Using SAM Central With *MATH 180*

Course II

July 2021

© Houghton Mifflin Harcourt Publishing Company
Quantile is a registered trademark of MetaMetrics, Inc.

Table of Contents

SAM Central and Student Achievement Manager 4

Logging In to SAM Central 5

SAM Central Home Screen 6
Class Widget 6
Gateway 7
Teacher Profile 7
Add Class 8
Log Out 8

Class Screen 9
Data Snapshots 10
Learning Resources 12
MATH 180 Curriculum 12
Student Software Access 12
Brain Arcade 12
Classroom Games 13
Standards Alignments 14
Glossary 15
mTools 16
mVideos 17
Professional Learning Videos 18
Downloadables 19
Quick Reference Card 20
Ask an Expert 20

***MATH 180* Curriculum 21**
Block Overview Screen 22
Topic Overview Screen 23
Lesson Screen 26
Groupinator® 30
Performance Task Lesson 34
mSkills Assessment 36

***MATH 180* Interactive Whiteboard Technology 38**
Onscreen Tools 38
IWB Tools 39
Lesson Navigation Menu 40
Do Now! 40
Rotation 40
Connect 40
Set Up 41
Try It 41
Guided Learning 41
Model 42
Practice 42
Summarize & Assess 42
Tools & Resources 43

© Houghton Mifflin Harcourt Publishing Company

Educator Access to Student Software 44
Accessing the Student Software 44
Viewing the Student Software 45

***MATH 180* Program Settings 47**
Program Settings in SAM Central 47
Class Profile 48
Roster & Enrollment 49
Student Profiles 51
Usernames & Passwords 51
Class Settings 52
Student Digital Portfolio 53
MATH 180 Program Settings in SAM 54
Enrolling Students 54
Points of Entry 56

The Student Digital Portfolio 58
Accessing the Student Digital Portfolio 59
Managing the Student Digital Portfolio 60
Administrator View 60
The Inbox Tab 61
The Student Work Tab 62
Detail View—Explore Zone Simulation 63
Detail View—mSkills 64

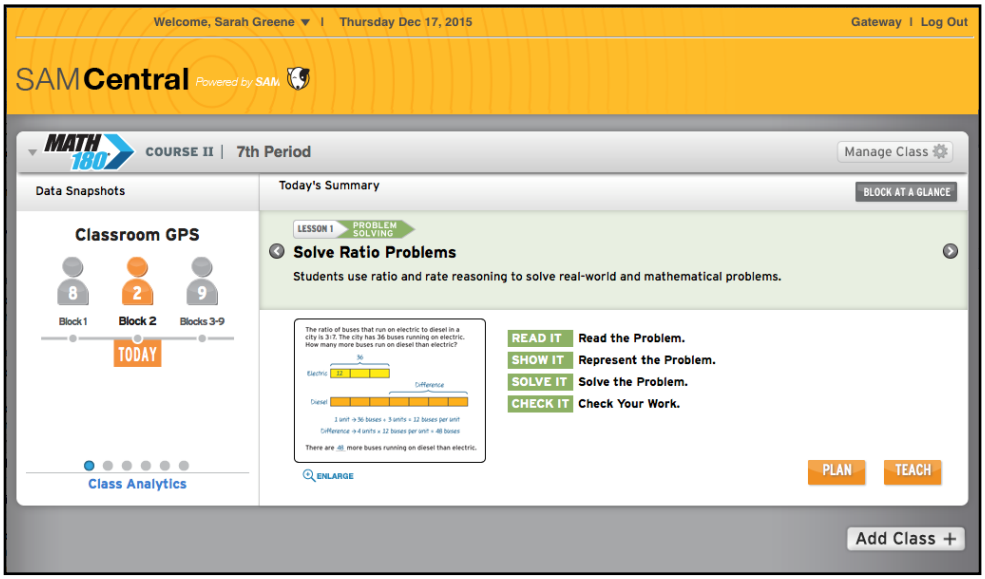
***MATH 180* Reports 65**
Accessing Reports 65
Scheduling Reports 66
Printing Reports 67
Saving a Report as a PDF 67
MATH 180 SAM Reports 68
Running Reports in SAM 68
MATH 180 Course II Results Summary Report 69
Class Analytics 70
Software Performance 70
Software Usage 71
Overall Mastery 72
Zone Progress 73
Current Quantile 74
Quantile Growth 75
Mindset Scan 76
Student Analytics 77
Student Analytics—Overview 78
Student Analytics—Performance Tab 78
Student Analytics—Usage Tab 79
Student Analytics—Common Core Tab 79
Student Analytics—Brain Arcade Tab 80
Student Analytics—*Math Inventory* Tab 80

Administrator Functions: Managing Licenses and Enrolling Teachers 81
Activating Licenses 81
Enrolling Teachers 83

Technical Support 84

© Houghton Mifflin Harcourt Publishing Company

SAM Central and Student Achievement Manager



SAM Central provides teachers with student data, classroom management, and instructional resources they need for successful implementation, effective teaching, and differentiated instruction.

The Student Achievement Manager (SAM) powers SAM Central. SAM is the underlying system that stores and controls all user information. SAM Central draws on that information to allow teachers to create classes, enroll students, customize students' learning experiences, track progress, monitor performance in the software, and generate reports on student and class work.

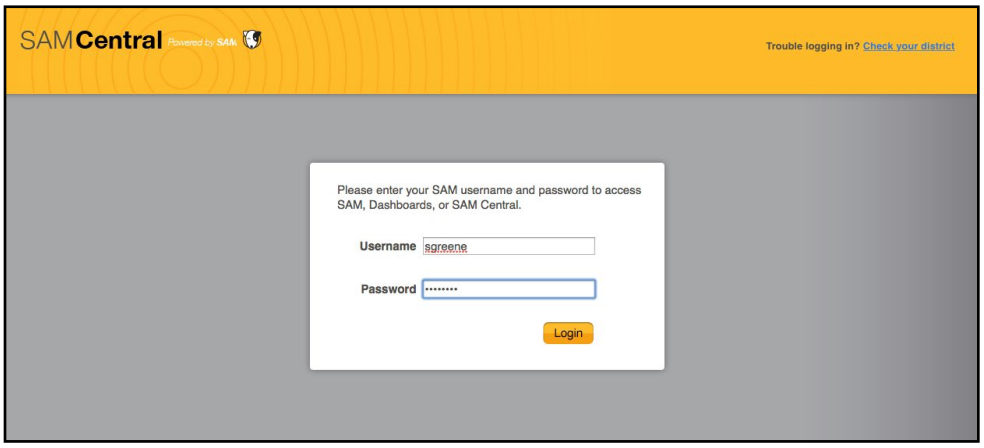
Using SAM Central, teachers can:

- Enroll students in programs and change settings for students and classes
- Customize students' learning experiences and track their progress
- Monitor student performance in the software and plan data-driven instruction
- Group students for differentiated instruction
- Use the interactive whiteboard tools in the *MATH 180* Teaching Space to project class lessons
- Evaluate and monitor student work in mSkills assessments

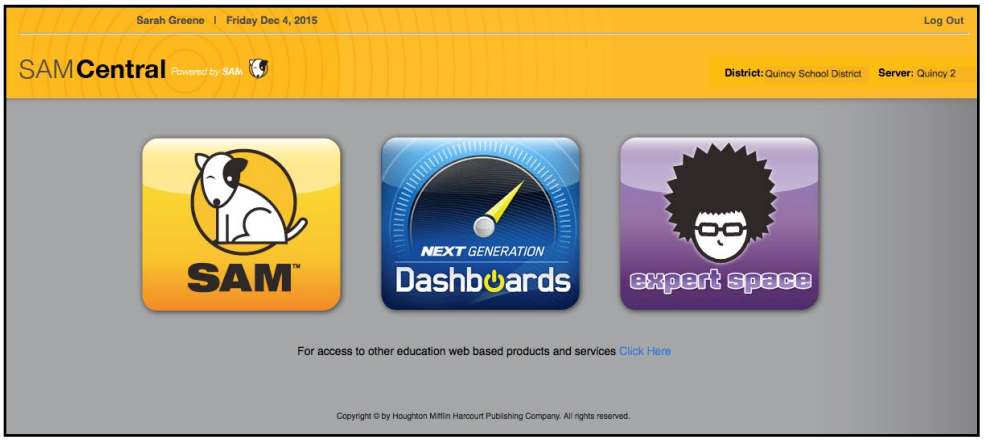
© Houghton Mifflin Harcourt Publishing Company

Logging In to SAM Central

Open the SAM Central Login screen using the URL link from the Hosting Activation email. The SAM Central Login screen appears.



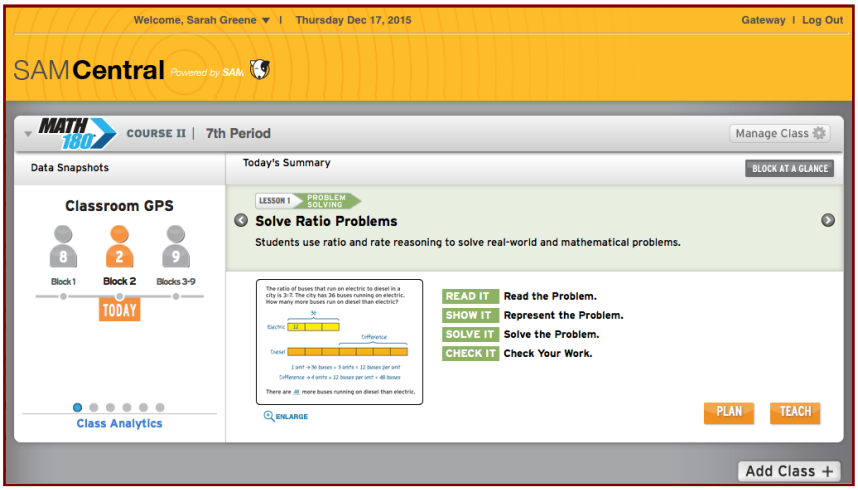
Use the username and password on the teacher profile in SAM (provided by the school or district administrator) to log in to SAM Central. Teachers go directly to their SAM Central Home screen (*page 6*).



Administrators will see the SAM Central Access screen with the SAM icon and icons for other district programs.

© Houghton Mifflin Harcourt Publishing Company

SAM Central Home Screen

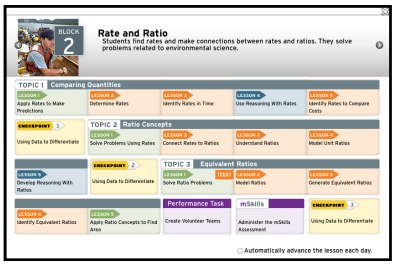


The SAM Central Home screen shows student progress and performance in *MATH 180* as well as an overview of the current lesson and other functions for class and program management. Data for each class is in a Class Widget.

Class Widget

Each Class Widget contains the following sections:

- **Data Snapshots**: Data Snapshots provide an overview of student performance and usage. *MATH 180* Course II data is updated in real time. Click the dots to scroll through the snapshots.
- **Today's Summary**: Today's Summary displays information for that day's lesson. Click the **Plan** button to open the Class screen (*page 9*). Click the **Teach** button to open the *MATH 180* Interactive Whiteboard Technology (*page 38*). Click **Block at a Glance** or **Topic at a Glance** to see all of the Block's or Topic's lessons, with the day's lesson highlighted.



- **Manage Class**: Click the **Manage Class** button to open a pull-down menu of *MATH 180* Program Settings (*page 47*).
- **Class Analytics**: Click the **Class Analytics** link to open the Class screen (*page 70*) and view *MATH 180* class and student reports.

Click the class name in the top bar to expand or collapse the Class Widget.

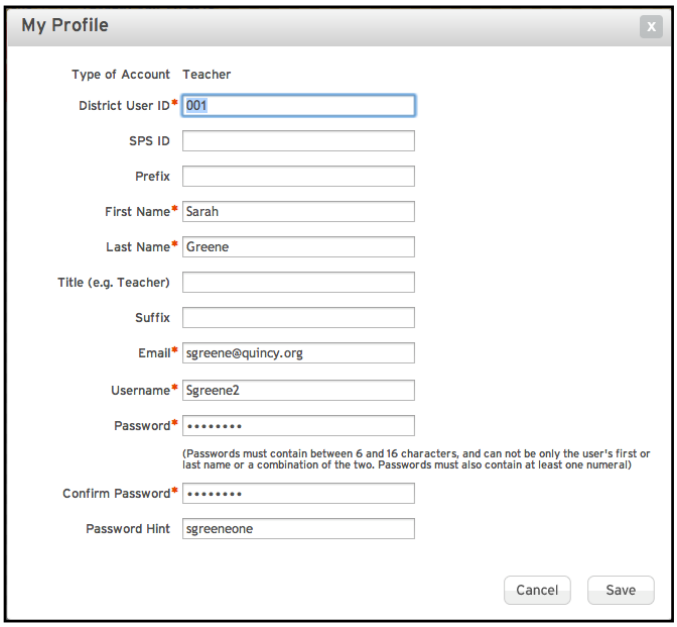
© Houghton Mifflin Harcourt Publishing Company

Gateway

Clicking the **Gateway** link at the top of the Home screen opens a pull-down menu. This menu contains links to SAM, the Product Support site, and any other sites or services that the teacher is entitled to. Click an icon to open that program in a separate browser window.

Teacher Profile

Clicking the teacher's name in the Welcome line of the Home screen opens the My Profile screen, which shows the teacher's profile information.

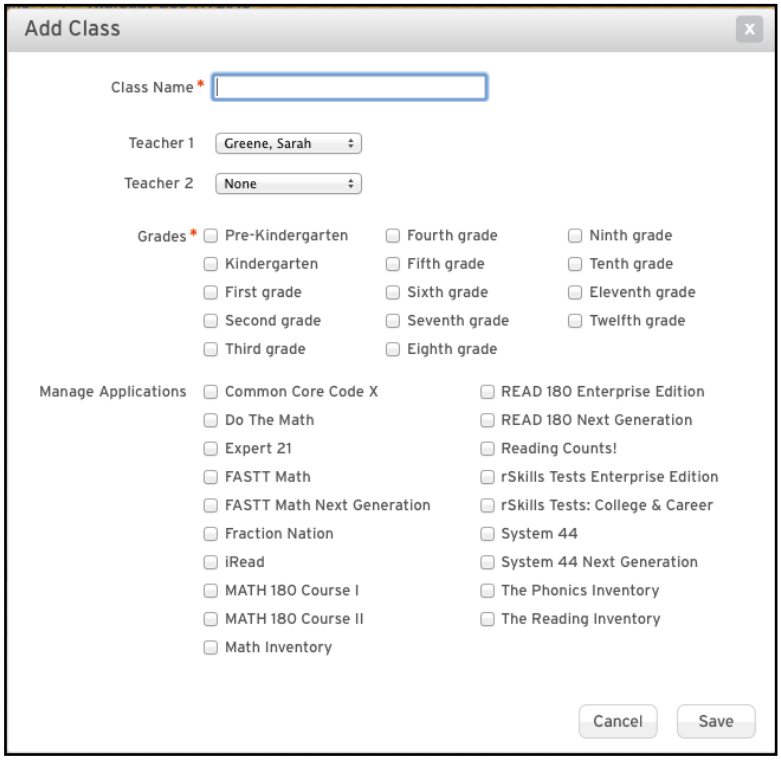


Enter or change information on the profile, then click **Save** to save any changes. To close the screen without saving changes, click **Cancel** or the "**X**" icon at the top of the screen.

© Houghton Mifflin Harcourt Publishing Company

Add Class

Click the **Add Class** button under the Class Widget to add a class.



Enter a name for the class in the Class Name field. Choose the teacher(s) for the class by clicking the pull-down menus and clicking a teacher name.

Select which grades are in the class by clicking the appropriate checkboxes.

Select which programs are being used in the classroom by clicking the appropriate checkboxes under Manage Applications.

Click **Save** to save any changes. To close the screen without saving changes, click **Cancel** or the "**X**" icon at the top of the screen.

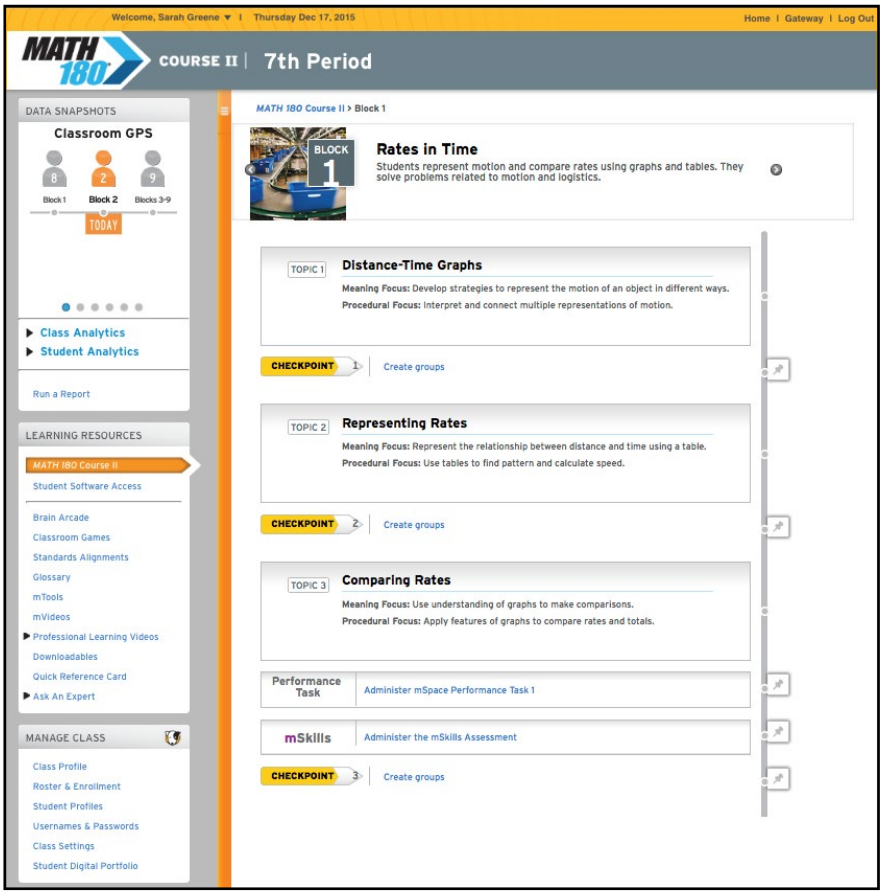
Log Out

Click the **Log Out** link to log out of SAM Central.

© Houghton Mifflin Harcourt Publishing Company

Class Screen

Clicking a link or button on the Class Widget opens the Class screen (except the **Teach** button, which opens the *MATH 180* Interactive Whiteboard Technology [*page 38*]).

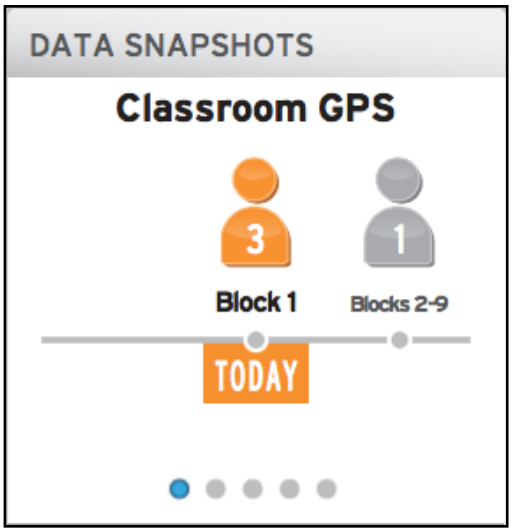


The Class screen consists of a navigation pane on the left side of the screen and a content display area on the right. The navigation pane has three areas:

- **Data Snapshots**: Provides an interactive overview of student performance and usage (*page 10*) as well as links to Class and Student Analytics (*page 65*).
- **Learning Resources**: Links to the *MATH 180* curriculum and teacher tools, including the Groupinator (*page 30*). It also links to the Brain Arcade, mTools, and other downloadable resources.
- **Manage Class**: Allows teachers to set and change *MATH 180* Program Settings (*page 47*) and access the Student Digital Portfolio (*page 58*).

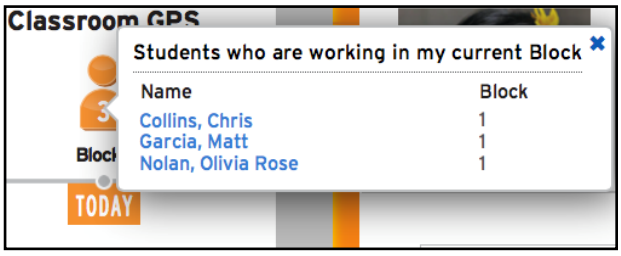
© Houghton Mifflin Harcourt Publishing Company

Data Snapshots

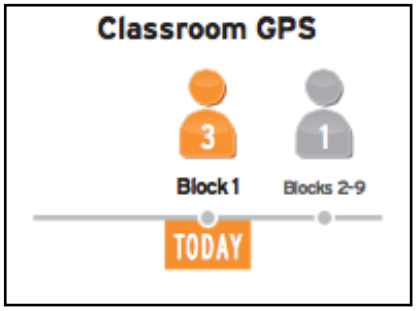


Data Snapshots give an overview of student performance and usage. Click the dots at the bottom of the graph to scroll through the different Data Snapshots.

Click the different areas of the data graphs to see detailed student information. Click the student's name to open the Student Analytics (*page 77*) for that student.

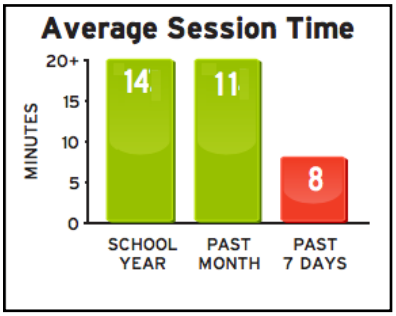


There are five different *MATH 180* Data Snapshots:

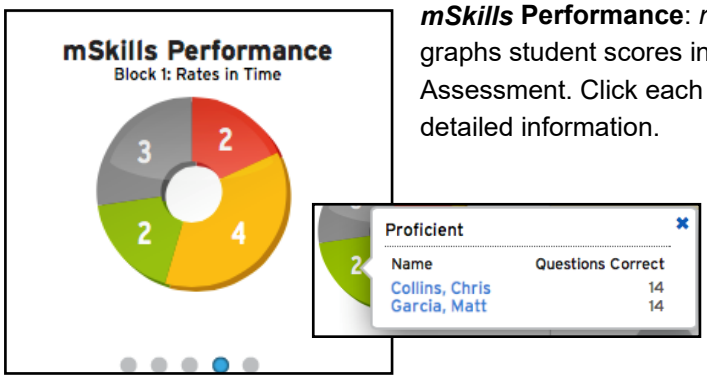


Classroom GPS: Classroom GPS shows which students are currently working in which *MATH 180* Block in the student software.

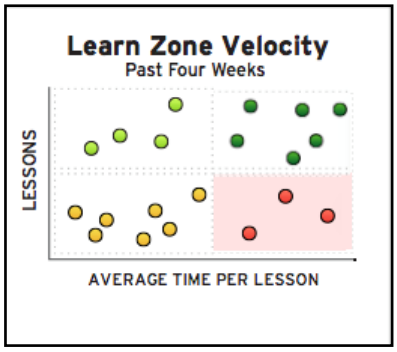
Average Session Time: Average Session Time displays the average daily time students spend in the *MATH 180* software. Click a column for detailed student information. Actionable data are displayed in red.



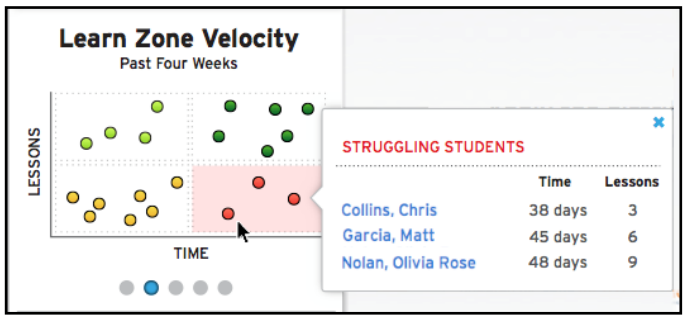
© Houghton Mifflin Harcourt Publishing Company



***mSkills* Performance**: *mSkills* Performance graphs student scores in the Block's *mSkills* Assessment. Click each graph segment to see detailed information.



Learn Zone Velocity: Learn Zone Velocity measures student performance in the Learn Zone by graphing it into four quadrants: High Success Rate with a Low Average Time per lesson (students who are passing lessons at a rapid velocity, displayed in light green), High Success Rate with a High Average Time per lesson (students who are passing lessons at a good velocity, displayed in dark green), Low Success Rate and Low Average Time per lesson (displayed in yellow), and Low Success Rate and High Average Time per lesson (displayed in red).



Clicking a quadrant shows detailed information on the student data listed in that quadrant. Actionable data are listed in red.

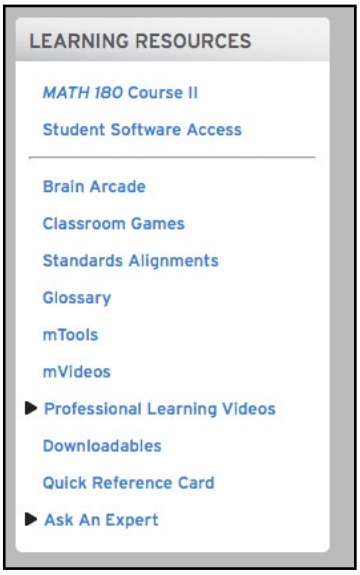
Math Inventory* Performance Level & *Math Inventory* Test Status**: Data Snapshots also contain overviews of *Math Inventory* class data. For more information on these snapshots, see ***Using SAM Central With Math Inventory at the *Math Inventory* Product Support website (*page 84*).

The Data Snapshots area contains links to Class Analytics and Student Analytics. Click these links to see the class data organized into *MATH 180* reports (*page 65*).

© Houghton Mifflin Harcourt Publishing Company

Learning Resources

The Learning Resources menu links to the *MATH 180* curriculum and teaching tools.



MATH 180 Curriculum

Click the ***MATH 180* Curriculum** link to open the *MATH 180* Curriculum screen. The *MATH 180* Curriculum section contains lesson plans, Anchor Videos, resources, and the Groupinator, organized by Block, Topic, and lesson. See *page 21* for more information on the *MATH 180* Curriculum section.

Student Software Access

Click **Student Software Access** to view the Educator Access to Student Software in SAM Central. See *page 44* for more information on this section.

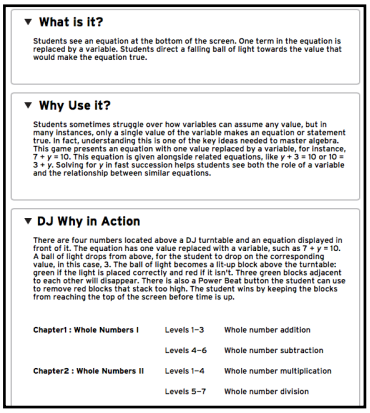
Brain Arcade

Click **Brain Arcade** to open the Brain Arcade link.

The Brain Arcade link shows all the Brain Arcade games from the student software. Use the arrows at the top of the screen to scroll through the game icons. Click an icon to choose a game.

Click Play to open the selected Brain Arcade game in a separate browser window.

Click the bars below the game to view game-related teaching tools.

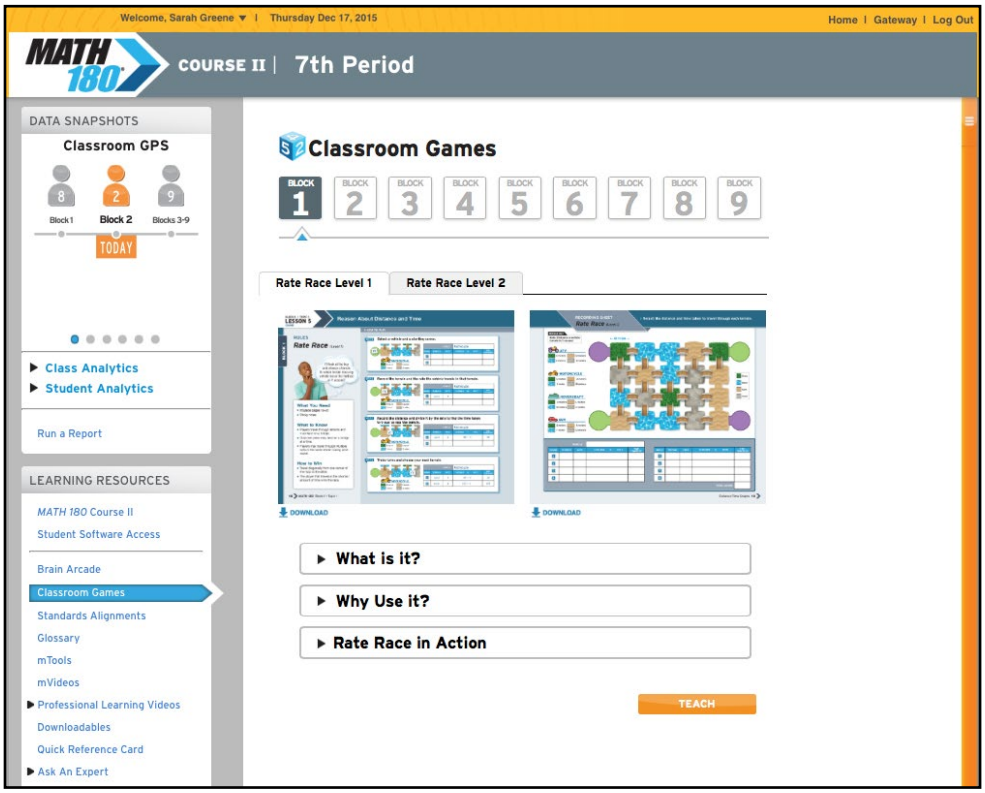


Click **What Is It?** to see a description of the game and its rules. Click **Why Use It?** to see a description of the math skills involved in playing the game. Click the **In Action** link to see a list of curriculum connections between the game and *MATH 180* skills.

Click **Teach** to open the *MATH 180* Interactive Whiteboard Technology (*page 38*).

© Houghton Mifflin Harcourt Publishing Company

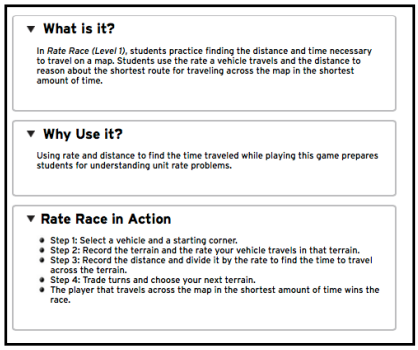
Classroom Games



Click **Classroom Games** to open the Classroom Games link.

Classroom Games shows each Block's game from the mSpace. Click the Block number to view the game for that Block. Click the Level tabs to view the game levels that correspond to the three Topics in the Block. Click the mSpace pages to view the game pages in a separate browser window. To download the games, click the pages or the **Download** link.

Click the bars below the game to view game-related teaching tools.

