PROJECT OVERVIEW

Section 1

Name of Project:	Concept Modeling		Duration:	6 weeks
Subject/Course:	Computer Science	Teacher(s): Nicholas A Dyer	Grade Level:	11-12
Other Subject Areas to Be Included:	Students Choice			

Section 2

Project Idea	Students will find a client teacher outside of computer science classes, their client teacher will give them a concept from their content area. The students will then find a way to model and explain this concept with a visual and written explanation. In addition to the explanations students will need to have an interactive portion of the website which allows other students to explore the concept.
	Know: HTML, CSS, and incorporating Java Script into webpages
	Understand: how various types of information are represented on the internet and how modern technology has changed the ways that traditional information is represented.
	Do: Develop a website that communicates information in at least 3 ways, while working with a client.
Driving Question	How can we use programing to change how information is presented in the classroom?

Major Products & Performances	Group:	1) Client Teacher Contract 2) Initial Development Plan 3) Pitch plan to class 4) Website 5) Class Presentation	☐14. Presentation Audience	
			X	Class
				School
				Community
	Individual:	1) Daily Performance Logs 2) Group Participation Report		Experts
				Web
				Other:

Mid-project possible products	Individual students will update a work journal about the progress they and the group are making after each class period, I will then use this to help direct and keep students on task throughout the project. This will also be used as a final assessment of how much work each student put in to the final project. Finally, this should be used such that students have a growing understanding of their work in reference to a larger project. At the end of each week each group will have a short meeting with me to explain the progress they have made the throughout the week, this meeting will be used to help direct the work for the upcoming week and keep the students accountable on the ongoing project. At the midpoint of the project (week 4) the students will have to do a progress report to their client teacher and redirect their development to best fit the goals of the teacher.
Entry Event	Open a discussion about how computers allow us to present information in new ways but the classroom has not caught up to this. Show them how predator pray models in biology can change drastically with computational tools and brain storm other ways to apply computational tools to education. https://web.njit.edu/~matveev/Javascript/jjj.html http://www.cellsalive.com/cells/cell_model_js.htm

Project Flow:	Week 1: Split into groups and chose client teacher
	      Develop initial plan
	      First report to CS Teacher on plan
	      Short presentation to CS Class on plan
	
	Week 2: Daily Development Journals
	      End of Week Report to CS Teacher
	
	Week 3: Daily Development Journals
	      End of Week Report to CS Teacher
	
	Week 4: Daily Development Journals
	      Progress Report to client teacher
	      End of Week Report to CS Teacher
	
	Week 5: Daily Development Journals
	      Review Other Students projects and provide feedback
	      End of Week Report to CS Teacher
	
	Week 6: Final Work on website
	      Daily Development Journals
	      Presentation to class
	      Present to client Teacher

17. Assessments	Formative Assessments (During Project)	Quizzes/Tests		Practice Presentations	
		Journal/Learning Log	X	Notes (their own notes kept in a notebook to be turned in)	
X		Preliminary Plans/Outlines/Prototypes	X	Checklists	X
		Rough Drafts	X	Concept Maps (if needed)	
		Online Tests/Exams		Other:	
X	Summative Assessments (End of Project)	Written Product(s), with rubric:		Other Product(s) or Performance(s), with rubric: Website	X
		Oral Presentation, with rubric	X	Peer Evaluation Attached	X
		Multiple Choice/Short Answer Test		Self-Evaluation Attached	
		Essay Test		Other: journal	

Resources Needed	On-site people, facilities:	CS Teacher, Subject Area Teacher, Computer Lab,
	Equipment:	Computers with multiple web browsers, plan text editor (ideally notepad++)
	Materials:	Programing Textbook, API's, Khan Academy
	Community resources:	None

19. Reflection Methods	(Individual, Group, and/or Whole Class)	Journal/Learning Log	X	Focus Group	
		Whole-Class Discussion	X	Fishbowl Discussion	
		Survey		Other: (peer grading of at least 2 projects)	X

| **20. Optional Comments:** | Talk to teachers in other departments ahead of time, and potentially come up with a list of teachers willing to fill this role this will help students in selection as well as make the project more well received in community as a whole, which is important to its success as well as that of the students.

Some Rubrics gotten from:
https://ed.fnal.gov/
http://www.readwritethink.org/files/resources/lesson_images/lesson416/OralRubric.pdf
http://www.dexform.com/download/peer-evaluation-form-5
http://webers.wikispaces.com/file/view/Website_Rubric.pdf (modified) |