MARITIME HIGH SCHOOL
PROJECT DESIGN PLANNER

1. Project Overview

Use this planner in conjunction with the MHS Project Design Rubric to ensure your project design contains the essential elements of a high quality PBL project.

	Focus Area(s)	Quarter	Number of Weeks	Start Date	End Date
Project Focus Area & Timeline	**Watersheds**	**4**	**9**	**4/17**	**end of school**

Project Title	
Driving Question	**What factors influence our watershed health and what steps can we take to improve it?**
Subject	
Project Summary	Impact project: –Designing or developing a watershed improvement plan ("Here is something I can propose") (here are some stakeholders in our watershed, here are some people who are impacted who we could contact) i.e. raingardens in the parking lot at Southcenter Mall (could do it on campus as a demonstration on campus, build a pilot one here) - Can have an internal grant application (including budget, impact analysis, design, water quality testing on campus and on boat) - Doesn't have to be something implementable? Could be more theoretical like a proposal to stakeholders that is beyond the scope of kids in one quarter (but they could do an experiment or a demo version of their project) - STEM will focus mostly on experiments leading up to a lab report and watersheds, humanities will focus on literature and the actual impact project work - Spanish: could create an instructional poster teaching people about watershed health? (related to "Map my watershed"?); important of native plants or the parts of a native plant (but in Spanish)? Create a commercial about why it's important to protect our watersheds?)
Public Product(s) (Individual and Team)	Note which products are individual or team and the product/performance's intended audience.
Important Links	

	Field Work Experiences	Community Collaborators & Industry Contacts (Some options)
Authentic Connections	**Admiral Jack** **Kayaking** **Riparian restoration on the Duwamish (Codiga Park)** **King County Water Treatment Plant** **Cedar River Watershed Education Center** **Water Quality testing with Environmental Science Center** **US Coast Guard**	**Sustainability Ambassadors** **UW science grad students (science writing workshop)** **Rosie Wilson-Briggs (Environmental Science Center)**

2. Learning Goals

Use this section to outline the competencies that the project will target (according to the MHS competencies), as well as the content knowledge, skills, and dispositions that align with each of those competencies. There is space for four competencies, but the project may have more or less.

Competencies MHS competencies				
Knowledge & Skills				
Dispositions				

Identity[1] How will your teaching help students learn something about themselves and/or others?	Learners will…
Criticality[1] How will you engage your thinking about power, equity, and anti-oppression in the text, in society, and in the world?	Learners will…

Refer to **Maritime Learner Profile** for Maritime Focus Area content, skills & knowledge

RUBRICS	Link/name rubric(s) you intend to use; template for your use

Classroom Recommendations

when possible & applicable, align to HPS Essential Standards

9th Grade & 10th Grade

Content Knowledge & Skills	-monitor the local watershed -identify and assess sources of discharge - - map watershed (tracing the path of water)	-describe the impact of native species on local watershed		
Dispositions				
Identity How will your teaching help students learn something about themselves and/or others?	Learners will…			
Criticality How will you engage your thinking about power, equity, and anti-oppression in the text, in society, and in the world?	Learners will…			

[1] Muhammad, Gholdy. *Cultivating Genius: An Equity Framework for Culturally and Historically Responsive Literacy*. Scholastic, 2020.

RUBRICS	Link/name rubric(s) you intend to use; template for your use

3. Project Milestones

Directions: Use this section to create a high-level overview of your project. Think of this as the broad outline of the story of your project, with the milestones representing the significant **'moments'** or **'stages'** within the story. As you develop these, consider how the inquiry process is unfolding and what learning will take place. The Project Calendar (Section 5) will allow you to build out the milestones in greater detail. You may have more than 6 milestones, in which case make an additional copy of the chart below.

Milestone: an action or event marking a significant change or stage in development

Artifact: an object made by a human being, typically an item of cultural or historical interest.

