

# **Scheduling Board**

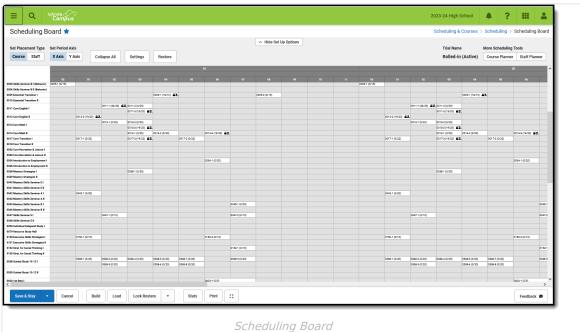
Tool Search: Scheduling Board

The Scheduling Board provides a visual representation of a school's overall schedule, much like a spread sheet or a magnetic white board to visualize and build the school's schedule. This visualization has been digitized in the Scheduling Board.

Users can easily see the schedule being built in real time, along with any teacher and room conflicts. Course sections can be dragged and dropped onto the schedule grid, and moved around to other terms and periods, or removed completely. Quickly load and unload course sections, build and unbuild all the courses, lock and unlock section rosters, all within one tool.

See the <u>Scheduling Board - Getting Started</u> article for the following:

- A <u>Scheduling Timeline</u> to stay on track for the entire scheduling season.
- A comparison of what was done where in the Schedule Wizard and where that same task is done in the Scheduling Board.



See the Scheduling Board Tool Rights article for information about rights needed to use this tool.



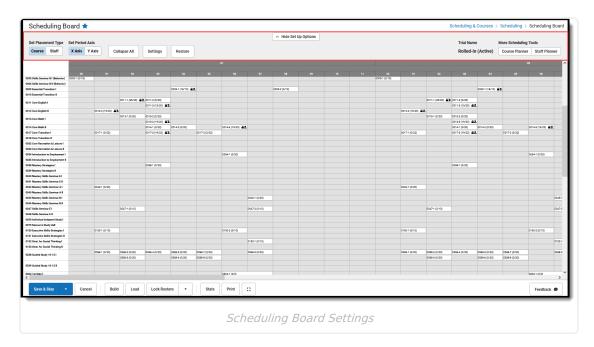
This article provides information on how to use the Scheduling Board to place courses and course sections, how to assign teachers and rooms to course sections, how to load student course requests and provide guidance in creating the primary schedule for the next school year.

It does not cover every possible schedule design or calendar structure, nor does it attempt provide answers to optimizing student productivity.

## **Scheduling Board Navigation**

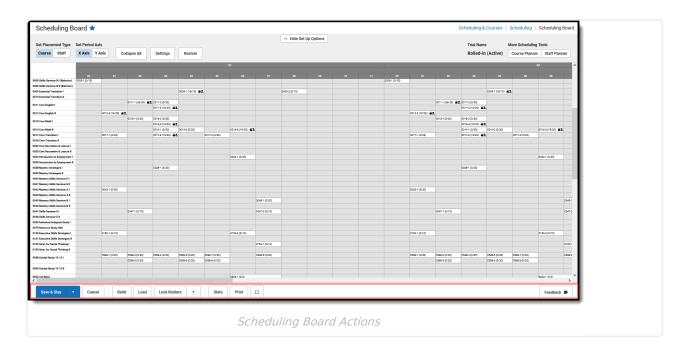
<u>Settings | Actions | Build Settings Side Panel | Load Settings Side Panel | Section Balance Configuration Side Panel | Other Side Panels | Hover Boxes</u>

At the top of the Scheduling Board are **Settings**, where changes to the schedule grid can be done, updates to highlight options (conflicts, missing data, etc.) are managed, and access to other scheduling tools are available. Settings determine how courses display in the grid.

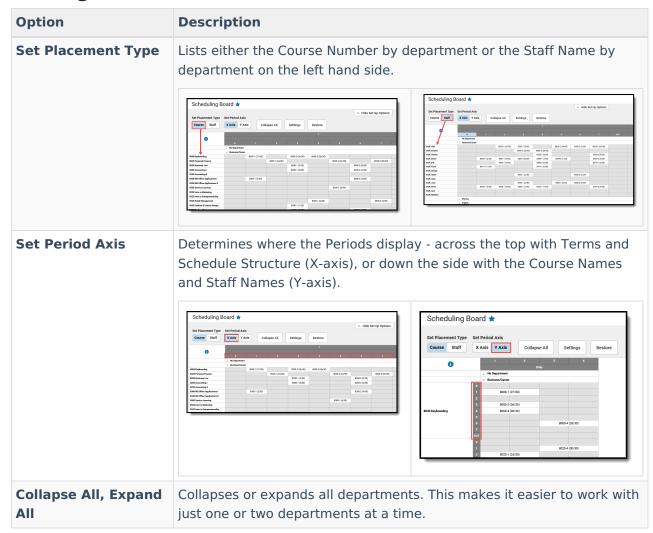


Across the bottom of the Scheduling Board are **Actions** that can be done. Build and unbuild courses, load and unload courses, lock and unlock rosters, and save changes made or cancel any changes that have been made. Actions determine what happens to the courses on the grid.





### **Settings**



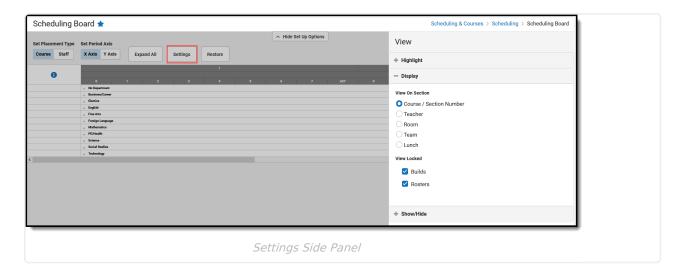


Option	Description	
Settings	Opens a side panel to set what displays as highlighted (conflicts, missing data, etc.); what displays on a course section (teacher name, room, team, etc.); what can be toggled on or off to show locked rosters and locked course builds; and what can be set to be show or hide (terms/period schedules, departments, singletons, etc.). See the Settings Side Panel section below for details.  Scheduling Board & Scheduling & Courses > Schedul	
Restore	Resets all settings to the original options.	
Trial Name	Lists which trial is displayed.  To choose a new trial, click Cancel or Save & Close in the Action Bar.  This closes the Scheduling Board and returns the user to the Scheduling Board Trials to choose another trial or create a new trial.	
More Scheduling Tools	Lists additional tools that may help with the scheduling of courses for the next year, like Staff Planner and Course Planner.	
Hide/Display Setup Options	Hides or displays all Scheduling Board Settings. Changes made to courses that may be in a term or schedule or period that is marked as hidden are still made, even when they aren't displayed on the grid.	

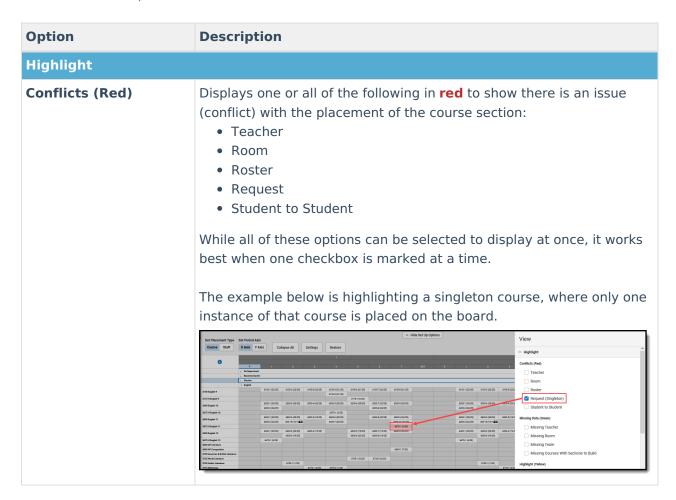
### **Settings Side Panel**

The Settings Side Panel determines what information is called out, highlighted or hidden in the grid. These items may need additional work done on them. For example, a course is displaying in red indicating there is a student to student conflict after loading student requests; or there are some empty sections that could alleviate the extra students in some of the overloaded sections.





### ▶ Click here to expand...





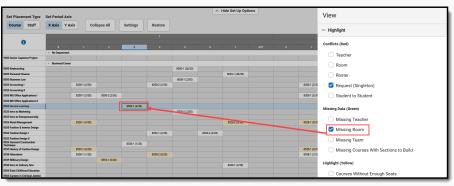
### **Option Description** Missing Data (Green)

Displays one or all of the following in greento show there is information missing with the placed course section.

