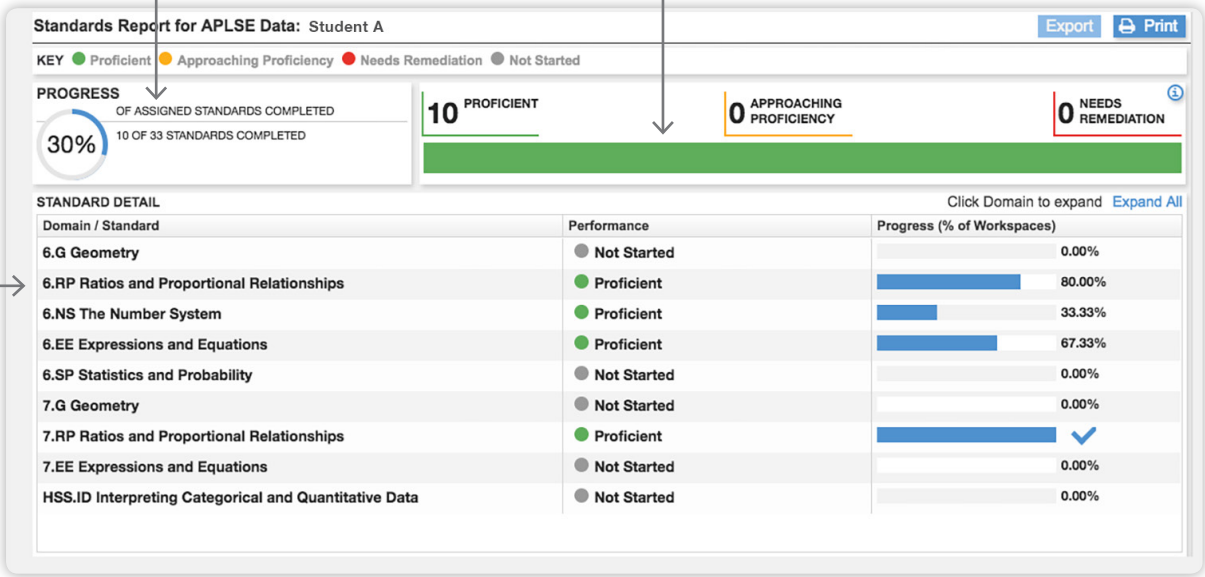
Teachers can view progress and performance for a Domain, and also click on the Domain, to view progress and performance for the individual standards. Hovering over the Performance column displays individual student in each category.

STANDARDS REPORT: STUDENT VIEW

The student view of the Standards Report displays progress and performance data on the standards assigned in the curriculum.

Progress represents a student's current progress towards the standards. In this class, there are 33 total standards for the student to work through.

The Performance Indicator identifies how the student has performed on the standards they have completed to date.



This student has completed 80% of the content associated to this Domain. The student has received a performance rating of Proficient for the content that they have completed.

STUDENT DETAIL REPORT: CLASS VIEW

The class summary view of the Student Detail Report monitors class-level progress through the software.

The data shows current module placement for all students in the class, displaying totals for:

- % Syllabus Completion
- Time on Task
- Completed Modules, Units, and Workspaces

The Average Performance Score averages all of the Performance Scores for each workspace completed by the student.

Time on Task equals the total time that the student spent reading the Lesson Page and working on problems.

Student Detail Report for APLSE Data: All Students Export Print

Student Name	% Syllabus Complete	Average Performance Score (out of 100)	Current Module	Student Usage Totals			
				Time on Task (in minutes)	Modules Completed	Units Completed	Workspaces Completed
Student A	76	118	One-Step Equations and I...	637	4	10	56
Student B	44	88	Numeric and Algebraic Ex...	90	3	6	37
Student C	53	77	Numeric and Algebraic Ex...	707	3	8	39
Student D	45	78	Numeric and Algebraic Ex...	422	3	6	33
Student E	49	61	Numeric and Algebraic Ex...	566	3	6	36
Student F	35	92	Ratios, Rates, and Percents	551	2	5	26
Student G	32	90	Ratios, Rates, and Percents	524	2	5	24
Student H	0	0	Not Started	0	0	0	0
Student I	36	87	Ratios, Rates, and Percents	101	2	5	27
Student J	49	114	Numeric and Algebraic Ex...	96	3	7	36
Student K	4	100	One-Step Equations and I...	8	1	1	3
Student L	5	100	Fraction and Decimal Oper...	27	0	0	4
Student M	1	99	Pre-Launch Protocol	1	0	0	1

