UrbanPromise Academy

Engaging In The Pursuit of Excellence

Lesson Plan

Subject: Biology **Grade:** 10 **Instructor:** Nogal **Week:** 1/19-1/22

	Monday	Tuesday	Wednesday	Thursday	Friday
NJCCCS:	5.1.12A, 12B, 12C, 5.2.12B				
Essential Question/Focus	Mendelian Genetics and Modern Genetics				
Goals/Skills:	No School	Continued exploration of Mendel's laws of inheritance	No class	Lab Day	Continue work with genetics
Procedures **Anticipatory Set** • Access Prior Knowledge for Student Engagement		"What is genetics?"		Introduce dragon genetics lab	Have students create a Punnett Squares on a piece of paper for their own personal genetics, using the questionnaire given as homework.
Lesson Development • Activities • Application • New Information		Review of Mendel's laws of inheritance and how they have affected modern genetics in powerpoint. Introduction to Punnett Squares and predicting progeny.		Students will be completing dragon genetics lab in which they will partner with another student and create a baby dragon with particular genetic features. I have prepared paper chromosomes prior to the lab and they will toss the chromosomes in order to introduce randomization in the gametes. Once the dragon genetics are determined, we will sculpt the dragons with phenotypes specific to each group with baking clay. The students will then respond to questions regarding the genotypes and phenotypes of the dragons.	Students will continue with genetics, working with modern genetics and mutations, in addition to co-dominance and incomplete dominance.
Lesson Closure • Summary • Feedback		Assignment of genetics reading packet with questions.		Collection of lab packet questions.	Students will be asked to create a series of Punnett Square for their own personal genetics using the information from the questionnaire.
Authentic Assessment • Tests/Quizzes • Projects/Class Work • Participation • Feedback • Homework		Class participation Packet at 80%		Lab worksheets at 80%	Class participation Punnett Square assignment at 80%
Materials/Resources Needed		Notes Packet		Lab worksheets	Notes Genetics questionnaire