

# **DE Ed-Fi Suite v3.7.3, Data Standard v4.0: Bell Schedules**

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# DE Ed-Fi Suite v3.7.3, Data Standard v4.0: Bell Schedules

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## Summary

This entity represents the schedule of class period meeting times.

## Object Triggering Logic

Action	Business Rule(s)
Post	<p>Reports a record when a Period Schedule is created and saved.</p> <ul style="list-style-type: none"><li>• A separate record will be sent for each Period Schedule / Schedule Structure ID combination.</li><li>• A record is only reported for Period Schedules in the same School Year as the Ed-Fi Connection sending the record.<ul style="list-style-type: none"><li>◦ School Year dates are defined in School Year Setup.<ul style="list-style-type: none"><li>▪ If Start Date is NULL, 07/01/StartYear will be used.</li><li>▪ If End Date is NULL, 06/30/EndYear will be used.</li></ul></li></ul></li><li>• Do not report a record if the any of the following exclusions are present:<ul style="list-style-type: none"><li>◦ Calendar Exclude</li><li>◦ School Exclude</li></ul></li></ul>

Delete /Post	A DELETE / POST will be performed if the data element being altered is part of the resource's natural key. A PUT will be performed otherwise.
Put	<ul style="list-style-type: none"><li>• When any of the following information is changed on Schedule Structures:<ul style="list-style-type: none"><li>◦ Schedule Structure ID (New Schedule Structure)</li></ul></li><li>• When any of the following information is changed on Period Schedules:<ul style="list-style-type: none"><li>◦ Period Schedule ID (New Period Schedule)</li><li>◦ Name</li></ul></li><li>• When any of the following information is changed on Calendar Grade Level Setup:<ul style="list-style-type: none"><li>◦ Grade Level ID (New Grade Level)</li><li>◦ State Grade Level Code</li></ul></li><li>• When any of the following information is changed on Calendar Days:<ul style="list-style-type: none"><li>◦ Period Schedule</li><li>◦ Instruction</li></ul></li><li>• Changes to Resource Preferences mappings <b>do NOT trigger</b>. A manual resync must be performed on the resource if mappings are changed.</li></ul>
Delete	<ul style="list-style-type: none"><li>• When all Periods in a Period Schedule are deleted.</li><li>• When the Period Schedule is deleted.</li><li>• When a record is in the Ed-Fi Identity Mapping Report but cannot be found on the Campus site.</li></ul>

## Required Resources (Upstream)

The following resources must be sent prior to this resource:

- Schools
- Class Periods

## Dependent Resources (Downstream)

The following resources are dependent on this resource (must be sent after this resource):

- N/A

## Error Log

The following are potential Tier 1 (Ed-Fi API generated) or custom (Campus generated) errors you may receive when posting, updating, or deleting this resource. Please keep in mind that the "Error Message" below may not match your exact error message.

Error Message	Possible Causes / How to Fix
400: Validation of ' <b>RESOURCE</b> ' failed. <b>FIELD</b> is required.	An element of the JSON that is required is missing and needs to be added. <ul style="list-style-type: none"><li>• Double check that all bolded data elements below are reporting a valid value and no data elements below are reporting an invalid value.</li></ul>
400: ' <b>RESOURCE</b> ' failed. <b>RESOURCE</b> reference could not be resolved.	A resource that was referenced from a difference resource does not yet exist. <ul style="list-style-type: none"><li>• Resync the resource being mentioned in the error, then resync the errored resource. Alternatively, the resource being referenced may be incorrect. This can happen with Schools and the Ed-Fi School ID being used as an example. Double check the referenced values being sent are valid.</li></ul>

<p>403: Authorization denied. The claim does not have any established relationships with the requested resource.</p>	<p>The key/secret being used does not have permission to send a record for the resource / referenced resource.</p> <ul style="list-style-type: none"> <li>• Double check your API credentials (key/secret). Sometimes specific keys/secrets cannot report specific resources.</li> <li>• The referenced person (student, staff, parent, contact, etc.) has not yet been associated to the key /secret. Resync their "linking" resource (Students Student School Associations, Staffs Staff Education Organization Assignment Associations, etc.) then resync the errored resource.</li> <li>• The referenced person (student, staff, parent, contact, etc.) may not exist in the ODS yet. Resync the "person" resource and the "linking" resource (Students Student School Associations, Staffs Staff Education Organization Assignment Associations, etc.) then resync the errored resource.</li> </ul>
<p>404: Failed to delete '<b>RESOURCE</b>'. Record does not exist.</p>	<p>The attempt to delete a specific Ed-Fi record ID in the ODS failed because it did not exist.</p> <ul style="list-style-type: none"> <li>• This error can be ignored. The ID was cleared from the Ed-Fi Identity Mapping Report and will not attempt to delete again.</li> </ul>
<p>409: A natural key conflict occurred when attempting to create a new resource '<b>RESOURCE</b>' with a duplicate key.</p>	<p>The Ed-Fi API has a natural key system alongside a standard REST ID system. This error is often protecting against the erroneous creation of a duplicate record in the API. However, it may also indicate that the natural key requirements of the Ed-Fi API have not been satisfied, and the key needs to be modified.</p> <ul style="list-style-type: none"> <li>• Check for duplicate data in your Campus site. If no duplicate data can be found, report the issue to Campus Support. <ul style="list-style-type: none"> <li>◦ This can be caused by numerous issues. Our code may be attempting to send duplicate records when it should not. The natural key (bolded fields below) may not be unique enough to satisfy Ed-Fi requirements in all cases. Most times this error will require a code change to fix.</li> </ul> </li> </ul>
<p>409: The resource (or a subordinate entity of the resource) cannot be deleted because it is a dependency of the '<b>RESOURCE</b>' entity.</p>	<p>The resource that the application is attempting to delete is referenced from another entity.</p> <ul style="list-style-type: none"> <li>• Use the Delete Tool to delete the referenced resource in the error message. Then retry the delete on the original resource that errored.</li> </ul>