Module-level statistics are also provided to gain insight to:

- Average time, hints, and errors per problem
- Average Performance Score for all completed workspaces within the module
- Total Time on Task

Student Name	Module Completion Status (percent)	Module Name	Current Unit	Current Workspace	First Session	Last Session	Average Performance Score	Total Workspace Time (HH:MM:SS)	Total Lesson Reading Time (HH:MM:SS)	Total Units Completed	Total Workspaces Completed	Total Problems Completed	Average Time Per Problem (in minutes)	Average Hints Per Problem	Average Errors Per Problem
Apple, John	100	Pre-Launch F	Pre-Launch F	Pre-Launch F	9/12/16	9/12/16	100	0:03:23	0:00:04	1	2	9	0	0	0
Apple, John	100	Fraction and	Decimal Ope	Decimal Proc	9/12/16	9/12/16	99	0:52:17	0:06:36	2	12	51	1	0.04	0.29
Apple, John	100	Ratios, Rates	Introduction	Determining	9/12/16	10/6/16	138	5:40:54	1:14:52	3	15	158	2	0.11	0.91
Apple, John	100	Numeric and	Equivalent A	Simplifying A	10/6/16	10/31/16	113	1:51:32	0:02:37	3	14	105	1	0.03	0.56
Apple, John	47	One-Step Eq	Solving One-	Solving with	10/31/16	11/29/16	131	6:38:10	0:11:32	1	9	129	3	0.6	1.98
Bloomfield, Susan	100	Pre-Launch F	Pre-Launch F	Pre-Launch F	9/12/16	9/12/16	100	0:02:13	0:00:03	1	2	9	0	0	0
Bloomfield, Susan	100	Fraction and	Decimal Ope	Decimal Proc	9/12/16	10/20/16	75	2:38:56	0:00:18	2	12	67	2	0.88	4.42
Bloomfield, Susan	100	Ratios, Rates	Introduction	Determining	10/20/16	11/16/16	111	10:08:36	0:00:33	3	15	181	3	0.38	8.08
Bloomfield, Susan	7	Numeric and	Number Proj	Commutativ	11/29/16	11/29/16	99	0:05:58	0:00:10	0	1	4	1	0.5	1.25
Bloomfield, Susan	36	Negative Nu	Integers	Graphing Ine	10/25/16	10/25/16	40	0:26:39	0:00:04	0	4	12	2	0.25	16.75
Cartwright, Geoffrey	100	Pre-Launch F	Pre-Launch F	Pre-Launch F	9/12/16	9/12/16	100	0:02:03	0:00:05	1	2	9	0	0	0
Cartwright, Geoffrey	100	Fraction and	Decimal Ope	Decimal Proc	9/12/16	10/20/16	79	1:59:06	0:05:07	2	12	88	1	0.48	5.56
Cartwright, Geoffrey	100	Ratios, Rates	Introduction	Determining	10/21/16	11/3/16	69	2:42:24	0:03:13	3	15	93	2	0.53	9.97