- Missing Teacher
- Missing Room
- Missing Team
- · Missing Courses with Sections to Build

While all of these options can be selected to display at once, it works best when one checkbox is marked at a time.

The example below is highlighting a course that does not have a room assigned.



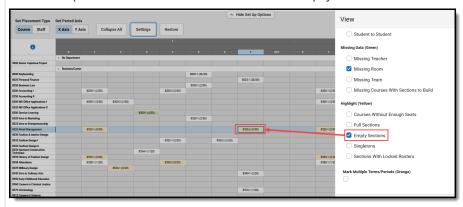
### Highlight (Yellow)

Displays one or all of the following in yellow to highlight their placement on the board:

- Courses without enough seats
- Full Sections
- Empty Sections
- Singletons
- Sections with Locked Rosters

While all of these options can be selected to display at once, it works best when one checkbox is marked at a time.

The example below shows a course with an empty section.



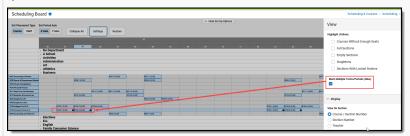


### Option Description

### Mark Multiple Terms/Periods (Blue)

Displays which courses have sections that meet in multiple terms and multiple periods in **blue**. There may be instances where this section placement is correct, but verify those courses to be sure.

The example below shows a course that meets in Quarter 1 during periods 1 and 2.



#### **Display**

#### **View On Section**

Displays the selected option on the section placed on the grid. One of the following can be selected:

 Course/Section Number. This is the default option, and displays the Course Number and Section Number, along with the total number of students placed with the maximum amount of seats for that section.

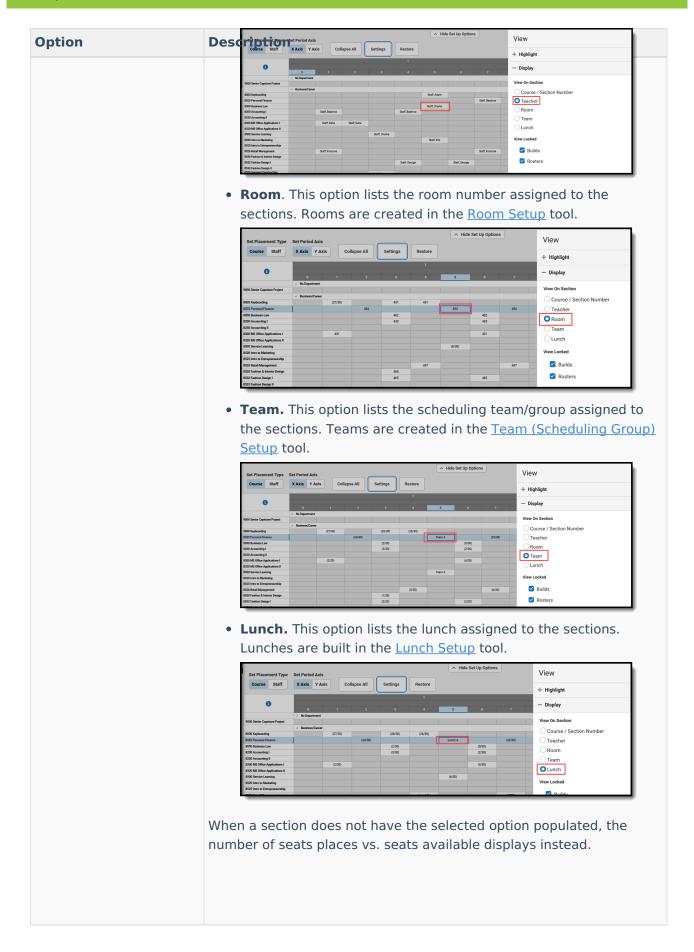


• **Section Number.** This option lists JUST the Section Number (not the Course Number) in the grid. The Course Number and Course Name is visible when hovering over the section.



• **Teacher.** This option lists the teacher assigned to the sections.





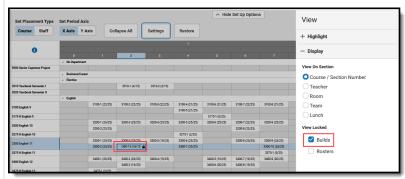


### **Option** Description

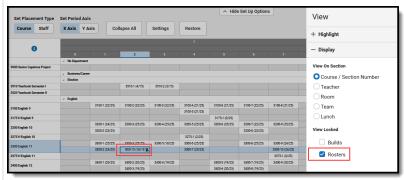
#### **View Locked**

Displays icons that indicate the section build has been locked and the roster of that section has been locked.

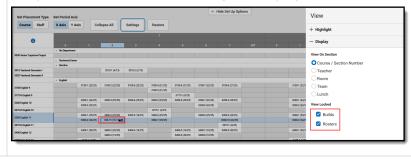
When the build has been locked, the section displays with a padlock after the seats filled/seats available totals.



When the Rosters have been locked, the section displays with a crossed out student image after the seats filled/seats available totals.



Both of these options can be marked at one time, which displays both the padlock and the student image to display.

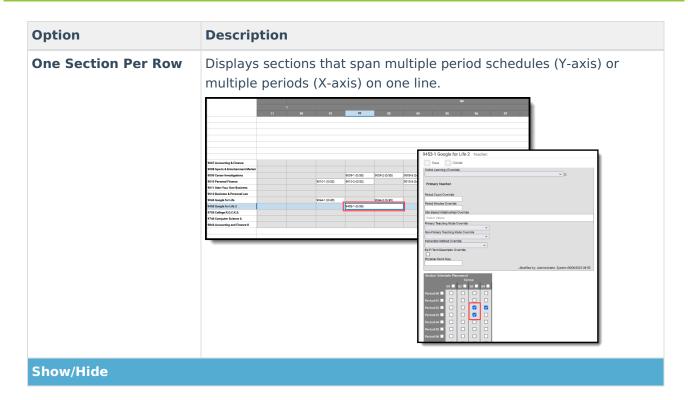




# Option **Description Split Cells** Changes the display of courses listed on the X- or Y-axis (depending on preferences set in Set Placement Type) and the display of placed sections on the grid. When no options are marked, the courses in the axis display with the Course Number, Course Name format in one row, and the placed sections display on the grid with the Course Number-Section Number and available seat information in one row. Selecting Course displays the Course Number on one line, and the Course Name on the second line. Set Period Axis X Axis Y Axis Collapse All Settings Restore Selecting **Section** displays the Course Number-Section Number in one line and seat information on the second line. View

Section







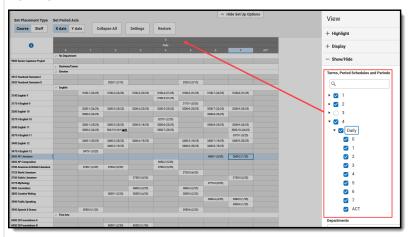
#### **Option** Description

# Terms, Period

Hides the terms, period schedules and periods that are marked from **Schedules and Periods** the grid. All other terms, period schedules and periods display.

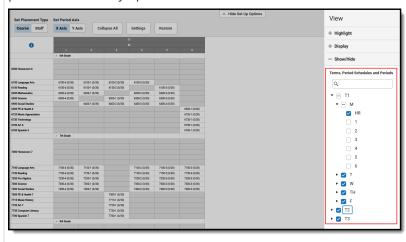
> This is helpful when scheduling for just one term that has limited course offerings (maybe a January Term, for example) or scheduling for just the Activity or Homeroom period.

In the example below, the terms are named as Term 1, 2, etc., with a single Period Schedule named Daily, and seven periods in the day, plus an activity period. Terms 1, 2 and 4 are hidden, so the focus is on Term 3.



A more complex calendar structure might include less terms but more period schedules and shorter days.

In the example below, the calendar has three terms - T1, T2, and T3. Each term has 5 schedules - one for each day of the week - and seven periods each day. Hiding all terms and schedules for Terms 2 and 3, and hiding the schedules for the T, W, TH, F schedules and the HR period for Mondays provides a smaller view of the calendar.