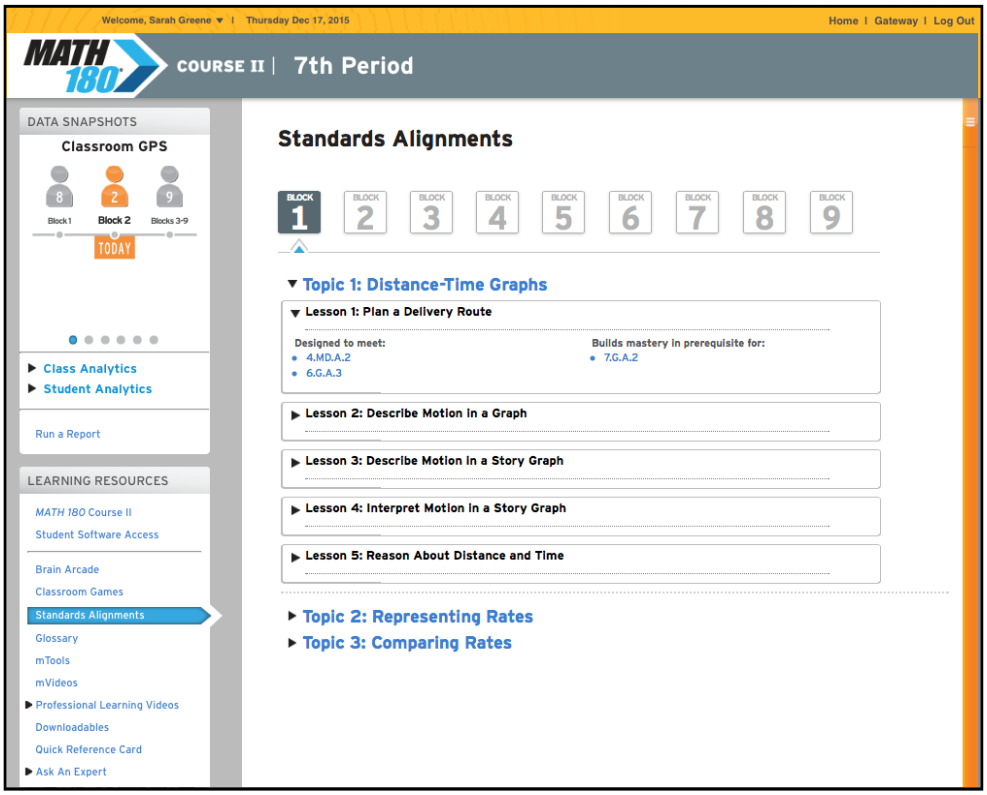


Click **What Is It?** to see a description of the game and its rules. Click **Why Use It?** to view the math skills involved in the game. Click the **In Action** link to see a list of curriculum connections between the game and *MATH 180* skills.

Click **Teach** to open the *MATH 180* Interactive Whiteboard Technology (*page 38*).

© Houghton Mifflin Harcourt Publishing Company

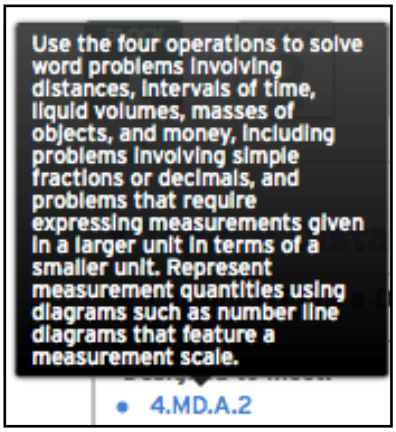
Standards Alignments



Click **Standards Alignments** to open this resource.

Standards Alignments shows the standards that correlate to *MATH 180* lessons.

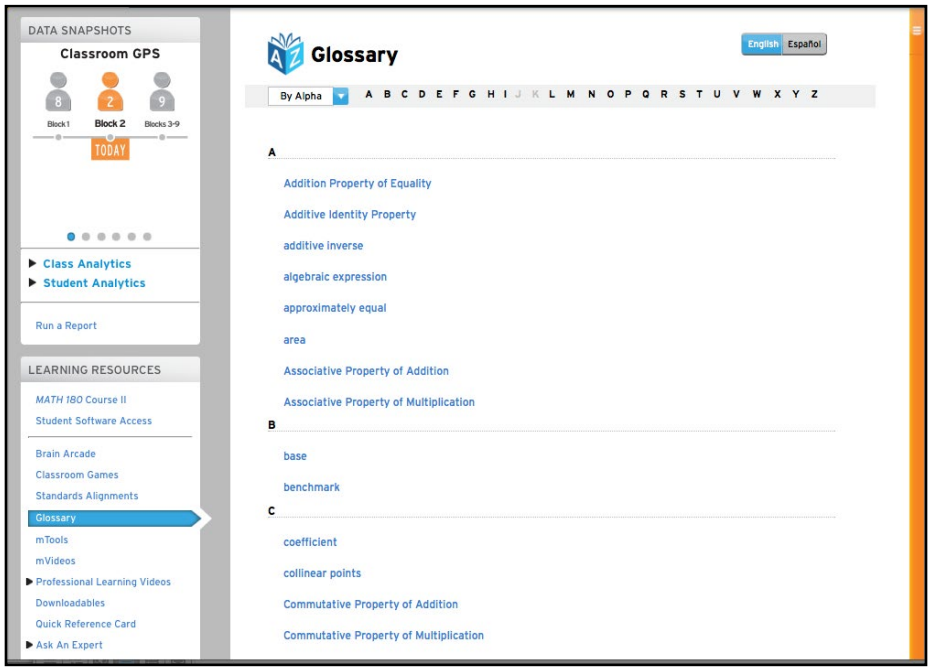
Click the Block to view that Block's Topics, then click the Topic to show the lessons. Click the lesson bar to view the standards that correlate to each lesson.



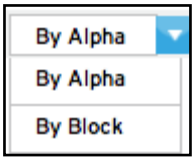
Click the standard to view it in detail.

© Houghton Mifflin Harcourt Publishing Company

Glossary

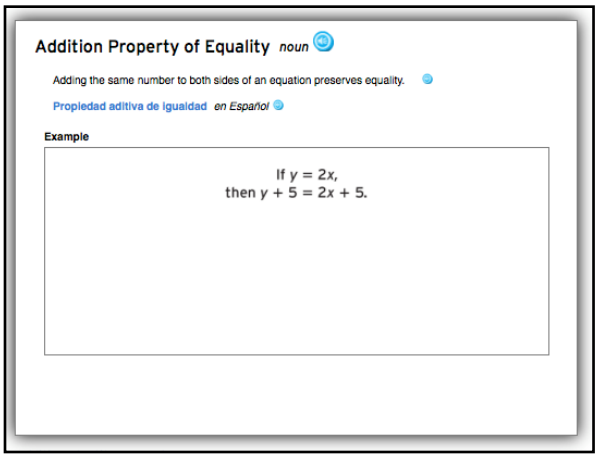


Click the **Glossary** link to open the *MATH 180* Glossary.



Click the pull-down menu to view the glossary terms alphabetically or sorted by the Block they appear in.

To view the Glossary in Spanish, click the **Español** button at the right of the screen.

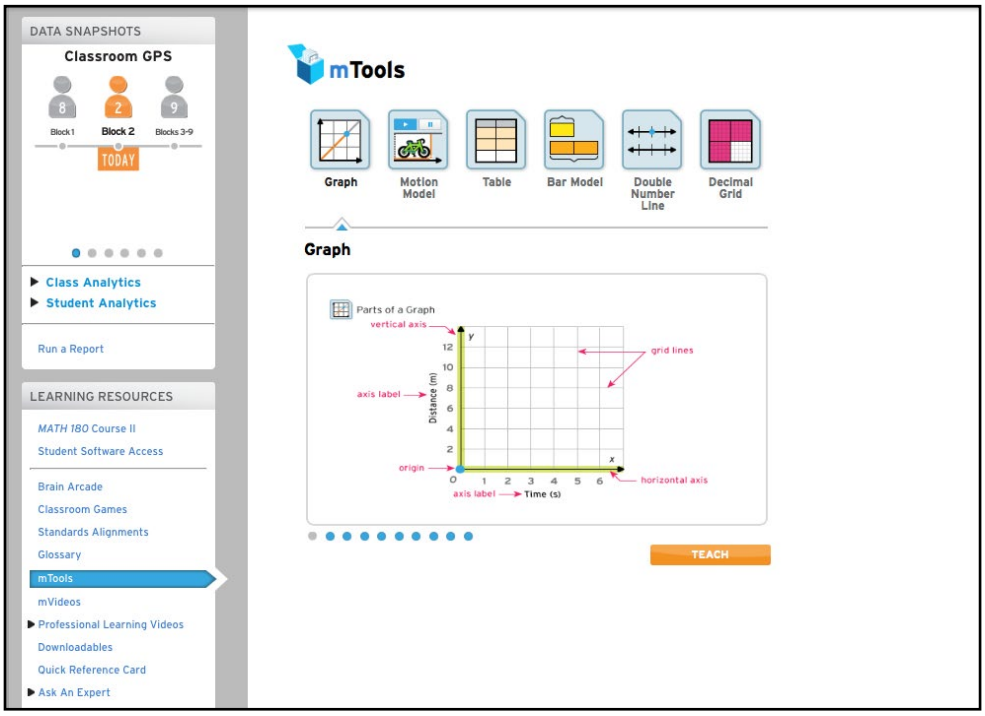


Click the word link to view the definition of the word and see a mathematical example. To jump ahead to a particular letter or Block, click it in the top bar.

Click the speaker buttons to hear the word or definition read aloud. Click the Spanish translation of the word to hear it in Spanish. Click the word links under Related Glossary Terms to view the glossary entry for the related word.

© Houghton Mifflin Harcourt Publishing Company

mTools



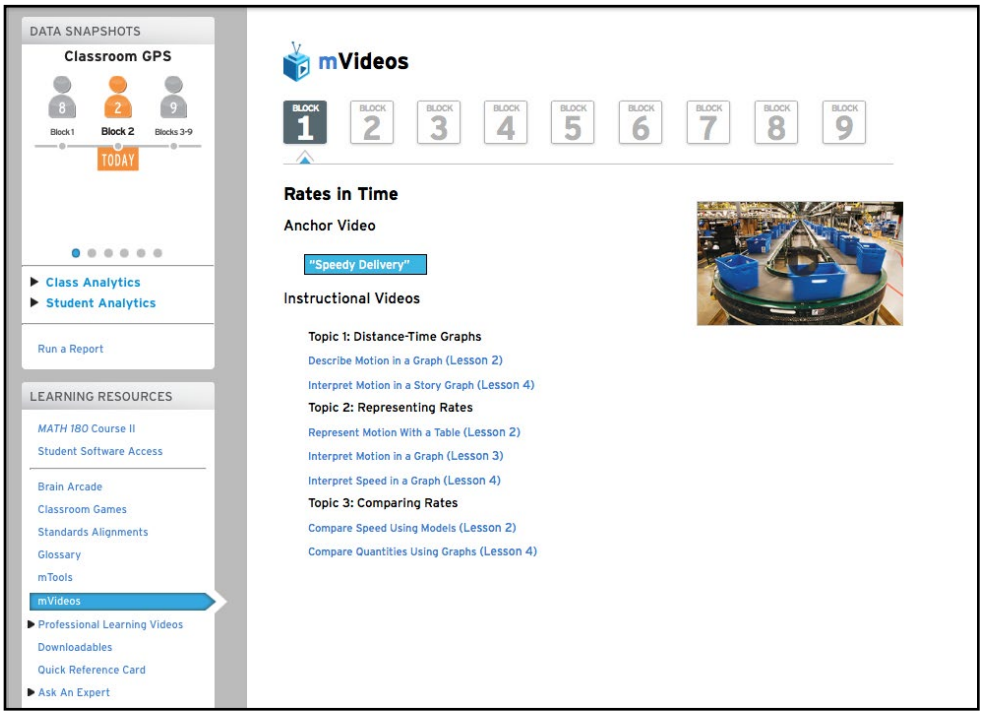
Click the **mTools** link to open the mTools screen. mTools are virtual manipulatives that help build students' conceptual understanding of math. The mTools screen shows the different mTools and allows teachers to become familiar with them.

Click the mTool icon to view its features. Scroll through the different examples of the mTool by clicking the buttons at the bottom of the display.

Click **Teach** to open the *MATH 180* Interactive Whiteboard Technology (*page 38*) and link the game skills to the *MATH 180* curriculum.

© Houghton Mifflin Harcourt Publishing Company

mVideos

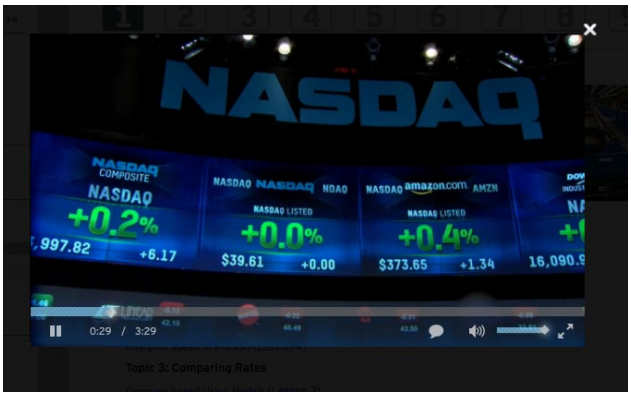


Click the **mVideos** link to open the *MATH 180* mVideo screen, which shows the *MATH 180* Anchor Videos and Instructional Videos by Block and Topic.

Click a Block at the top of the screen to view the Anchor Videos and Instructional Videos for that Block, listed by Topic.

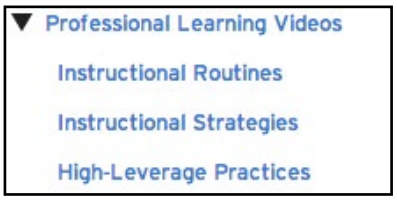
Click the video link to view a preview still on the right. Click the preview to launch the video.

Click the Play button to begin the video. The button toggles between Play and Pause; click it again to pause the video. Use the volume slider to adjust the volume. Click the arrow button to view the video tutorial fullscreen. Click Esc or the "**X**" icon to close the video screen.



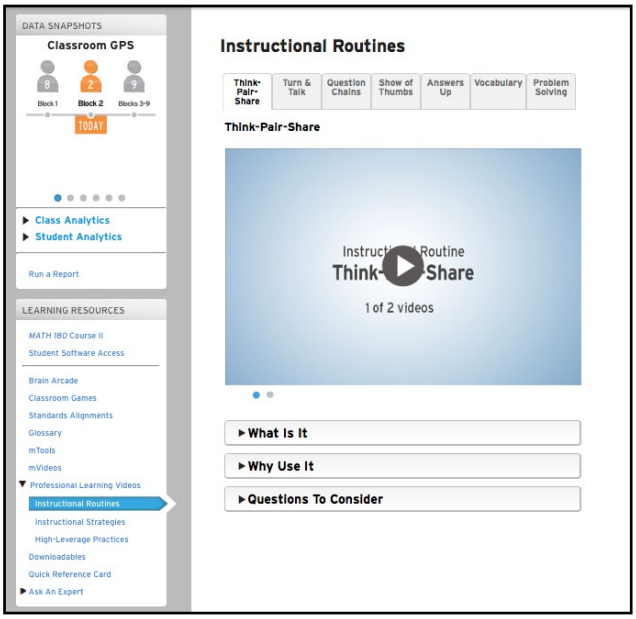
© Houghton Mifflin Harcourt Publishing Company

Professional Learning Videos



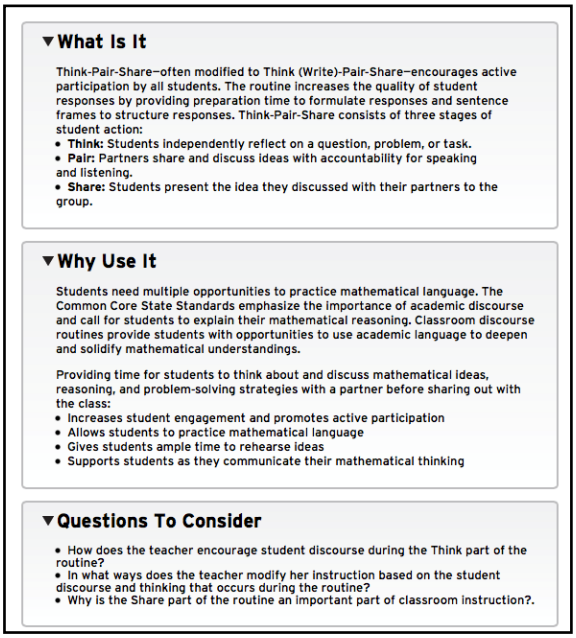
Click **Professional Learning Videos** to open the pull-down menu of development videos. Click each link to open and view videos for that particular resource.

The Instructional Routines link contains videos of teachers using different classroom routines, as well as explanations and documentation for each. Instructional Strategies show teachers putting specific *MATH 180* strategies into classroom practice. High-Leverage Practices describe other beneficial classroom practices.



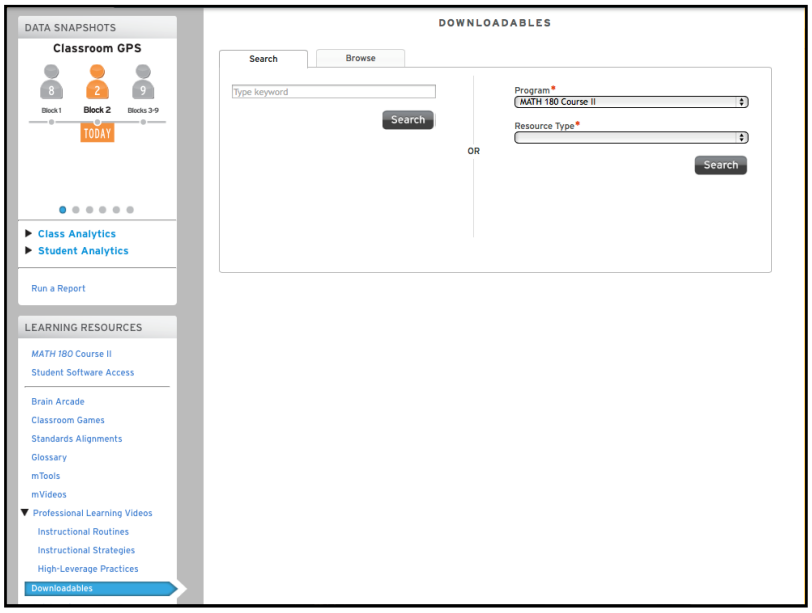
Click the tabs at the top of the screen to view the different resources. Each resource shows a detailed routine procedure and implementation support.

Click **What Is It** to see a description of the routine. Click **Why Use It** to view implementation support for the routine. Click **Questions to Consider** to view suggested follow-up questions.



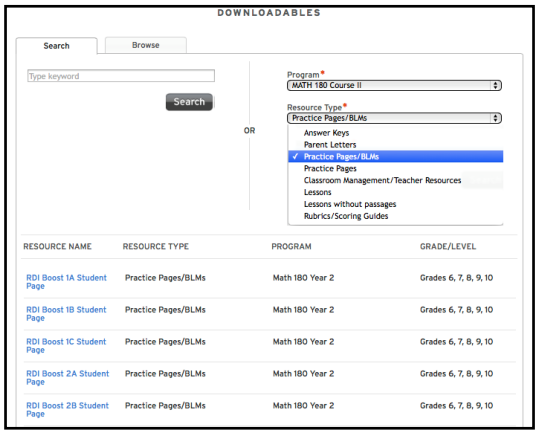
© Houghton Mifflin Harcourt Publishing Company

Downloadables



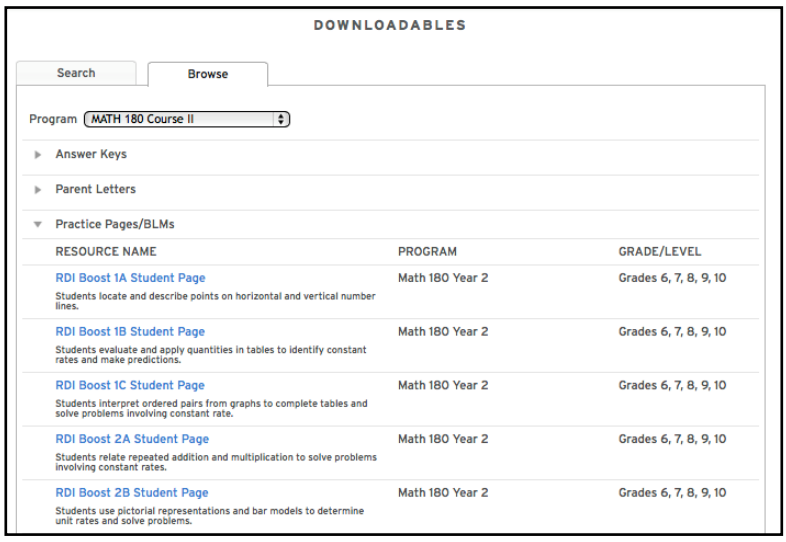
Click the **Downloadables** link to open the Downloadables Search screen. The screen contains two tabs—Search and Browse—which offer two ways to search for downloadable resources.

To perform a quick keyword search, enter the keyword in the field at left and click **Search**. The search results appear at the bottom of the screen. Click the resource link to open that resource in a separate browser window.



To perform an advanced search, use the pull-down menus on the right of the search screen (asterisks designate required fields) to filter the search by program and resource type. Click **Search** when the filters are set. The search results appear at the bottom of the screen.

© Houghton Mifflin Harcourt Publishing Company



To use the Browse tab, select the program from the Program pull-down menu. A list of all available resources appears, broken down by Resource Name. Click the resource link to open the resource in a separate browser window.

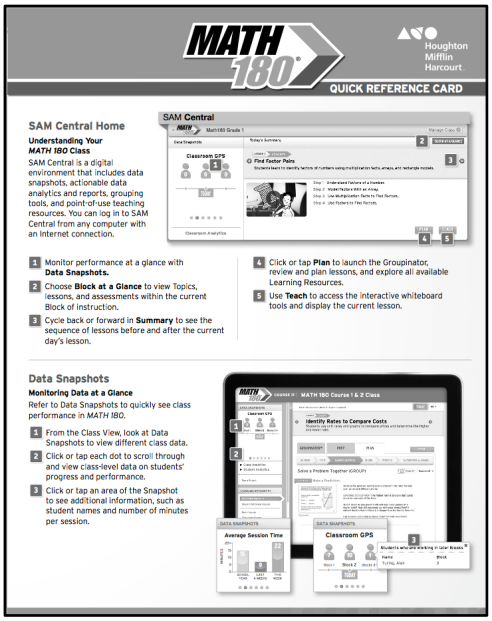
Quick Reference Card

Click the **Quick Reference Card** link to view the *MATH 180* Quick Reference Card as a PDF in a separate browser window.

Ask an Expert

Ask an Expert allows users to contact instructional support or technical support teams.

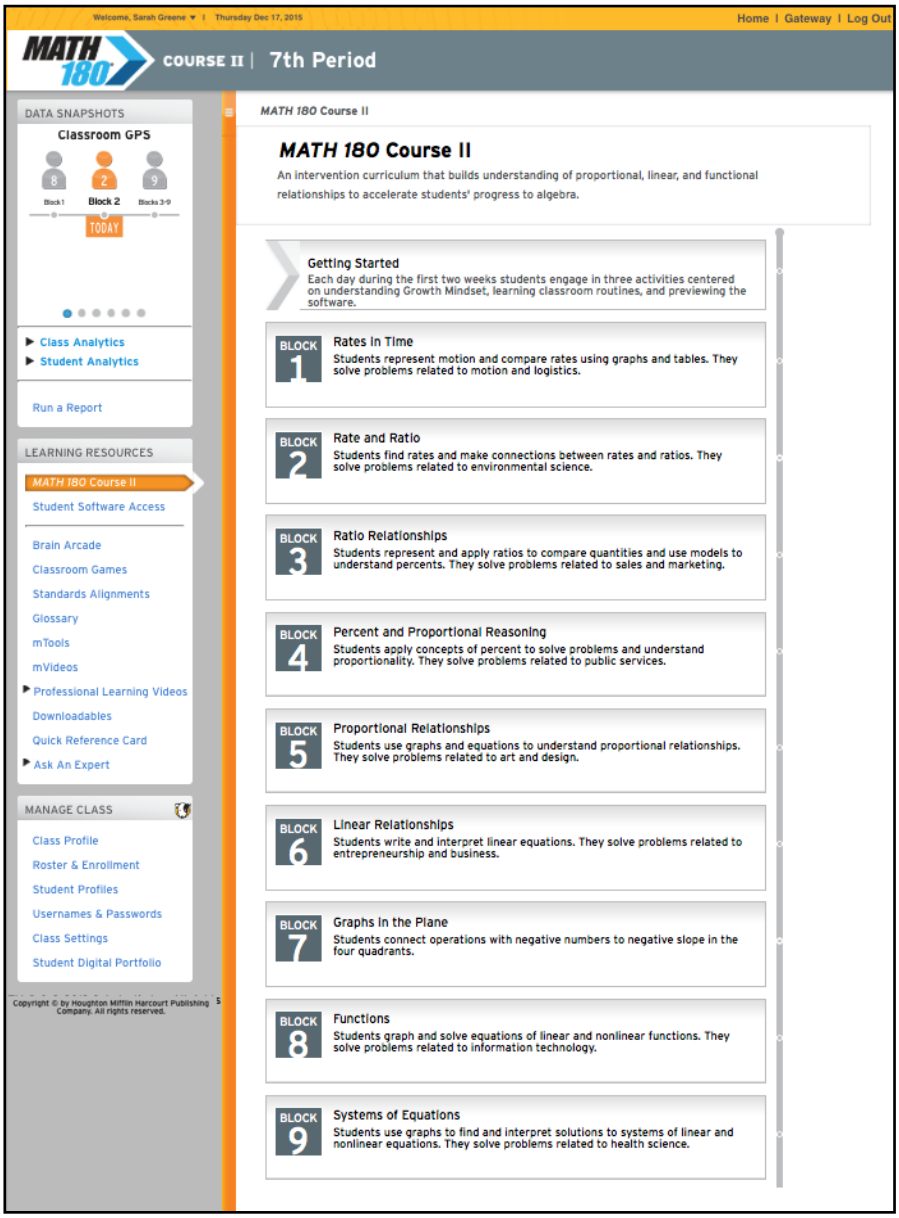
Click the link to view the Ask An Expert menu. Click each individual link to open an email to the instructional support or technical support teams.



© Houghton Mifflin Harcourt Publishing Company

MATH 180 Curriculum

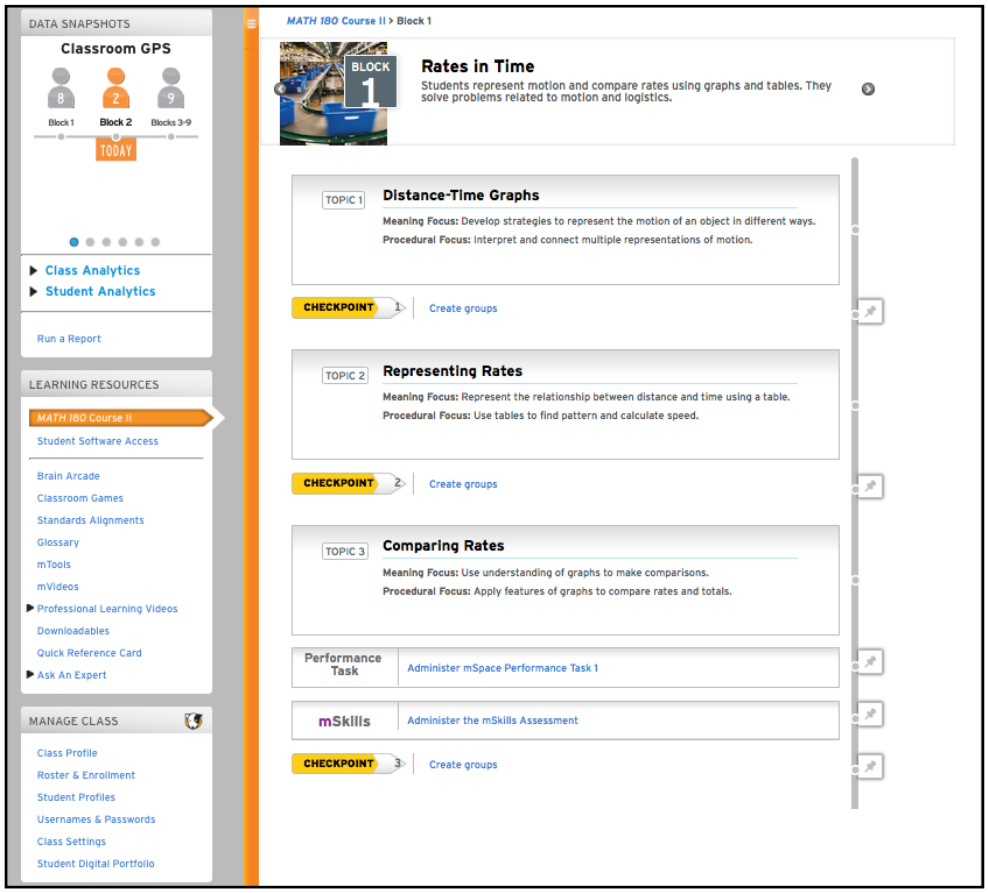
Click the ***MATH 180* Course II** link to open the *MATH 180* Curriculum. The link opens to the last lesson page viewed or the Program Overview screen at first view.



The Program Overview screen shows the nine Blocks of *MATH 180* instruction, with a brief description of each. Click the Block to open its screen and view it in detail.

© Houghton Mifflin Harcourt Publishing Company

Block Overview Screen



The Block Overview screen outlines the Block's three Topics in detail. Use the arrows at either side of each Block's description to scroll through the different Blocks.

Click the pushpin icon to change the lesson for the day.

Click the Topic to open its screen and view the lessons associated with that Topic.

