LS-HHMI Outreach Summer Curriculum Project Classroom Resource Information Form			
Title	<Please name each resource here.>		
Resource Type	Lesson Plan ☒ Activity ☐ Lab Activity ☒ Homework Assignment ☐ Correlations ☐ Other ☐ <Specify>		
Description	This lesson will look at dietary supplements. The students will research an assigned dietary supplement. They will then participate in a lab where they look at the effect the assigned supplement will have on fruit flies. They will create a PowerPoint on their findings and present the findings to the class.		
Author(s)	Laurie Nadeau		
Author Institution(s)	Leicester High School		
Objective	The purpose of this lesson is to have the students become aware of the benefits and risks of dietary supplements. They will also look at the thermochemistry behind diet in order to get a better understanding of how chemistry is related to their lives.		
Key Concepts	The key concepts of this lesson plan are to incorporate the scientific method along with nutrition into a chemistry curriculum.		
Student Prep	Students would need knowledge of the scientific method along with proper laboratory techniques. The students would have been exposed to macromolecules in Biology class.		
Materials	Fruit fly medium Fruit flies Vials for medium Dietary supplements Magnifying glasses		
Grade Level(s)	Grades 10-12		
Teacher Prep Time	A week to make sure you get a population of fruit flies unless they will be bought from a science supply warehouse. Time to prepare medium unless it will be purchased from science supply warehouse.	**Class Time** 1 1/2 hours	At least 2 class periods
National Standards	1. Abilities necessary to do scientific inquiry 2. Understandings about scientific inquiry 3. Most cell functions involve chemical reactions. Food molecules taken into cells react to provide the chemical constituents needed to synthesize other molecules. Both breakdown and synthesis are made possible by a large set of protein catalysts, called enzymes. The breakdown of some of the food molecules enables the cell to store energy in specific chemicals that are used to carry out the many functions of the cell.		
State Standards	❑ Identify the reactants, products, and basic purposes of photosynthesis and cellular respiration. ❑ Explain the important role that ATP serves in metabolism.		
Sources	http://www.medicalnewstoday.com/articles/94393.php http://www.medicalnewstoday.com/articles/146062.php http://www.sciencedaily.com/releases/2008/03/080317131642.htm http://www.pubinfo.vcu.edu/secretsofthesequence/lessons/sots_lesson_101_2.pdf Prentice Hall *Chemistry Connections to our Changing World 2nd edition* http://www.fda.gov/Food/DietarySupplements/ConsumerInformation		

	http://biology.arizona.edu/sciconn/lessons2/Geiger/intro2.htm Addison Wellesley *Chemistry 5th edition*
References	(http://www.fda.gov/opacom/laws/dshea.html#sec3) http://www.ific.org/foodinsight/2008/jf/energydrinksfi108.cfm http://ods.od.nih.gov/factsheets/dietarysupplements.asp
Assessment	The students will be assessed based on the rubric provided.