# **Option Description Departments** Allows certain departments to be hidden from the grid to focus on other departments. Use the **Select All** button to add all departments in the calendar to the field, then remove the ones you want to work with. Or type in the field to select specific departments to hide. Set Period Axis X Axis Y Axis Courses Allows certain courses to be hidden from the grid to focus on other courses. Use the **Select All** button to add all courses in the calendar to the field, then remove the ones you want to work with. Or type in the field to select specific courses to hide. **Hide All But** When marked, only courses that meet once during a term display on **Singletons** the grid. Due to the limited availability of these courses, it is advised that requests for these courses be loaded first. Set Period Axis X Axis Y Axis Collapse All Settings Restore Q Hide All But Singlet



Option	Description	
Hide All Exception/Special Days	For schools that use Responsive Scheduling (e.g., Enrichment Days, Flex Time, etc.), marking this checkbox removes those days from the grid. Those days are scheduled a week or so in advance, so hiding them from the schedule when in the building/loading phase isn't necessary.	
	Set Processes Type Set Period Alais  Course Stuff X Axis Y Axis College All Settings Restore  P	ly
	Table	2 3 4 4 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7

### Actions

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### **Option Description** Save Saves any changes made to the placement and loading/building of courses since the last save. Two options are available: • Save & Stay - saves any changes to the selected trial and the board remains open for additional updates. • Save & Close - saves any changes to the selected trial and the board closes. In order to avoid a trial being locked after you have exited the Scheduling Board and to avoid losing any changes that were made to the course grid, use one of these options. Save & Close Build Load Lock Rosters ▼ Stats Print [] Save logic works in the background as follows: Save & Close • All data entered on the board interface is sent to the server. Server first checks to make sure the user has a lock on the trial before saving any data. Server saves Section, Section Placement and Roster data. Save & Stay The board interface polls the server every 10 seconds to see if the save has finished. • Once it is finished, the interface sends a request to re-lock the trial. The trial remains locked until the save is complete. The page will need to be refreshed to see that the trial is fully saved and no longer locked. Cancel Closes the selected trial. When changes have been made but NOT saved, an **Unsaved Changes** message displays asking whether those changes should be saves. Choose **Stay** to remain on the board and continue working, or choose **Leave** to close the board without saving the changes.



### **Option Description** Build Places course and section information on the board. It uses information from the Course Planner and Staff Planner, and from any existing course information data that has been rolled over from the previous calendar. Logic looks at ALL courses assigned to a staff member, regardless of whether the course section is placed in an instructional or noninstructional period. • Run Full Build - builds every active course across all terms and departments. This may take some time, depending on the amount of courses and sections to place. • Run Full Unbuild - removes any course section from the board that is not already locked. When there are no courses locked, the grid is completely blank when finished. • Settings - determines how courses and sections are built. This was previously called the Builder Configuration tool. See the <u>Build Settings</u> section below for more information. A build does NOT add student requests. A build places the course sections on the grid in a period that best fits the requirements of the course and the Builder Configuration settings. 0046 Mastery Skills Seminar B II 0047 Skills Seminar E I 0048 Skills Seminar E II 0079 Resource Study Hall 0152 Strat. for Social Thinking I 0152-1 (0. Run Full Build ed Study 10-12 I 0539-6 (0/20) 0539-8 (0/20) Run Full Unbuild Settinas Save & Stay Cancel Build Load Lock Rosters Stats Print 03



### **Option Description** Places student requests into the sections placed on the grid. Load • Run Full Load - adds all entered student requests into a course section that best meets the needs of the student. • Run Full Unload - removes all entered course requests from the course sections that are not locked. • Settings - determines how the requests are loaded. This was previously called the AutoLoader Configuration tool. See the Load Settings section below for more information. • Section Balance - determines how course sections are loaded based on factors/weights, like gender, discipline, special education, etc. See the Section Balance Configuration section below for more information. 42 Mastery Skills Seminar A I 0042-1 (0/20) 48 Skills Seminar F II 0150-1 (0/10) 0152-1 (0/10) Run Full Load Run Full Unload 539 Guided Study 10-12 II Settings Load Lock Rosters Print 03 Locks or unlocks rosters for every course section placed on the grid for the students Lock **Rosters** in the selected Grade Levels (selected in the Lock/Unlock All Rosters by Grade Side Panel). Only course sections with placed requests/students are locked/unlocked. This means sections without any students assigned to them are not locked/unlocked, allowing those sections to be manually loaded and manually locked/unlocked. Mastery Skills Seminar & II Skills Seminar E I Skills Seminar E II 0047-2 (0/10)

•

Stats

Unlock Rosters

Lock Rosters

0152-1 (0/10)

03

Print

19 Resource Study Hall 19 Executive Skills Strat

Guided Study 10-12 I

Save & Stay

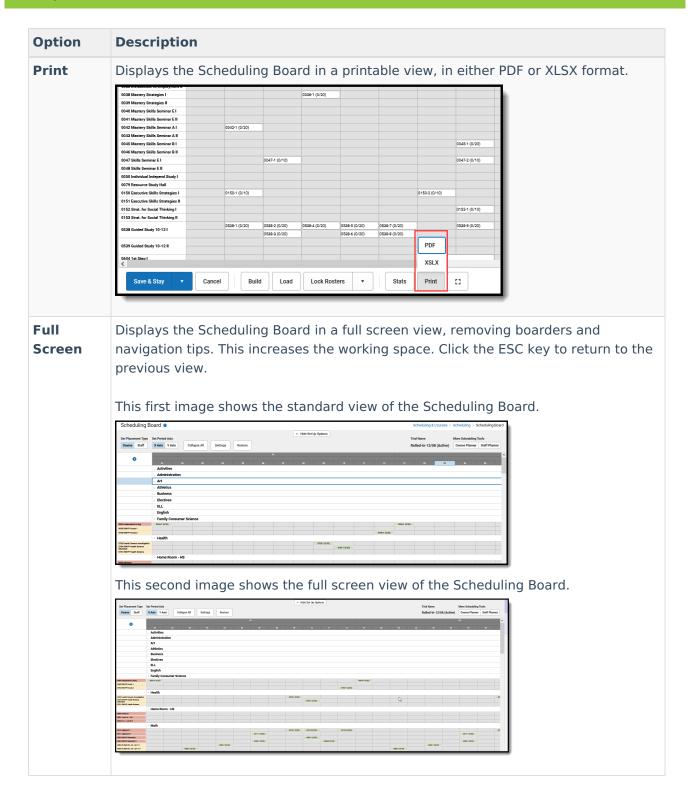
Cancel

Build Load



## **Option Description** Stats Displays a Trial Statistics Side Panel that shows counts and percentages for Requests Satisfied, All Requests Satisfied for Student and Complete Schedules. • Requests Satisfied shows the number of requests satisfied over the total requests for all students, and the percentage of those two values. When a student is hand-scheduled into a course (therefore, there are no requests for those courses), or when the student has an alternate course request, the first number of the Requests percentage increases. • All Requests Satisfied for Student shows the total students who have all of their requests satisfied over the number of total students, and the percentage of those two values. When a student does not have any course requests, that is included in the All Requests Satisfied percentage. • Complete Schedules shows the total number of students who have at least the maximum number of Scheduling Units possible for the trial over the total number of students. This does not necessarily mean a student has a complete schedule; there may be instances where the student has met the number of Scheduling Units but there is still an empty period on their schedule. The total number of Scheduling Units is found by multiplying the total number of Terms by the total number of Schedules by the total number of Periods, just like the Walk-In Scheduler. Alternate requests are NOT included in these values. These same values also display on the <u>Scheduling Board Trials</u> side panel. Trial Statistics Set Period Axis X Axis Y Axis Expand All Settings Restore 179 Build Load Lock Rosters + Stats Print C

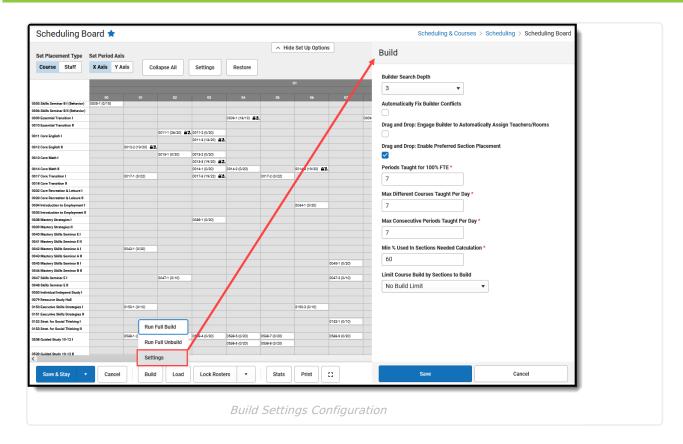




### **Build Settings Side Panel**

The following table defines the available **Build Configuration** options.