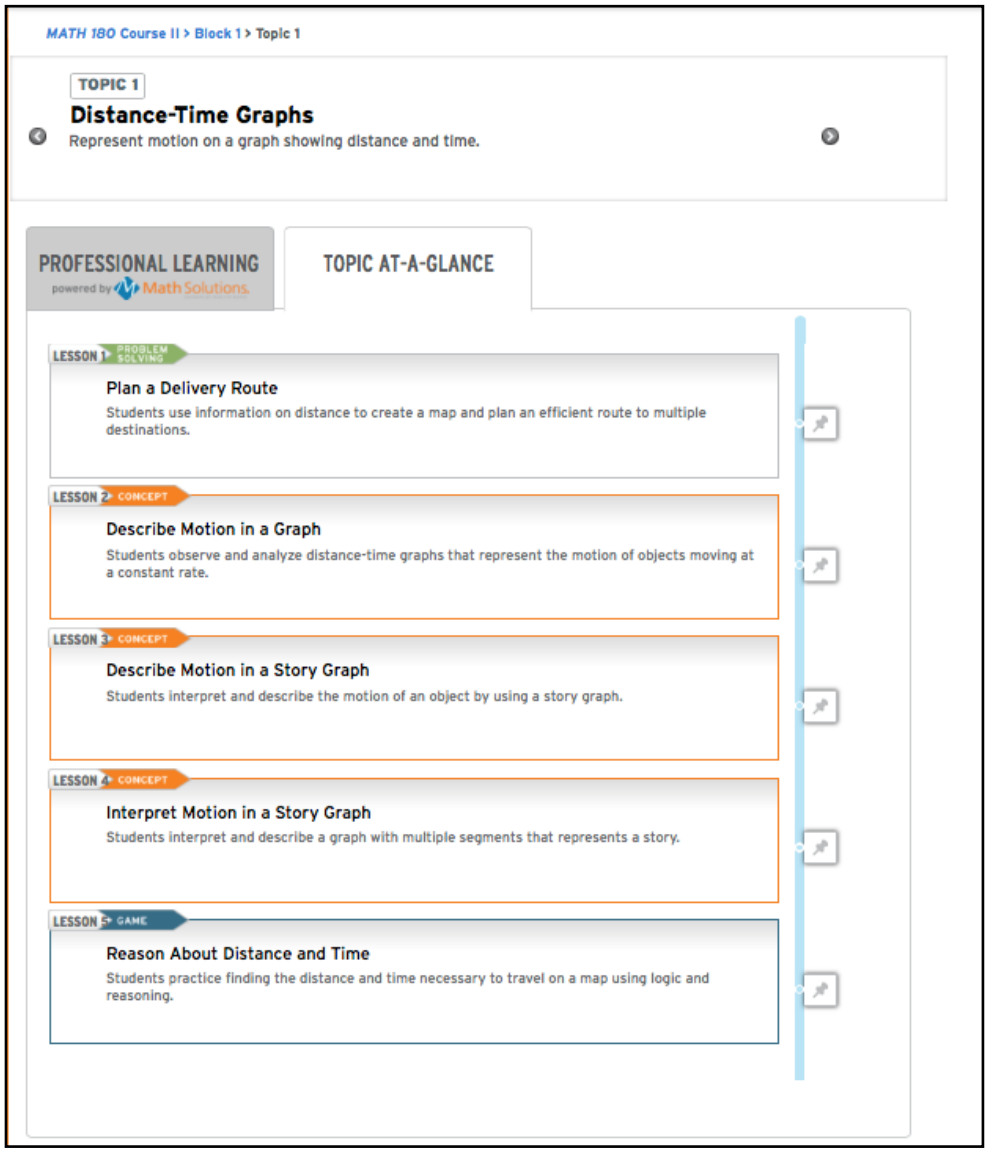
Click the **Checkpoint** link to open the Groupinator (*page 30*). Click **Create Groups** to automatically open and run the Groupinator.

Click the **mSpace Performance Task** link to open the Performance Task Lesson screen (*page 34*).

Click the **mSkills Assessment** link to view the Block's mSkills assessment along with information on planning and administering it (*page 36*).

© Houghton Mifflin Harcourt Publishing Company

Topic Overview Screen



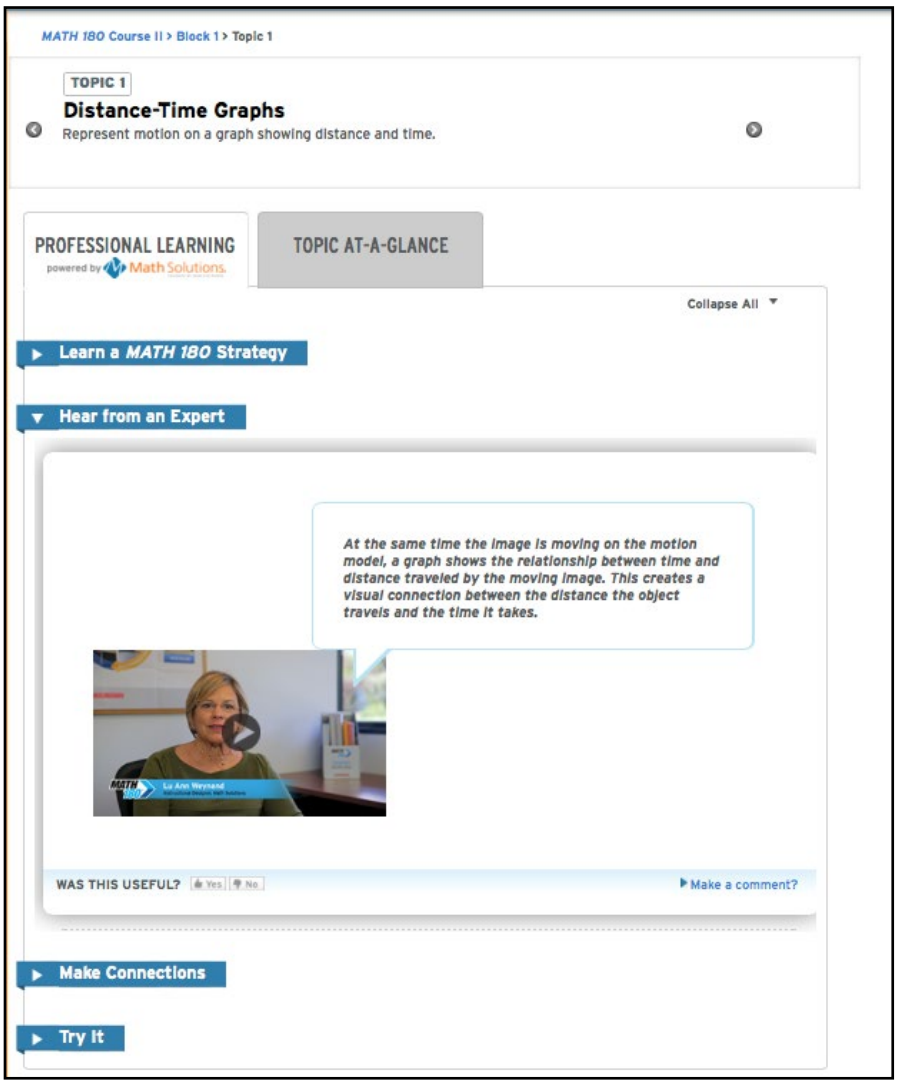
The Topic Overview screen consists of two tabs: Professional Learning and Topic at-a-Glance.

The Topic at-a-Glance tab shows the lessons associated with that Topic. Click the pushpin icon to change the lesson for the day.

Click the arrow buttons to scroll to different Topics.

Click the lesson to view it in detail on the Lesson screen (*page 26*).

© Houghton Mifflin Harcourt Publishing Company



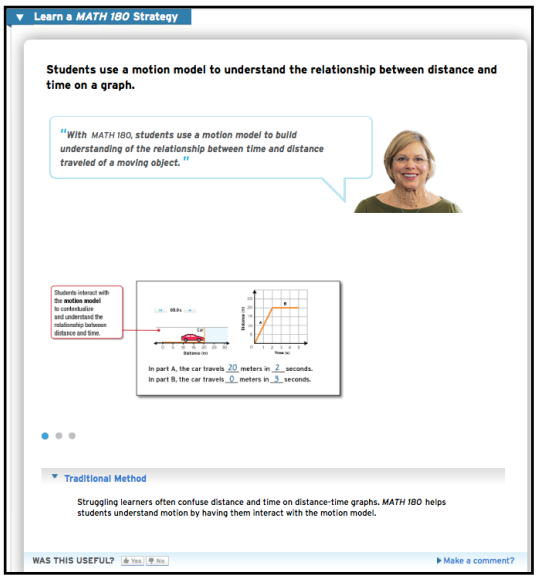
The Professional Learning tab shows different professional development instruction and videos from Math Solutions relevant to the Topic. Click the heading links to open the instruction.

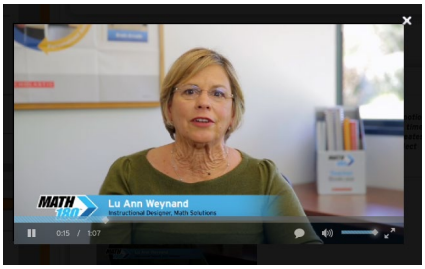
At the bottom of each tabbed section is a comment field. Click the **Yes** or **No** buttons to indicate whether the tabbed section was helpful, then use the comment field to record any notes or comments. To save the comments, click **Save**.

© Houghton Mifflin Harcourt Publishing Company

Click **Learn a *MATH 180* Strategy** to see the particular *MATH 180* strategy used in the Topic. Click the buttons below the example to see other examples of the strategy.

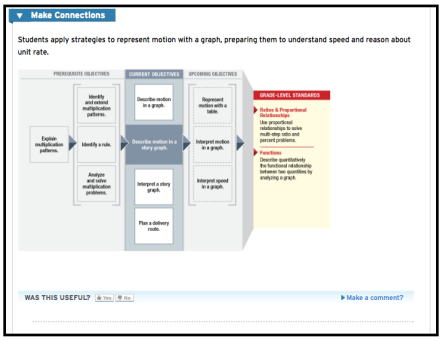
Click **Hear From An Expert** to view professional development videos explaining the Topic's Math Solutions strategy explained.





Click the Play button to begin the video. The button toggles between Play and Pause; click it again to pause the video. Use the volume slider to adjust the volume. Click the arrow button to view the video fullscreen. Click the "**X**" icon to close the video screen.

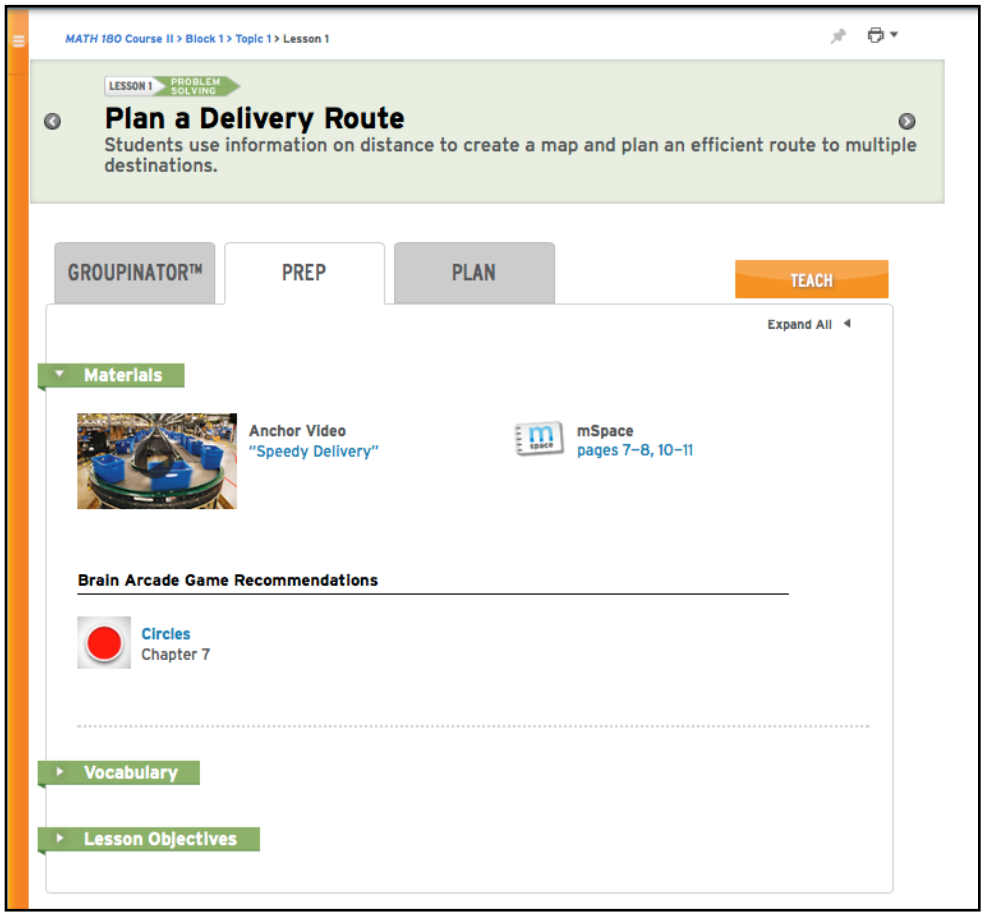
Click **Make Connections** to see how the strategy connects to previous and upcoming *MATH 180* strategies.



Click **Try It** to see examples of the strategy in the Topic's lessons and Brain Arcade games.

© Houghton Mifflin Harcourt Publishing Company

Lesson Screen

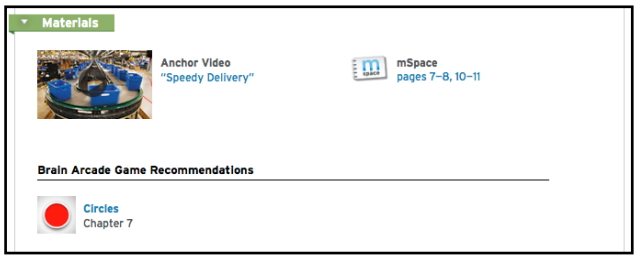


The Lesson screen consists of three tabs: Groupinator (*page 30*), Prep, and Plan.

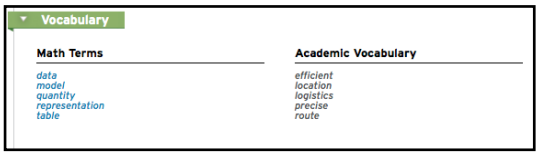
The Prep tab shows Materials, Vocabulary, and Lesson Objectives for the lesson.

Click the section title to expand the section. Click **Expand All** to expand all three sections.

© Houghton Mifflin Harcourt Publishing Company

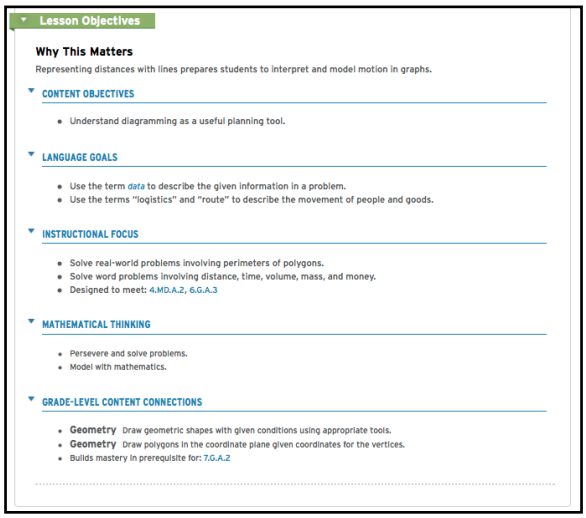


The Materials section contains online materials associated with the lesson, which could include videos, links to the lesson's mSpace pages, mTools or games associated with the lesson. Click the resource links to open that particular resource. mSpace pages open as PDFs in a separate browser window. It also shows recommended Brain Arcade games for the lesson.



To view the videos, click the Play button to begin. The button toggles between Play and Pause; click it again to pause the video. Use the volume slider to adjust the volume. Click the arrow button to view the video tutorial full-screen. Click Esc or the "**X**" icon to close the video screen.

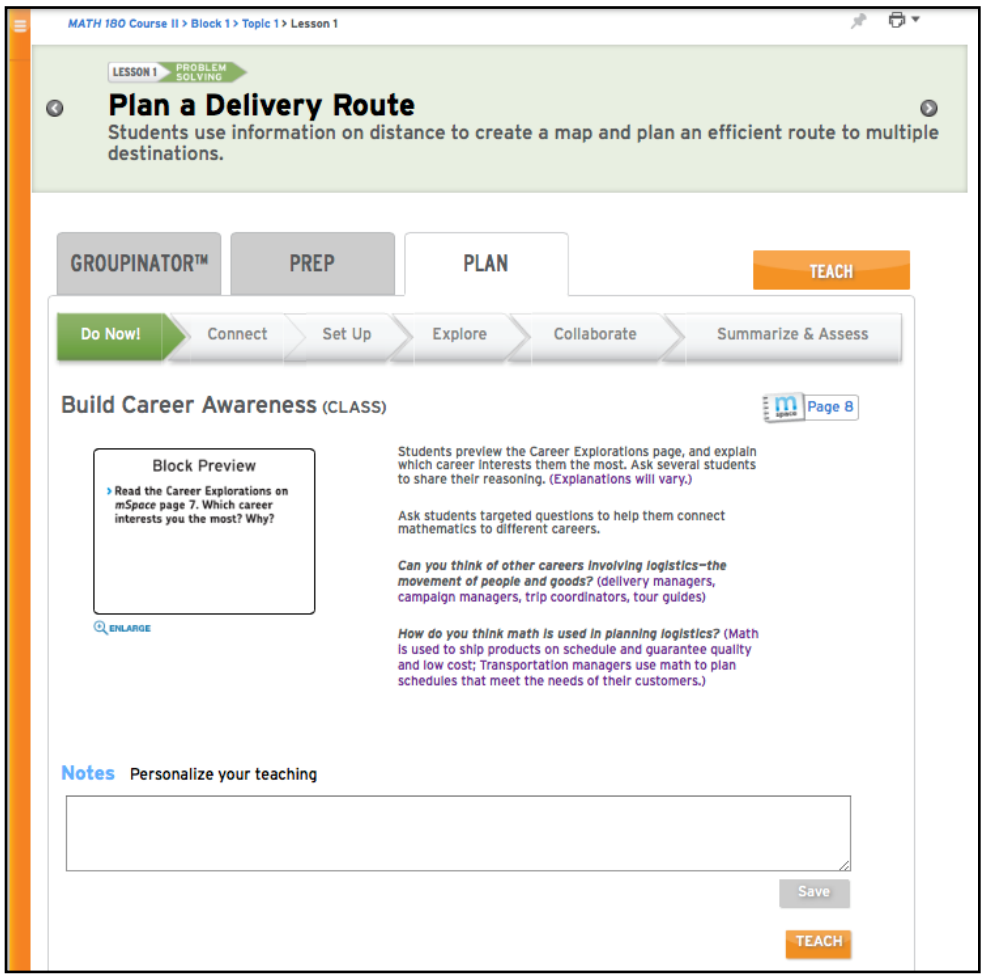
The Vocabulary section shows Math Terms and Academic Vocabulary for the lesson. Click a Math Term link to view that word in the *MATH 180* Glossary (*page 15*).



The Lesson Objectives section shows the objectives of the lesson broken down by different categories:

- **Content Objectives** lists the general lesson objectives.
- **Language Goals** lists the lesson's goals for math language development.
- **Instructional Focus** details educational standards that correlate to the lesson (click the standard to view it in detail).
- **Mathematical Practices** lists standards for mathematical practice incorporated into the lesson.
- **Grade-Level Content Connections** shows the Common Core State Standards that correlate to the lesson and grade-level content.

© Houghton Mifflin Harcourt Publishing Company



The Plan Tab provides Lesson Plan PDFs and summaries for each progression of the lesson. Click the steps at the top of the screen to view the plan for that progression.

Each step displays a summary of the Lesson Plan and includes a field for teachers' notes. Click the field and enter notes, then click **Save** to save the notes.

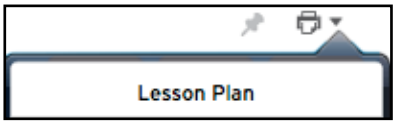
To open and view the lesson in the *MATH 180* Interactive Whiteboard Technology (*page 38*), click **Teach** from any of the tabs.

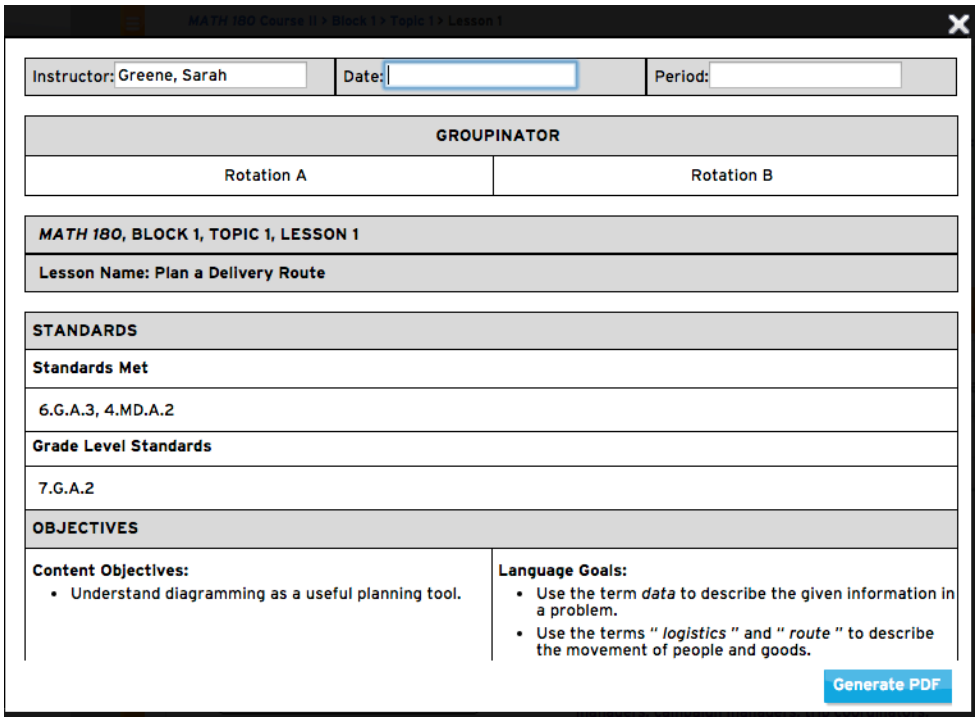
To view the mSpace pages for the lesson or the step, click the mSpace icon. The page(s) will open as a PDF in a separate browser window.

To change which lesson plan is designated for today, click the pushpin icon.

© Houghton Mifflin Harcourt Publishing Company

To view and print the full Lesson Plan as a PDF, click the printer icon at the top of the screen, then click **Lesson Plan** to view the plan onscreen.





Instructor: Greene, Sarah | Date: | Period:

GROUPINATOR

Rotation A	Rotation B

***MATH 180*, BLOCK 1, TOPIC 1, LESSON 1**

Lesson Name: Plan a Delivery Route

STANDARDS

Standards Met

6.G.A.3, 4.MD.A.2

Grade Level Standards

7.G.A.2

OBJECTIVES

Content Objectives:
- Understand diagramming as a useful planning tool.

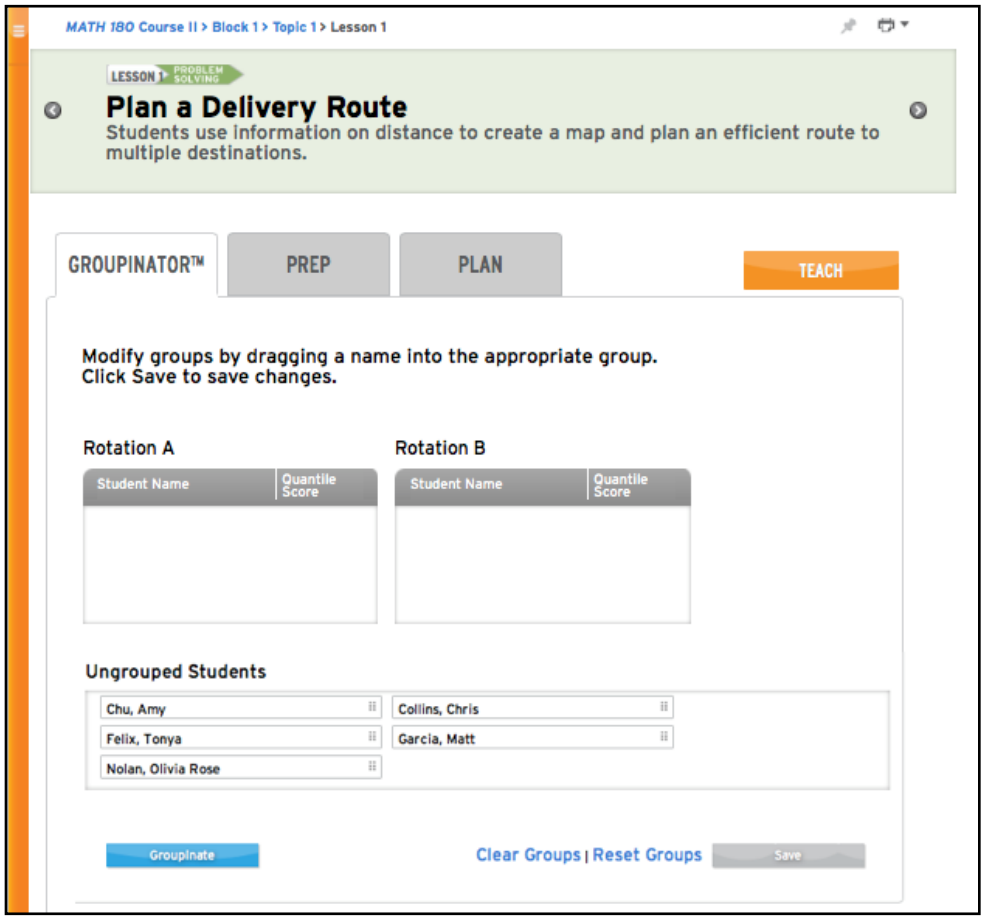
Language Goals:
- Use the term *data* to describe the given information in a problem.
- Use the terms " *logistics* " and " *route* " to describe the movement of people and goods.

Generate PDF

Use the **Instructor**, **Date**, and **Period** fields to customize the Lesson Plan, then click **Generate PDF** to print the Lesson Plan as a PDF.

© Houghton Mifflin Harcourt Publishing Company

Groupinator®



The Groupinator is used to group students for *MATH 180* instruction.

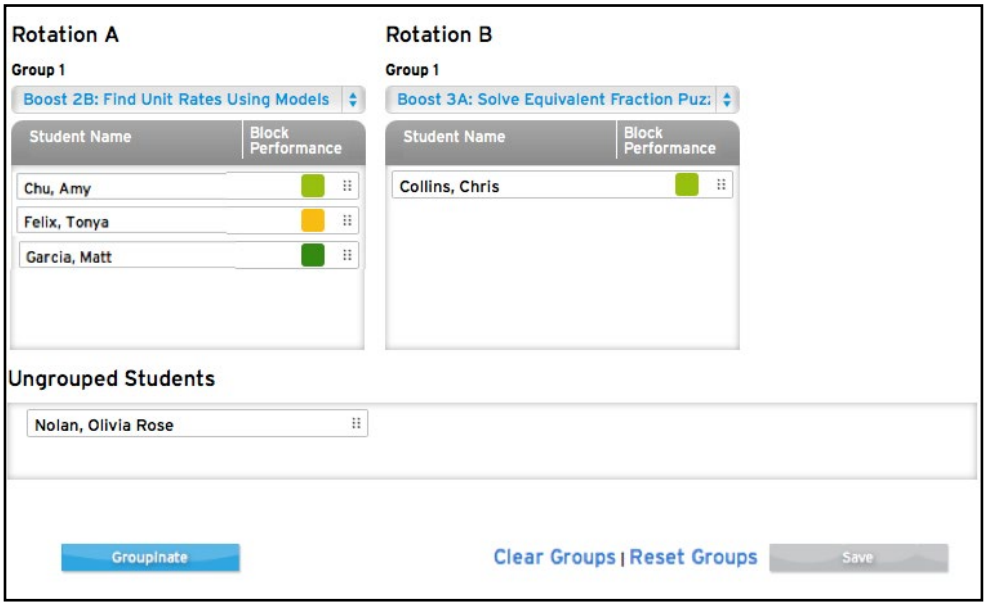
Students are grouped by the Groupinator according to the following data points:

- **CheckPoints**: CheckPoints 1 and 2 are based on performance in the student software; CheckPoint 3 is based on performance in *mSkills*.
- **Non-CheckPoint Days**: Quantile® measures (*Math Inventory* scores).

Clicking the printer icon at the top of the screen prints the Lesson Plan, which includes the Groupinator groups. Selecting student pages or annotated student pages from the printer icon pull-down menu allows teachers to print Groupinator groups.

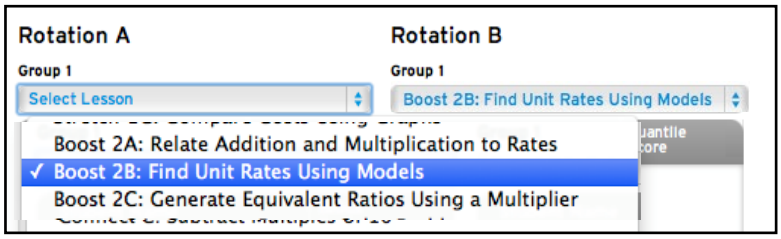
To make this lesson today's lesson, click the pushpin icon.

© Houghton Mifflin Harcourt Publishing Company



To use the Groupinator to group students and assign each group a lesson, click the **Groupinate** button.

Teachers may also group students and assign lessons manually.



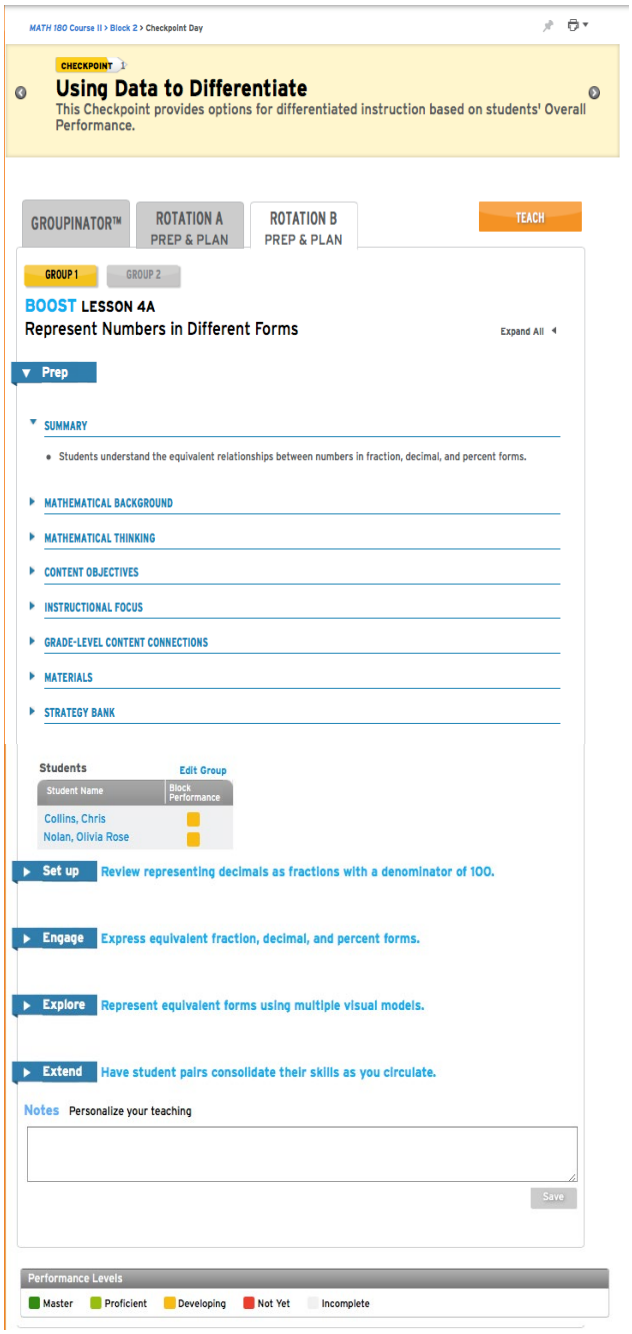
To choose a lesson for each rotation on CheckPoint days, use the pull-down menus, and click the selected lesson. To move a student from one group to another, click and drag the student bar to another group or to the Ungrouped Students field. To clear all groups, click the **Clear Groups** link. This moves all student bars to the Ungrouped Students field. To return to the prior group setting, click **Reset Groups**. Click **Save** to save the group settings.