500: Internal Server Error.	<p>Something unexpected happened and no specific error message could be returned.</p> <ul style="list-style-type: none"><li>• This issue usually occurs when the ODS is having issues. Confirm that there are no issues with the ODS the data is being sent to and then attempt to retry the errored record.</li><li>• Contact Campus Support if 500 errors continue to occur, can be replicated consistently, and the ODS the data is being sent to has no ongoing issues.<ul style="list-style-type: none"><li>◦ There is a chance that Campus Ed-Fi code is sending an invalid JSON request resulting in the 500 error.</li><li>◦ There is a chance that an Ed-Fi Data Standard / API bug is causing the issue.</li><li>◦ Investigation is needed in these cases as there are many different potential causes.</li></ul></li></ul>
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## Object Data Elements Logic

Data element labels below in **BOLD** are part of the natural key of this resource and are required data elements for the record to send through Ed-Fi.

- The Mandatory / Conditional / Optional column indicates what the state requires for each data element. For Core Ed-Fi connections, it indicates what the data standard requires for each data element.

	Data Element Label	Business Rule(s)	Mandatory (M) Conditional (C) Optional (O)	Data Source GUI Path	Database Field	Uses Template Logic (✓ / ✗ / EXT)
1	<b>bellScheduleName</b> (string)	<p><i>Name or title of the bell schedule.</i></p> <hr/> <p>Reports the <b>Period Schedule Name</b> and the <b>Schedule Structure ID</b> with a space between them.</p>	M	Period Setup  Schedule Structure Setup	PeriodSchedule . name  ScheduleStructure .structureID	✓
2	<b>classPeriods</b> (array)	<p><i>An unordered collection of bellScheduleClassPeriods. The class periods that compose this bell schedule. A reference to the Class Periods resource associated with the Bell Schedule being reported.</i></p> <hr/> <p>Reports the fields that are part of the Natural Key for the Class Periods resource. Will report each Period associated with the Period Schedule.</p>	M	N/A	N/A	✓

3	<b>schoolReference</b> (reference)	<p><i>A reference to the Schools resource associated with the Bell Schedule being reported.</i></p> <hr/> <p>Reports the fields that are part of the Natural Key for the Schools resource.</p>	M	N/A	N/A	✓
4	<b>alternateDayName</b> (string)	<p><i>An alternate name for the day (e.g., Red, Blue).</i></p> <hr/> <p>Reports the <b>Period Schedule Name</b>.</p>	O	Period Setup	PeriodSchedule . name	✓
5	<b>dates</b> (array)	<p><i>An unordered collection of bellScheduleDates. The dates for which the bell schedule applies.</i></p> <hr/> <p>Reports the following data elements in an array:</p> <ul style="list-style-type: none"> <li>• date <ul style="list-style-type: none"> <li>○ Reports the <b>Date</b> of the Day that uses the Period Schedule being reported.</li> <li>○ Reports for all days marked as <b>Instruction</b> containing the Period Schedule.</li> </ul> </li> </ul>	O	Day Setup	Day . periodScheduleID	✓



6	gradeLevels (array)	<p><i>An unordered collection of bellScheduleGradeLevels. The grade levels the particular bell schedule applies to.</i></p> <hr/> <p>Reports the following data elements in an array:</p> <ul style="list-style-type: none"> <li>gradeLevelDescriptor <ul style="list-style-type: none"> <li>Reports the Ed-Fi Code mapped to the value selected for each unique <b>Grade Level</b> associated with the Schedule Structure. <ul style="list-style-type: none"> <li>This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Grade Levels resource.</li> </ul> </li> </ul> </li> </ul>	O	Grade Level Setup	GradeLevel .name	✓
7	endTime	This data element is optional and does not report.	O	N/A	N/A	N/A
8	startTime	This data element is optional and does not report.	O	N/A	N/A	N/A
9	totalInstructionalTime	This data element is optional and does not report.	O	N/A	N/A	N/A

## Appendix