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Option	Description	Comments
Builder Search Depth	Selected numeric value determines how far the builder looks in the planning tools to build the section the selected number of times to meet requests.	The default value for this option is 3, which means the Builder attempts three different placements to build the course sections on the grid.  Start with this default value, and increase or decrease as needed. Recommended search depth is between 3 and 5. The higher the value, the longer the wizard may run to place sections.



Option	Description	Comments
Automatically fix builder conflicts	When marked, the builder automatically fixes the conflicts in section placement before completing.	The Builder attempts to find another teacher (when possible) when the first teacher has a conflict.  For example, Teacher A is scheduled to teach Band during Period 3, but a new section for that teacher for a different course is dragged onto the grid. The Builder finds another teacher to teach the new section.  In another example, a user builds the course sections for the Math Department using the building menu available when right-clicking on the department name in the left hand side of the builder. Then, a new section is manually placed onto the grid. This handbuilt section is assigned a teacher, but the teacher has a conflict due to an assignment from the auto-built sections. When this option is turned on, the builder finds a new teacher to teach the manually placed section; when this option is turned off, the user needs to manually fix the teacher assignment or rebuild the department.  Course Planner settings provide the building with logic to fix the build.



Option	Description	Comments
Drag and Drop: Engage the Builder to Automatically Assign Teachers/Rooms	When marked, the builder automatically assigns teachers and rooms when possible. The manual building of sections also does this.	When the Staff Planner and/or Course Planner (takes priority) has data assigned for each teacher and rooms are created and set for available sections, the builder assigns an available teacher and an available room.  When there are not that many constraints entered for teachers or for courses, turning this on may cause more wrong assignments than necessary. The section would stay empty and flagged, alerting you to make an assignment. When there are a lot of constraints, using this option would reduce the amount of manual assignments needed.  Options set in the Staff Planner override this selection.  When selecting a room for a placed Section, the logic in the build process of the Scheduling Board follows this order:  1. Selects the Room from Staff Planner when Rooms are designated in both Course Planner and Staff Planner and the Room for the Section to Build displays in both Planners.  2. Selects the Room from Course Planner when Rooms are designated in both Course Planner and Staff Planner and the Room for the Section to Build displays only in the Course Planner.  3. Selects the Room from Course Planner.  4. Selects the Room from Staff Planner.  5. When Rooms are not designated in only the Staff Planner.  5. When Rooms are not designated in either the Staff Planner or Course Planner, a room is not automatically assigned for the section.



Option	Description	Comments
Drag and Drop: Enable Preferred Section Placement	When marked, the builder uses a Conflict Matrix or "heat map" to determine the best placement for the section.	The three best placements for that new section are displayed, and includes the teacher and room assignments. The first placement is the same location the Auto-Build logic would choose when a single section was placed.
Periods taught for 100% FTE Required	Entered numeric value is considered the teacher's full time employment value per term.  This value is represented by a zero (0) in the Staff Planner.	A teacher may have a prep period in a seven period day, which means 100% capacity is when the teacher is assigned to six course sections during the term.  When a course section spans multiple periods, each period associated with that section is included in this value.  Options set in the Staff Planner override this selection.
Max Different Courses Taught per Day Required	Maximum number of courses a teacher can be assigned during the term.	This reflects a negotiated or preferred number of periods the teacher is allowed to teach.  Options set in the <u>Staff Planner</u> override this selection.
Max Consecutive Periods Taught per Day Required	Maximum number of consecutive periods the teacher can teacher during the day.	This reflects a negotiated or preferred number of courses a teacher is allowed to teach in a row without a prep period.  Options set in the <u>Staff Planner</u> override this selection.
Min % Used in Sections Needed Calculation Required	Minimum percentage of seats filled to consider the creation of another section.	This value, when met, does not recommend another section for the same course until the current section(s) is at least at the entered capacity for student requests. The default value is 60%. It is an average of all sections.  For a course that has 100 requests, and there are three sections of 30 students each, the builder adds a fourth section to fit the remaining 10 requests, and then reshuffles the requests so all four sections have a more even distribution of students (in this case, 4 sections of about 25 students).  When hovering over the course name in the list of courses built, a total number of



Option	Description	sections built and sections needed displays.  This is a three-step calculation:
		<ul> <li>A threshold value is calculated based on the Max Students field times the Minimum Percentage. When the Max Students value is 30 and the Minimum Percent field is 90, the threshold returned is 27.</li> <li>A potential Recommended Sections value is calculated to satisfy requests. This is based on the Max Students field. When a course has 65 requests, and the Max Students field is 30, Section 1 is filled to capacity (30), Section 2 is filled to capacity (30) and Section 3 has 5 students.</li> <li>For each potential section, a balanced average number of students that could be placed across all sections is found and compared to the threshold.</li> <li>When the balanced average is greater than or equal to the threshold, it is added to the Recommended Section Count (Calculating for Section 2 in #2 above: Section 1 = 30; Section 2 = 30; 30 + 30 = 60 / 2 = 30; Add Section 2)</li> <li>When the balanced average is less than the threshold, it is not added to the Recommended Section Count (Calculating Section 3 in #2: Section 1 = 30; Section 2 = 30; Section 2 = 30; Section 2 = 30; Section 3 = 5; 30 + 30 + 5 = 65 / 3 = 21.6; Do not add Section 3).</li> </ul>

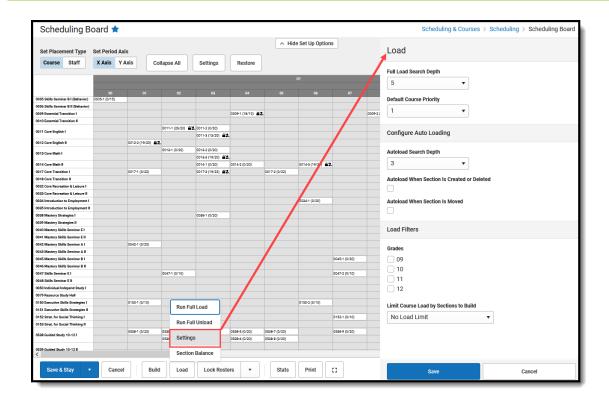


Option	Description	Comments
Limit Course Build by Sections to Build	Selection limits the courses that are loaded to only those that meet the section limits.  Options are:  No Build Limit - no preference is given to any type of course section.  1 (Singletons) - the course section is only scheduled for one time during the school year  2 or Less Sections(Doubletons) - the course section is scheduled for two or less times during the school year  3 or Less Sections (Tripletons) - the course section is scheduled for three or less times during the school year  4 or Less Sections - the course section is scheduled for for or less times during the school year	For courses with limited sections and high student requests (i.e, Journalism or Yearbook), building these courses first may satisfy more requests and ensure students are scheduled into these sections.  When running a full build, the Scheduling Board builds the lowest number of sections first. The selection chosen is considered a stopping point for the builder - when the value has been met, the builder is finished.

# **Load Settings Side Panel**

The following table defines the available **Load Configuration** options.





#### ▶ Click here to expand...

Option	Description	Comments
Full Load Search Depth	Selected numeric value (1-15) determines the number of times the wizard attempts to satisfy each course request.	This field MUST have a value other than zero (0) assigned. When it is set to zero, a full load does not occur.
		Change the setting to be a value between 1 and 15, depending on your needs at the school.
Default Course Priority	Course priority allows those courses that do not have a load priority to be mass-assigned a load priority. This allows for the prioritization or de-prioritization	When set to 1, all courses marked with a Schedule Load Priority of 1 are loaded first. Other courses are loaded after that in least number of sections order.
	of other courses by using numbers greater or smaller on other courses.	Schedule Load Priority is entered on the Course Information editor or Course Masters Information editor.
Configure Auto Loading		



Option	Description	Comments
Autoload Search Depth	Selected value (1-15) means the wizard works to that level to meet the entered requests and is used in conjunction with the Autoload checkboxes.  The wizard only tries to place the request that is being moved, it does not reshuffle the entire schedule.	When set to 3, the wizard reworks student requests three times to place the student in a matching course section.
Autoload When Section Is Created or Deleted	When marked, students are placed in other sections based on their other requested courses and section placements when an existing section is created or deleted.	N/A
Autoload When Section Is Moved	When marked, students are placed in other sections based on their other requested courses and section placements when a section is moved to a different period.	N/A
Load Filters		
Grades	Only those grade levels in the selected school display. By default, all available grade levels are marked and student requests for those grades are included in the load.  When not marked, students enrolled in that grade for the next school year do not have requests loaded.	One grade level can be loaded at a time and those requests worked as needed. Some prefer to complete senior schedules first before the other grades.  When those schedules are complete, their placement can be locked and then the configuration can be reset to load the remaining grade levels.

