Course Overview

Content Area:
Course(s):
Time Period: **Year**
Length: **180**
Status: **Published**

Course Overview

Aligned to Standards: NJSLS 2020

Revision Date: 2023

In compliance with the NJ Student Learning Standards, climate change, career readiness, DEI (Diversity, Equity, & Inclusivity), as well as other standards have been integrated within the NBCRSD curricula (NJ Administrative Code Title 6A: chapter 8; Title 18A: chapter 35).

Course Overview

Sequence- Unit Titles, Summaries, and Number of weeks per unit (total = 18 semester/36 year)

Unit 1: Africa - 10 weeks

Students will be able to independently use their learning to understand how abiotic and biotic factors affect the organisms in an ecosystem. In African ecosystems, organisms interact in complex ways, forming groups and occupying different trophic levels that reflect their unique energy and dietary needs. Population sizes are shaped by limiting factors, and some species—known as keystone species—play a critical role in maintaining ecological balance. Human activities can disrupt these systems.

Unit 2: Homeostasis - 6 weeks

Students will be able to independently use their learning to understand how biotic and abiotic factors affect organisms in an ecosystem. Ecosystems and organisms each have their own homeostasis and if they can not maintain homeostasis it can cause disastrous changes.

Unit 3: Melanin-5 weeks

Students will be able to independently use their learning to understand how DNA controls the production of proteins which direct cell function and organisms traits. Students will understand that albinism is inherited and passed from parent to offspring, affects many different species, can have affects on other traits, and how skin color is controlled by DNA.

Unit 4: Disease- 5 weeks

Students will be able to independently use their learning to understand how cell

division is affected by check points in the cell cycle, apoptosis, mutations, and viruses. Students will understand that there are many factors that control the rate of cell division, when cell division is not controlled cancer will occur.

Unit 5: Penguin-4 weeks

Students will be able to independently use their learning to understand how genetic codes can be used to determine evolutionary relatedness and genetic diversity of populations. DNA also plays a vital role in determining mating pairs for captive animals to increase genetic diversity.

Unit 6: Canine-6 weeks

Students will be able to independently use their learning to explain the evolutionary relationship between wolves and dogs. Dogs and wolves share a common ancestor, but through artificial selection through human breeding the domesticated dog was created from an ancestral wolf species.

Reporting Student Progress (link to NB's Assessment System)
All courses follow a balanced assessment system with Practice and Assessments.
Each category includes formative, summative and alternative assessments.

Accommodations and Modifications (link to menu)
Integrated accommodations and modifications for special education students, English language learners, students at risk of school failure, gifted and talented students, and students with 504 plans.