

Ecology Homeworks**Test Date** _____**Resources:**

CampbellTextbook Chapters: 52-56

Open Stax Chapters 35-38

<https://openstax.org/books/biology-ap-courses/pages/35-introduction>*Lesson 1: Demographic Info on Populations*

1. Read Chapter 36.1 on Populations in the OpenStax Text.

<https://openstax.org/books/biology-ap-courses/pages/36-1-population-demography>Describe what information a *life table* collects.

2. Read the article at:

<http://www.ck12.org/biology/Population-Size-Density-and-Distribution/lesson/Population-Size-Density-and-Distribution/> Compare and contrast population density and population dispersion

(distribution). Then, fill-in the chart below:

Dispersion Type	Description	Environmental Implications
Clumped		
Uniform		
Random		

3. Using the textbook or Open Stax 36.3

<https://openstax.org/books/biology-ap-courses/pages/36-3-environmental-limits-to-population-growth>, find info about Exponential and Logistic Growth models. Use this info to fill out the chart below:

Growth Model	Sketch of graph	Description of what's happening and assumptions of the model	What happens to birth/death rates at each stage
Exponential			
Logistic			

What happens in reality			

Lesson 2: Impactful Species and Dealing with Predation

1. Read the info at <http://ag.arizona.edu/pubs/insects/ahb/inf11.html> and define “Mimicry.” Compare and contrast Batesian and Mullerian Mimicry using examples. (Hint: “model” refers to the animal that is being mimicked).

2. Look at the info at <http://biology-pages.info/M/Mimicry.html> and define: aposomatic coloration, cryptic coloration.

3. It’s said that mimicry and coloration have different purposes. How are mimicry and aposomatic coloration similar in their purpose, and how is the purpose of cryptic coloration different?

4. Read the following articles to fill in the table below:

Invasive Species-<https://www.nwf.org/Wildlife/Threats-to-Wildlife/Invasive-Species.aspx>

Ecosystem Engineers-<http://www.ecology.info/ecosystem-engineers.htm>

Dominant species- <http://education.seattlepi.com/dominant-species-diverse-ecosystem-3936.html>

Keystone Species-<http://education.nationalgeographic.org/encyclopedia/keystone-species/>

Type of Impactful Species	Description of Impact	Example(s)
Ecosystem Engineer		
Invasive Species		

Dominant Species		
Keystone Species		

Fall Classes: For those who have not taken APES, Here are some topics you should focus on in preparation for the AP Exam:

Demography-survivorship, age structure, life history/K and r-selected species

food webs/chains/energy transfer, primary productivity

Symbiosis

Succession

Climate and Climate Change

Biomes (both terrestrial and aquatic)

Niches and exclusion/competition

Biogeography (impact of ecosystem on species richness)

Cycling of Nitrogen, Carbon, Phosphorus, and Water

Human impact on ecosystems-overharvesting, invasive species, habitat loss

Conservation biology-nature reserves, habitat corridors, sustainable development

Lesson 3: AP Progress Check

Log in to your AP Classroom account and complete the Unit Progress Check: MCQ (Note: This assignment will not open for you until 2 class days before the Unit test)