Pre-AP Science Lesson Plan 3/5-3/9

March 5 - 9, 2018

MON. MAR. 5TH

7th Grade Science
Populations and Communities: Lab

Standards
MS-LS2-1 Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.
MS-LS2-2 Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.
MS-LS2-3 Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.

Objective
Students will be able to explain how exponential and logistic growth rates affect population size. Students will be able to predict how density- dependent factors like competition for resources and predators control population growth.

Critical Questions
1. What factors cause population growth to increase?
2. How does carrying capacity and population density limit the population growth of species?

Bellringer
Data Interpretation

Engagement
Lab Activity: Students participate in lab activity that models a population of rabbits. Students learn how density dependent factors affect a population size.
population_ecology_lab.pdf

Assessment
Lab peformance based on rubric

TUE. MAR. 6TH

7th Grade Science
Populations and Communities: Explore

Standards
MS-LS2-1 Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.
MS-LS2-2 Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.
MS-LS2-3 Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.

Objective
1. Students will construct a scientific explanation based on evidence for how adaptations help an organism survive
2. Students will apply scientific ideas to describe competition and predation
3. Students will gather and synthesize information to identify three types of symbiosis

Critical Questions
1. How do adaptations help an organism survive?
2. What are competition and predation?
3. What are three types of symbiosis?

Bellringer
Data Interpretation

Engagement
Read page 170-179 as a class

Assessment
Questions on socrative

Homework

WED. MAR. 7TH

7th Grade Science
Populations and Communities: Writing Assignment Part I

Standards
MS-LS2-1 Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.
MS-LS2-2 Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.
MS-LS2-3 Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.

Objective
Students will be able to explain how exponential and logistic growth rates affect population size. Students will be able to predict how density- dependent factors like competition for resources and predators control population growth.

Critical Questions
1. What factors cause population growth to increase?
2. How does carrying capacity and population density limit the population growth of species?

Bellringer
Data Interpretation

Engagement
Writing Assignment: Choose any 5 out of 10 writing assignments to be due tomorrow:
1. Scientific Method-Invasive Species
2. Food Webs
3. Population Growth
4. Dendrochronology
5. Bee Extinction
6. Animal Skull Inferences

THU. MAR. 8TH

7th Grade Science
Populations and Communities: Writing Assignment Part II

Standards
MS-LS2-1 Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.
MS-LS2-2 Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.
MS-LS2-3 Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.

Objective
Students will be able to explain how exponential and logistic growth rates affect population size. Students will be able to predict how density- dependent factors like competition for resources and predators control population growth.

Critical Questions
1. What factors cause population growth to increase?
2. How does carrying capacity and population density limit the population growth of species?

Bellringer
Data Interpretation

Engagement
Writing Assignment: Choose any 5 out of 10 writing assignments to be due tomorrow:
1. Scientific Method-Invasive Species
2. Food Webs
3. Population Growth
4. Dendrochronology
5. Bee Extinction
6. Animal Skull Inferences

FRI. MAR. 9TH

7th Grade Science
Populations and Communities: Exam

Standards
MS-LS2-1 Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.
MS-LS2-2 Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.
MS-LS2-3 Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.

Objective
Students will be to demonstrate knowledge of populations and communities through exam

Critical Questions
1. How do living things interact with each other?
2. How do living things interact with their environment?
3. What factors adversely affect populations and communities?

Bellringer
Review for exam

Engagement
Students take exam

Assessment
Test is assessment

Accommodations & Modifications

Lab Performance Rubric.pdf

Homework

Accommodations & Modifications

Reflections

Accommodations & Modifications

Reflections

7. Symbiosis
8. Succession
9. Biomes
10. Carbon Cycle

Ecology Writing Prompts.pdf

Assessment

Writing assignment graded based on rubric

Writing Rubric.pdf

Homework

Accommodations & Modifications

Reflections

7. Symbiosis
8. Succession
9. Biomes
10. Carbon Cycle

Ecology Writing Prompts.pdf

Assessment

Writing assignment graded based on rubric

Writing Rubric.pdf

Homework

Accommodations & Modifications

Reflections