STEM

Milestones, Assessments & Artifacts

Milestone #1 Consider indicating if this is tied to team or individual learning/products	**Milestone #2** **Map My Watershed**	**Milestone #3** **Math- Design a Catchment System**	**Milestone #4**	**Milestone #5**	**Milestone #6** Public Product
E.g., Entry Event	E..g., Student generated questions; research	E..g., Field observation and data collection	E..g., Feedback from an expert and revision	E..g., Finalization of product and preparation for presentations	Lab Report
Key Student Question	**Key Student Question**	**Key Student Question**	**Key Student Question**	**Key Student Question**	**Key Student Question**
This is the anticipated need to know question that guides the learning for the milestone. These questions do not necessarily need to be sequential from one milestone to the next. They may come from initial N2K activity.					
Formative Assessment(s)	**Formative Assessment(s)**	**Formative Assessment(s)**	**Formative Assessment(s)**	**Formative Assessment(s)**	**Summative Assessment(s)**
Identify how you will capture student learning to inform both teacher and student action in the project. These might be self, peer, or teacher assessments.					

Humanities

Milestones, Assessments & Artifacts

Milestone #1	Milestone #2	Milestone #3	Milestone #4	Milestone #5	Milestone #6 Public Product
Dry- tuesday reading circles				E..g., Finalization of product and preparation for presentations	E.g., Final presentation and reflection
Key Student Question	**Key Student Question**	**Key Student Question**	**Key Student Question**	**Key Student Question**	**Key Student Question**
This is the anticipated need to know question that guides the learning for the milestone. These questions do not necessarily need to be sequential from one milestone to the next. They may come from initial N2K activity.					
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Maritime

Milestones, Assessments & Artifacts

Milestone #1 Consider indicating if this is tied to team or individual learning/products	**Milestone #2**	**Milestone #3**	**Milestone #4**	**Milestone #5**	**Milestone #6** Public Product
E.g., Entry Event	E..g., Student generated questions; research	E..g., Field observation and data collection	E..g., Feedback from an expert and revision	E..g., Finalization of product and preparation for presentations	E.g., Final presentation and reflection
Key Student Question	**Key Student Question**	**Key Student Question**	**Key Student Question**	**Key Student Question**	**Key Student Question**
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4. Project Calendar

Use this space to connect milestones from above to specific dates, competencies, industry connections, and more details. There is space to plan both in-class and during Field Work Experiences (FWEs), but not all projects will be fully integrated between the two.

Week		Dates	FWE	Milestone(s)	Students will…	Deliverable(s)
1	In-class	4/17			Introduction to water quality/water systems Day 1: Current events/news articles about dimensions of watershed/water quality, remediation/green infrastructure Day 2: Water cycle/watershed inputs	
	FWE 1	4/19 - 4/20	Kayak + Intro to project (Michael) **Herrings House Park**			
	FWE 2		Riparian Restoration @ Codiga Park + role of native plants in an ecosystem and watershed (Amanda)			
2	In-class	4/24			Day 3: Develop research question Refine based on feedback	
	FWE 1	4/26 - 4/27	Admiral Jack (Amanda)			
	FWE 2		Environmental Science Center + "Map my Watershed" (Michael) https://modelmywatershed.org/analyze			
3	In-class	5/1			Research background information relevant to their research question, write introduction	
	FWE 1	5/3 - 5/4	Wastewater treatment plant (Amanda)			
	FWE 2		Kayak + "What inputs do you see to the watershed?" OR grant writing for the impact project (Duwamish People's park & HUB) (Michael)			
4	In-class	5/8			Jigsaw peer share out and procedure writing/experiment planning	

	FWE 1	5/10 - 5/11	AJ (Amanda)			
	FWE 2		USCG (Michael)			
5	In-class	5/15			Carry out independent experiments	
	FWE 1	5/17 - 5/18	Kayak + (Duwamish People's Park) (Amanda)			
	FWE 2		Cedar River Watershed Education Center (Michael) 5/19: Mastery transcript introduction			
6	In-class	5/22			Flex week: revise experiments and/or organized and analyze data	
	FWE 1	5/25 - 5/26	AJ (Amanda)			
	FWE 2		On campus impact project work time (Michael)			
7	In-class	5/29	No school (Memorial Day)			
	FWE 1	5/31- 6/1	AJ (Michael)			
	FWE 2		On campus: finalize lab report (Amanda) 6/2 Initial Mastery Transcript Work?			
8	In-class	6/5				
	FWE 1	6/7-8	AJ (Amanda)			
	FWE 2		½ day riparian restoration (whole crew) + ½ day prepare for exhibition on campus (Michael) 6/9 Deadline for Mastery Transcript Feedback?			