© Houghton Mifflin Harcourt Publishing Company

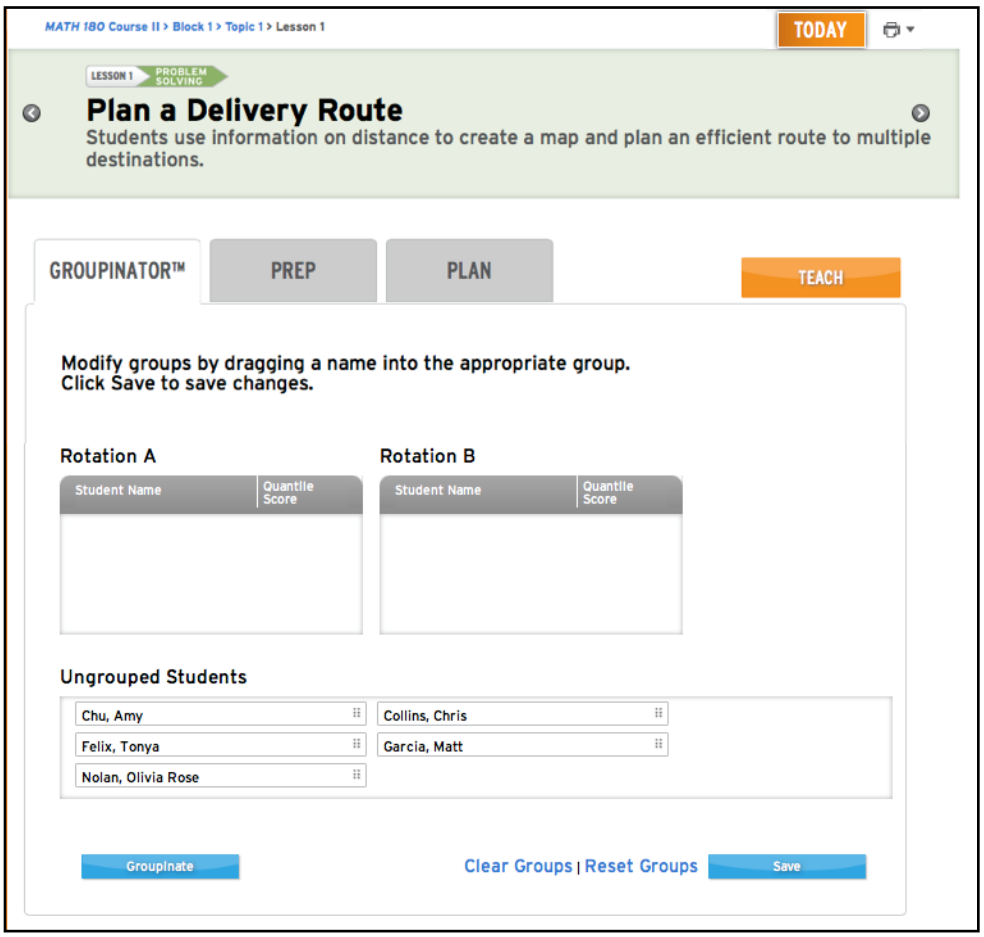
When students have been grouped into rotations and each rotation has been assigned a lesson (either by the Groupinator or manually by the teacher), the selected lesson content will appear in the Rotation A and Rotation B tabs.

The Prep & Plan tabs show the content for the selected lesson. Click the different subheads to expand that section of the lesson. Click **Expand All** to expand all sections.

To print Lesson Plans, student pages, or student annotated pages from this screen, click the printer icon at the top of the screen. To make this lesson Today's Lesson, click the pushpin icon.



© Houghton Mifflin Harcourt Publishing Company



On non-CheckPoint days, clicking **Plan** from the Class Widget or clicking the lesson from the Topic screen (*page 23*) opens the Plan tab for that lesson.

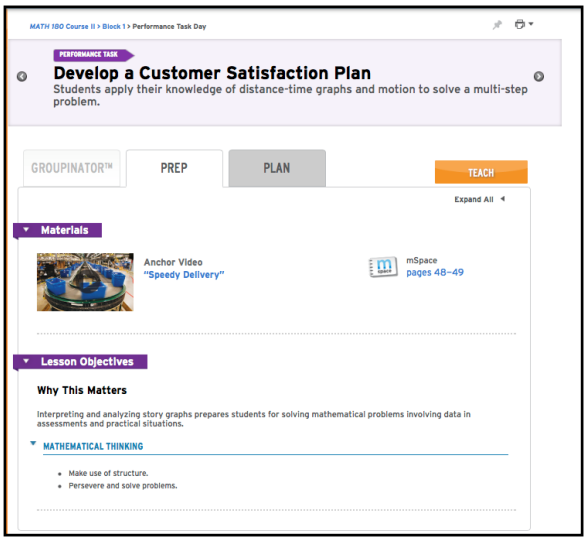
Click the Groupinator tab, then **Groupinate** to create groups. The Groupinator will create groups using the data points for the selected lesson. For non-CheckPoint days, students are grouped by Quantile score as measured by *Math Inventory*.

The Groupinator is inactive for *mSkills* and Performance Task lessons.

© Houghton Mifflin Harcourt Publishing Company

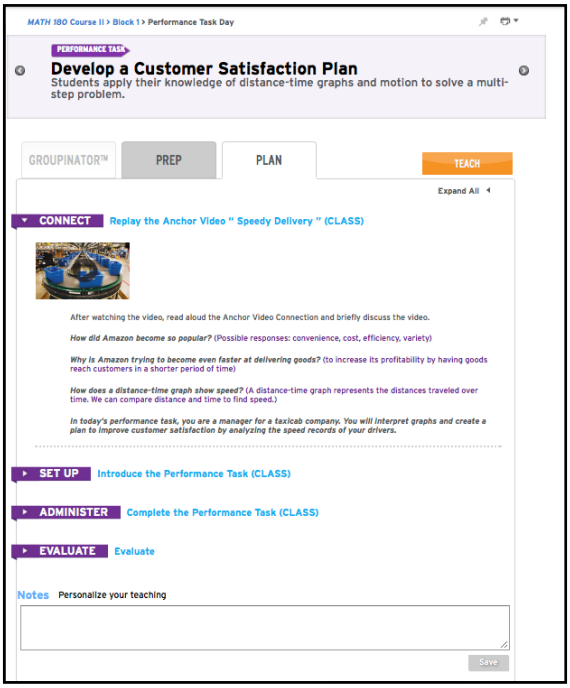
Performance Task Lesson

Click the **mSpace Performance Task** link to open the Performance Task Lesson screen for use on Performance Task day. It contains two tabs, Prep and Plan (the Groupinator tab is inactive).



The Prep tab shows the materials and lesson objectives for the Performance Task Lesson. Click the mSpace link to view the corresponding mSpace pages in a separate browser window.

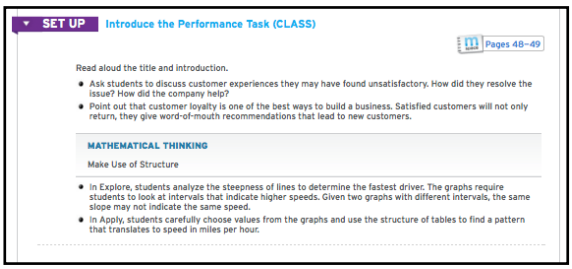
The Plan tab outlines the four steps to the Lesson. Click **Expand All** to view all of the tabs, or click the individual tab to view the steps under that tab.



On the Plan tab, Connect presents instructions and question prompts for replaying the Anchor Video.

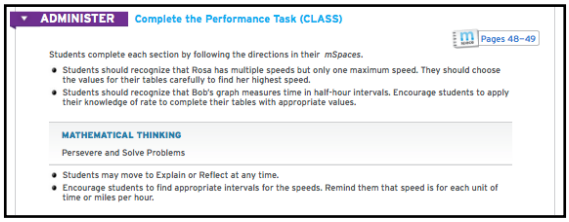
© Houghton Mifflin Harcourt Publishing Company

Set Up shows lesson plans and mSpace links for introducing the Performance Task lesson.

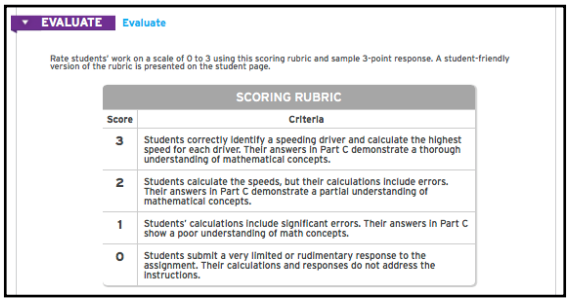


Administer shows plans and prompts, as well as mSpace links for completing the lesson.

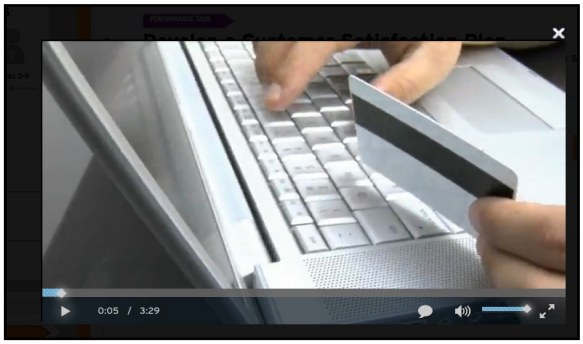
To view the mSpace pages that link to the lesson, click the mSpace icon in Set Up and Administer.



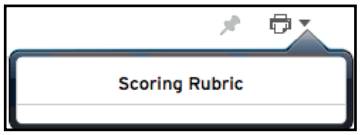
Evaluate shows a four-point rubric for scoring student work on the Performance Task, as well as a Notes section for recording observations. Click **Save** to save teacher notes.



To view the Anchor Video through the Interactive Whiteboard Technology (*page 38*), click the **Teach** button.



To print the rubric from the Performance Task lesson, click the printer icon, then click **Scoring Rubric** from the pull-down menu. Click **Print** from the browser menu to print the report. To save the rubric as a PDF, click **PDF** from the browser's print menu.



© Houghton Mifflin Harcourt Publishing Company

mSkills Assessment

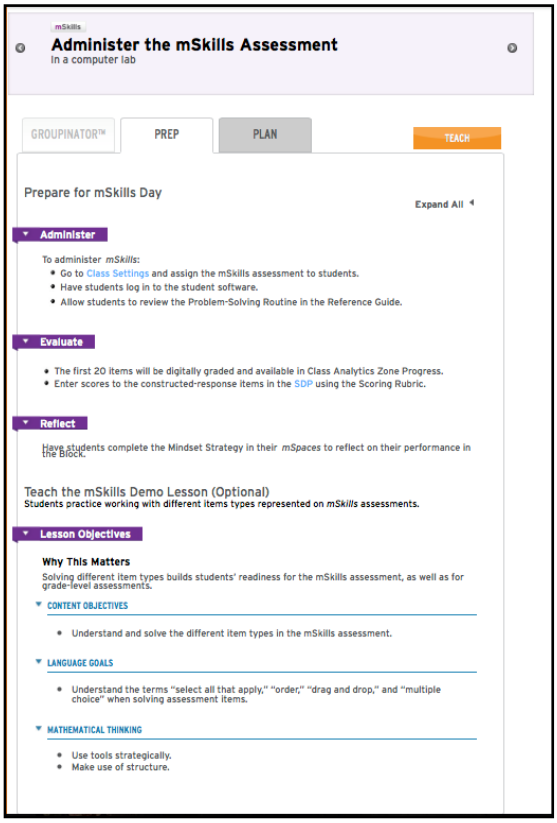
Click the **mSkills Assessment** link to view lessons for the Block's mSkills assessment day.

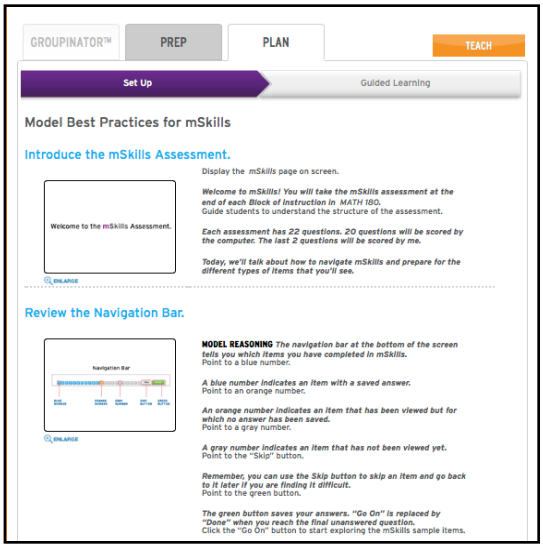
Click the Prep tab to view instructions for administering and evaluating the mSkills assessment, as well as having students reflect on their performance.

The Prep tab also includes the mSkills Optional Lesson, which prepares students for working with the different types of items on the mSkills assessment. Click Lesson Objectives to view the Content Objectives, Language Goals, and Mathematical Thinking concepts for the lesson.

The Plan tab shows Set Up and Guided Learning strategies for the *mSkills* Assessment.

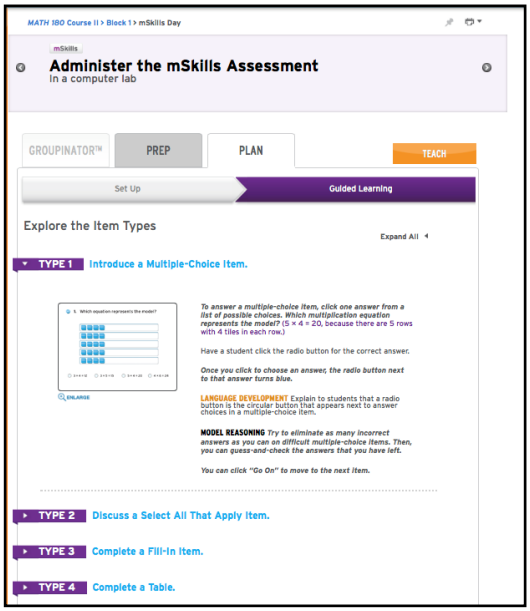
Click **Set Up** from the Plan tab to view best practices for preparing students for the *mSkills* Assessment.



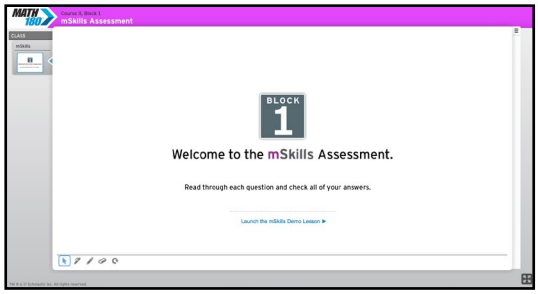


© Houghton Mifflin Harcourt Publishing Company

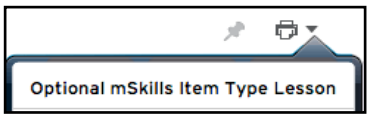
Click **Guided Learning** to view lesson plans for exploring how to answer different types of *mSkills* Assessment questions.



To view the *mSkills* Assessment through the Interactive Whiteboard Technology (*page 38*), click the **Teach** button.

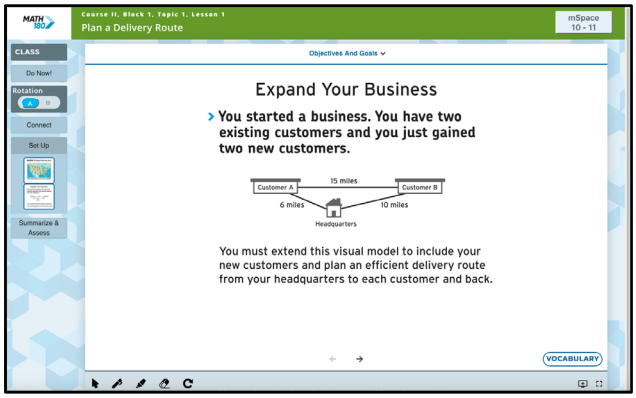


To print the *mSkills* Assessment or elements from the lesson, click the printer icon, then choose the element to be printed from the pull-down menu by clicking it. Click **Print** from the browser menu to print the report. To save the rubric as a PDF, click **PDF** from the browser's print menu.



© Houghton Mifflin Harcourt Publishing Company

MATH 180 Interactive Whiteboard Technology



The *MATH 180* Interactive Whiteboard Technology allows teachers to launch interactive whiteboard (IWB) lessons directly from SAM Central. Click the **Teach** button from the Class Widget or *MATH 180* Curriculum link to open the *MATH 180* Interactive Whiteboard Technology for the particular lesson or activity. Clicking the **Teach** button from the Brain Arcade, Classroom Games, Instructional Routines, or mTools links on the Learning Resources menu also opens the *MATH 180* Interactive Whiteboard Technology. (If an interactive whiteboard is not available, the Interactive Whiteboard Technology may also be used with an analog whiteboard and a projector.)

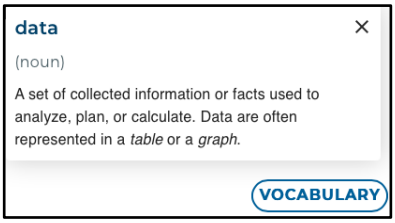
Follow the instructions included with the classroom whiteboard to connect it to the computer running the *MATH 180* Interactive Whiteboard Technology.

In a classroom presentation, such as on an IWB, use the Interactive Whiteboard Technology full-screen.

Onscreen Tools

Fullscreen: Click to show the Interactive Whiteboard Technology fullscreen. Click this button when using the Interactive Whiteboard Technology on an interactive whiteboard. The full-screen option is available anywhere in the Interactive Whiteboard Technology and may also be activated by using the F and Shift+F keys from the keyboard.

mSpace: Click to open the mSpace page in the Interactive Whiteboard Technology.



Vocabulary Button: Lessons that contain Math Vocabulary have a Vocabulary Button. Click the button to see a definition of the Match Vocabulary word.

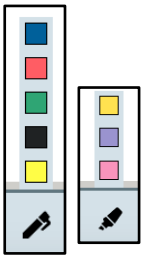
© Houghton Mifflin Harcourt Publishing Company

IWB Tools

At the bottom left of the Interactive Whiteboard Technology screen is a set of IWB tools.

The Arrow button is the pointer tool. This is the default setting for the IWB tools. Use it as a pointer onscreen.

The Pen button is the marker tool. Click it, then scroll the pointer to the screen to mark the onscreen content. Click and hold on it to select a color.

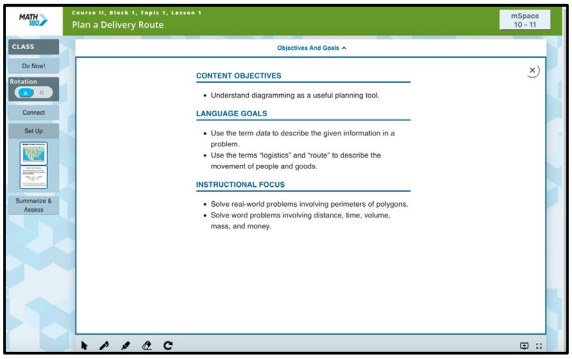


The Highlighter button makes the pointer a highlighter. Click it, then scroll over onscreen text or numbers to highlight. Click and hold on it to select a color.

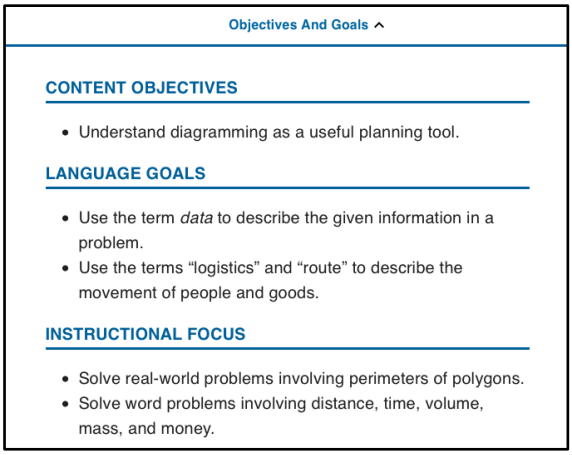
The Eraser button erases specific marks. Click it, then scroll over the marks to erase.

The circular arrow button is the Erase All button. Click it, then click **Yes** on the confirmation screen to remove all marks.

At the top of the screen is an arrow next to a label marked **Objectives and Goals**. Click the arrow to reveal the lesson's content objective, language, goals, and standards. Click the "X" to close the screen and return to the activity.



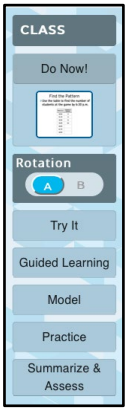
The screen shows Content Objectives, Language Goals, and Instructional Focus, which shows the standards that correlate to the lesson.



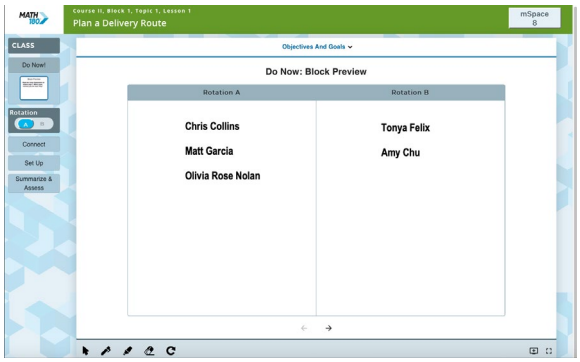
© Houghton Mifflin Harcourt Publishing Company

Lesson Navigation Menu

At the left of the main screen is the Lesson Navigation Menu, organized in lesson sequence. Menu activities vary depending on the particular Topic.



Do Now!

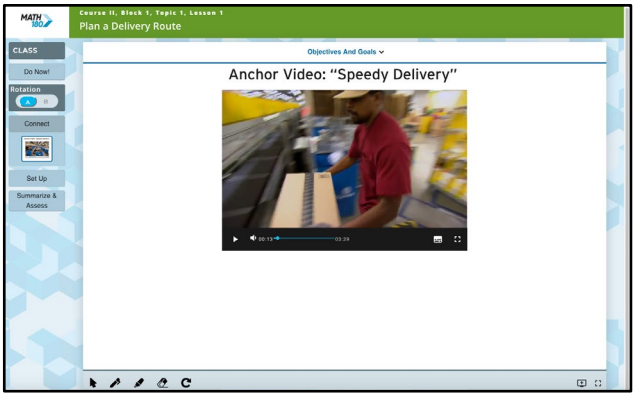


When the Interactive Whiteboard Technology opens, the screen opens on the Class menu and displays the Do Now! exercise and the two class rotations, as set in the Groupinator (*page 30*). Click the arrow at the bottom of the screen to display the Do Now! activity.

Rotation

The Interactive Whiteboard Technology provides lesson screens for each rotation. Click the rotation letter to move between each group's activities. Moving between rotations allows teachers to use the IWB to work with one group without losing work done by the other group. Each group's work is saved separately.

Connect

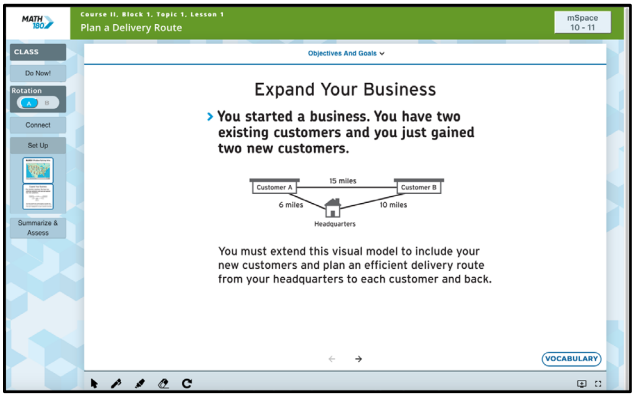


Click **Connect** from the Lesson Navigation menu to open the Connect screen and view the Anchor Video.

Click the Play button to begin the video. The button toggles between Play and Pause; click it again to pause the video. Use the volume slider to adjust the volume. Click the time line to jump to a particular spot in the video. Click the fullscreen icon to view the video tutorial fullscreen or close the full-screen view.

© Houghton Mifflin Harcourt Publishing Company

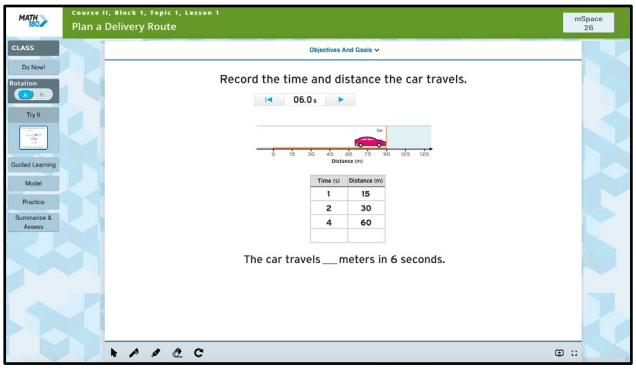
Set Up



Click **Set Up** to view the Set Up activity. The Set Up activity builds on the concepts introduced in the Anchor Video. Use the arrows at the bottom of the page to click through the steps of the activity.

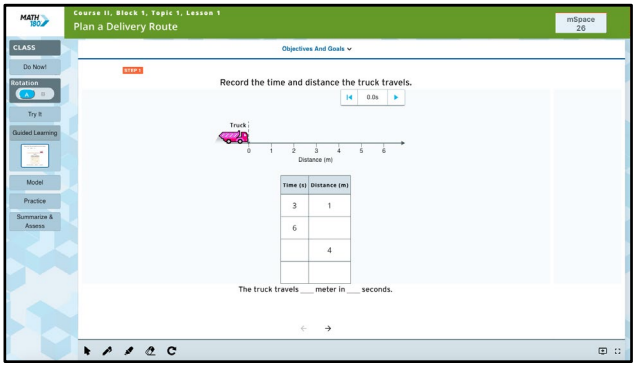
Try It

Click **Try It** to view the Try It activity. Set Up and Try It are usually the first activities in a lesson. Try It activities contain one introductory question related to the lesson's concept.



Guided Learning

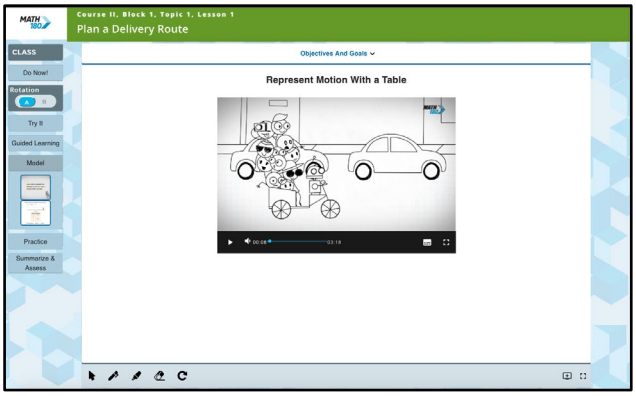
Click **Guided Learning** from the menu to open the Guided Learning screen. Use the arrow at the bottom to move between steps. The final Guided Learning screen shows the answers.



© Houghton Mifflin Harcourt Publishing Company

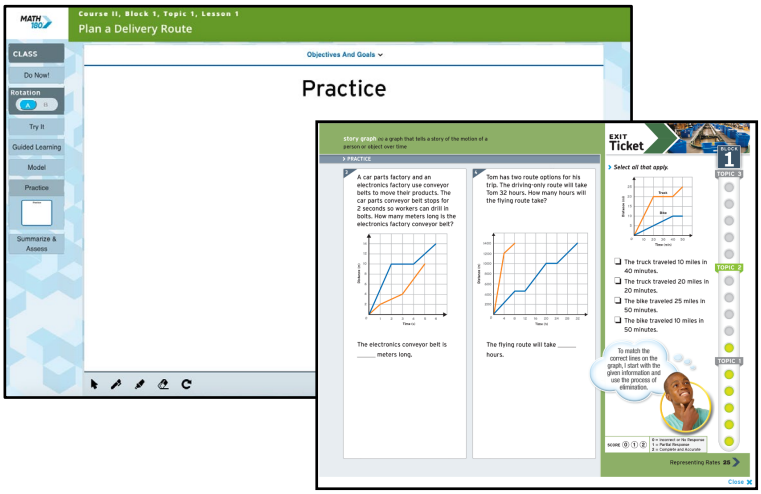
Model

Click **Model** to open the Model screen and show students how to navigate the problem. Use the arrow at the bottom to move between steps. The final screen shows the answers.



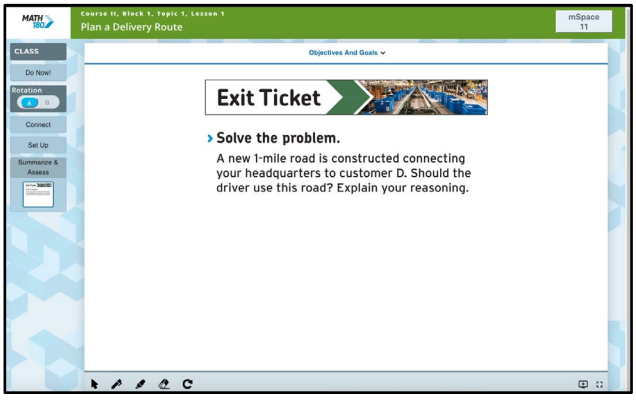
Practice

Click **Practice** to open the Practice screen. Click the mSpace button at the top of the screen to open and project the lesson's mSpace pages for students to view while they work on their own.



Summarize & Assess

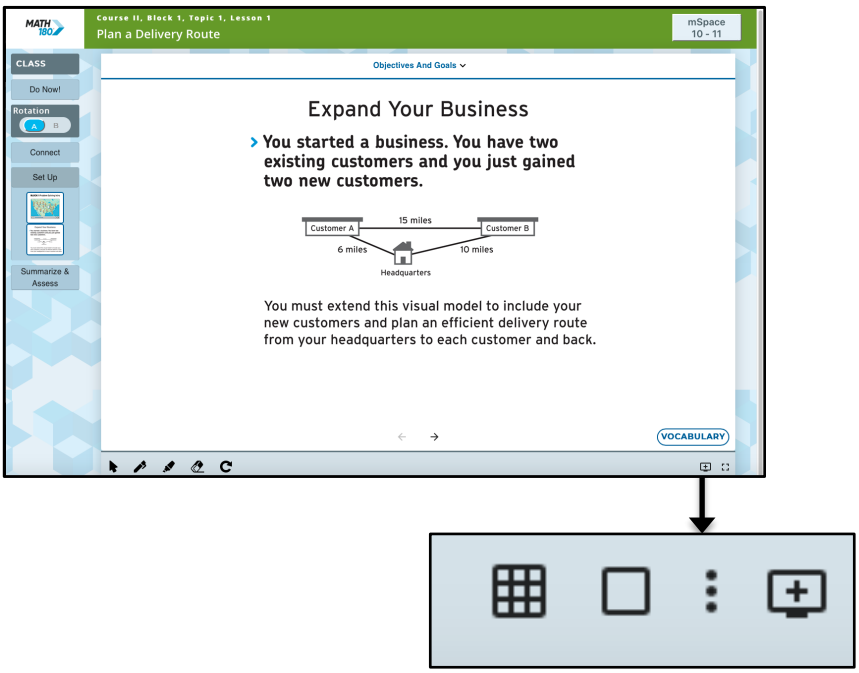
Click **Summarize & Assess** from the menu to open the Exit Ticket and view the final activity.



© Houghton Mifflin Harcourt Publishing Company

Tools & Resources

Click the computer screen icon at the lower right of the screen to open the Learning Resources Menu.