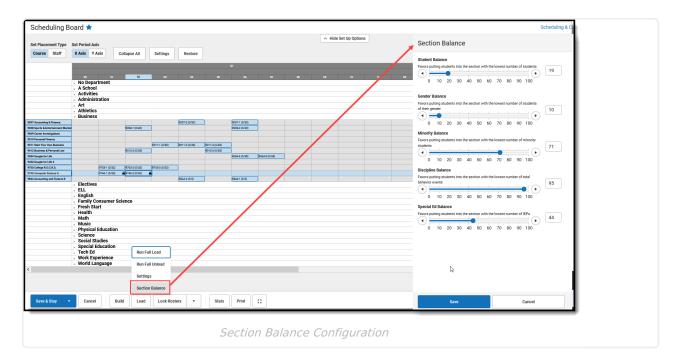


Option	Description	Comments
Limit Course Load by Sections to Build	Selection determines in what order course sections are loaded. Options are:  • Not filtered - no preference is given to any type of course section.  • 1 (Singletons) - the course section is only scheduled for one time during the school year.  • 2 or less sections - the course section is scheduled for two or less times during the school year.  • 3 or less sections - the course section is scheduled for three or less times during the school year.  • 4 or less sections - the course section is scheduled for four or less times during the school year.	For courses with limited sections and high student requests (i.e., Journalism or Yearbook), loading these courses first may satisfy more requests and ensure students are scheduled into these sections.  When running a full load, the wizard loads the lowest number of sections first. The selection chosen is considered a stopping point for the loader - when the value has been met, the loader is finished.

### **Section Balance Configuration Side Panel**

Users can define weights on five factors that determines how hard the algorithm needs to work to achieve balance between sections of a course. The degree to which the Scheduling Board seeks balance in each area is governed by a percentage slider from 0 (does not factor) to 100 (factors the most). In addition to the slider, a text box to the right of the slider allows for a total percentage entry - 50 for 50%, 75 for 75%, etc.





The following table defines the Section Balance logic.

#### ▶ Click here to expand...

When attempting to place a student, course sections where the student could be placed are retrieved, but before the student is placed, the sections are sorted using an algorithm that takes into account the following:

- Discouraged Peers (student constraints). The section with the fewest number of discouraged peers is given preference and no further evaluation takes place. There is no slider for this.
- 2. **Evaluation of Gender/Minority/Special Education/Discipline.** A composite score is calculated using the entered percentage/placement of the sliders. The values for each are summed and used as a target weighting or balance for each section.
- 3. Lowest Sum Score Placement. Based on the composite score above, a student who is a minority, is a special education student, is in the gender minority for the type of class, or has discipline issues, the section that has the lowest sum score based on students already placed in the section is ranked first for placement, the second lowest scoring section is ranked second, and so on.

These categories are not evaluated separately, but rather the composite of the students in the section across all of the categories is used to create balance.

Below is a breakdown of how the Section Balance options work together to load students into courses. Included is a Normalization Constant, which gives equal weight or importance to each variable so no single variable steers the model performance in any direction just because they may involve bigger numbers. These constants are used when sorting the sections to determine which section would be the best fit for the student.



Section Balance Factor	Description	Normalization Constant
Student Balance	Favors putting students into the section with the lowest number of students.  This value is always considered when loading students into sections.	1
Gender Balance	Favors putting students into the section with the lowest number of students of their gender.  This value is ignored when the student's gender noted on their Identity record is NOT M: Male or F: Female.	.5
Minority Balance	Favors putting students into the section with the lowest number of minority students. Minority status is determined by whichever race/ethnicity code is set as the default value of the Campus application.  This value is ignored when the student's Race/Ethnicity is White.	The total number of minority students enrolled in the current calendar divided by the total number of enrolled students.
Discipline Balance	Favors putting students into the section with the lowest number of total behavior events.  This value is ignored when the student has fewer discipline events than the average number of discipline events per student enrolled in the current calendar, when the slider is set to zero (0), or when there are no discipline events for any enrolled students.	The total number of discipline events for students enrolled in the current calendar divided by the total number of enrolled students.



Section Balance Factor	Description	Normalization Constant
Special Ed Balance	Favors putting students into the section with the lowest number of IEPs. This number is based on the following:  • The student has IEP exists in the current calendar, and the student has an enrollment record in the future calendar but no IEP in the future calendar.  • The student has an active IEP as of today.  This value is ignored when the student is NOT considered Special Education, when the slider is set to zero (0), or when there are no Special Education students enrolled in the current calendar.	The total number of special education students enrolled in the current calendar divided by the total number of enrolled students.

### **Other Side Panels**

For each Term, Period, Course and Section, additional settings can be selected in the side panel. To open these side panels, right-click on the term/period/course/section. The options are the same for each item.

### ▶ Click here to expand...

Option	Available Actions	Image
Terms	<ul> <li>Hide the Term.</li> <li>Check the number of rosters that have been locked.</li> <li>Check the number of course builds that been locked.</li> <li>Lock or unlock rosters for that term.</li> <li>Lock or unlock course builds for that term.</li> <li>Load or unload the term.</li> <li>Cancel the selection.</li> <li>Save any changes to the term.</li> </ul>	Software fly of head of the control



Option	Available Actions	Image
Periods	<ul> <li>Hide the Period.</li> <li>Check the number of rosters that have been locked for that period.</li> <li>Check the number of course builds that been locked for that period.</li> <li>Lock or unlock rosters for that period.</li> <li>Lock or unlock the course builds for that period.</li> <li>Unload the period.</li> <li>Cancel the selection.</li> <li>Save any changes to the period.</li> </ul>	Manuscring Ministry  Minis
Departments	<ul> <li>Hide the department.</li> <li>Check the number of rosters that have been locked for that department.</li> <li>Check the number of course builds that been locked for that department.</li> <li>Lock or unlock rosters for that department.</li> <li>Lock or unlock course builds for that department.</li> <li>Renumber the course sections for the department.</li> <li>Load or unload the department.</li> <li>Cancel the selection.</li> <li>Save any changes to the department.</li> </ul>	Scheduling Stand 8  **Annexing to stand a September 1 Annexing to September 1



Option	Available Actions	Image
Courses	<ul> <li>Review the number of Terms, Schedules and Periods the course is scheduled to meet. When information is missing, e.g., there isn't a value for entered for that data, a warning (triangle) icon displays (see second image). Hover over that icon to see how to correct it.</li> <li>Hide the course.</li> <li>Check the number of rosters that have been locked for that course.</li> <li>Check the number of course builds that been locked for that course.</li> <li>Lock or unlock rosters for that course.</li> <li>Lock or unlock course builds for that course.</li> <li>Renumber the course sections for the department.</li> <li>Load the course by Grade/Gender.</li> <li>Unload the course.</li> <li>Build or unbuild the department.</li> <li>Cancel the selection.</li> <li>Save any changes to the course.</li> <li>View students who are have requested the course but were not added to the course (e.g., Unrostered Students), as well as any Request Conflicts for that course.</li> <li>Students who requested the course as an alternate are NOT included in the Unrostered Students lists.</li> <li>Request Conflicts lists courses that have a conflict with the selected course, and includes which sections and how many requests.</li> </ul>	The body from the control of the con
Sections	<ul> <li>View and/or change the Section Number.</li> <li>Modify the Override Max Students value for the section.</li> <li>Assign a primary teacher and</li> </ul>	



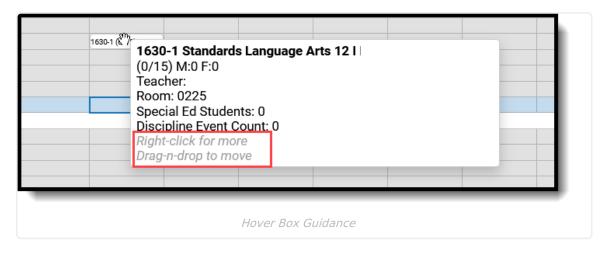
### Available Actions **Option** When a primary teacher is assigned, that teacher's name is not available in the Assign Teachers field, and vice versa. • The same rules for highlighting conflicts and for preferred courses are followed for these fields. Assign a room to the section. • Assign a Scheduling Team (Group) to the section. Assign a Lunch period to the section (does not display when there are no Lunches available in he calendar). Lock the build for the section. Lock or unlock the roster for the section. • Load the section by Grade/Gender. • Unload the section. • Cancel the selection. Save any changes to the section. · View the Section Roster and Request Conflicts. The Section Roster lists students who are currently placed into that section, whether hand-scheduled or the student had a request for that course. For students who have a locked IEP with end dates after the current date, a flag displays next to the student's name (see second image). For students who have an unlocked IEP or who have a locked IEP with an end date before the current date, a flag DOES NOT display next to their name. Request Conflicts lists courses that conflict with the selected course section, including which sections and how many requests.



