

Project-Based Learning Lesson Framework

Lesson Principle	Guiding Questions	Might Look Like
<p>1) “Hook” students by introducing them to the conceptual question to be answered or problem to be solved</p>	<ul style="list-style-type: none"> • What conceptual relationships do I want students to uncover in this project? • How can I make this question or problem relevant, urgent, and interesting? • How can I get kids to “wonder” about the question or problem without feeding it to them? • How can I connect the concepts to students’ emotions, personal interests and concerns, culture, or identity to draw them in? 	<ul style="list-style-type: none"> • A gallery walk of photos, statistics, and quotes related to the problem to be solved (ex: migrant crisis in Europe, global water shortages) • Watching a short video or reading a short story through which the question might surface (ex: read e.e. cummings poem and ponder the role of punctuation, grammar, and word order in writing) • Discuss a real-life or school-based scenario that correlates to the concepts (ex: discussing a mother appeasing a toddler throwing a tantrum in a candy store before inquiring into the foreign policy of appeasing Hitler in the 1930s) • Partner with a local organization to extend a challenge or pose a question to students (ex: a representative from a local watershed protection society comes to class to enlist student help in reducing pollution in local waterways) • Distribute a written overview of the project to students, complete with rubric and deadlines, to help them envision the challenge
<p>2) Help students plan their inquiry</p>	<ul style="list-style-type: none"> • How much support and direction will I provide to students during the inquiry process? • Which contexts should all students study? Which other contexts might students choose to investigate as part of their inquiry? • What resources would best help students deeply inquire into the question or problem? 	<ul style="list-style-type: none"> • Students brainstorm possible approaches to the question or problem as a whole class while the teacher scribes on the board • Provide a sample research calendar to each group and ask them to modify it or divide tasks among them • Supply a list of resources for each context (books, videos, articles, images, etc.) to get students started • Help students brainstorm ways to extend their inquiry: interviewing experts, taking a field trip, designing an experiment, conducting an opinion poll, etc. • Give students a written research guide that outlines your expectations (specific contexts they must study, optional contexts, types of acceptable sources)

<p>3) Monitor student inquiry process and guide student reflection</p>	<ul style="list-style-type: none"> • What scaffolding will students need to help them conduct their own research? • How will I serve as a coach for each group during the inquiry process? • What questions will I pose to students to challenge them? • How will I make sure students are focused on the concepts? • When and how will students reflect on their understanding and the inquiry process? 	<ul style="list-style-type: none"> • Provide graphic organizers to help students organize information • Ask students to keep a journal of their research (they should summarize their findings and also reflect on the inquiry process); provide comments and feedback • “Interview” each group about the concepts at various intervals throughout the inquiry process
<p>4) Support students as they construct high quality products through critique and revision</p>	<ul style="list-style-type: none"> • How will students know what quality work looks like? • How can I ensure that students thoughtfully critique their own and each other’s work? • How will students know how to revise or strengthen weak areas of their product? 	<ul style="list-style-type: none"> • Provide rubrics, checklists, and models of exemplary work • Ask students to use formal critique and feedback protocols when responding to each other’s work • Bring in experts to provide feedback based on the standards of quality in your field
<p>5) Organize students to publish or present their products to a real-world audience</p>	<ul style="list-style-type: none"> • Who is the primary audience for this work? How can I help students get the attention of their target audience? • Can we present these products off campus or outside of school hours? • How will students prepare to discuss their work with others? 	<ul style="list-style-type: none"> • Invite the school community – parents, teachers, other students – to a “gallery opening” or “invention fair” with student products on display • Conduct a “teach-in” where students present their conclusions to others in order to inform or persuade • Organize a panel of experts – lawyers, engineers, environmentalists, college professors – to respond to and evaluate student speeches • Post student videos to a YouTube channel or create a website to convey student findings to the outside world
<p>6) Provide opportunities for reflection about the content and the process</p>	<ul style="list-style-type: none"> • How will students reflect on the conceptual relationships they uncovered, the facts that support these relationships, and the significance of their new understanding? • How will students reflect on their learning process? • How will students reflect on their role within the group and the group dynamic? • How will students reflect on the quality of their final product? 	<ul style="list-style-type: none"> • Ask students to write journal entries using the prompt: “At the start of the project I thought...but then...so now I think...” • Have students record video blogs where they verbally express their reflections (similar to a reality show “confessional”) • Require students to write letters to their group-mates, the audience of their product, or you (the teacher) to explain how these people contributed to their learning • Have groups write a group reflection in the form advice for next year’s students • Have students list “lessons learned” on sticky notes and then categorize and debrief them as a class