

PROJECT OVERVIEW

Name of Project	Marine Debris Design & Engineering Project	Duration: 30+ contact hours
Subject/Course	* Science -> Middle School -> Earth Science, Life Science, Physical Science	Teacher(s): Collson
Other subject areas to be included, if any		

Project Idea Summary of the issue, challenge, investigation, scenario, or problem:	Marine debris problem worldwide affecting marine ecosystems, marine wildlife, and people's safety and enjoyment of beaches
--	--

Driving Question	Design a product to that keeps potential marine debris out of the ecosystem
-------------------------	---

Content Standards to be taught and assessed	7.2E.1 Describe and evaluate the environmental and societal effects of obtaining, using, and managing waste of renewable and non-renewable resources. 7.2E.3 Evaluate natural processes and human activities that affect global environmental change and suggest and evaluate possible solutions to problems. 7.4 Engineering Design (7.4d.1,2,& 3)
--	---

21st Century Skills to be taught and assessed	<input checked="" type="checkbox"/> Critical Thinking/Problem Solving	<input checked="" type="checkbox"/> Communication (Oral Presentation)	<input checked="" type="checkbox"/> Collaboration	<input checked="" type="checkbox"/> Tech Literacy
	<input type="checkbox"/> Other :			

Major Products	Group	Design & Engineering Product (i.e. purse, guitar, rope)	Presentation Audience <input checked="" type="checkbox"/> Class <input checked="" type="checkbox"/> Community <input checked="" type="checkbox"/> School <input checked="" type="checkbox"/> Experts <input checked="" type="checkbox"/> Admin./Staff <input type="checkbox"/> Online <input type="checkbox"/> Other :
	Individual	Design & Engineering Brief	



PROJECT OVERVIEW

Entry Event to launch inquiry, engage students					
Assessments	Formative Assessments (During Project)	<input checked="" type="checkbox"/> Quizzes/Tests	<input type="checkbox"/> Journal/Learning Log	<input checked="" type="checkbox"/> Preliminary Plans/Outlines/Prototypes	
		<input checked="" type="checkbox"/> Rough Drafts	<input type="checkbox"/> Online Tutorial(s)	<input type="checkbox"/> Practice Presentations	
		<input checked="" type="checkbox"/> Notes	<input checked="" type="checkbox"/> Checklists	<input type="checkbox"/> Content Maps	
		<input type="checkbox"/> Other :			
	Summative Assessments (End of Project)	<input checked="" type="checkbox"/> Oral Presentation, with rubric	<input checked="" type="checkbox"/> Multiple Choice/Short Answer Test	<input checked="" type="checkbox"/> Written Product, with rubric	
		<input checked="" type="checkbox"/> Peer Evaluation	<input type="checkbox"/> Self-Evaluation	<input type="checkbox"/> Other Product(s), with rubric	

Resources Needed	On-site people, facilities	Scientists Mentors			
	Equipment	Hammer, glue-gun, box cutters, scissors,			
	Materials	Marine Debris			
	Community Resources	local scientists			

Reflection Methods to look back on content and process	Group	<input type="checkbox"/> Focus Group	<input checked="" type="checkbox"/> Whole-Class Discussion	<input type="checkbox"/> Fishbowl Discussion	
		<input type="checkbox"/> Other :			
	Individual	<input type="checkbox"/> Journal/Learning Log	<input checked="" type="checkbox"/> Survey	<input type="checkbox"/> Open-Ended Questions	
		<input type="checkbox"/> Other :			