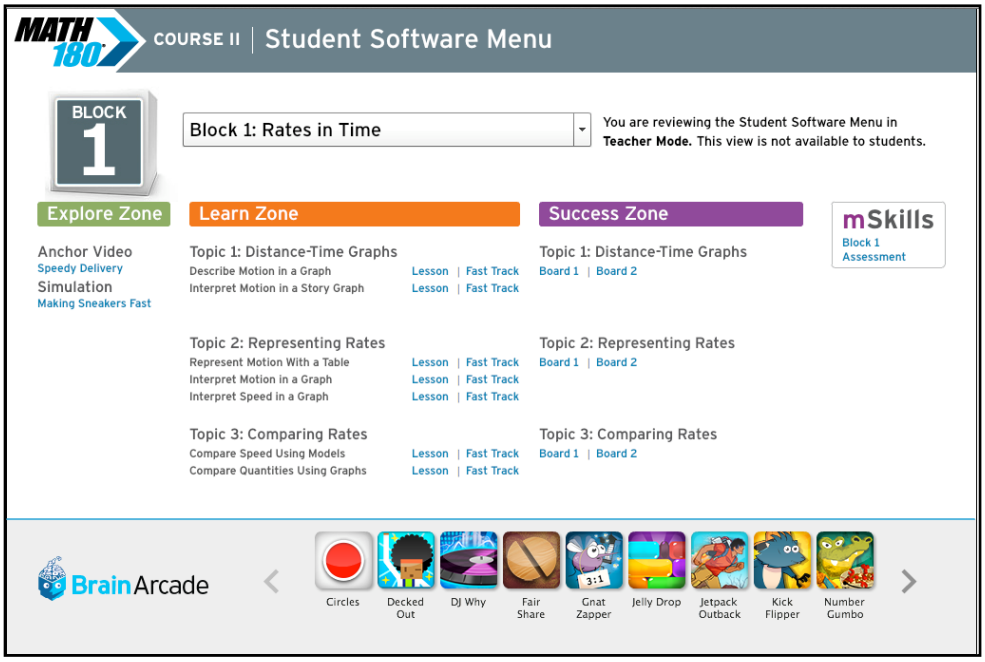


Scratch Page: Click the Scratch Page button to open a blank sheet of scratch paper. Use the IWB Tools to write on the scratch paper. Students' scratch pages are saved per lesson.

On the Scratch Page are two buttons: Click the left button for a graphed Scratch Page, click the right button for blank scratch paper.

© Houghton Mifflin Harcourt Publishing Company

Educator Access to Student Software



The Educator Access to Student Software function allows teachers to preview and explore the student software content through an intuitive interface. Accessing the student software allows teachers to be better equipped to help students that may be struggling with parts of the software.

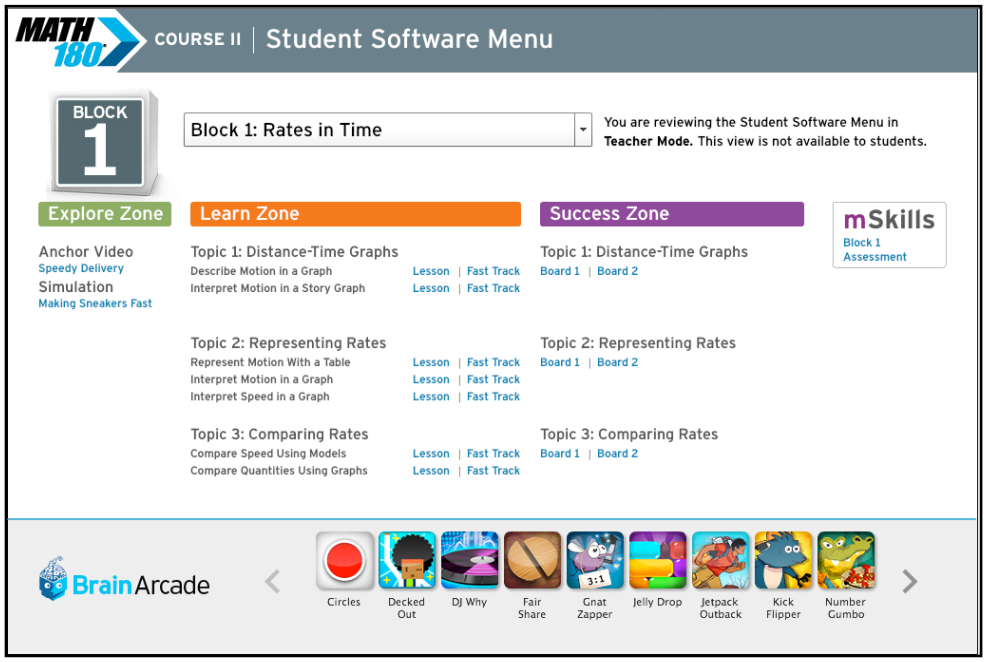
Accessing the Student Software

Access the Student Software by clicking the **Student Software Access** link in the Learning Resources Menu (*page 12*). The Student Software Menu opens in a separate browser window.

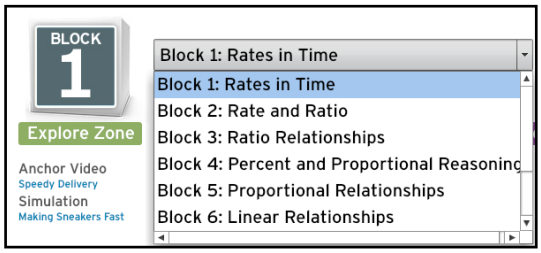
Teachers may also access the Student Software from the Interactive Whiteboard Technology Resource Menu by clicking the arrow key (*page 44*).

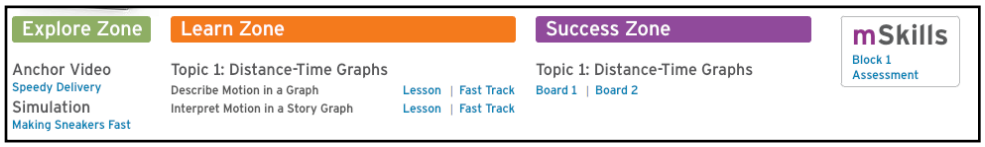
© Houghton Mifflin Harcourt Publishing Company

Viewing the Student Software



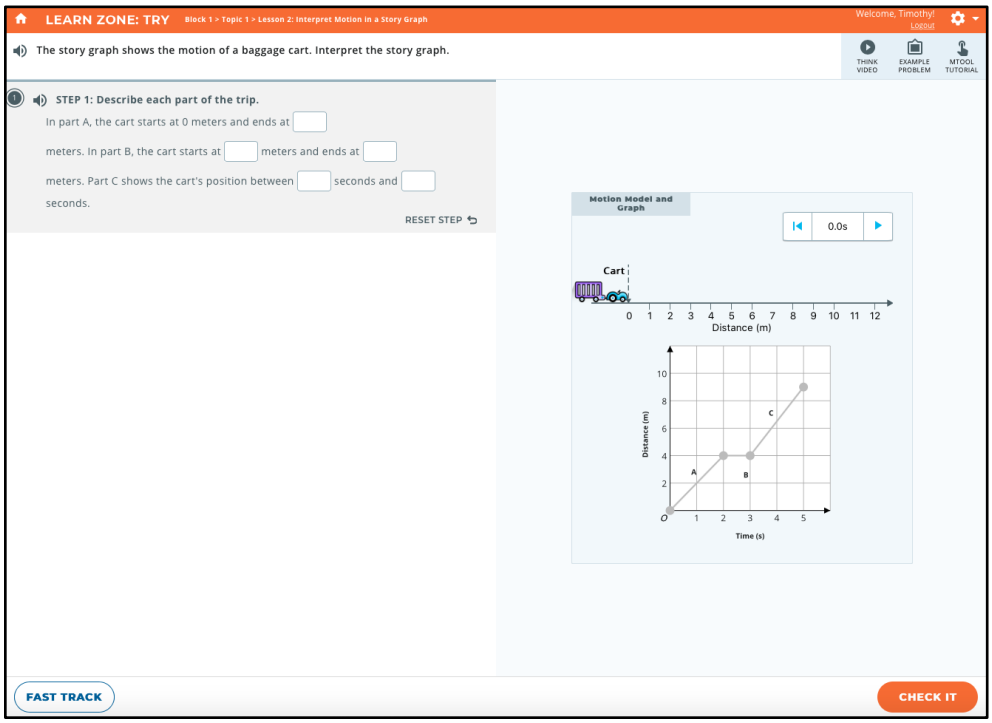
From the Student Software Menu, use the pull-down menu to select a Block.





Use the links under the Block description to open the Anchor Video, Simulation, Lessons, Boards, or *mSkills* Assessments for that Block.

© Houghton Mifflin Harcourt Publishing Company

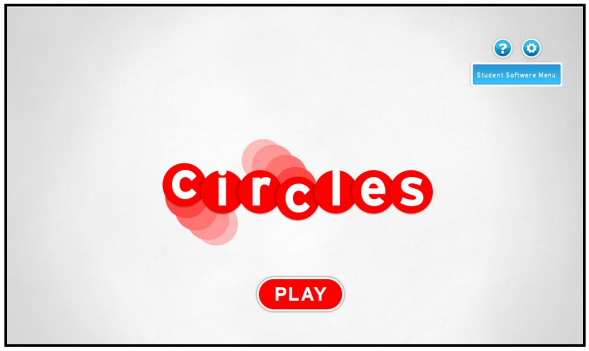


Clicking the link opens the Student Software for that portion of *MATH 180* exactly as the student would see it. To return to the Block's main menu, click **Student Software Menu**.

Teachers may also view Brain Arcade games through the Student Software Menu. Click a Brain Arcade game icon to open the game.

Click Play to start the game. Click the question mark icon to see the game tutorial. Click the settings icon to view the game settings.

To return to the main menu, click **Student Software Menu**.



© Houghton Mifflin Harcourt Publishing Company

MATH 180 Program Settings

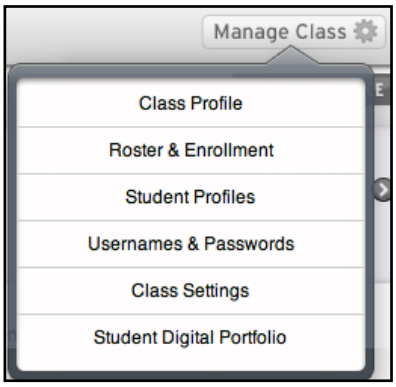
Program settings allow teachers to enroll students in *MATH 180* and customize the *MATH 180* student experience for their classes and individual students.

Class and student program settings may be set using the Manage Class menu in SAM Central. Class and student program settings, as well as school and district settings, may also be set in SAM.

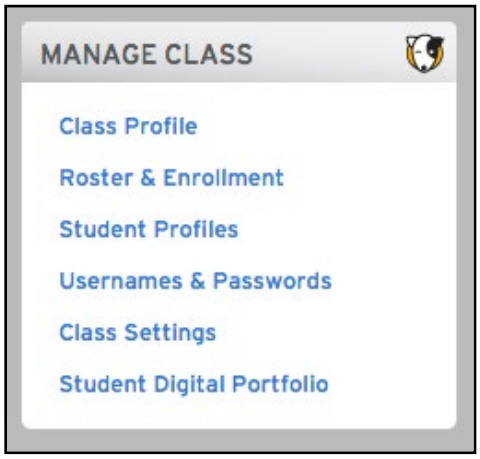
Program Settings in SAM Central

Teachers may set *MATH 180* Program Settings in SAM Central by using the Manage Class menu.

Access the Manage Class menu by clicking the **Manage Class** button on the Class Widget on the Home screen.



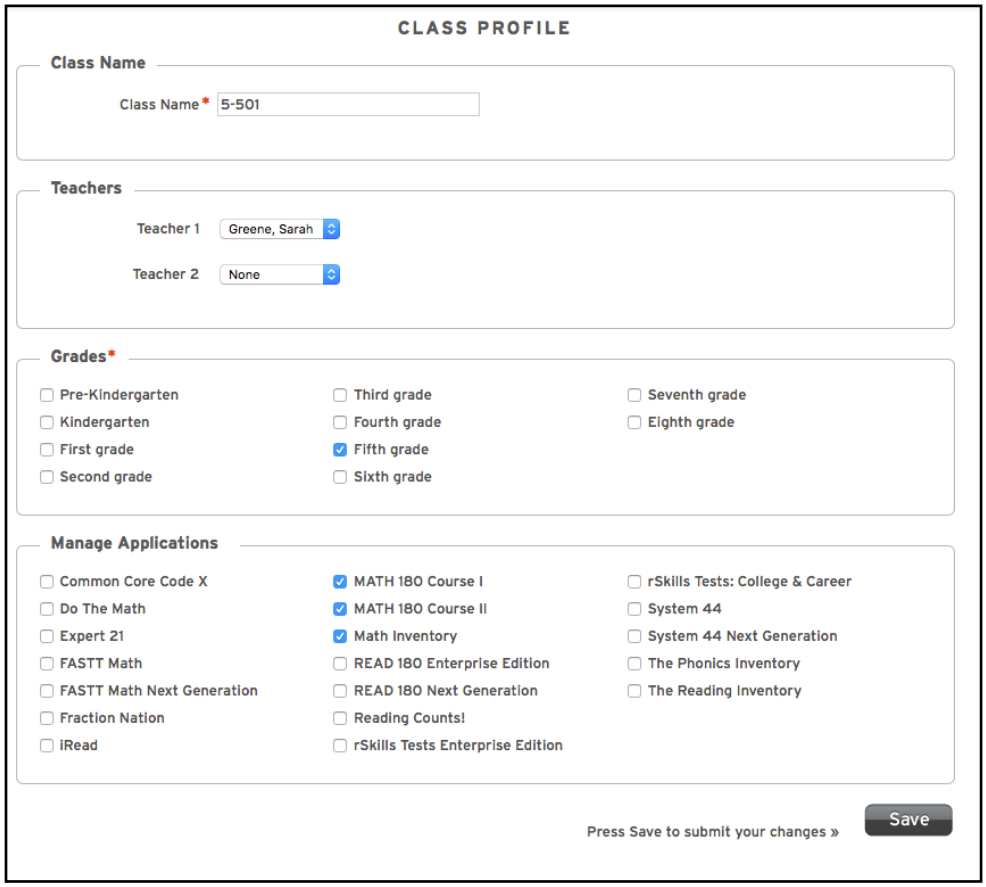
The Manage Class Menu may also be accessed from the navigation pane of the Class screen (*page 9*).



© Houghton Mifflin Harcourt Publishing Company

Class Profile

Click **Class Profile** to open the Class Profile screen.



To assign or change a class name, enter the new name in the **Class Name** field.

To assign teachers to the class, use the pull-down menus in the **Teachers** field and select the teacher's name by clicking it.

To assign grades to the class, use the checkboxes in the **Grades** section to select the class's grades.

To assign programs to the class, use the checkboxes in the **Manage Applications** section to select the programs used in the class.

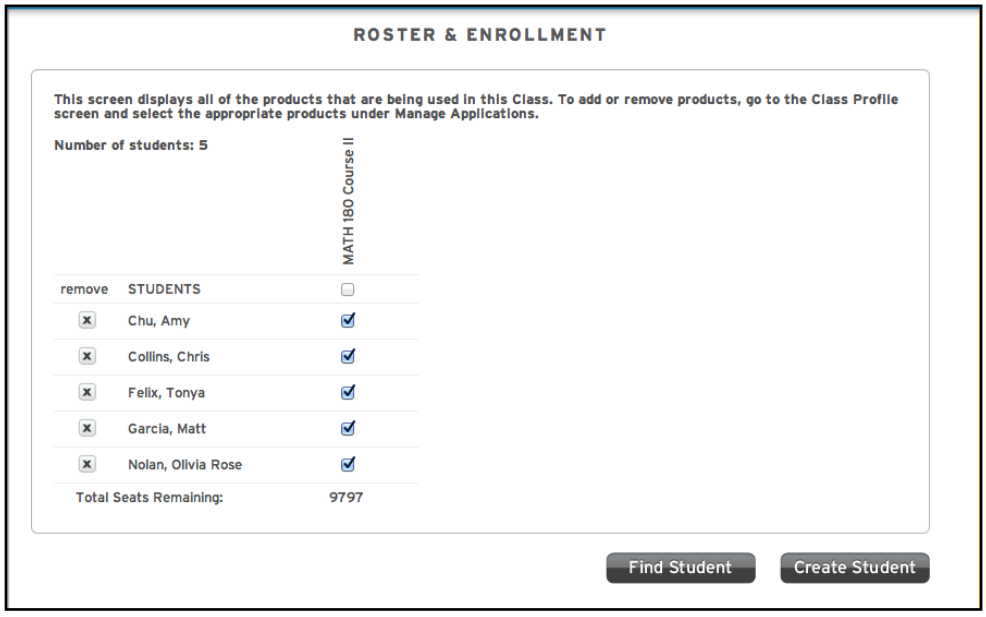
Required fields are marked with an asterisk (*).

Click **Save** to save selections and close the Class Profile screen, or click **Cancel** to close the screen without saving changes.

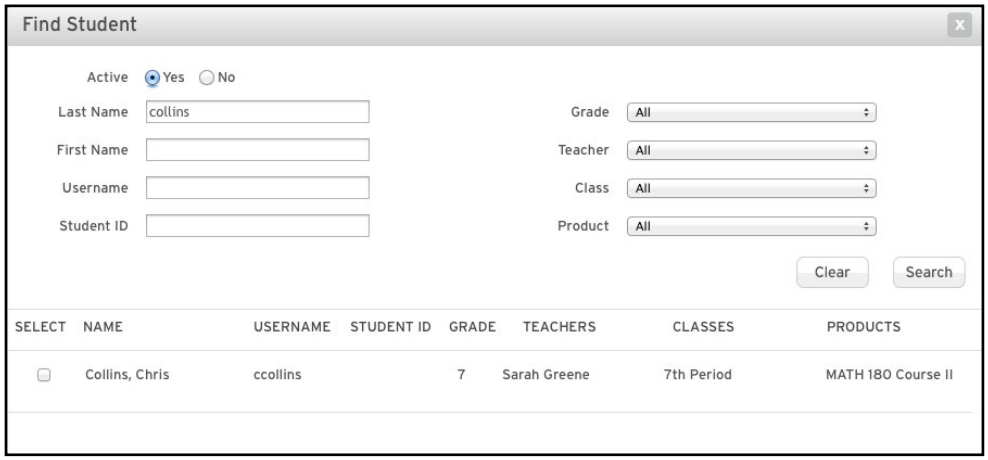
© Houghton Mifflin Harcourt Publishing Company

Roster & Enrollment

Click the **Roster & Enrollment** link to open the Roster & Enrollment screen.



Students that have been added to the class appear on the roster. To enroll them in *MATH 180*, click the checkbox next to the student's name. To enroll the entire class, click the checkbox at the top of the *MATH 180* column.



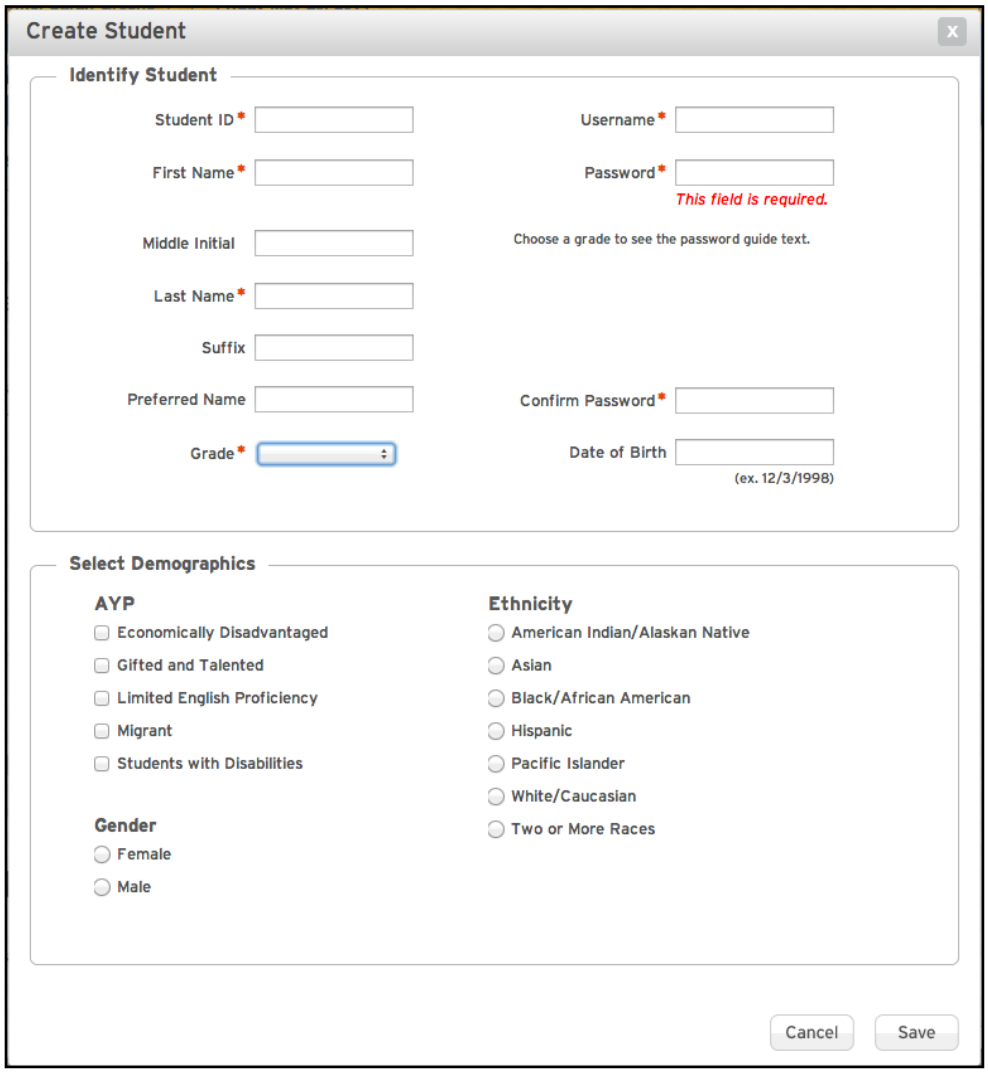
To search for a student, click **Find Student** to open the Find Student screen. Fill in one or more of the fields and click **Search** (click **Clear** to clear all fields).

To add the student to the class roster, click the checkbox next to that student's name, and then click **Add**.

© Houghton Mifflin Harcourt Publishing Company

Student Profiles may also be created in SAM Central.

To create a Student Profile in SAM Central, click **Create Student** from the Roster & Enrollment screen to open the Create Student screen.



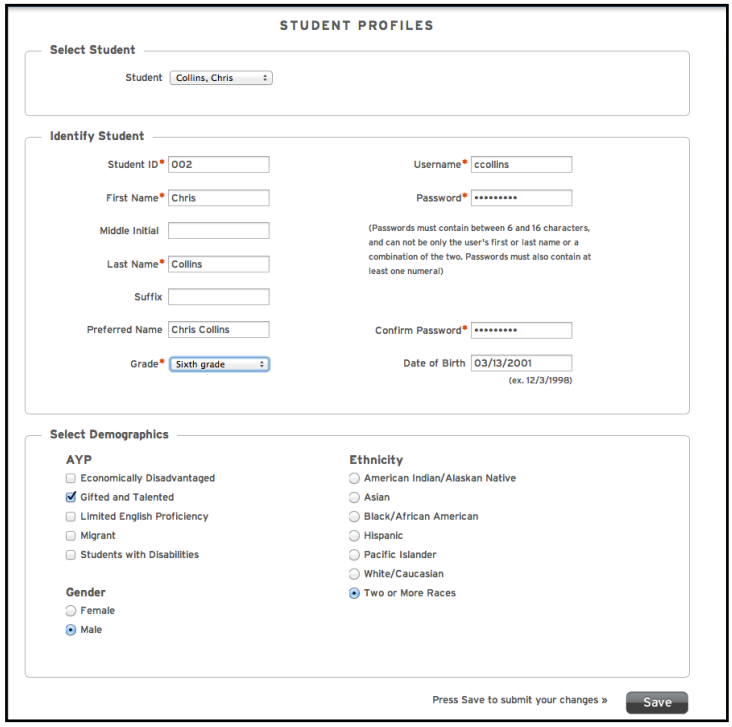
Fill in the fields (required fields are marked with an asterisk). Be sure to enter a SAM username and password for the student. Demographic information will be recorded in SAM and reflected in *MATH 180* reports.

Click **Save** to save selections and close the screen, or click **Cancel** to close the screen without saving changes.

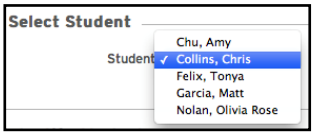
© Houghton Mifflin Harcourt Publishing Company

Student Profiles

To view and edit an existing Student Profile for a student in the class, click **Student Profiles** from the Manage Class menu.

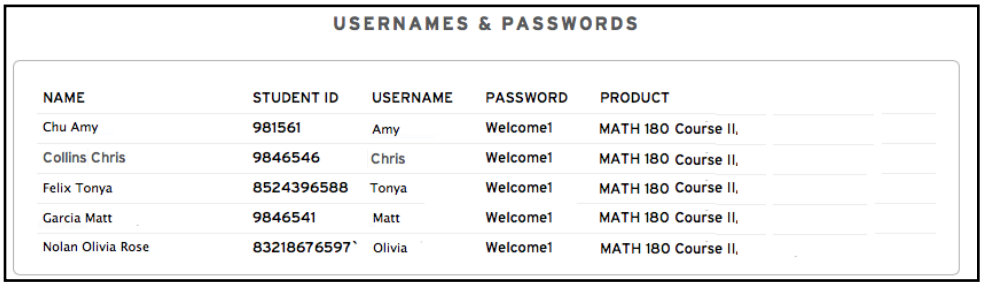


Use the pull-down menu to select a student in the class.



Enter or change information on the profile, then click **Save** to save any changes.

Usernames & Passwords



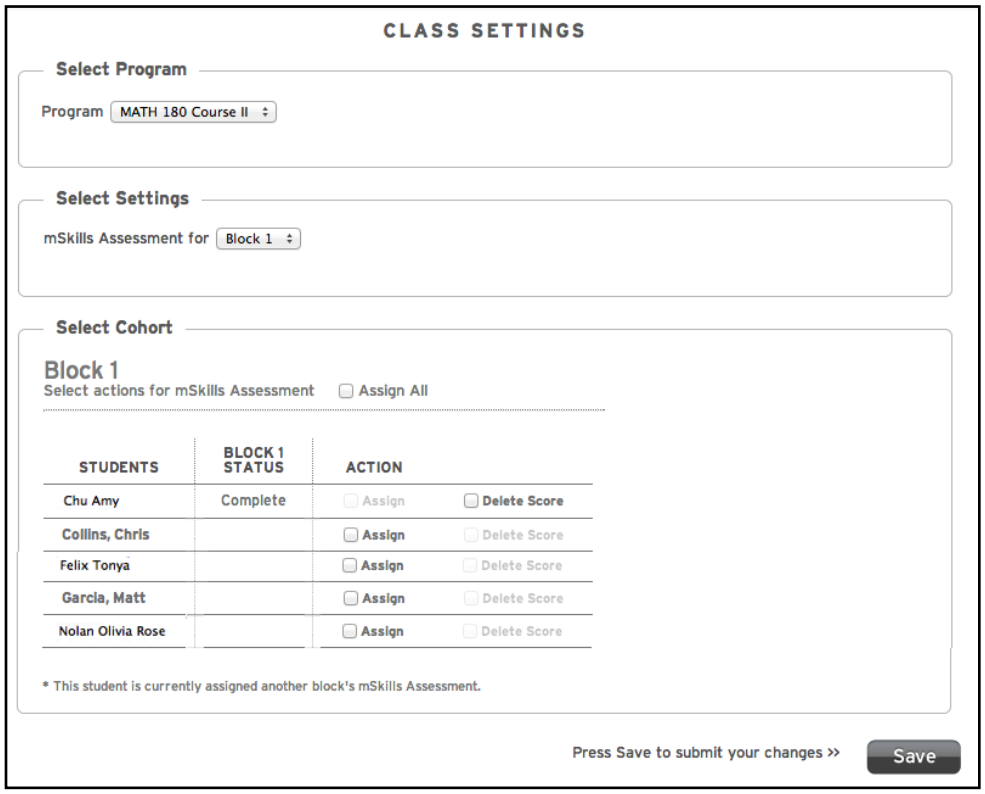
NAME	STUDENT ID	USERNAME	PASSWORD	PRODUCT
Chu Amy	981561	Amy	Welcome1	MATH 180 Course II,
Collins Chris	9846546	Chris	Welcome1	MATH 180 Course II,
Felix Tonya	8524396588	Tonya	Welcome1	MATH 180 Course II,
Garcia Matt	9846541	Matt	Welcome1	MATH 180 Course II,
Nolan Olivia Rose	83218676597`	Olivia	Welcome1	MATH 180 Course II,

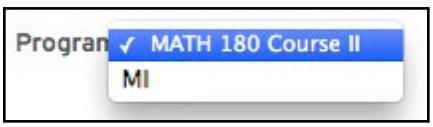
Click Usernames & Passwords to view a list of SAM usernames and passwords for all the students in the class.

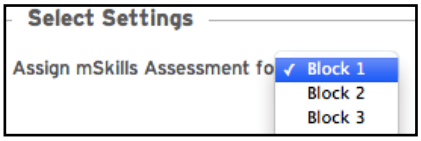
© Houghton Mifflin Harcourt Publishing Company

Class Settings

Use SAM Central to assign *mSkills* Assessment and apply *Math Inventory* Program Settings to the class. Click **Class Settings** from the Manage Class menu to open the Class Settings screen.



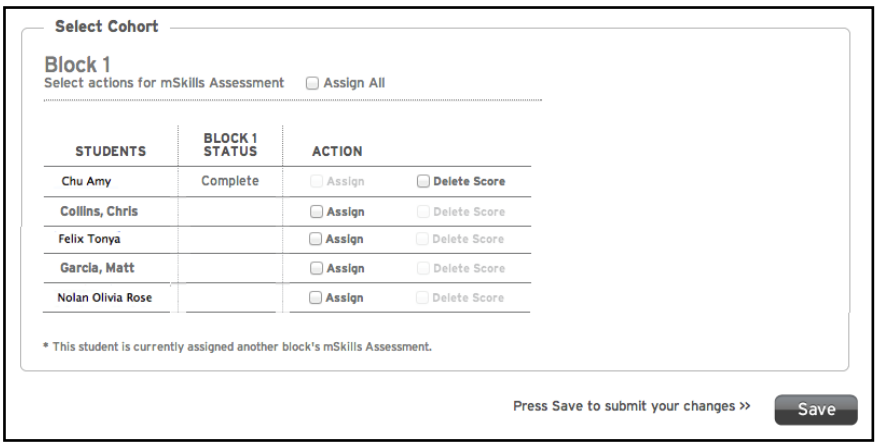




Use the pull-down menu to select which program the settings will apply to. To assign an *mSkills* Assessment, choose **MATH 180 Course II** from the pull-down menu, then choose the corresponding Block for the assessment.

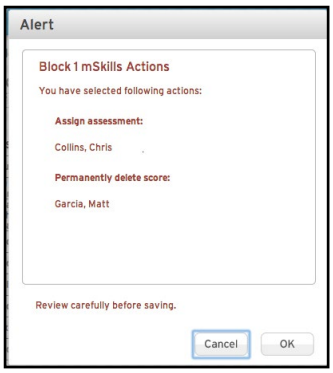
To change *Math Inventory* Program Settings, select **Math Inventory** from the program pull-down menu. To change students' *Math Inventory* settings, see ***Using SAM Central With Math Inventory*** at the *Math Inventory* Product Support website (*page 84*).