9	In-class	6/12 6/13	Exhibitions Canoe Launch? Mastery Transcript Finalizing?			
	FWE	6/14 6/15	10th Grade Launch ceremony			

5. Teacher & Student Assessment and Reflections

Before **implementing the project, use this project design rubric to self-assess your project design based on the seven essential components of PBL. If possible, bring in students, educators, and industry professionals during this pre-assessment process to enhance your project. Protocols that can be used during this peer assessment process include:**

I like, I wish, I wonder… | Seven Minute Project Tuning | Project Zero Visible Thinking

During **and** ***after*** **the project implementation, use the space below to record reflections that will help inform the next iteration of the project and ensure we center student voice.**

	Educator Reflections	Maritime Industry Reflections	Student Reflections
Reflections from this project			
Proposed changes for next year			

6. *Optional*: Lesson Planner (Supporting Resource)

Specific daily lesson planning templates are often teacher-driven and so this template offers an *optional* framework to follow: Maritime High School Lesson Planning Template. Feel free to use it, adapt it or create your own.
Typically, lesson plans include: learning objectives/standards (ie. "I can…" statements), procedure/instructional methods, materials needed, time management, assessments, rubrics and reflection.

I. **CHECKING PRIOR KNOWLEDGE** Identify how you will inventory student knowledge ahead of the task, lesson, or activity. (e.g., previous day's exit tickets, warm-up activity, need to know list review, quiz, class discussion, etc.)

II. **LEARNING OUTCOME** These can be related to success skills or standards. If your district uses a graduate profile or career pathway outcomes, include relevant outcomes here as well.

III. **KEY VOCABULARY** Note which terms or academic vocabulary will be essential to this lesson. If you serve English language learners, consider what additional vocabulary

might be necessary for them to access the content/skills during the instructional activities.

IV. FORMATIVE ASSESSMENT For each lesson, consider which assessment type best measures the learning outcome. For example, a quiz may be the best way to check for understanding of key terms while an annotated sketch might be best for determining student understanding of how the key terms fit together. In some cases, your assessment may be informal, such as an exit ticket, or more formal, as in a rough draft. Finally, when planning your formative assessment, diversify who is doing the assessment. Include self, peer, and teacher assessment opportunities, as appropriate for the age group. When possible, have external partners or end users provide feedback to improve or guide the work.

V. MAJOR INSTRUCTIONAL ACTIVITIES This can include lessons, tasks, activities, or learning experiences. Choose the instructional method that will best help students achieve the learning outcome. For example, a direct instruction lesson may be appropriate for introducing the key players in World War II while an artifact inquiry activity during which students examine primary source documents would be better suited for them to understand the impact of those key players on the pivotal events during the war. This would also be the space to include teaching and learning related to classroom culture, student collaboration, and/or project management tools or skills, as appropriate for students or project milestone needs. Included links show examples of such activities.

VI. SCAFFOLDS Scaffolds are intended to be temporary supports that are removed when students no longer need them. These scaffolds can be used to support either content or the project process (e.g., need to know questions). Leverage "checking prior knowledge" to ensure you are offering the right scaffolds to the students who need them. Be sure to consider a wide range of needs, such as literacy skills, language acquisition levels, auditory/visual processing, building schema, learning style preferences, academic performance levels, etc.

VII. REFLECTION How will students reflect on their thinking, process, or learning?

VIII. STUDENT NEED TO KNOW QUESTIONS ADDRESSED Which student questions will be answered, or are you aiming to answer, during this instructional activity?

IX. TOOLS/RESOURCES Student-facing tools, human resources such as experts or community members, teacher tools, equipment, etc.