### **Hover Boxes**

There are several places in the Scheduling Board where hovering over (placing the cursor over an entry on the board and leaving it there to display an information box) a section, a course or other area displays a window where key information may be found to aid the scheduler in placing sections, detecting issues and determining how successful the current trial meets the needs of students.

For each hover option, text for what to do next displays, like right-clicking to display the side panels for Courses, Sections, etc., and for dragging and dropping courses onto the grid or moving sections on the grid.



#### Click here to expand...

<b>Hover Selection</b>	What Displays	Image
Terms	<ul> <li>Term Name (in bold)</li> <li>Seats Taken (total students placed in sections out of total available seats)</li> <li>Total number of Sections Placed for all periods, courses, and sections in the term</li> </ul>	Scheduling Board *  Scheduling Board *  Set Pacement Type Set Price A Ann.  Course Soff X Anis Y A Anis Colleges All Settings Restluce  Outstand Soff X Anis Y A Anis Colleges All Settings Restluce  Outstand Annual Soff X Anis Y A Anis Colleges All Settings Restluce  Outstand Annual Soff X Anis Y A Anis Colleges All Settings Restluce  Outstand Annual Soff X Anis Y Anis Colleges All Settings Restluce  Outstand Annual Soff X Anis Y Ani



<b>Hover Selection</b>	What Displays	Image
Periods	<ul> <li>Term and Period</li> <li>Total seats taken out of total available seats for that period</li> <li>Total sections placed in that period for that term.</li> </ul>	Scheduling Board *  Scheroling Board *  - Indicate   Valid   Valid   Cultique Al   Setting   Review    - Indicate   In
	The image to the right shows the information for Term 1, Period 1. Term 2, Period 2 could have different results depending on whether sections have been loaded or the same amount of sections have been placed in that period.	
Departments	<ul> <li>Department Name (in bold)</li> <li>Total Sections Built</li> <li>Total Requests Satisfied</li> <li>Total Seats Taken.</li> </ul> The first number for any of these can be greater than the second number because sections, requests, and seats can be manually created.	Del Processon Type Sch Period Ade  Course Staff X Adis Y Adis Colleges As Settings Restare  * Water Staff X Adis Y Adis
Courses	<ul> <li>Total Sections Built</li> <li>Sections needed (based on the requests)</li> <li>Requests Satisfied</li> <li>Seats Taken.</li> </ul>	Set Processor Type Set Puried Aris  Convex Soft II Aim Y Aim Colleges All Settings Reduce  **Notice II Aim Y Aim Y Aim Colleges All Settings Reduce  **Notice II Aim Y Aim
Sections	<ul> <li>Course Number and Course Name (in bold)</li> <li>Assigned Room (in bold)</li> <li>Total seats taken out of available seats</li> <li>A breakdown of gender</li> <li>Assigned teacher</li> <li>A second display of the room number</li> <li>Total Special Education students</li> <li>Total Discipline Event Count</li> </ul>	Scheduling Board *  Sel Placement Type Sel Pricol Ade  Goarse Stuff KARL Schall Colleges Ad Sellings Restore  - Name Colle

### **Create the Schedule**

<u>Choose Settings for the Scheduling Board | Build | Load | Lock Rosters | Build, Move and Delete Course Sections using Drag and Drop</u>



The Calendar has been created, students have entered course requests, and there are about 10 weeks until the end of the school year. It's time to start creating your course schedule.

Here are a few tips as you get started:

- Refer to the <u>Scheduling Checklist</u> and the <u>Scheduling Center</u> to stay on top of all tasks needed for a successful scheduling season.
- · Schedule subsets of students first.
  - It's easiest to build the schedule for smaller sets of students, like Special Education students or those with a less than full-time FTE at the school.
  - When scheduling for the high school, start with the Seniors, as they have a limited time to meet their graduation requirements. Then work backwards through the grade levels (11, 10, etc.).
  - Load singleton courses first. Students who request those courses have one chance to be scheduled into them.
- At least one trial is always active for a calendar. That means you can make and save changes in the board, mark that trial active, and navigate to the student's schedule to see how things look as many times as you need to.
- Work in the Scheduling Board to get as close to 100% requests complete as possible, knowing that at least some student schedules need to have gaps filled or be hand-scheduled throughout the summer. A percentage of 75-85% complete is great!
- Course sections can be moved or rebuilt many times, and sections can be loaded and unloaded many times. Keep working! You'll know when it's time to stop.
- When there are sections for a course that are not scheduled, a message displays indicating there are unplaced sections that are hidden from view. To view them, click Copy to Clipboard and paste them into a text document or a spreadsheet.
  - Unplaced sections may affect your build results. Review the sections listed to determine
    if those unplaced sections should be deleted (unplaced sections will be permanently
    removed) or retained (unplaced sections will be kept).

Let's get started!

**NOTE:** When saving changes takes minutes to complete AND your state uses Ed-Fi for collecting student and school data, verify <u>Ed-Fi Configurations</u> for past school years have been deleted.

The current school year and the last school year can remain. For example, a district that has configurations for the 2019-20, 2020-21, 2021-22 and 2022-23 school years can safely delete the 2019-20 and 2020-21 configurations.

## **Choose Settings for the Scheduling Board**

See the <u>Settings</u> section for more information.

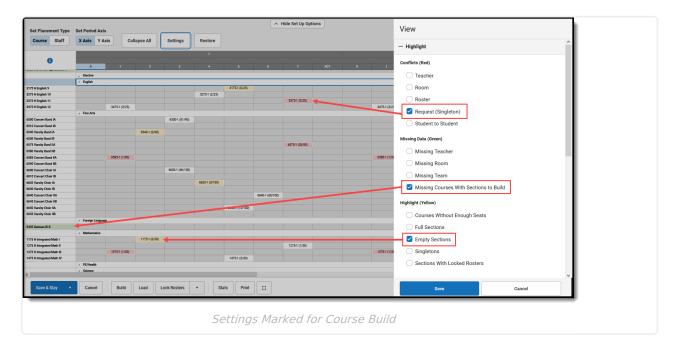
1. Select the **Set Placement Type** and the **Set Period Axis** preference.



- 2. Select the **Settings** button and mark the desired options in the **View Side Panel** opens. This includes:
  - Selecting which items to highlight in Red as a Conflict, in Green as Missing Data, and in Yellow as a Highlight.
  - Selecting which items to View on Section and to View Locked.
  - Selecting which **Terms, Period Schedulesand Periods** to Show or Hide.
  - Selecting which **Departments** to display as Show or Hide.
  - Selecting which **Courses** to display as Show or Hide.
  - Selecting whether to **Hide All But Singletons**.
  - Selecting whether to Hide All Exception/Special Days.
- 3. Click the **Save** button when finished. All selected options are now set and courses can now be built.

These settings can be changed at any time, or completely reset to return to the default settings.

The image below shows what the Board may look like when Settings have been marked to show conflicts, missing data and highlight courses and courses have been built and loaded.