© Houghton Mifflin Harcourt Publishing Company



Assign the assessment to individual students or all students in the class by clicking student checkboxes or the **Assign All** checkbox. Checkboxes are grayed out when students have completed the selected Block's *mSkills* Assessment or are currently assigned to another Block's *mSkills* Assessment (these students are marked with an asterisk).

Teachers may assign and unassign students from *mSkills* at any time, including while they are logged in, by clicking the **Assign** checkbox to show the student assigned or not assigned. Teachers may also delete student scores on the *mSkills* Assessment by clicking **Delete Score**. The student's status will no longer be listed as Complete if the score is deleted. Click **Save** to save settings.



After clicking **Save**, a confirmation screen opens listing all changes. Review these changes, then click **OK** to confirm the changes. Click **Cancel** to undo all changes.

Students assigned an *mSkills* Assessment while logged in see the assigned assessment upon login. Students who are unassigned from *mSkills* while logged in (and taking the assessment) are prompted to log out immediately. They then go to their dashboards at subsequent logins until they are assigned an *mSkills* Assessment.

Student Digital Portfolio

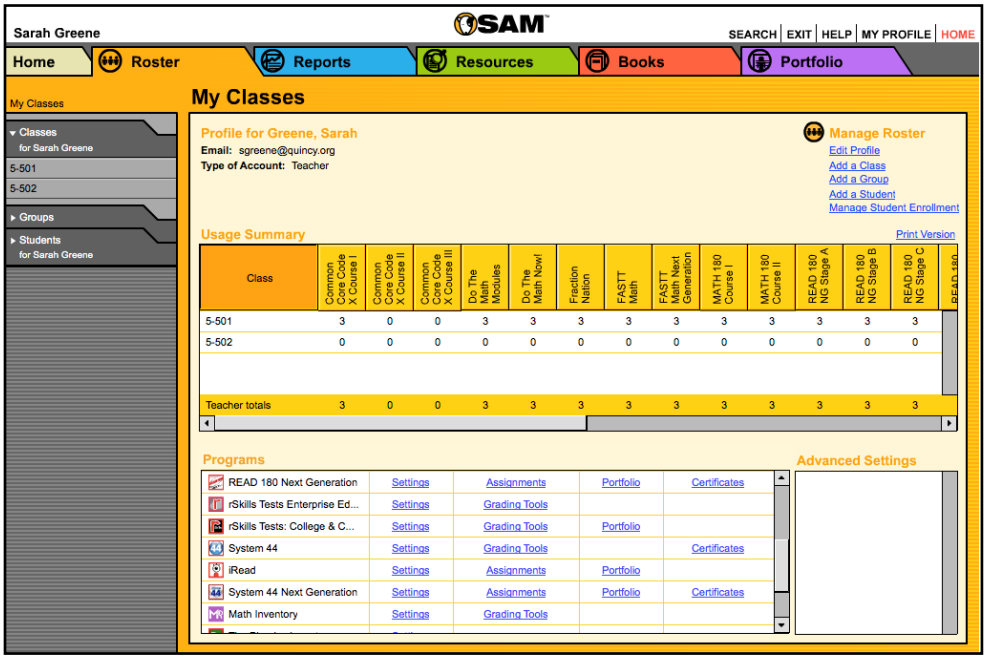
To open the Student Digital Portfolio (*page 58*), click **Student Digital Portfolio** from the Manage Class menu.

© Houghton Mifflin Harcourt Publishing Company

MATH 180 Program Settings in SAM

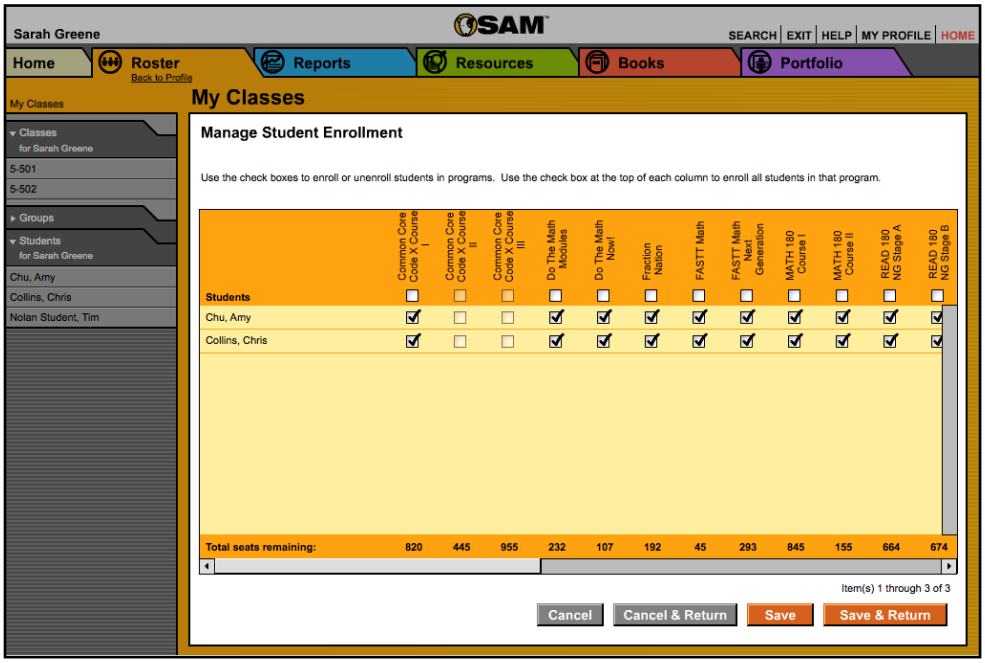
Enrolling Students

If students have profiles in SAM, teachers and administrators may use SAM to enroll students in *MATH 180.* To add students to SAM and create student profiles, see ***Enrolling and Managing Students Using Student Achievement Manager*** at the *MATH 180* Product Support website (*page 84*).



Confirm that students are enrolled in *MATH 180* by clicking **My Classes** at the top of the SmartBar to access the class's Profile screen. Locate the number of students who are enrolled in each program in the Usage Summary table.

© Houghton Mifflin Harcourt Publishing Company



To enroll students in *MATH 180* through SAM:

1. Click the **Manage Student Enrollment** link from the class's, teacher's, or student's Profile screen.
2. Use the checkboxes to enroll students in the programs, or use the checkboxes at the top of the chart to enroll every student in the list at the same time. Use the scroll bar to horizontally scroll through the program choices.
3. Click **Save & Return** to save changes and return to the Profile screen. Click **Save** to save changes and remain on the Enrollment tab. Click **Cancel** to cancel the changes, or click **Cancel & Return** to return to the Profile screen without saving changes.

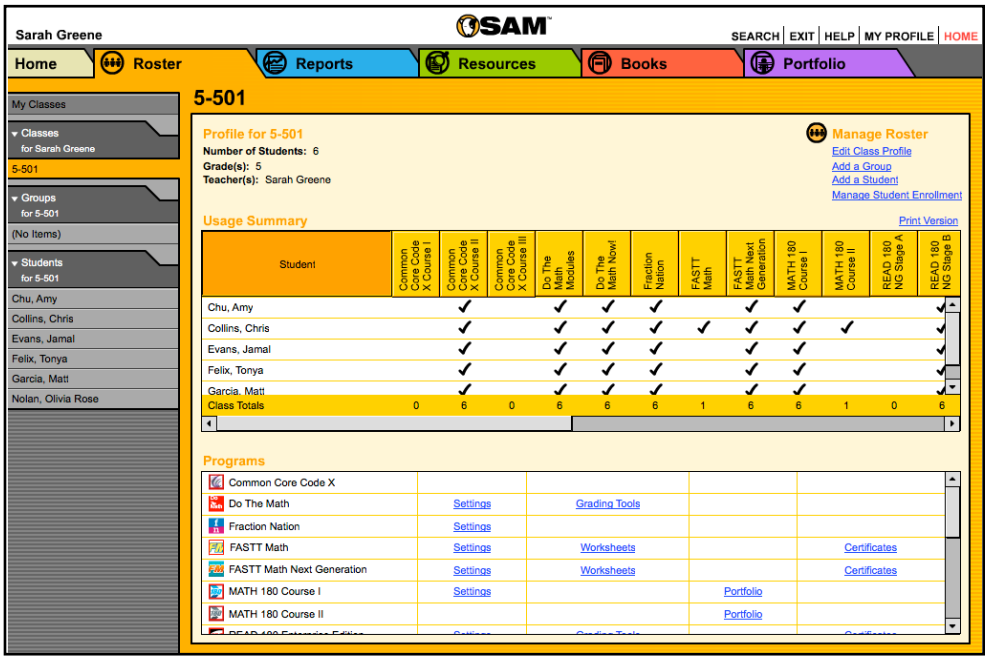
Enroll additional students in *MATH 180* by double-clicking another class or group in the SmartBar.

© Houghton Mifflin Harcourt Publishing Company

Points of Entry

Teachers and administrators may choose to start students at a specific block, depending on the students' abilities.

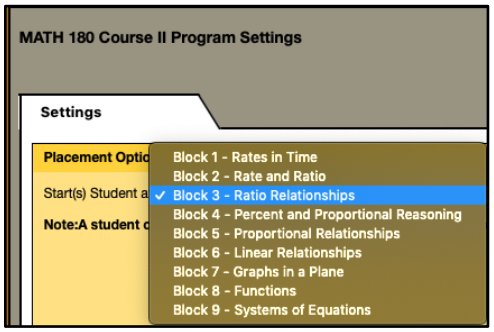
Students may not be placed back into an earlier block once they are placed in a later block.



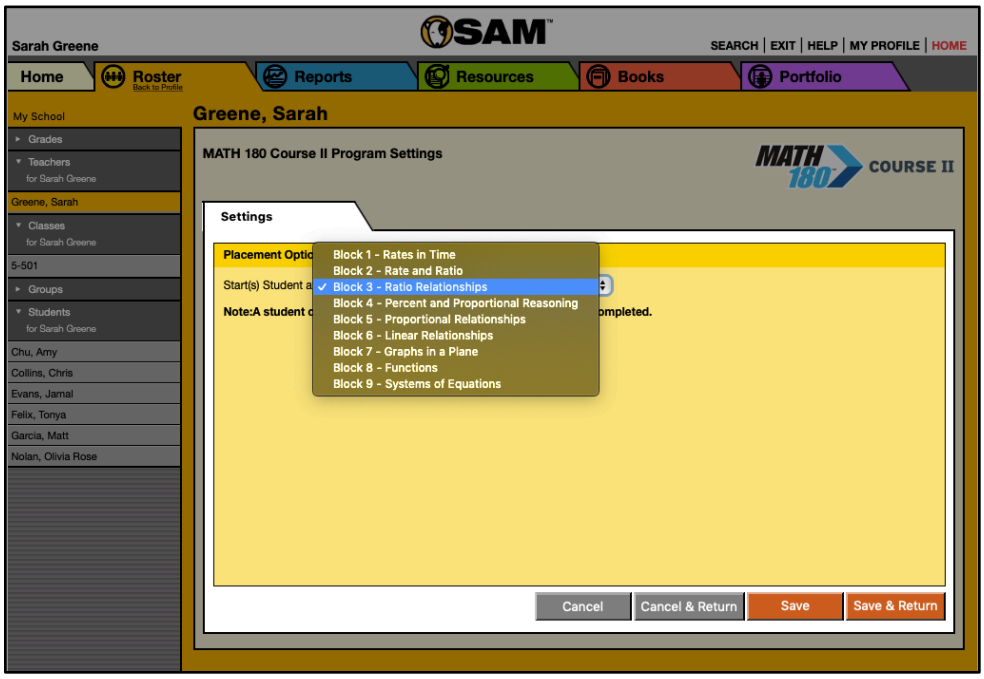
To set the point of entry, click **Settings** in the *MATH 180* line of the Program menu to open the Settings screen.

© Houghton Mifflin Harcourt Publishing Company

Only students who have not yet reached the selected block may be placed in that block. If moving the entire class forward, only the students who have not yet reached the selected block will be advanced to that block.



If a single student is selected in the SmartBar, that student's current Block is displayed on the screen.

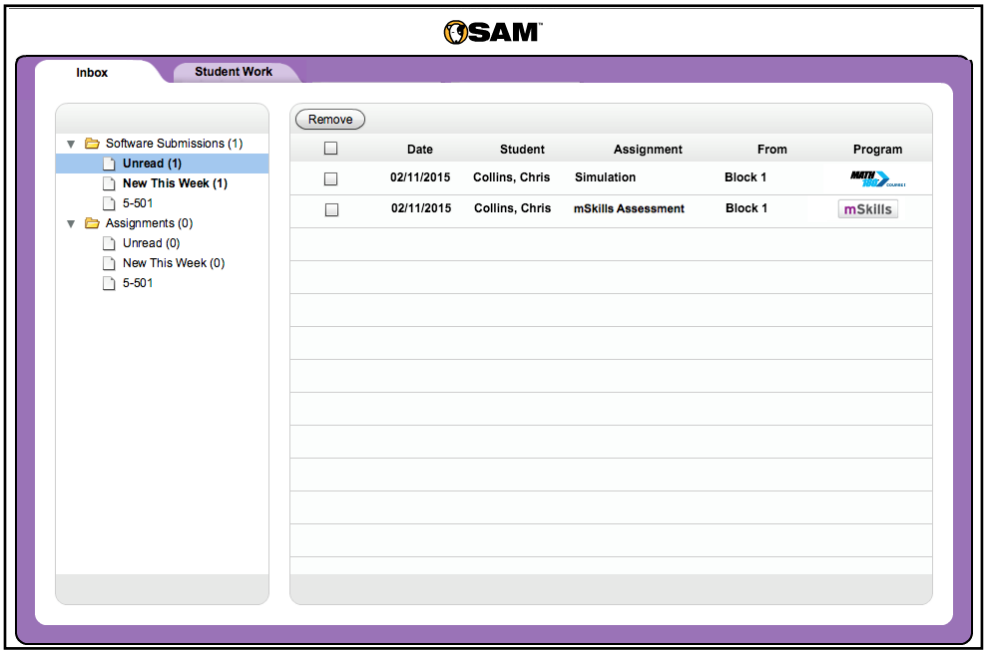


From the Settings screen, choose which Block students may start with by clicking the student, class, or school in the SmartBar, then clicking the button next to the Block where the students should start.

Click **Save**, then click **Yes** from the confirmation window to save the settings. Click **Save & Return**, then click **Yes** from the confirmation window to save settings and return to the SAM Home screen. Click **Cancel** to reload the screen without saving the settings, or click **Cancel & Return** to go back to the SAM Home screen without saving settings.

© Houghton Mifflin Harcourt Publishing Company

The Student Digital Portfolio



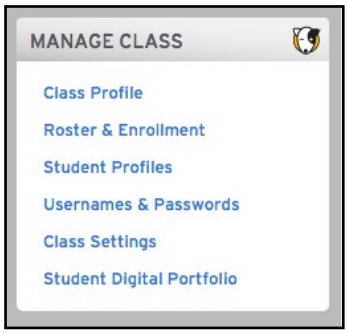
The Student Digital Portfolio collects submitted student work in the Explore Zone Simulations and *mSkills* Assessment Computer Response Questions and stores them in SAM, making it easy for teachers to quickly assess and comment on student work, or refer to it throughout the school year.

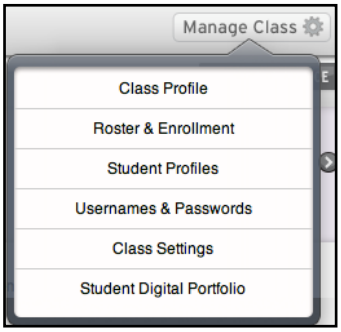
All Simulations and *mSkills* Assessment Computer Response Questions that students complete in *MATH 180* are automatically submitted to the Student Digital Portfolio. Administrators may view graded student assignments in the Student Work tab (*page 62*).

© Houghton Mifflin Harcourt Publishing Company

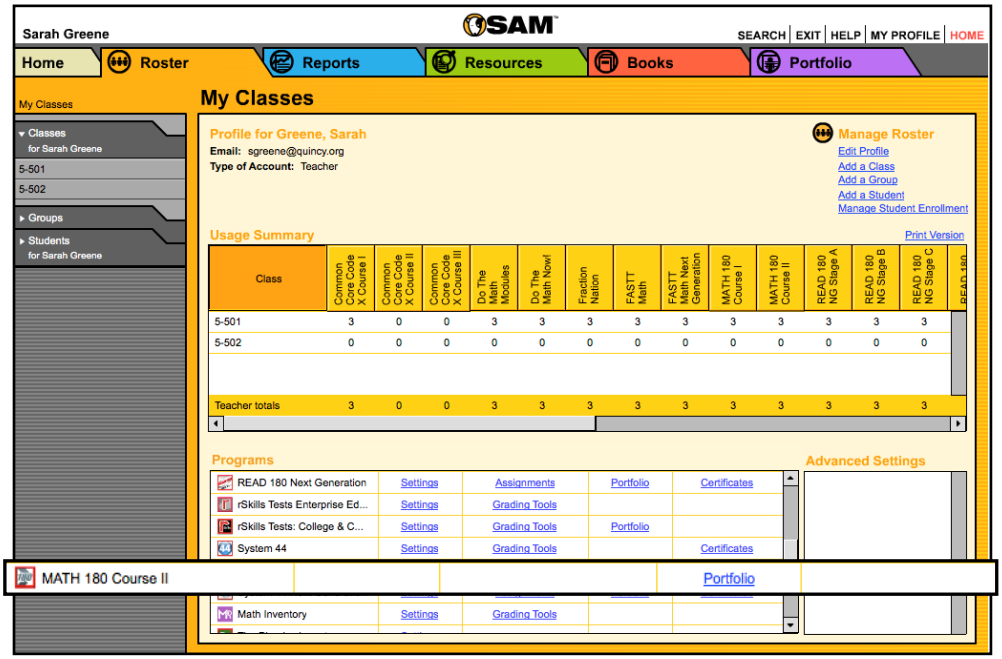
Accessing the Student Digital Portfolio

Access the Student Digital Portfolio through SAM Central by clicking the **Student Digital Portfolio** link in the Manage Class menu.





There are two ways to access the Student Digital Portfolio through SAM:

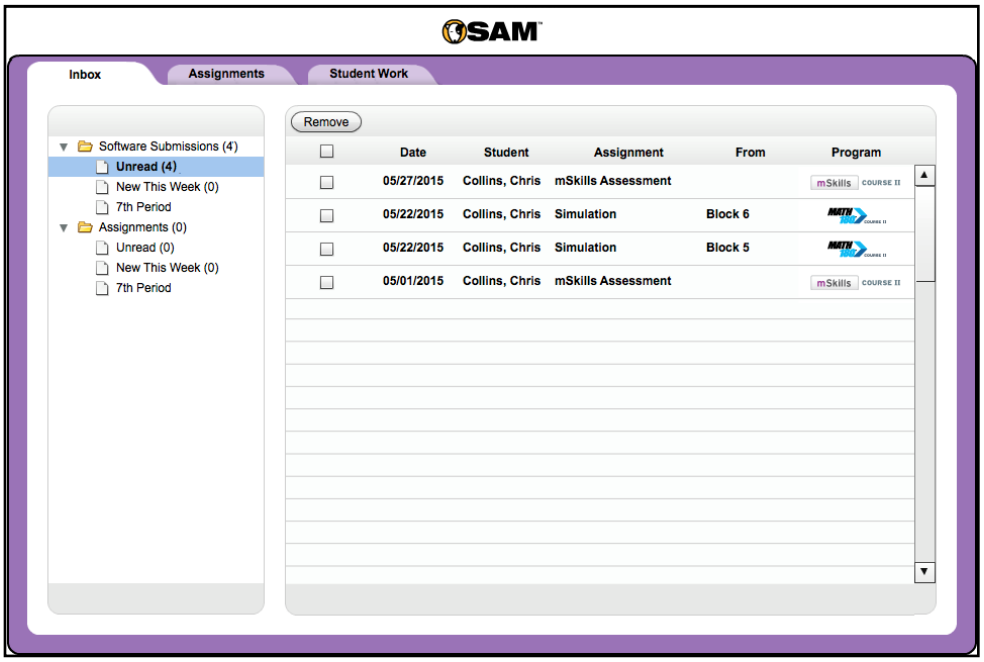


1. Click the Portfolio tab from any screen in SAM. The Student Digital Portfolio opens in a separate browser window.

2. In the Programs table at the bottom of the Profile screen, click the **Portfolio** link in the *MATH 180* row to open the Student Digital Portfolio in a separate browser window.

© Houghton Mifflin Harcourt Publishing Company

Managing the Student Digital Portfolio



When a teacher opens the Student Digital Portfolio, student work is displayed in different tabs:

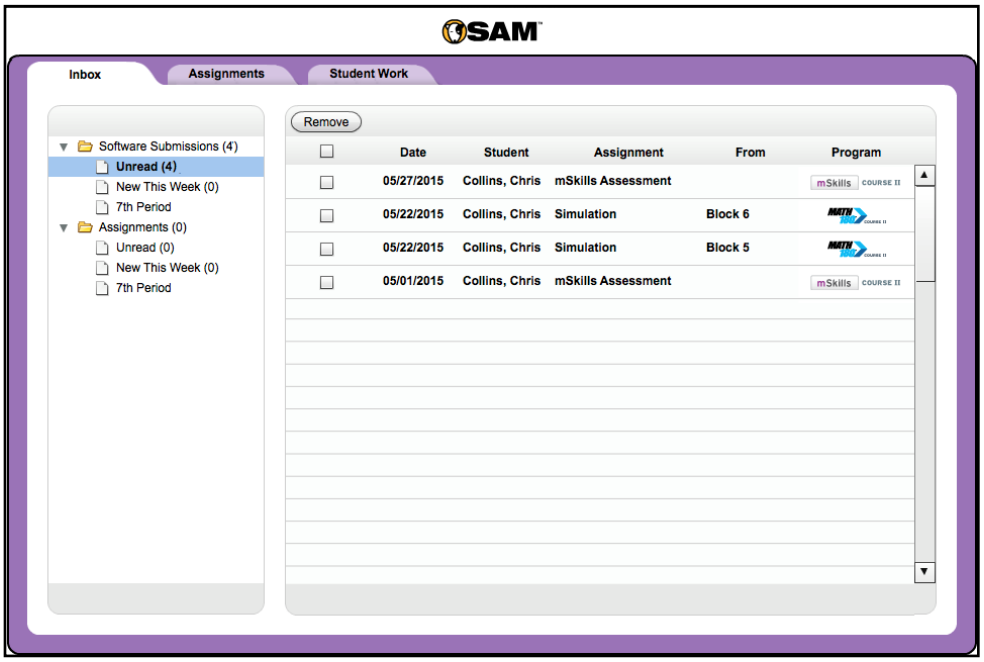
- **Inbox** displays all ungraded Explore Zone Simulation activities and *mSkills* Assessment Computer Response Questions from the student program. Newly submitted work is in boldface.
- **Assignments** are not available to *MATH 180* classes.
- **Student Work** displays all Explore Zone Simulation activities and *mSkills* Assessment Computer Response Questions. It is visible for both teachers and administrators.

Administrator View

Administrators may view work in the Student Digital Portfolio beginning at the class level. Select the folders for the school, grade, teacher, and class to view work. Administrators see only the Student Work tab in their view of the Portfolio.

© Houghton Mifflin Harcourt Publishing Company

The Inbox Tab



The Inbox tab essentially functions as a “to-do” list of student work to be graded. It displays ungraded Explore Zone Simulation activities and *mSkills* Assessment Computer Response Questions that have reached their due dates.

From the Inbox tab, click the **Software Submissions** folder icons along the left of the screen to view students’ work (assignments are not available to *MATH 180* classes). Click the folders to filter the view to show work that is New This Week, Unread, or from specific classes.

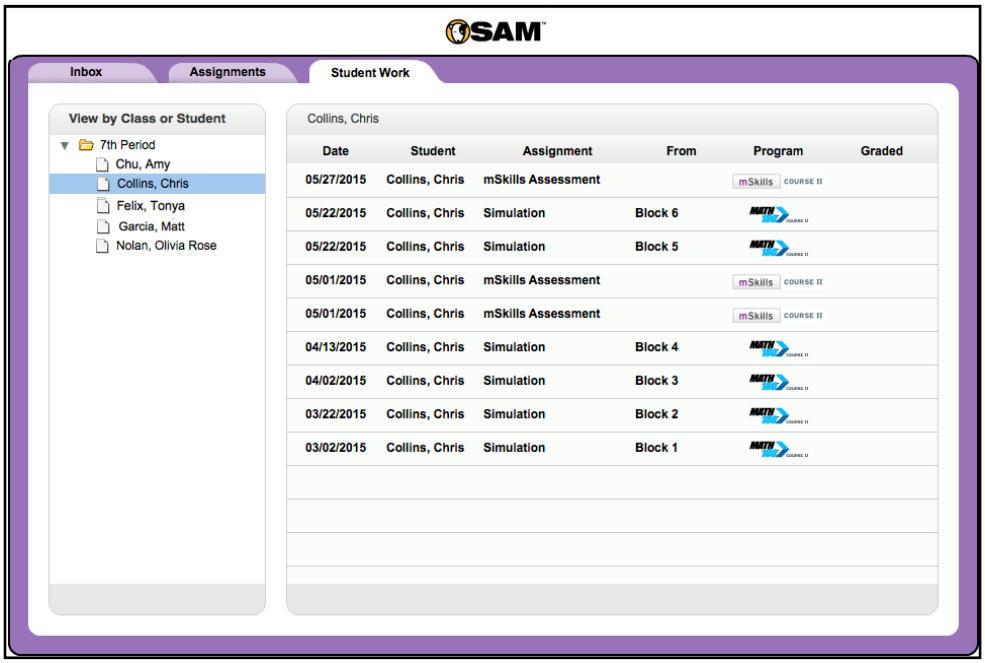
Click the links at the top of each column in the Portfolio list view to sort the work by **Date**, **Student** or **Class**, **Assignment**, **From** (Source), or **Program**.

Click any software submission to view and grade it in a Detail view (*page 63*). Once a submission or assessment is graded, it is automatically removed from the Inbox tab.

To remove a software submission from the Inbox, click the checkbox next to the assignment and then click the **Remove** button at the top of the list. This removes the work from the Inbox but does not delete it. Student work is retained on the Student Work tab (*page 62)*.

© Houghton Mifflin Harcourt Publishing Company

The Student Work Tab

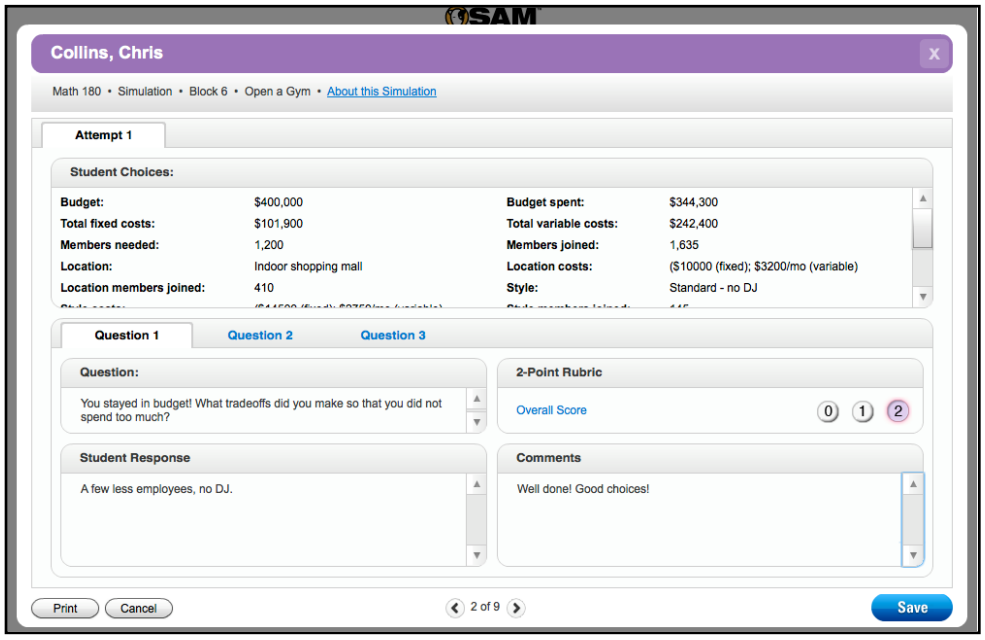


From the Student Work tab, teachers may view works by a specific class or student. The Student Work tab shows a class's or student's full portfolio of work, both graded and ungraded.

Click the links at the top of each column in the Portfolio index to sort the work by **Date**, **Student**, **Assignment**, **From** (Source), **Program**, and whether the work is graded or ungraded.

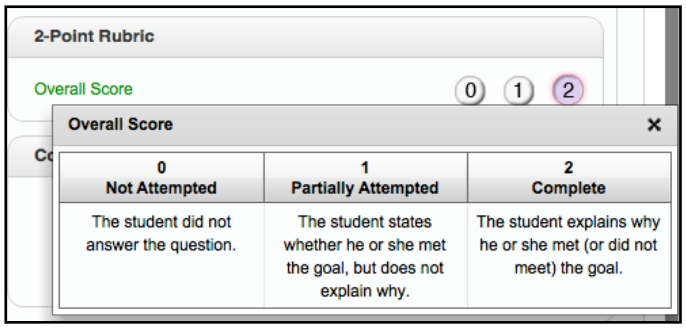
© Houghton Mifflin Harcourt Publishing Company

Detail View—Explore Zone Simulation

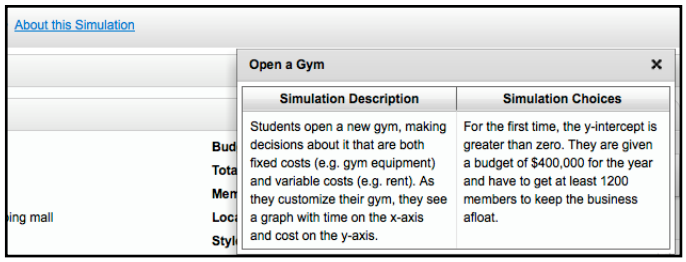


Clicking any assignment in the main table opens the Detail view of the assignment.

Click **Overall Score** to view the rubric for grading student responses. Enter comments in the field in the lower right corner.



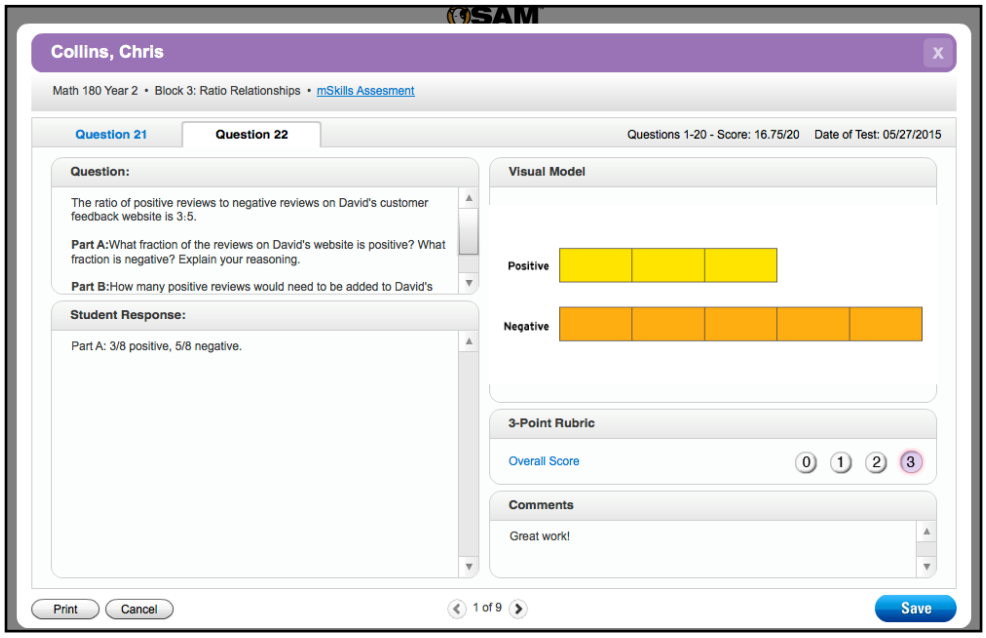
Click **About This Simulation** to view the simulation description and the choices presented to students.