Cartwright, Geoffrey	57	Numeric and	Algebraic Ex	Evaluating M	11/3/16	11/16/16	81	6:31:48	0:08:16	1	8	80	5	0.86	3.67
Cartwright, Geoffrey	0	One-Step Eq	Reasoning w	Check For Ur	11/11/16	11/11/16		0:00:09	0:00:04	0	0	0	0	0	0
Doright, Deb	100	Pre-Launch F	Pre-Launch F	Pre-Launch F	9/12/16	9/12/16	96	0:02:29	0:00:32	1	2	9	0	0.33	0.78
Doright, Deb	100	Fraction and	Decimal Ope	Decimal Proc	9/12/16	10/20/16	63	446:53:06	0:04:38	2	12	70	383	1.11	5.13
Doright, Deb	100	Ratios, Rates	Introduction	Determining	10/20/16	11/16/16	90	9:33:54	0:03:40	3	15	141	4	0.16	9.13
Doright, Deb	21	Numeric and	Number Proj	Simplifying N	9/30/16	11/16/16	74	0:17:38	0:00:15	0	3	17	1	1.35	6.94
Elan, Frederick	100	Pre-Launch F	Pre-Launch F	Pre-Launch F	9/15/16	9/15/16	90	0:08:39	0:00:23	1	2	9	1	0	0.44
Elan, Frederick	100	Fraction and	Decimal Ope	Decimal Proc	9/15/16	10/20/16	52	7:47:00	0:00:04	2	12	94	5	0.56	7.31
Elan, Frederick	100	Ratios, Rates	Introduction	Determining	10/20/16	11/16/16	66	5:39:27	0:00:09	3	15	103	3	0.84	9.94
Elan, Frederick	14	Numeric and	Number Proj	Order of Ope	11/16/16	11/28/16	37	0:13:03	0:05:25	0	2	10	1	2.3	9.3
Frankfurt, Eleanor	100	Pre-Launch F	Pre-Launch F	Pre-Launch F	9/15/16	9/15/16	100	0:04:17	0:00:04	1	2	9	0	0	0.11
Frankfurt, Eleanor	100	Fraction and	Decimal Ope	Decimal Proc	9/15/16	11/11/16	105	5:18:03	0:00:08	2	12	81	4	0.93	1.62
Frankfurt, Eleanor	53	Ratios, Rates	Problem Solv	Problem Solv	11/11/16	11/16/16	92	2:52:50	0:07:33	1	8	54	3	6.35	5.96
Gallagher, Ian	100	Pre-Launch F	Pre-Launch F	Pre-Launch F	9/12/16	9/12/16	100	0:02:06	0:00:04	1	2	9	0	0	0
Gallagher, Ian	100	Fraction and	Decimal Ope	Decimal Proc	9/12/16	11/15/16	103	5:13:20	0:00:43	2	12	78	4	1.12	1.95
Gallagher, Ian	60	Ratios, Rates	Problem Solv	Problem Solv	9/12/16	11/16/16	71	3:07:47	0:03:19	1	9	69	3	2.48	7.43
Heathgrow, Sami	100	Pre-Launch F	Pre-Launch F	Pre-Launch F	9/13/16	9/13/16	100	0:03:35	0:00:07	1	2	9	0	0	0
Heathgrow, Sami	100	Fraction and	Decimal Ope	Decimal Proc	9/13/16	11/3/16	86	0:47:07	0:00:25	2	12	65	1	0.49	5.34
Heathgrow, Sami	60	Ratios, Rates	Problem Solv	Problem Solv	11/3/16	11/16/16	97	8:23:33	0:04:49	1	9	102	5	1.64	4.95