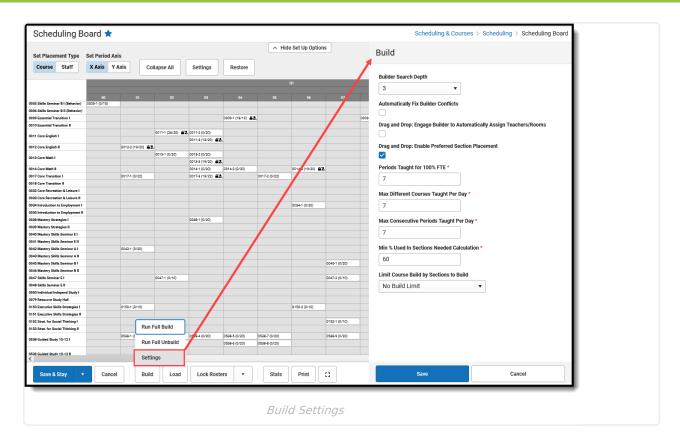


## **Build**

First, verify your **Build Settings** are marked appropriately.

- 1. Click the **Build** button in the Action Bar across the bottom, and choose **Settings**.
- 2. In the Build side panel, review the options listed and make any changes necessary.
- 3. Click Save when finished.



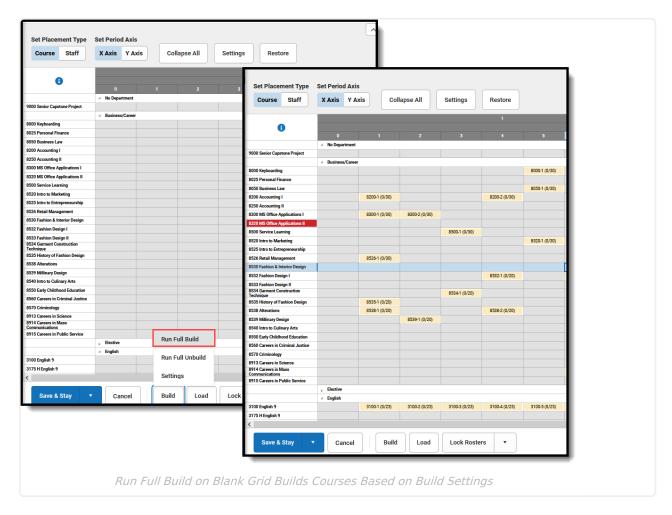


Next, build the courses.

#### **Build All Courses**

- 1. Click the **Build** button in the Action Bar across the bottom.
- 2. Choose **Run Full Build**. A Building progress bar displays indicating how far along the build is. This process is fairly quick. For larger schools and schools with several terms, period schedules and periods, it may take longer to build.
- 3. When the Build is finished, course sections are visible in the board based on the selected Build Settings.





#### At this point, you can:

- Work with an individual course to load sections for it manually.
- Load the course sections for a specific Department.
- Move placed courses around to different periods to see what that does to the other courses.
- Load the course sections to see how the course sections populate.

#### **Unbuild All Courses**

It's possible the building of the courses was done prematurely, or you want to load only certain courses first. Removing the placed courses can be done at anytime and as often as needed.

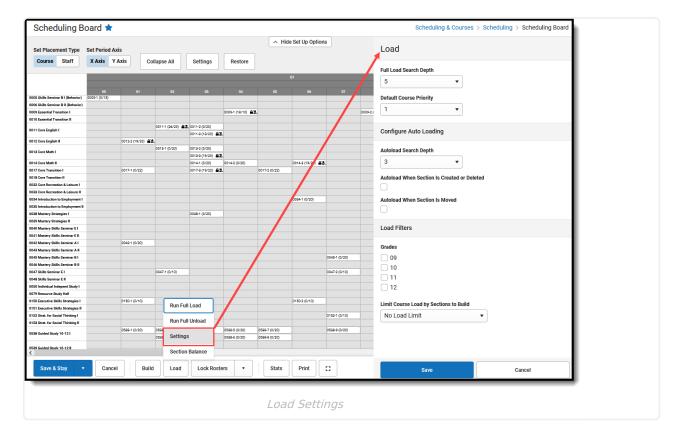
- 1. Click the **Build** button in the Action Bar across the bottom.
- 2. Choose **Run Full Unbuild**. This removes any course that has been placed on the board that is not locked. A Building progress bar displays indicating how far along the unbuild is.
- 3. When finished, the board is empty, unless that section was locked.

#### Load

Loading is done AFTER Building. It loads the student requests into the course sections that were built. Like the Build option, loading can be done for a specific course, a particular department or a particular section. Or, load all courses all at once to see how many student requests are met.



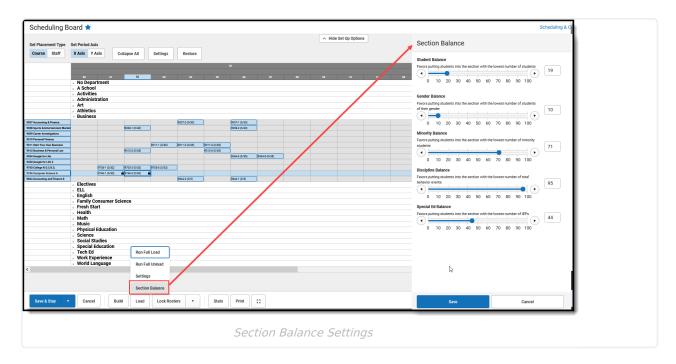
First, verify your <u>Load Settings</u> are marked appropriately.



Second, set your <u>Section Balance Settings</u>.

- 1. Click the **Load** button in the Action Bar across the bottom, and choose **Section Balance**.
- 2. In the **Section Balance**side panel, set the preferences for the listed factors in one of three ways:
  - Click the left pointing arrows (changes the value to be closer to zero) or right pointing arrows (changes the value to be closer to 100).
  - Click and drag the blue ball on the slider to the desired value.
  - o Enter the desired value in text box to the right.
- 3. Click **Save** when finished.

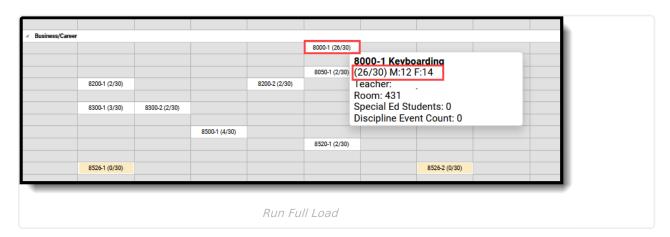




Next, load the courses.

#### **Load All Courses**

- 1. Click the **Load** button in the Action Bar across the bottom.
- 2. Choose **Run Full Load**. A Building progress bar displays indicating how far along the build is. This process is fairly quick. For larger schools and schools with several terms, period schedules and periods, it may take longer to build.
- 3. When the Load is finished, course sections now display on the grid and most sections have a count total.



In the image above, the Keyboarding class had 26 requests fulfilled, and there are 30 possible seats for that section.

At this point, you can:

- Unload the sections and change Settings to see how that changes the build.
- Work with an individual course section to alter how it is loaded by changing the maximum students allows in the section or load by grade level and gender.



• Unload the section or all sections, and start over.

#### **Unload All Courses**

It's possible the loading of the course sections was done prematurely, or you want to load only certain courses first. Removing the placed course sections can be done at anytime and as often as needed.

- 1. Click the **Load** button in the Action Bar across the bottom.
- 2. Choose **Run Full Unload.** This removes a student from that section, as long as the rosters were not locked.
- 3. When the unload is finished, the courses no longer have requests placed.

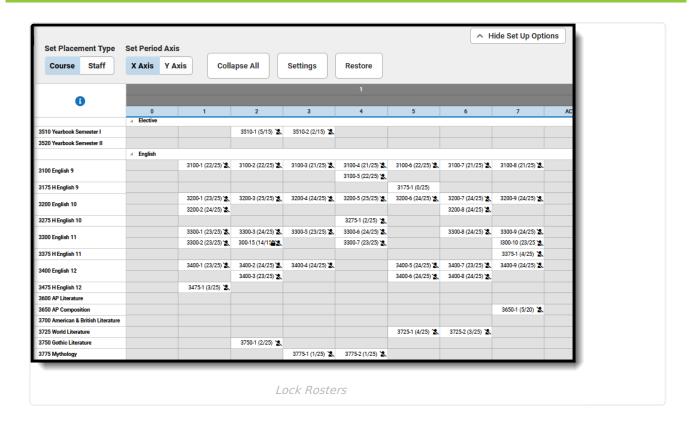
### **Lock Rosters**

In a school that has a small student population, limited course offerings and a standard schedule, this first build of the courses and the first load of the requests may have met your completed schedules threshold. You can lock the rosters now!