Click **Save** to save all grades and comments. Click **Cancel** to close the Detail view without saving changes. Click **Print** to print student work (including any grades and comments that have been entered). Close the Detail view by clicking the "**X**" icon. A prompt reminds users to save changes before closing the screen.

© Houghton Mifflin Harcourt Publishing Company

Detail View—mSkills



Click an mSkills assessment in the main table to open the Detail View for the assessment, which shows student responses and work on mSkills Assessment Computer Response Questions. Click **Overall Score** to view the rubric for scoring student responses, then click the number button to enter a score. Enter comments in the field in the lower right corner.

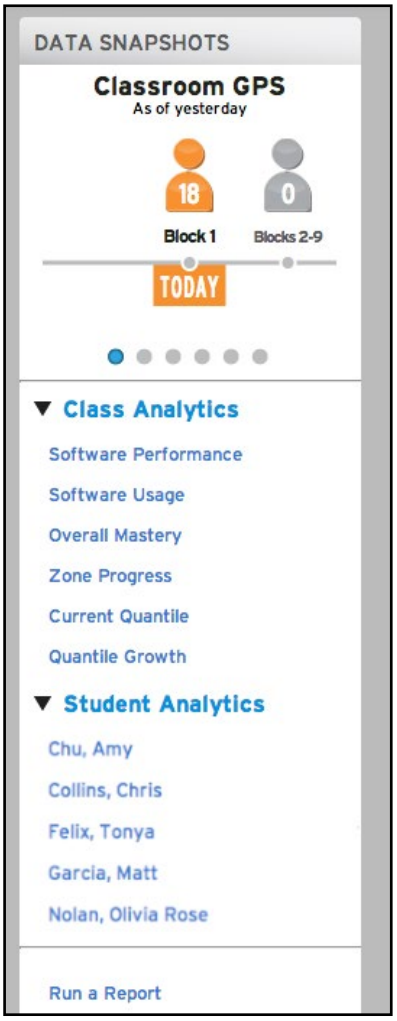
To view the answer key for the entire mSkills Assessment in a separate browser window, click the **mSkills Assessment** link at the top of the screen.

Click **Save** to save all grades and comments. Click **Cancel** to close the Detail view without saving any changes. Click **Print** to print student work (including any grades and comments that have been entered). Close the Detail view by clicking the "**X**" icon. A prompt reminds users to save changes before closing the screen.

© Houghton Mifflin Harcourt Publishing Company

MATH 180 Reports

Accessing Reports



Access *MATH 180* student and class reports using the **Class Analytics** and **Student Analytics** links on the Data Widget on the Class screen.

Click the **Class Analytics** link to open the menu and see the links for the class reports:

- Software Performance
- Software Usage
- Overall Mastery
- Zone Progress
- Current Quantile
- Quantile Growth

Click the **Student Analytics** link to open the menu and see the links for the student reports.

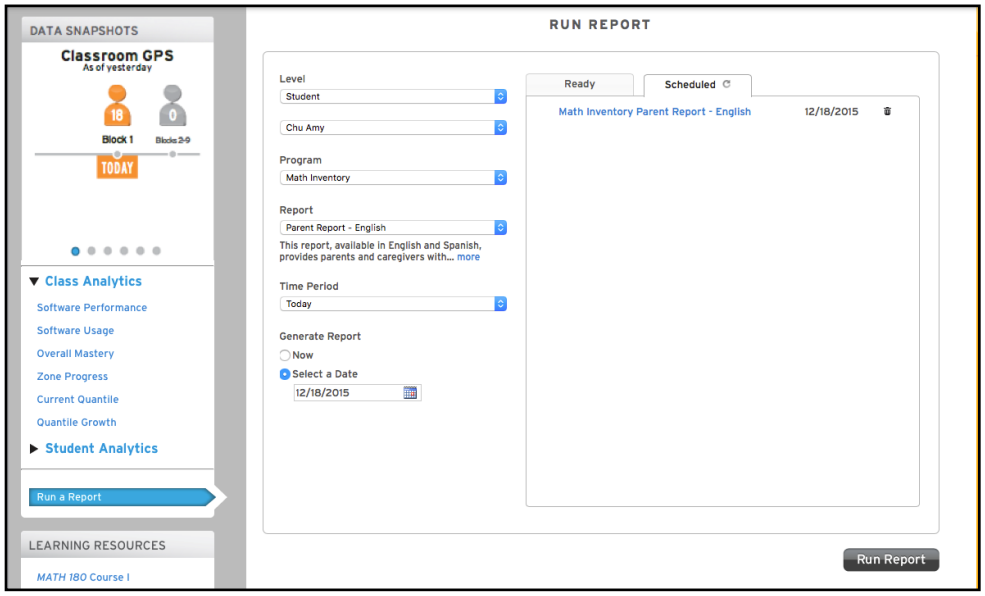
Click the report links or student links to open the report on the Class screen.

To use the Report Scheduler (*page 66*), click **Run a Report**.

© Houghton Mifflin Harcourt Publishing Company

Scheduling Reports

To schedule class or student reports, use the Report Scheduler.

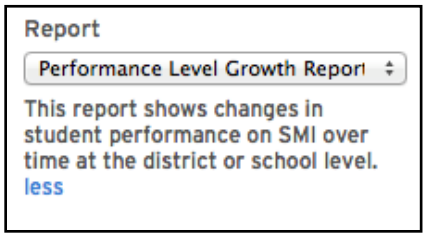


Open the Report Scheduler by clicking **Run a Report** in the Data Snapshots Widget. Use the pull-down menus to set the report parameters.

Click **Level** to choose at which level to run the report.

Choosing **Student** opens a second pull-down menu with the student roster. Click the student's name from the menu to schedule the report for that student.

Choose the program for the report from the **Program** menu (for more information on *Math Inventory* reports, See ***Using SAM Central With Math Inventory*** at the *Math Inventory* Product Support website).



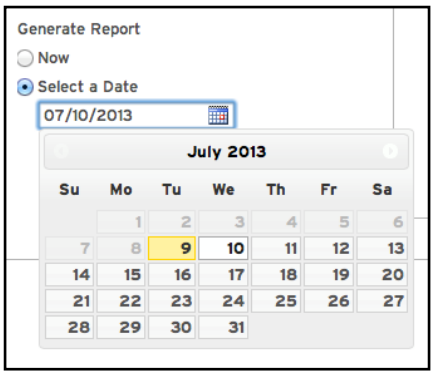
Choose the report from the **Report** menu. After selecting the report to run, a small description appears below the menu.

© Houghton Mifflin Harcourt Publishing Company

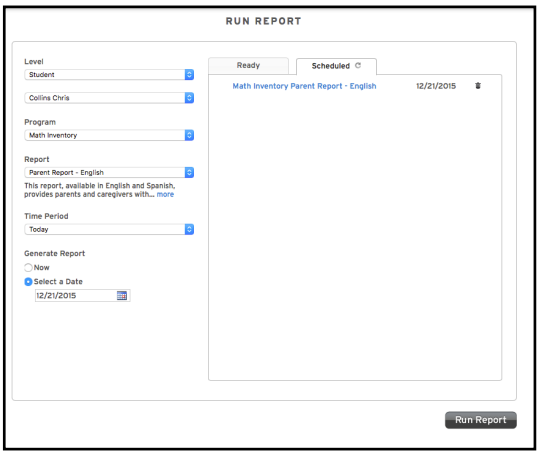
Click the **Time Period** pull-down menu to select the time period the report should cover.

To schedule when the report should run, click the **Now** button to run it immediately or **Select a Date** button to schedule it for a future date or time.

Click the calendar icon to select the date to schedule the report.

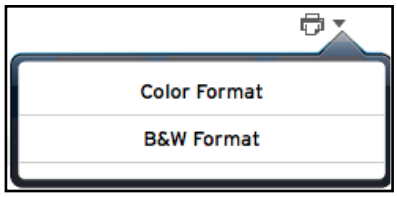


When the parameters are set, click **Run Report** to either run or schedule the report. Click the Ready or Scheduled tab to view the report listing. Click the report link to view the report as a PDF in a separate browser window. To delete the listing, click the trash can icon.



Printing Reports

At the top of each Class Analytic and Student Analytic report is a printer icon. Click the icon to view the Print Menu.

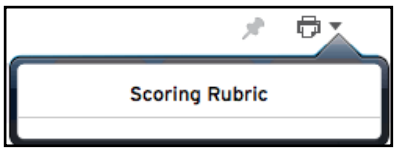


Choose the type of printout (color or black and white) from the menu and click it.

Click **Print** from the browser menu to print the report.

Saving a Report as a PDF

After clicking the Print Menu and choosing the type of printout, click **PDF** to save the report to the workstation as a PDF.



© Houghton Mifflin Harcourt Publishing Company

MATH 180 SAM Reports

The Results Summary Report (*page 69*) is a school- or district-wide *MATH 180* report. It must be run through SAM.

Running Reports in SAM

To run a report in SAM, click the Reports tab or the **Reports** icon on the SAM home screen to open the Report Index.

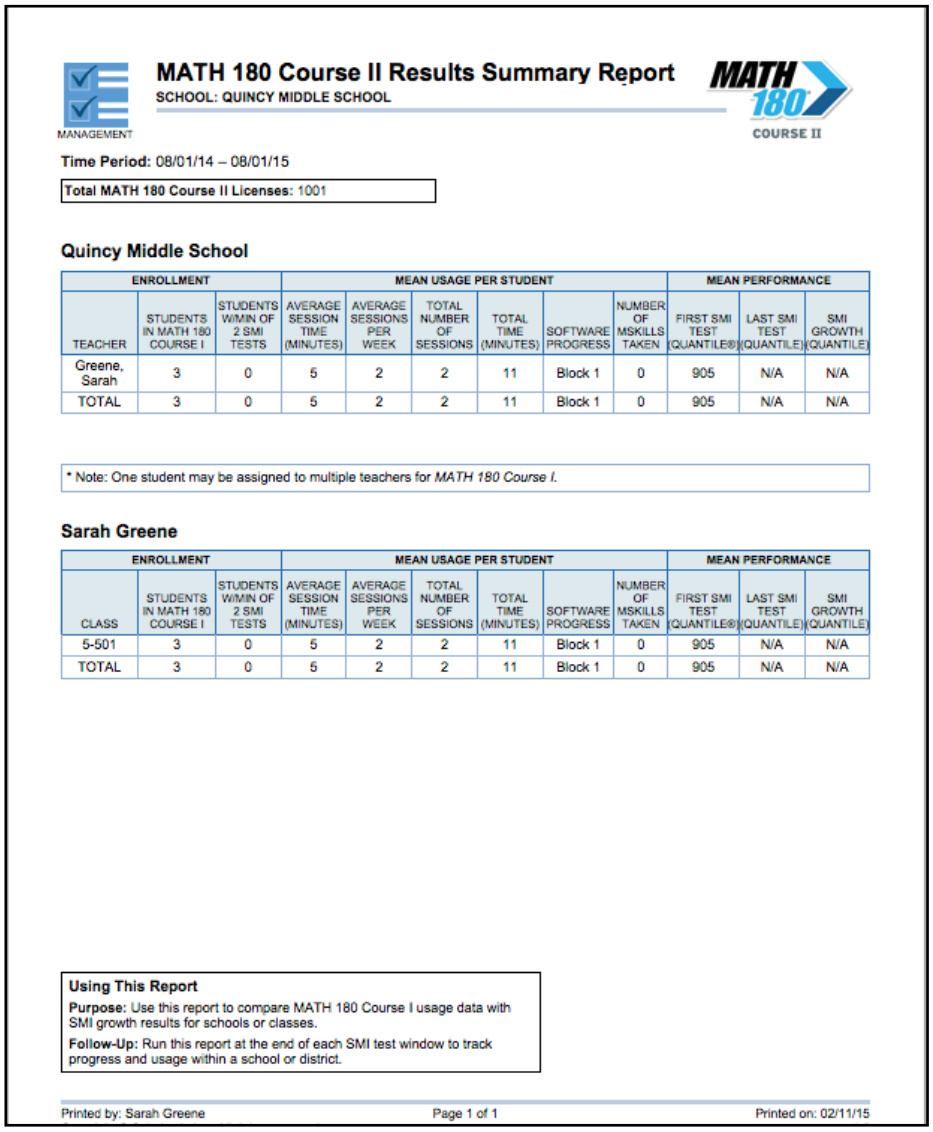
To run a report, click the button next to the report in the Report Index, then choose a time period from the Time Period menu. Click **Run Report**.

The Results Summary Report will open in a separate browser window after clicking the link as directed in the onscreen instructions.

To print the Results Summary Report, click **Print** at the top of the PDF browser window.

© Houghton Mifflin Harcourt Publishing Company

MATH 180 Course II Results Summary Report



MATH 180 Course II Results Summary Report
SCHOOL: QUINCY MIDDLE SCHOOL

MANAGEMENT

COURSE II

Time Period: 08/01/14 – 08/01/15

Total MATH 180 Course II Licenses: 1001

Quincy Middle School

ENROLLMENT			MEAN USAGE PER STUDENT						MEAN PERFORMANCE		
TEACHER	STUDENTS IN MATH 180 COURSE I	STUDENTS W/MIN OF 2 SMI TESTS	AVERAGE SESSION TIME (MINUTES)	AVERAGE SESSIONS PER WEEK	TOTAL NUMBER OF SESSIONS	TOTAL TIME (MINUTES)	SOFTWARE PROGRESS	NUMBER OF MSKILLS TAKEN	FIRST SMI TEST (QUANTILE®)	LAST SMI TEST (QUANTILE)	SMI GROWTH (QUANTILE)
Greene, Sarah	3	0	5	2	2	11	Block 1	0	905	N/A	N/A
TOTAL	3	0	5	2	2	11	Block 1	0	905	N/A	N/A

* Note: One student may be assigned to multiple teachers for *MATH 180 Course I*.

Sarah Greene

ENROLLMENT			MEAN USAGE PER STUDENT						MEAN PERFORMANCE		
CLASS	STUDENTS IN MATH 180 COURSE I	STUDENTS W/MIN OF 2 SMI TESTS	AVERAGE SESSION TIME (MINUTES)	AVERAGE SESSIONS PER WEEK	TOTAL NUMBER OF SESSIONS	TOTAL TIME (MINUTES)	SOFTWARE PROGRESS	NUMBER OF MSKILLS TAKEN	FIRST SMI TEST (QUANTILE®)	LAST SMI TEST (QUANTILE)	SMI GROWTH (QUANTILE)
5-501	3	0	5	2	2	11	Block 1	0	905	N/A	N/A
TOTAL	3	0	5	2	2	11	Block 1	0	905	N/A	N/A

Using This Report

Purpose: Use this report to compare MATH 180 Course I usage data with SMI growth results for schools or classes.

Follow-Up: Run this report at the end of each SMI test window to track progress and usage within a school or district.

Printed by: Sarah Greene Page 1 of 1 Printed on: 02/11/15

Report Type: Progress Monitoring

Purpose: Use this report to compare *MATH 180* Course II usage data with *Math Inventory* growth results for schools or classes.

Follow-Up: Run this report at the end of each *Math Inventory* test window to track progress and usage within a school or district.

Level: District or school

NOTE: This report may only be run using SAM.

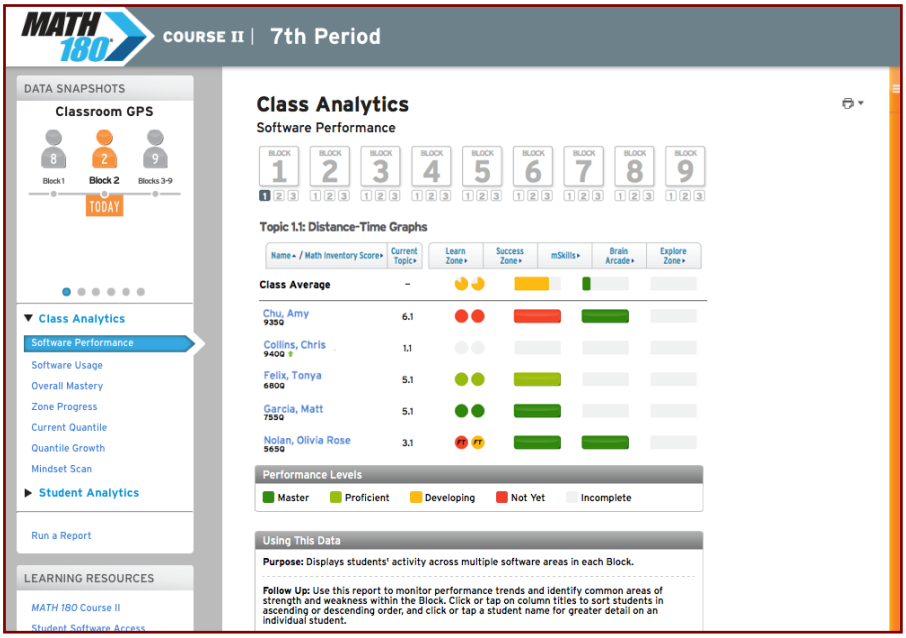
© Houghton Mifflin Harcourt Publishing Company

Class Analytics

Class Analytics provides two sortable data reports at the class level. Use the reports to measure the class's progress through the software.

Click **Class Analytics** to open links to the Class Analytics reports.

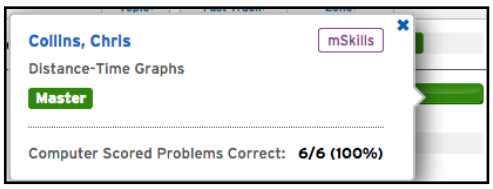
Software Performance



Purpose: Displays students' data across zones and mSkills assessments in each Block.

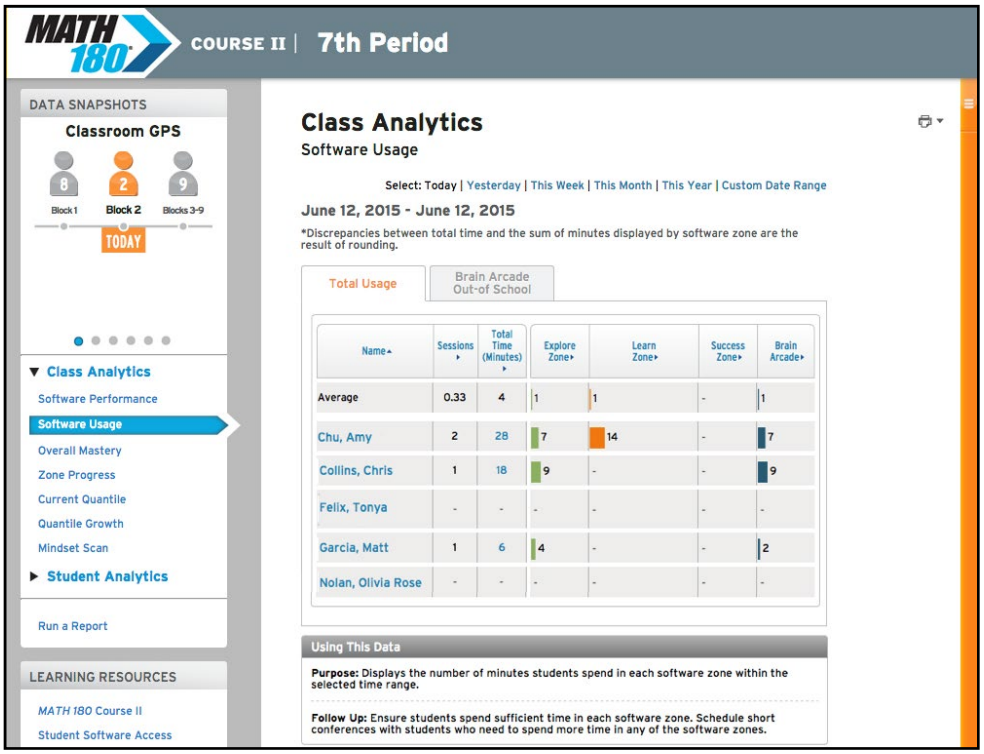
Follow-Up: Use this report to monitor performance trends and identify common areas of strength and weakness within the Block, Topic, or mSkills assessment. Click or tap on column titles to sort students in ascending or descending order, and click or tap a student's name for greater detail on an individual student.

Related Data: Click a student's name to move to his or her Student Analytics report (*page 77*). Click a data point to view related information in detail. Click the Blocks and Topics icons at the top of the report to view detailed data for that segment. (Fast-tracked topics are indicated by the FT overlay.) Click the top of the column headings to sort data by that column.



© Houghton Mifflin Harcourt Publishing Company

Software Usage



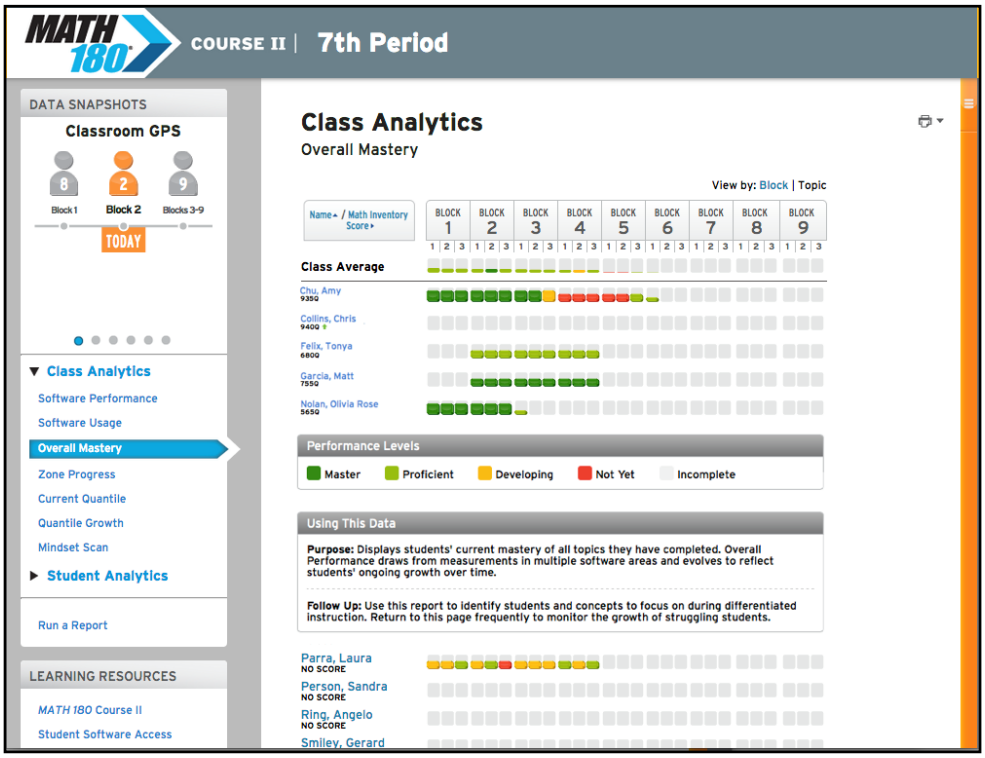
Purpose: Displays the number of minutes students spend in each software zone within the selected time range.

Follow-Up: Ensure students spend sufficient time in each software zone. Schedule short conferences with students who need to spend more time in any of the software zones. Use the Brain Arcade tab to monitor student software use out of school.

Related Data: Click **Student Analytics** or any student's name to see the student's individual results in more detail. Click the time frame links at the top of the report to change the report's time frame.

© Houghton Mifflin Harcourt Publishing Company

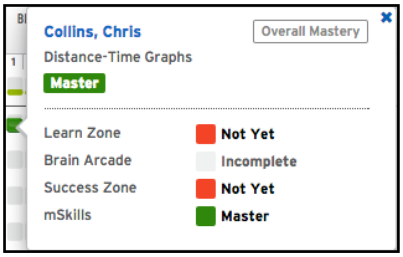
Overall Mastery



Purpose: Displays students' current mastery of all topics they have completed. Overall Performance Levels draw from measurements in multiple software areas and evolve to reflect students' ongoing growth over time.

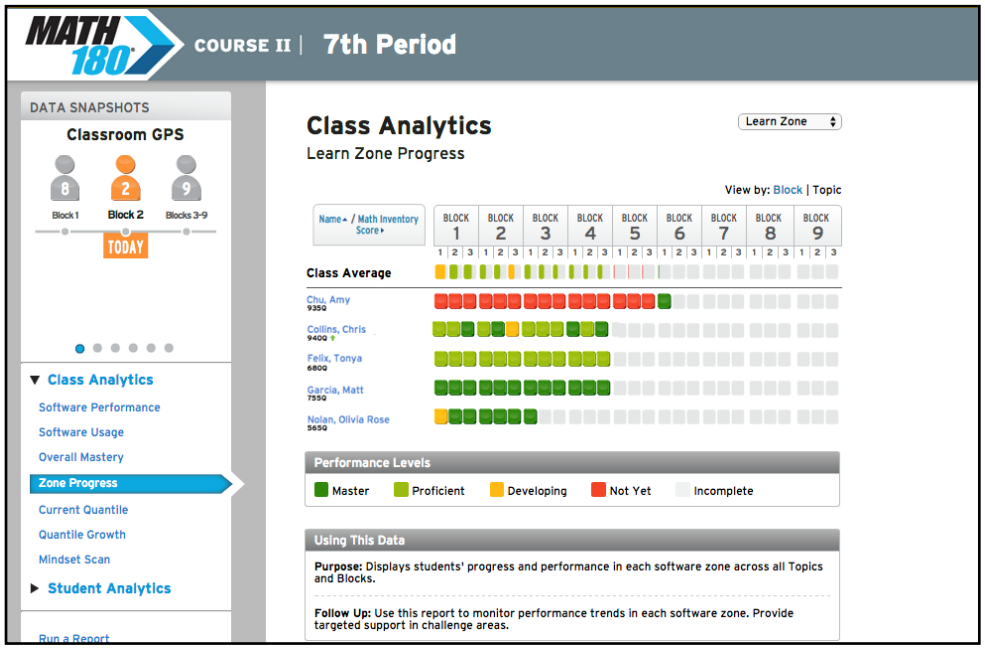
Follow-Up: Use this report to monitor performance trends and identify common areas of strength and weakness within the Topic. Click or tap on column titles to sort students in ascending or descending order, and click or tap a student's name for greater detail on an individual student.

Related Data: Click **Student Analytics** or any student's name to see the student's individual results in more detail. To view data by Block or Topic, click the **View By** link at the top of the report.

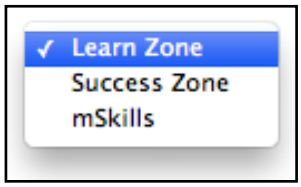


© Houghton Mifflin Harcourt Publishing Company

Zone Progress



Purpose: Displays students' progress and performance in the Learn Zone, Success Zone, and mSkills Assessments across all Blocks and Topics.

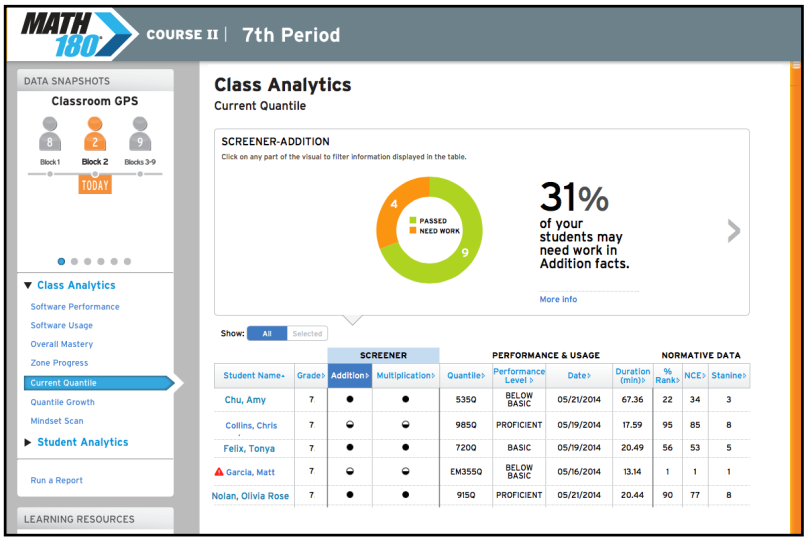


Follow-Up: Use this report to monitor performance trends in the Learn Zone, Success Zone, and mSkills Assessment. Click or tap on column titles to sort students in ascending or descending order, and click or tap a student's name for greater detail on an individual student. Use the pull-down menu at the top to isolate data by zone or by *mSkills* Assessment.

Related Data: Click **Student Analytics** or any student's name to see the student's individual results in more detail. To view data by Block or Topic, click the **View By** link at the top of the report.

© Houghton Mifflin Harcourt Publishing Company

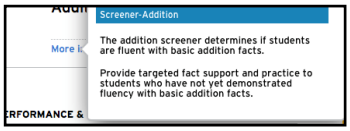
Current Quantile



Purpose: Current Quantile displays student data from the *Math Inventory* screener. Use this report to monitor performance and usage in the screener.

Follow-Up: Provide targeted fact support and practice to students who have not yet demonstrated fluency with basic addition and multiplication facts or are in the below grade-level performance bands. Schedule short conferences with students who spend over 15 minutes on the screener to determine effort level, test-taking strategies, and distractions that may have occurred during the assessment, then readminister the assessment if necessary.

Related Data: Scroll through the Data Snapshots at the top of the report by clicking the right arrow to move to the next Data Snapshot, or clicking **More Info** to see an analysis of the data.

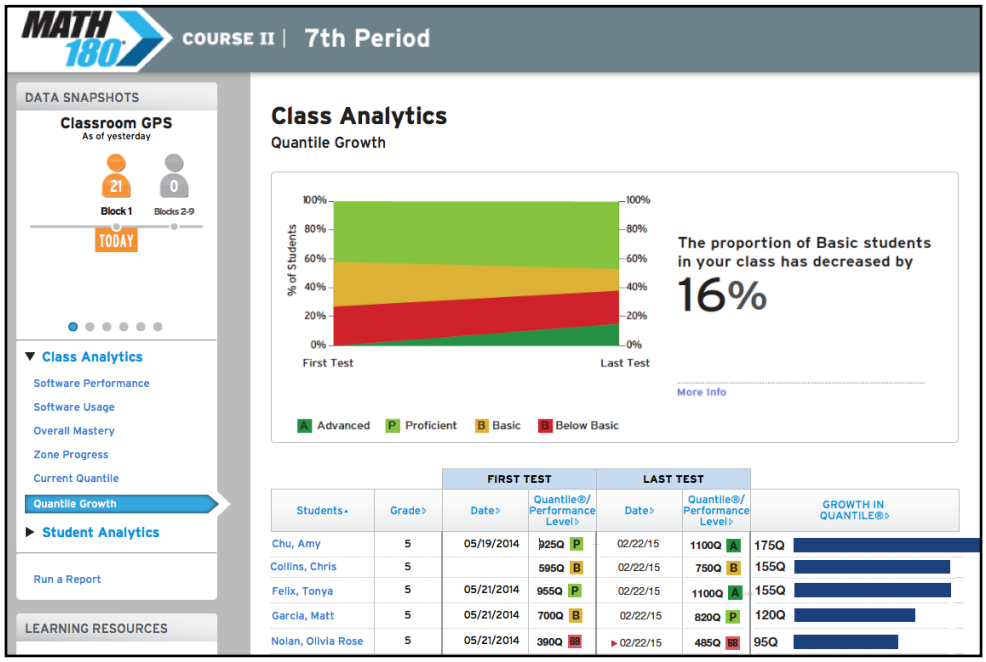


To view data for all students, click **All** in the Show buttons, or click **Selected** to view a selected group of students.