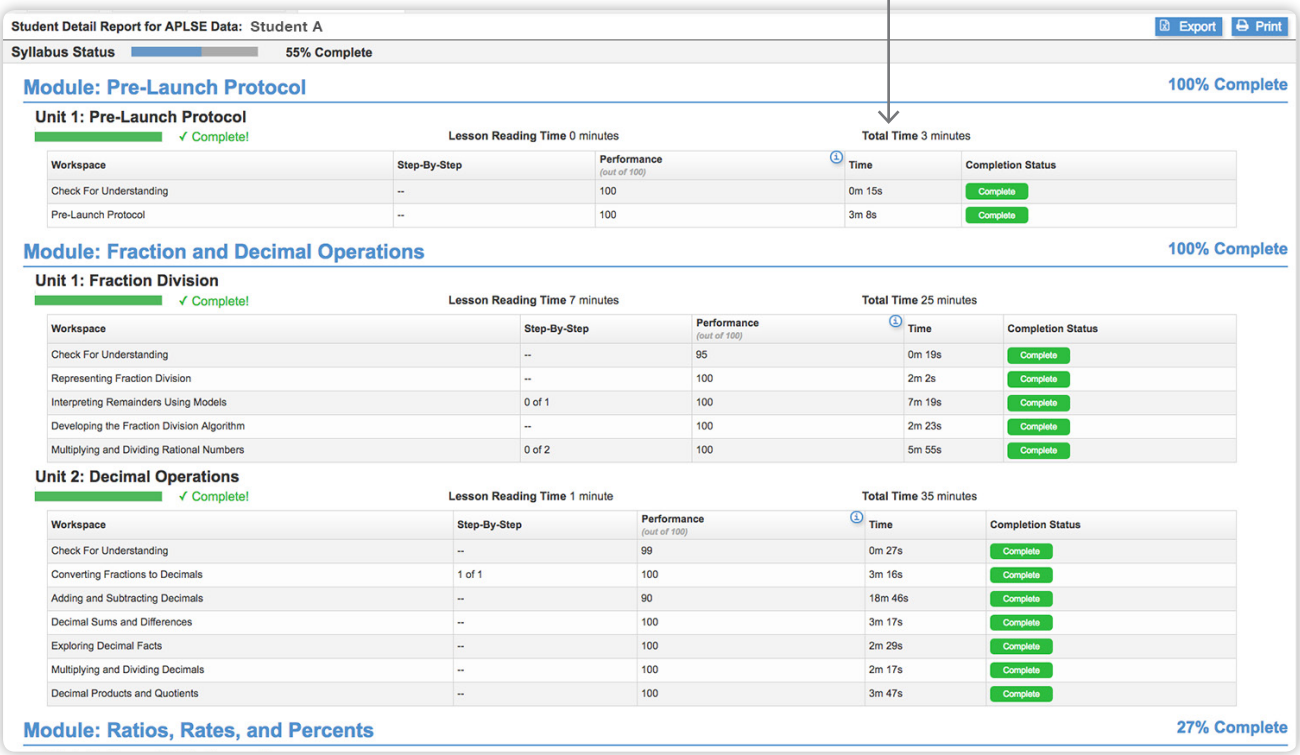
STUDENT DETAIL REPORT: STUDENT VIEW

The student view of the Student Detail Report monitors student progress and efforts in very specific content areas.

The report identifies student progress across the entire syllabus, including:

- Syllabus, Module, Unit, and Workspace completion status
- Total Time spent in each unit
- Performance Scores for each completed workspace

Total Time equals the total time the student spent working in the unit.



Student Detail Report for APLSE Data: Student A

Export Print

Syllabus Status 55% Complete

Module: Pre-Launch Protocol 100% Complete

Unit 1: Pre-Launch Protocol ✓ Complete! Lesson Reading Time 0 minutes Total Time 3 minutes

Workspace	Step-By-Step	Performance (out of 100)	Time	Completion Status
Check For Understanding	--	100	0m 15s	Complete
Pre-Launch Protocol	--	100	3m 8s	Complete

Module: Fraction and Decimal Operations 100% Complete

Unit 1: Fraction Division ✓ Complete! Lesson Reading Time 7 minutes Total Time 25 minutes

Workspace	Step-By-Step	Performance (out of 100)	Time	Completion Status
Check For Understanding	--	95	0m 19s	Complete
Representing Fraction Division	--	100	2m 2s	Complete
Interpreting Remainders Using Models	0 of 1	100	7m 19s	Complete
Developing the Fraction Division Algorithm	--	100	2m 23s	Complete
Multiplying and Dividing Rational Numbers	0 of 2	100	5m 55s	Complete

Unit 2: Decimal Operations ✓ Complete! Lesson Reading Time 1 minute Total Time 35 minutes

Workspace	Step-By-Step	Performance (out of 100)	Time	Completion Status
Check For Understanding	--	99	0m 27s	Complete
Converting Fractions to Decimals	1 of 1	100	3m 16s	Complete
Adding and Subtracting Decimals	--	90	18m 46s	Complete
Decimal Sums and Differences	--	100	3m 17s	Complete
Exploring Decimal Facts	--	100	2m 29s	Complete
Multiplying and Dividing Decimals	--	100	2m 17s	Complete
Decimal Products and Quotients	--	100	3m 47s	Complete

Module: Ratios, Rates, and Percents 27% Complete

Performance Score

Performance Score refers to the individual student's Performance Score achieved within each completed workspace on a scale of 0–100, with 100 being the highest. The Performance Score is calculated based on the student's skill mastery, errors, and hints usage within each workspace.

Complete	Student completed the workspace.
In Progress	Student is currently completing problems in the workspace.
Promoted	Student was promoted to the next workspace without having mastered all skills.
Not Started	Student has not started completing problems in the workspace.