#### **Lock All Rosters**

- 1. Click the Lock Rosters button. A Lock All Rosters by Grade side panel opens.
- All grade levels are selected automatically. When all rosters for all grade levels should be locked, click the **Lock** button at the bottom of the panel; when rosters for a certain grade level should be locked, remove the checkbox from the other grade levels and click the **Lock** button.
- The board processes for a short time. When it's finished, a green message displays indicating
  rosters have been locked. When the <u>Display Settings for View Locked</u> are marked for
  Rosters, the course sections display with a crossed out student image, indicating the roster
  has been locked.





#### **Unlock All Rosters**

It's possible the locking of rosters was done prematurely and you want to unlock all course sections. Or, you meant to only lock the seniors scheduled into those sections. Unlocking the sections can be done at anytime and as often as needed.

- 1. Click the arrow next to the **Lock Rosters** button in the Action Bar across the bottom.
- 2. Choose Unlock Rosters. The Unlock All Rosters by Grade side panel displays.
- 3. Remove the checkbox from the desired grade levels to leave some rosters locked and some unlocked. Or leave all grade levels marked for unlocking.
- 4. Click **Unlock.** When the process finishes, the course section rosters are no longer locked.

# Build, Move and Delete Course Sections using Drag and Drop

The Scheduling Board is designed to build all course sections for the entire school as easily and as quickly as possible. There are situations where certain courses are best built manually, like when that course is a singleton or when that course meets just once in a specific term in a specific period.

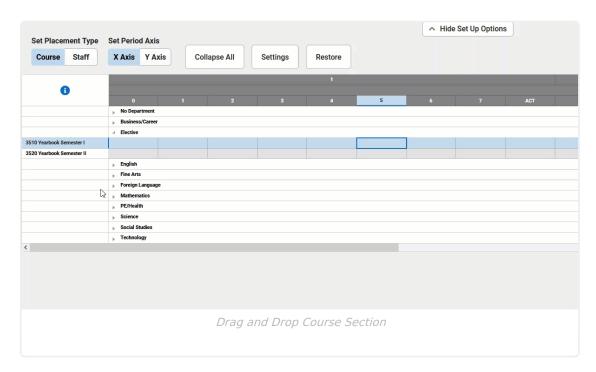
#### **Build New Course Sections**

The Scheduling Board allows courses and sections to be dragged onto the grid and placed where they best meet the needs of the course and students who requested the course. This requires the <u>Build Setting</u> of **Drag and Drop: Enable preferred section placement** to be marked. A Conflict Matrix or "heat map" locates the best placements for that section. The three best placements for that new section are displayed, and includes the teacher and room assignments. The first placement is the same location the Auto-Build logic would choose when a single section



were placed.

- 1. Locate the course to build.
- 2. Click on it and drag it into the period grid.
- 3. Drop it in the desired period. The section is placed and the build for the section is locked.
- 4. At this point, requests can be loaded, teachers and rooms can be assigned, plus other options listed in the section side panel.



When a Course has placement restrictions (entered from the Course Planner), attempting to manually place a section in that restricted period shows an icon indicating it cannot be placed there ( $\bigcirc$ ).

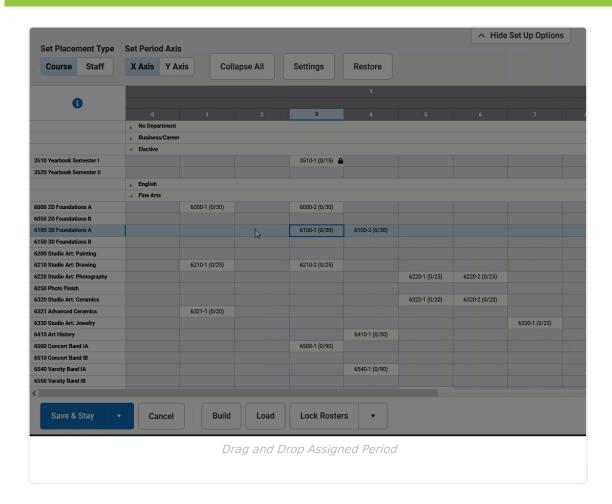
#### **Move Course Sections**

Moving course sections also uses a Conflict Matrix to determine the best placement for a section. The three best placements for that new section are displayed, and includes the teacher and room assignments. The first placement is the same location the Auto-Build logic would choose when a single section were placed.

When a course is built, sometimes just one section of the course needs to be moved to a different period. Use the same process of selecting that section and dragging it to a new period and dropping it.

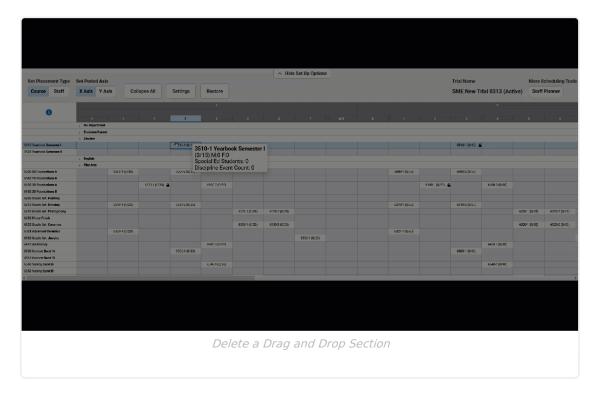
- 1. Locate the section on the grid that needs to be moved.
- 2. Click on it and drag it into the desired period.
- 3. Drop it in the desired period. The section is placed in the new period and the build for the section is locked.
- 4. At this point, requests can be loaded, teachers and rooms can be assigned, plus other options listed in the section side panel.





#### **Delete Course Sections**

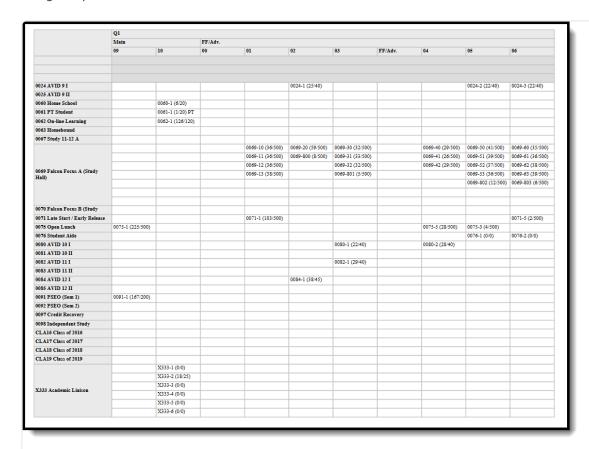
Delete a section by dragging the section completely to the left on the course grid.



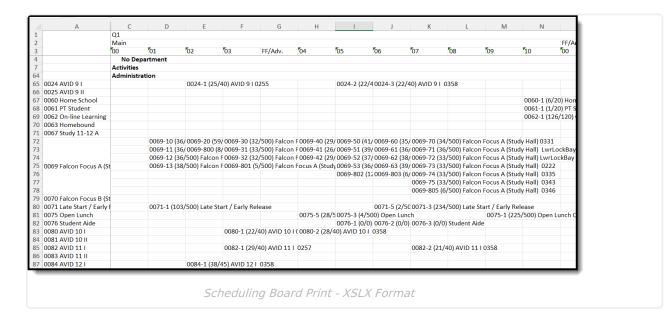


## **Print**

Click the **Print** button to display the scheduling board in a printable view. Departments that are collapsed display as collapsed in the printed view, meaning no courses or sections are visible for those collapsed departments. The printed report displays the course and section information in the assigned periods, as well as the seat count for that section.



Scheduling Board Print - PDF Format





# **Next Steps**

- Continue loading and unloading courses, and moving course sections on the grid to get to your desired percentage of requests satisfied. When you reach that point, mark the Scheduling Board Trial as active and congratulate yourself!
- Access the <u>Staff Planner</u> and <u>Course Planner</u> to aid in the scheduling of the course sections.
- Refer to the <u>Scheduling Center</u> to see what other actions need to be taken for scheduling.
- Refer to the <u>Beginning of Year</u> checklist to see what other tasks can be considered complete for the beginning of the school year.