Click the top of each column to sort data. Click a student's name to see the Student Analytics report for that student.

© Houghton Mifflin Harcourt Publishing Company

Quantile Growth

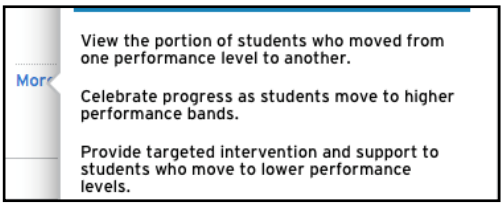


Purpose: Quantile Growth displays the change in students' Quantile measure from their first *Math Inventory* assessment to their latest.

Follow-Up: View the portion of students who moved from one performance level to another. Celebrate progress as students move to higher performance bands. Provide targeted intervention and support to students who move to lower performance levels.

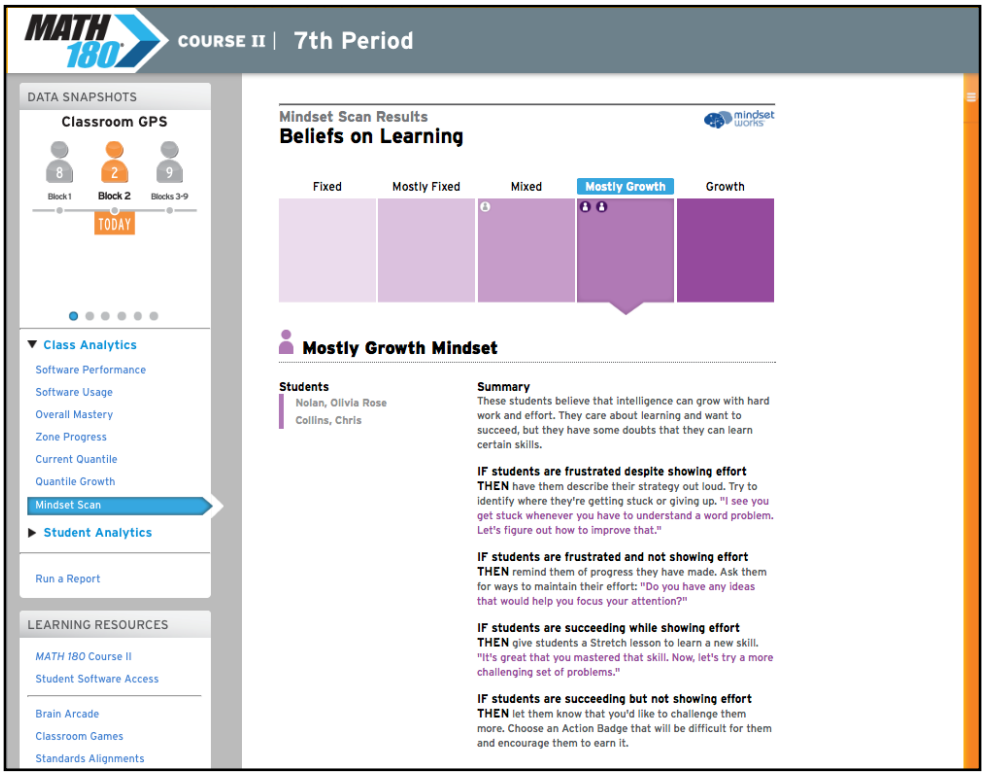
Related Data: Click **More Info** to see an analysis of the data. Click the top of each column to sort data. Click a student's name to see the Student Analytics report for that student.

For more information on Quantile measure reporting with *Math Inventory* , see ***Using SAM Central With Math Inventory*** at the *Math Inventory* Product Support website.



© Houghton Mifflin Harcourt Publishing Company

Mindset Scan



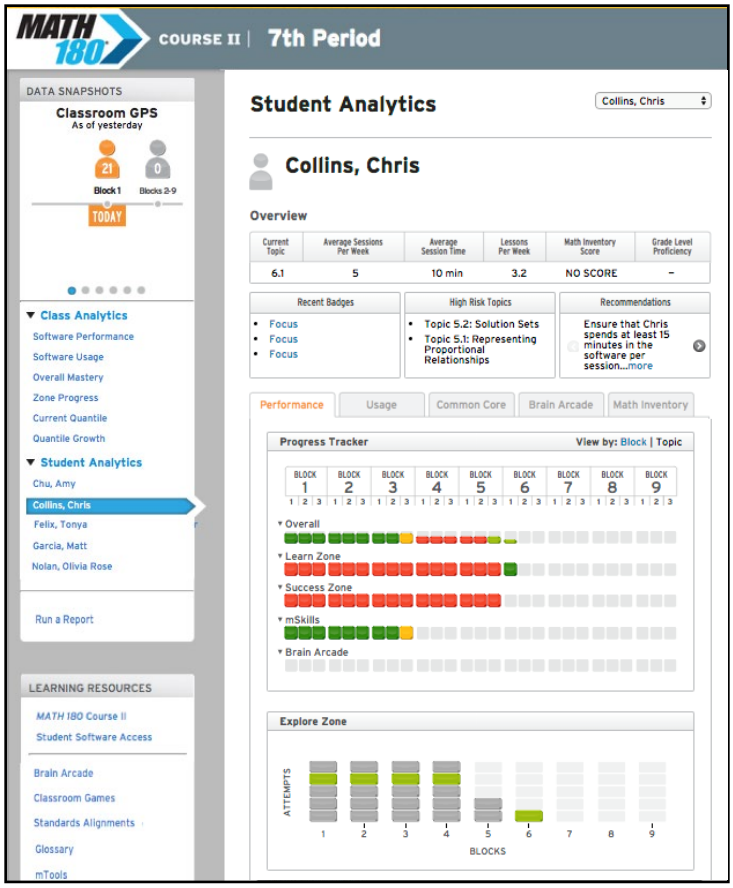
The Mindset Scan report shows the class's results from the Mindset Scan taken when they first logged in to *MATH 180* Course II.

An icon represents each student within the different belief groups. Use this graphic representation to view and analyze the class's learning beliefs as a whole.

Click the different section blocks to see which students fell into which groups. View the Mindset Summary and prompt questions to help prepare group questions and individualize learning strategies.

© Houghton Mifflin Harcourt Publishing Company

Student Analytics

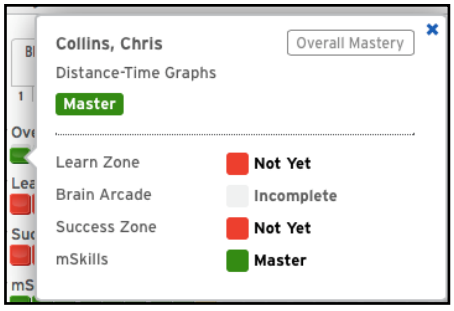


Student Analytics provides a sortable data report measuring student progress through the software. Click the student's link on the Student Analytics menu to open the report.

Purpose: Displays the student's progress, performance, and usage in the software; assessment results; overall mastery and growth; and *Math Inventory* Quantile measures.

Follow-Up: Use this report to determine Blocks, Topics, objectives, and standards the student needs targeted support with, and schedule time for individualized instruction and tutoring.

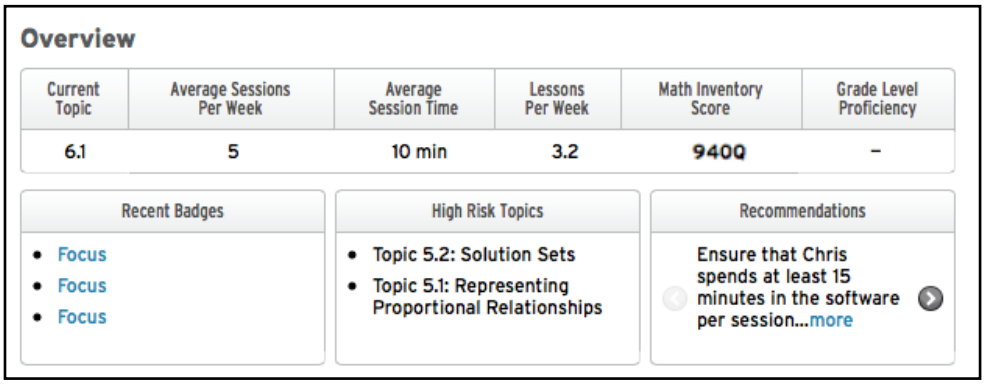
Click or tap data for more detailed information on the student's performance in each Topic, and provide targeted support in challenge areas.



Related Data: To select a different student, use the pull-down menu at the top of the report or click the student's link in the Data Snapshots Widget.

© Houghton Mifflin Harcourt Publishing Company

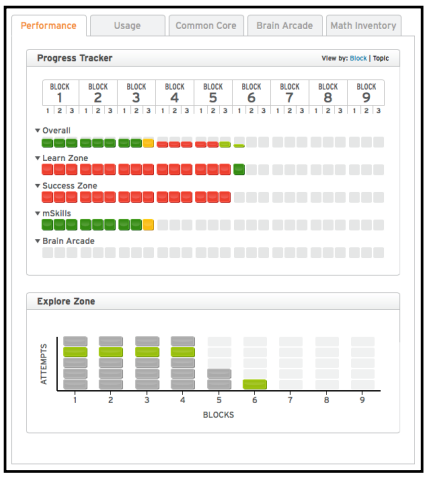
Student Analytics—Overview

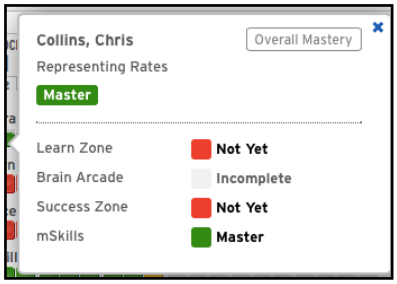


The Overview in Student Analytics shows the student's basic data in the software, as well as recent badges, Topics that have qualified as high risk based on student performance, and recommendations based on student data.

Student Analytics—Performance Tab

The Performance tab in Student Analytics shows a Progress Tracker, which shows student progress in the software, and an Explore Zone graph, which shows student progress in the Explore Zone.



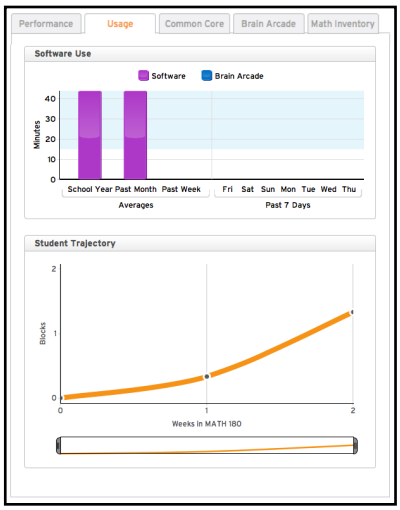


Click any data point to view related information in detail.

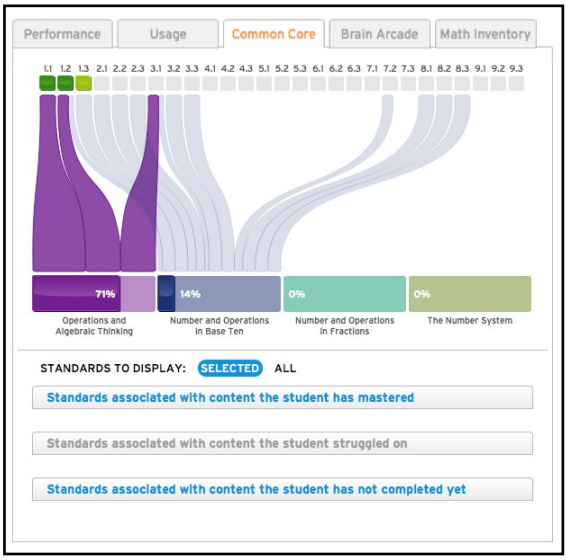
View the Performance tab data by either Block or Topic by clicking the links at the top of the tab.

© Houghton Mifflin Harcourt Publishing Company

Student Analytics—Usage Tab



The Usage tab shows student software and Brain Arcade use in both averages over the past week, month, and school year, and across the last seven days. It also displays the Student Trajectory, which graphs student completion of Blocks over a number of weeks.



Student Analytics—Common Core Tab

(NOTE: In some states this tab will either not appear or be replaced with that state's own standards.)

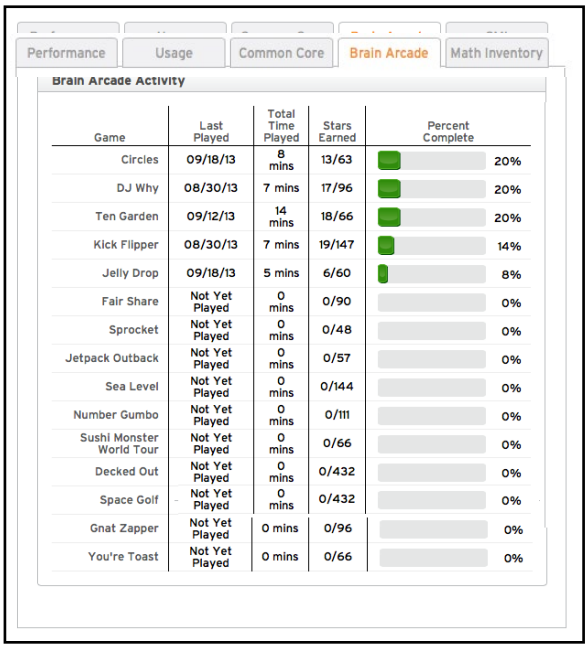
The Common Core tab displays Common Core State Standards as they correlate to students' current and upcoming work. The line graph shows student progress in the standards in relation to *MATH 180* Topics. Click or scroll over each Common Core domain to see how it correlates to the Topics.

Use the links below the graph to view standards that correlate to content the student has mastered, content the student has struggled with, and content to be completed. Two columns of standards, *MATH 180* and Follow-On standards, open below the graph.

To isolate the standards associated with a Topic, click the Topic number at the top of the graph. This will filter the displayed standards. To view all standards and release the filter, click **All** in the Standards to Display field.

© Houghton Mifflin Harcourt Publishing Company

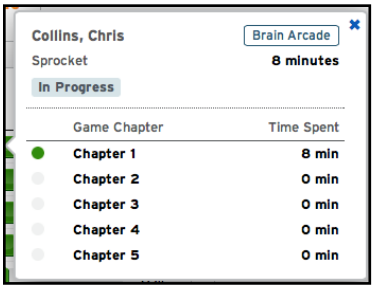
Student Analytics—Brain Arcade Tab



Game	Last Played	Total Time Played	Stars Earned	Percent Complete
Circles	09/18/13	8 mins	13/63	20%
DJ Why	08/30/13	7 mins	17/96	20%
Ten Garden	09/12/13	14 mins	18/66	20%
Kick Flipper	08/30/13	7 mins	19/147	14%
Jelly Drop	09/18/13	5 mins	6/60	8%
Fair Share	Not Yet Played	0 mins	0/90	0%
Sprocket	Not Yet Played	0 mins	0/48	0%
Jetpack Outback	Not Yet Played	0 mins	0/57	0%
Sea Level	Not Yet Played	0 mins	0/144	0%
Number Gumbo	Not Yet Played	0 mins	0/111	0%
Sushi Monster World Tour	Not Yet Played	0 mins	0/66	0%
Decked Out	Not Yet Played	0 mins	0/432	0%
Space Golf	Not Yet Played	0 mins	0/432	0%
Gnat Zapper	Not Yet Played	0 mins	0/96	0%
You're Toast	Not Yet Played	0 mins	0/66	0%

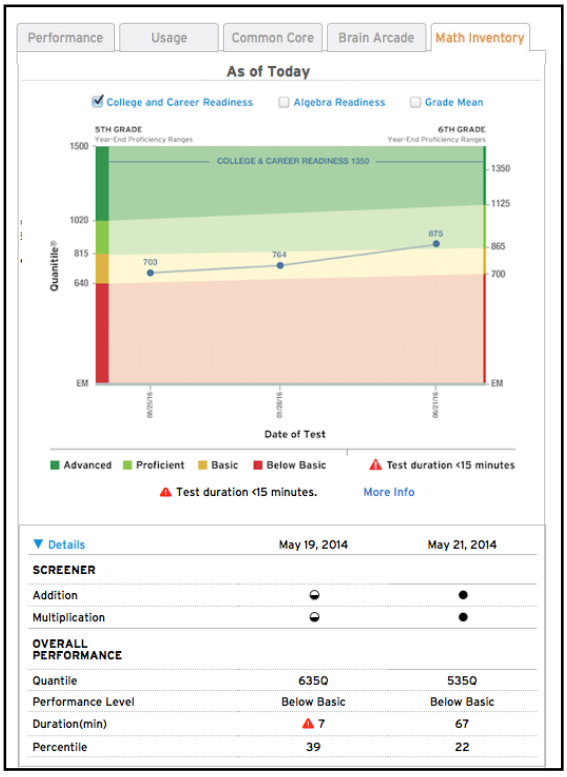
The Brain Arcade tab shows student progress across the 15 Brain Arcade games.

Click any data point to view related information in detail.



Student Analytics—*Math Inventory* Tab

The *Math Inventory* tab displays students' progress, performance, and usage in the software; assessment results; and overall mastery and growth. Use this report to determine Blocks, Topics, objectives, and standards the student needs targeted support with, and schedule time for individualized instruction and tutoring. For more information on Quantile reporting with *Math Inventory*, see ***Using SAM Central With Math Inventory*** at the Math Inventory Product Support website.

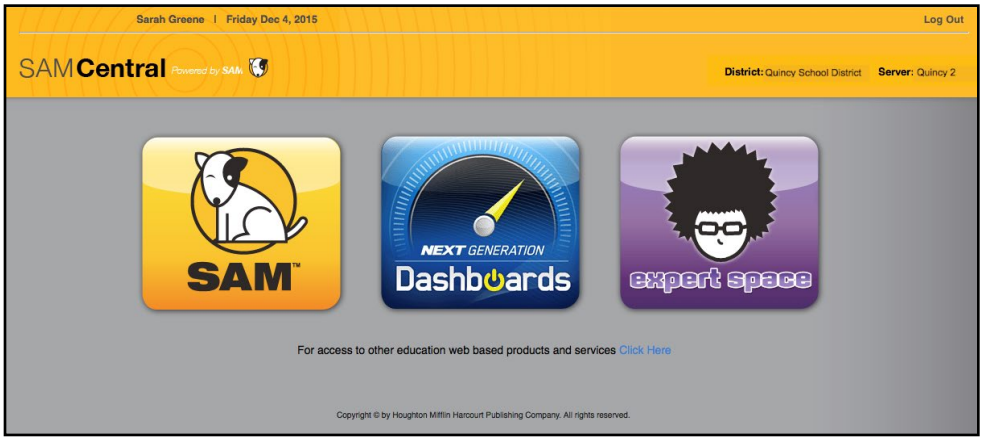


© Houghton Mifflin Harcourt Publishing Company

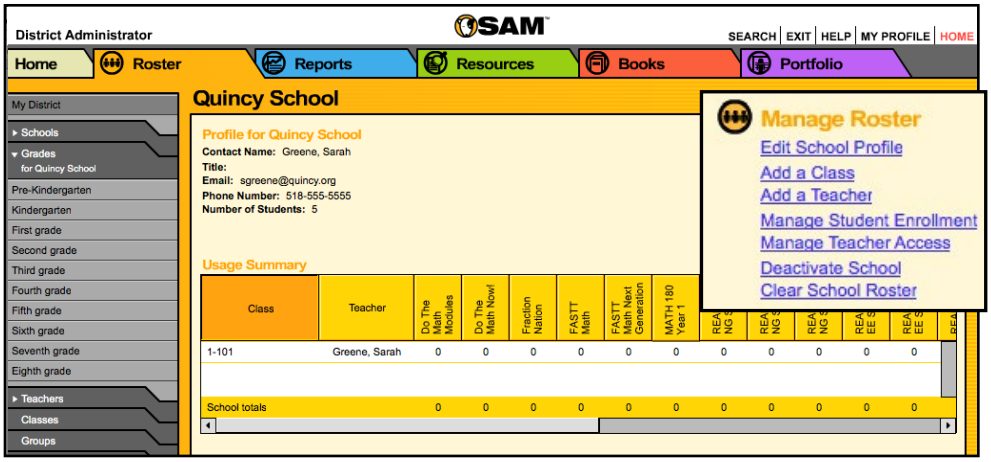
Administrator Functions: Managing Licenses and Enrolling Teachers

Administrators must activate licenses for students before they may use *MATH 180*. Teachers also must be enrolled and have active licenses to log in and use SAM Central.

Activating Licenses

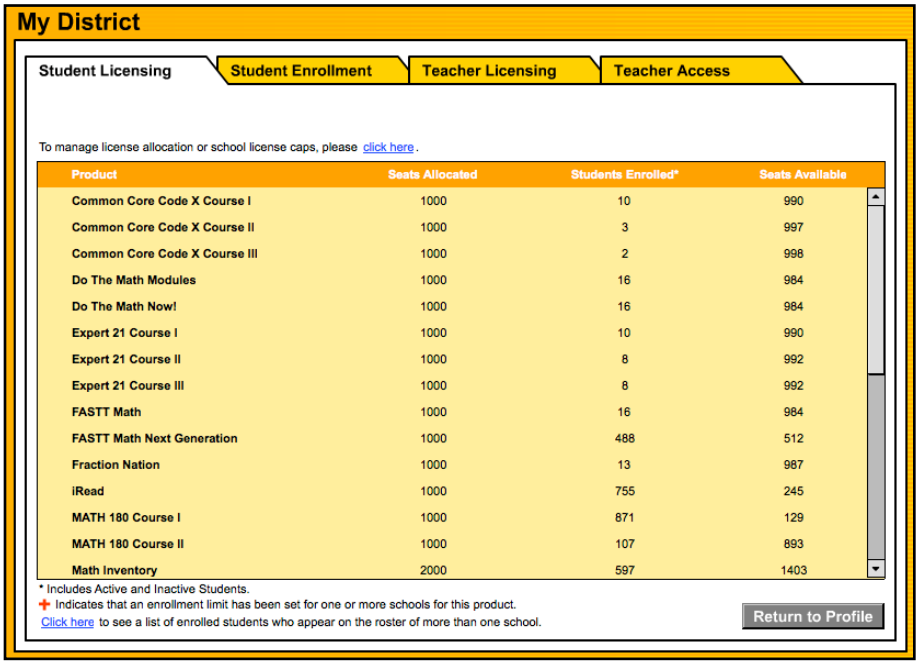


To activate licenses, log in to SAM Central as an administrator, then click the SAM icon.



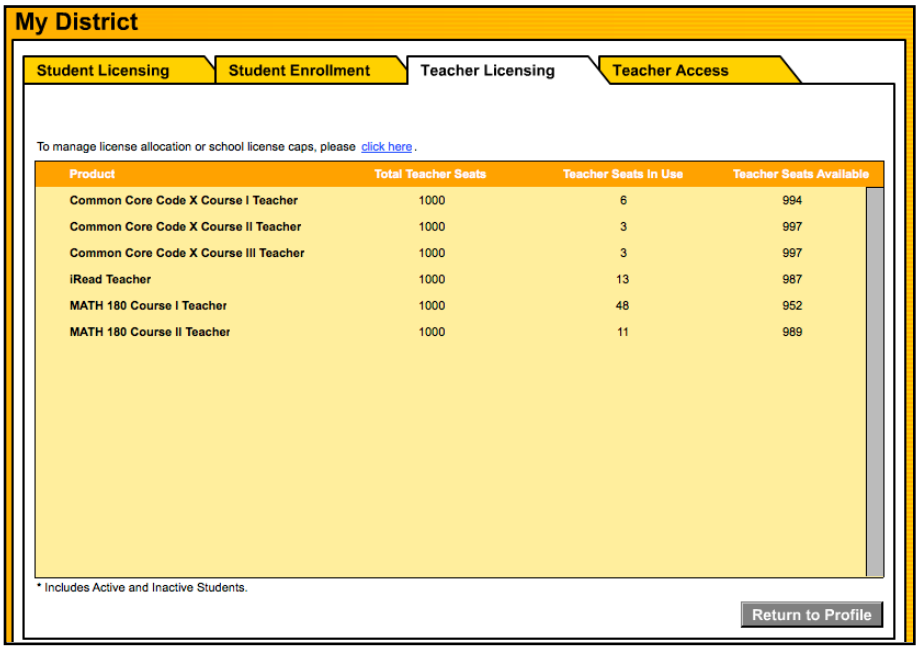
From the SAM Home Page, click the Roster tab, then click the **Manage Teacher Access** link from the Manage Roster menu.

© Houghton Mifflin Harcourt Publishing Company



On the Manage Teacher Access screen, click the Student Licensing tab.

To activate student licenses, contact Customer Service at 1-877-234-7323, and provide the representative with the school or district address, ZIP code, and the name of the server found on the access screen (e.g., “Quincy School District; Server 2”). The representative activates licenses through SAM Connect.

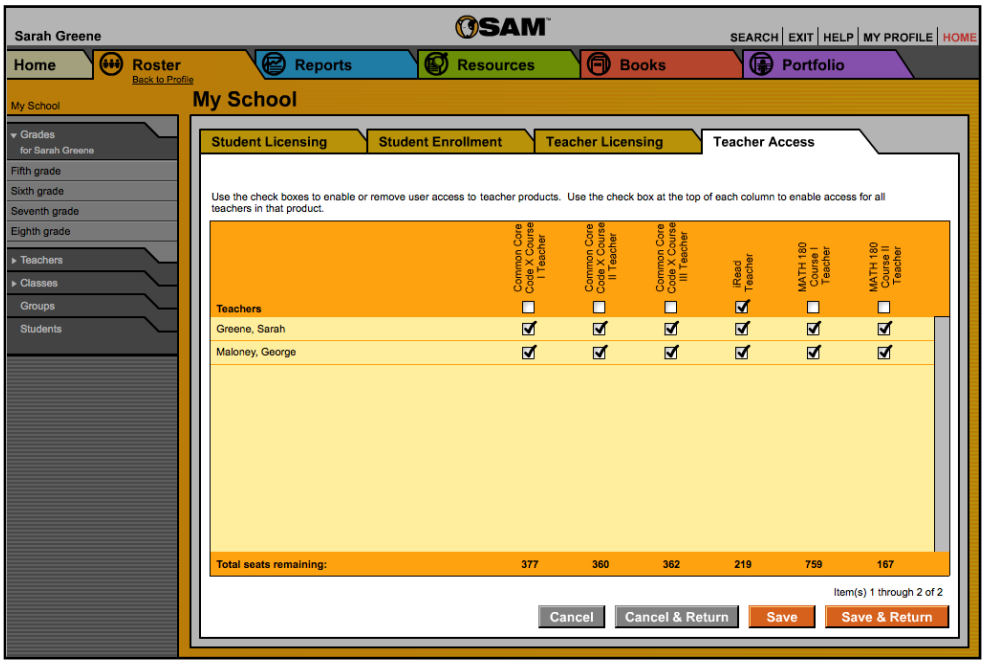


To activate teacher licenses, click the Teacher Licensing tab and follow the same steps.

© Houghton Mifflin Harcourt Publishing Company

Enrolling Teachers

Once teacher licenses have been activated, administrators must assign a license and enroll teachers before they may use SAM Central for *MATH 180*. To do this, click the Teacher Access tab.

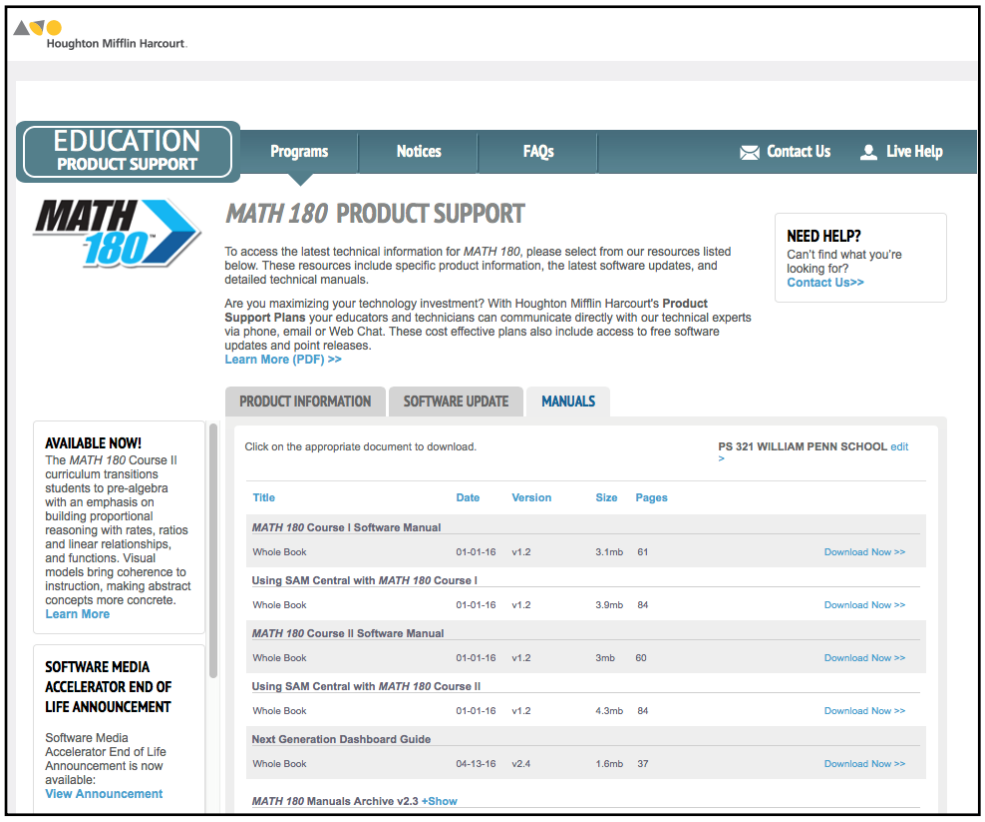


Select the ***MATH 180* Year 2 Teacher** checkbox next to each teacher's name to give the teacher access to SAM Central. Click **Save & Return** to save teacher enrollments and return to the Roster screen, **Save** to save the teacher enrollments, **Cancel** to clear them, or **Cancel & Return** to return to the roster screen without saving teacher enrollments.

© Houghton Mifflin Harcourt Publishing Company

Technical Support

For questions or other support needs, visit the *MATH 180* Product Support website at http://www.hmhco.com/math180/productsupport.



At the site, users will find program documentation, manuals, and guides, as well as Frequently Asked Questions and live chat support.

For specific questions regarding the *MATH 180*, contact technical support at 1-800-283-5974 or visit the *MATH 180* Help Center at: downloads.hmlt.hmco.com/Help/Math180/.

For specific questions about using SAM and *MATH 180*, click **Help** in the Quick Links along the top of any screen in SAM.

© Houghton Mifflin Harcourt Publishing Company