

GREENFIELD-CENTRAL HIGH SCHOOL GRADUATION PATHWAYS

Project-Based Learning (PBL)

Project-Based Learning (PBL) allows students to gain knowledge and skills by working for an extended period of time (one to two semesters) to investigate and respond to an authentic, engaging, and complex question, problem, or challenge. The project is framed by a meaningful problem to solve or question to answer at the appropriate level of challenge. Students often make the project public by explaining, displaying, and/or presenting it to people beyond the classroom.

The following required elements must all be present in the PBL pathway.

Design Principles	Criteria
<input type="checkbox"/> PBL 1 – Challenging Problem or Question _____ Completed (student initials) _____ Verified (school official initials)	<ul style="list-style-type: none"> • Should be engaging to make learning more meaningful for the student • Should challenge the student without being intimidating • Should be aligned with academic and/or programmatic curriculum and have clearly articulated learning goals
<input type="checkbox"/> PBL 2 – Sustained Inquiry _____ Completed (student initials) _____ Verified (school official initials)	<ul style="list-style-type: none"> • The inquiry process takes time which means a PBL experience lasts more than a few days or even weeks. • Inquiry is iterative. When confronted with a challenging problem or question, the student asks questions, finds resources to help answer them, then asks deeper questions. The process repeats itself until a satisfactory solution or answer is developed by the student. • Projects can incorporate different information sources, mixing the traditional idea of “research” – reading a book or searching a website – with more real-world, field-based interviews with experts, service providers, and users. • The student might inquire into the needs of the users of a product they are creating in the project, or the audience for a piece of writing or multimedia.
<input type="checkbox"/> PBL 3 – Authenticity _____ Completed (student initials) _____ Verified (school official initials)	<ul style="list-style-type: none"> • Has an authentic context, such as when a student solves problems like those faced by people in the world outside of school and can have a real impact on others • Involves the use of real-world processes, tasks and tools, and performance standards • Has personal authenticity when it speaks to the student’s own concerns, interests, cultures, and issues in their lives
<input type="checkbox"/> PBL 4 – Student Voice and Choice _____ Completed (student initials) _____ Verified (school official initials)	<ul style="list-style-type: none"> • Creates a sense of ownership in the student • Student can have input and control over many aspects of the project, including the questions generated, the resources used to find answers to those questions, the tasks and roles adopted as a team member, and the product created • Student may go further and select the topic and nature of the project itself • Student can write the driving question and decide how to investigate it, demonstrate what has been learned, and determine how to share the work and results
<input type="checkbox"/> PBL 5 – Reflection _____ Completed (student initials) _____ Verified (school official initials)	<ul style="list-style-type: none"> • Throughout the project, the student, along with the teacher, reflects on what they are learning, how they are learning, and why they are learning • Reflection can occur informally, as part of classroom culture and dialogue, but should also be an explicit part of the project journals, scheduled formative assessments, discussions at project checkpoints, and public presentations of student work • Reflection on the final product (how it was designed and implemented) helps the student decide how to approach the next project. • This is a required element of the PBL portfolio

<input type="checkbox"/> PBL 6 – Critique and Revision ____ Completed (student initials) ____ Verified (school official initials)	<ul style="list-style-type: none"> • Student is taught how to give and receive constructive peer feedback that will improve project processes and products, guided by rubrics, models, and formal feedback/critique protocols • In addition to peers and teachers, outside experts should also contribute to the critiquing process, bringing an authentic real-world point of view
<input type="checkbox"/> PBL 7 – Public Product ____ Completed (student initials) ____ Verified (school official initials)	<ul style="list-style-type: none"> • A “product” can be a tangible artifact or it can be a presentation of a solution to a problem or answer to the student’s driving question • This is a required element of the PBL portfolio

Greenfield-Central High School Courses that Qualify as PBL Experiences

- **Architectural Drafting & Design II** (VOH432/VOH433)
- **Entrepreneurship & New Ventures Capstone** (BUH317/BUH318)
- **Humanities I, II, III, IV** (ENH630/ENH631/ENH632/ENH633)
- **PLTW Aerospace Engineering** (TEH460/TEH461)
- **PLTW Biomedical Innovation** (SCH450/SCH451)
- **PLTW Civil Engineering & Architecture** (TEH500/TEH501)
- **PLTW Digital Electronics** (TEH350/TEH351)
- **PLTW Engineering Design & Development** (TEH660/TEH661)
- **PLTW Medical Interventions** (SCH430/SCH431)
- **Robotics Design and Innovation** (TEH370/TEH371)

In order for the course to count as a PBL experience, the following requirements must be met:

- Student must receive a grade of C- or better in the course
- Teacher of record must complete and sign a form verifying that the student’s coursework fulfills the required elements of the PBL rubric

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Project-Based Learning Verification of Completion

◆ I have chosen the following as my Project-Based Learning experience:

****If you elected to take a G-CHS course to fulfill the PBL pathway, please complete the following:***

I have completed and earned a grade of C- or better in one or more of the following courses:

- | | | | |
|--|--------------------|---------------------|---------------------------|
| <input type="checkbox"/> Architectural Drafting & Design II | School year: _____ | Letter grade: _____ | Counselor initials: _____ |
| <input type="checkbox"/> Entrep & New Ventures Capstone | School year: _____ | Letter grade: _____ | Counselor initials: _____ |
| <input type="checkbox"/> Humanities I, II, III, and/or IV | School year: _____ | Letter grade: _____ | Counselor initials: _____ |
| <input type="checkbox"/> PLTW Aerospace Engineering | School year: _____ | Letter grade: _____ | Counselor initials: _____ |
| <input type="checkbox"/> PLTW Biomedical Innovation | School year: _____ | Letter grade: _____ | Counselor initials: _____ |
| <input type="checkbox"/> PLTW Civil Eng & Architecture | School year: _____ | Letter grade: _____ | Counselor initials: _____ |
| <input type="checkbox"/> PLTW Digital Electronics | School year: _____ | Letter grade: _____ | Counselor initials: _____ |
| <input type="checkbox"/> PLTW Engineering Design & Dev | School year: _____ | Letter grade: _____ | Counselor initials: _____ |
| <input type="checkbox"/> PLTW Medical Interventions | School year: _____ | Letter grade: _____ | Counselor initials: _____ |
| <input type="checkbox"/> Robotics Design & Innovation | School year: _____ | Letter grade: _____ | Counselor initials: _____ |

◆ By signing below, I verify that this Project-Based Learning experience portfolio is complete.

Student Signature

Date

Parent/Guardian Signature

Date

School Official Signature

Date