



Naturalist Outreach Lesson Plan

Matthew Kiszla Grades: 6-12 Date: 21Feb19
Unit/Topic/Lessons: *Biocontrol*

Objectives		Correlation to State & National Documents			
Student will be able to: Identify the general mechanism of biocontrol, identify common biocontrol agents, and utilize biocontrol at home.		Alabama Course of Study: Science 9-12 Unity and Diversity :14 AHSGE/Exit Standards & Eligible Content:		National Science Standards: 9-12 Life Science: Behavior of organisms Assessment: PowerPoint Presentation	
COS Content Standard	Materials/Resources		Assessment		
8. Construct an explanation to predict patterns of interactions in different ecosystems in terms of the relationships between and among organisms (e.g., competition, predation, mutualism, commensalism, parasitism).	x	Hands-On Materials		Homework	
		Multimedia Materials		Test/Quiz	
		Computers/notebooks/PDA	x	Project	
		Web sites	x	Participation	
		Software	x	Class work	
		Overhead Masters	x	Presentation	
		Workbook/Handouts	x	Oral Responses	
	x	Other Equipment/Supplies	x	Teacher Observation	
		Guest Speakers	x	Self Evaluation	
		Maps		Group Evaluation	
		Lab equipment		Portfolio	
		Text:		Other (Journal Entry)	
Equipment needed	Instructions		Grouping Strategies (small group, pairs)		
Have paper, termites, various writing utensils (including blue bic pens), and paint brush for termite wrangling.	Demonstrate to students the effect of the blue bic pen on the termites. Ask students to attempt to replicate this effect with all of their drawing utensils and then ask for the theory behind the effect. Tie the use of pheromones, the cause of the effect, to biocontrol.		Work in groups of 2-3 students to conserve materials and encourage teamwork.		
Assignments	Background/Preparation		Special		
Class work: Termite Project	Teacher should have knowledge of basic ecology. Resources: - Bug Lady Consulting, a biocontrol firm. http://www.bugladyconsulting.com/Publications.htm -New York State Integrated Pest Management. https://nysipm.cornell.edu/environment/biocontrol/biocontrol-resources/		Integration with other disciplines: Writing (W.9-10.2), chemistry		
Guided practice: Guide students through testing pens			Remediation Activities:		
Reading: Text/ Articles/ Other Papers on biocontrol examples			Enrichment Activities/Extensions: Develop a presentation on biocontrol.		
Writing: Prepare a PowerPoint			Special Topics/Schedules Testing:___ Activity:___ Assembly:___ Pep Rally:___Media/PR:___ SAC:___ Career Education:___ Character Ed:___ Adopt-A-School:___ Athletics:___		
Homework: Presentation on an example of biocontrol that students would be able to implement around the house.					
Technology Integration: PowerPoint: Students will develop PowerPoints on relevant biocontrol examples. Websites:					
Total Duration: Lesson from 20 to 40 minutes; presentations can be developed over future class periods.					